# California Department of Education Assessment Development and Administration Division

# California Assessment of Student Performance and Progress

# Smarter Balanced Technical Report 2014–15 Administration

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**Educational Testing Service**

**Contract No. 5417**

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

| | |
|---|---|
| 2PL | two-parameter logistic |
| AERA | American Educational Research Association |
| AI | artificial intelligence |
| AIR | American Institutes for Research |
| AYP | adequate yearly progress |
| CAASPP | California Assessment of Student Performance and Progress |
| CAPA | California Alternate Performance Assessment |
| CAT | computer-adaptive test |
| *CCR* | *California Code of Regulations* |
| CCSS | Common Core State Standards |
| CDE | California Department of Education |
| CDS | county/district/school |
| CI | confidence interval |
| CMA | California Modified Assessment |
| CR | constructed response |
| CRESST | Center for Research on Evaluation, Standards, & Student Testing |
| CSEMs | conditional standard errors of measurement |
| CSTs | California Standards Tests |
| CSU | California State University |
| *DFA* | *Directions for Administration* |
| DIF | differential item functioning |
| EAP | Early Assessment Program |
| *EC* | *Education Code* |
| EL | English learner |
| ELA | English language arts/literacy |
| eSKM | Enterprise Score Key Management |
| ETS | Educational Testing Service |
| GPCM | generalized partial credit model |
| HOSS | highest obtainable scale score |
| HOT | highest obtainable theta |
| HumRRO | Human Resource Research Organization |
| ICC | item characteristic curve *or* intraclass correlation |
| IEP | individualized education program |
| I-FEP | initially fluent English proficient |
| IRT | item response theory |
| ISAAP | Individual Student Assessment Accessibility Profile |
| LEA | local educational agency |
| LOT | lowest obtainable theta |
| LOSS | lowest obtainable scale score |
| MI | Measurement Incorporated |
| MLE | maximum likelihood estimation |
| NAEP | National Assessment of Educational Progress |
| NCME | National Council on Measurement in Education |
| ORS | Online Reporting System |
| OTI | Office of Testing Integrity |
| PISA | Program for International Student Assessment |
| PT | performance task |
| R-FEP | reclassified fluent English proficient |
| SBE | State Board of Education |
| SEM | standard error of measurement |
| SFTP | secure file transfer protocol |
| SGID | School and Grade Identification sheet |
| SS | scale score |
| STS | Standards-based Tests in Spanish |
| TCC | test characteristic curve |
| TDS | test delivery system |
| TIF | test information function |
| TOMS | Test Operations Management System |
| wABC | weighted Area Between the Curves |
| 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 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 2014–15 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 2014–15, the CAASPP System comprised the following assessments:

- Smarter Balanced Assessments
  - Summative Assessments—Online assessments for English language arts/literacy (ELA) and mathematics in grades three through eight and grade eleven
  - Interim Assessments—Optional resources 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)
  - Digital Library—Tools and practices designed to help teachers utilize formative assessment processes for improved teaching and learning in all grades
- California Alternate Assessments 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. 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.

For those schools that do not yet have the necessary computer network infrastructure, paper-pencil and braille tests were available with prior permission from the California Department of Education (CDE).

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 purpose of the Smarter Balanced assessment system is 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 2014 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 administers 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 431,000 to 477,000 students in 2015. 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],* Section 851.5). 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 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 California Alternate Assessments (CAAs) is made by their individualized education program (IEP) team. Parents 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 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://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=60001-61000&file=60600-60603 [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). The 12-week window begins on the day in which 66 percent of the instructional year is completed. The summative assessment for students in grade eleven is administered within a 7-week window beginning on the day in which 80 percent of the instructional year is completed.

## 1.7. Significant CAASPP Developments in 2015

### 1.7.1 First Operational Year of Summative Assessments

The Smarter Balanced Summative Assessments were administered operationally in spring 2015.

### 1.7.2 Adequate Yearly Progress (AYP) Reporting

For the 2014–15 administration of the CAASPP assessments, only participation rates are required for AYP reporting (CDE, 2015a).

## 1.8. Groups and Organizations Involved with the CAASPP System

### 1.8.1 State Board of Education

The State Board of Education (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 Elementary and Secondary Education Act (and now the 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, 2015b).

### 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, 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 District, School & Innovation Branch that oversees programs promoting innovation and improved student achievement. Programs include oversight of statewide assessments and the collection and reporting of educational data (CDE, 2016).

### 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 the following:

- Overall management of the program activities;
- Support and training provided to counties, LEAs, and directly funded charter schools;
- Providing tiered help desk support to LEAs;
- Construction, production, and quality control 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 the Test Operations Management System (TOMS);
- Processing of orders and shipment of test materials and pre-identification services;
- All aspects of CR scoring for the Smarter Balanced summative assessments;
- Production and distribution of score reports;
- Development of a score reporting Web site; and
- Completion of 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 online assessments. Activities conducted by AIR include the following:

- 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 Online Reporting System (ORS), a component of the overall CAASPP Assessment Delivery System;
- Scoring machine-scorable items; and
- Providing the three-tiered 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 Smarter Balanced summative assessments.

## 1.9. Systems Overview and Functionality

### 1.9.1 Test Operations Management System (TOMS)

TOMS is the primary conduit for users of the online system. TOMS serves various functions, including but not limited to:

- Managing test administration windows;
- Managing student test assignments and accessibility supports;
- Ordering test materials and pre-identification services;
- Viewing reports; and
- Entering appeals related to the summative assessments.

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 more extensively explained in the *2015 Online Test Administration Manual* (CDE, 2015c).

### 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 the following:

- Test Administrator Interface, the Web browser–based application that allows test administrators to activate student tests and monitor student testing;

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

- 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 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 and 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 features 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.

### 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 constructed-response (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 101.

Targeted efforts were made to hire California educators for human scoring opportunities. Hired raters were provided in-depth training and were certified before starting the human scoring process. Human raters were organized under a scoring leader and were 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 is explained further in *Chapter 9: Quality Control Procedures,* which starts on page 495.

## 1.10. Overview of the Technical Report

This technical report addresses the characteristics of the CAASPP Smarter Balanced Summative Assessment administered in spring 2015. The technical report contains eight 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 2014–15 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 the following:
  - 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 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 the following:
  - 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.

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# Chapter 2: An 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 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 sections 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 and 2015b). 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, 2015c). *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, 2015c)*.

### 2.1.1 Item Format

The Smarter Balanced assessments include the following item formats:

- selected response,
- constructed response, and
- technology enhanced.

Formats for these item types are described in more detail in section *7.1.3 Types of Item Responses* on page 102.

### 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 and 2015b; note that because these specifications were reorganized following the initial development, their publication date was updated).

## 2.2. Test Assembly

### 2.2.1 Test Length

The 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; and
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, 2014).

### 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 19) 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 (American Institutes for Research [AIR], 2014). Use of the adaptive algorithm in 2014–15 testing is discussed in the unpublished 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 80; the test blueprints are provided in Appendix 2.A which starts on page 19.

## 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 82.

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 82.

- 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 80.

Staff at LEAs involved in the CAASPP administration include LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators. The responsibilities of each of the staff members are described in the *2015 Online Test Administration Manual* (CDE, 2015a).

#### 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* (*DFA*s)—**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 *Online Test Administration Manual* (CDE, 2015a) and as a standalone PDF (CDE, 2015b). (See page 89 in Chapter 5 for more information.)

***CAASPP Online Test Administration Manual*—**Test administration procedures and guidelines for LEA CAASPP coordinators and CAASPP test site coordinators (CDE, 2015a). (See page 89 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 89 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 the following:

- 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.
  - ELs 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 116. Refer to Appendix 7.A on page 132 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 specified in the student's IEP or Section 504 plan.

**Accommodations** must be permitted on CAASPP assessments to all eligible students if 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 *Systems Overview and Functionality* in *Chapter 1: Introduction* on page 6 for more details regarding these systems.

Appendix 2.B on page 46 presents counts and percentages of students using designated supports, accommodations, or unlisted resources (*2.4.3 Unlisted Resources* on page 15). The majority of students do not use any designated supports, accommodations, or unlisted resources.

### 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 "Matrix One: Universal Tools, Designated Supports, and Accommodations for the CAASPP System" Web document (CDE, 2015c). 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 decision-making teams, and Section 504 decision-making 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 2014–15 CAASPP administration.*

The Smarter Balanced Assessment Consortium's *Usability, Accessibility, and Accommodations Guidelines* (Smarter Balanced, 2015d) 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.

Finally, 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, 2015c). 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 may only 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 101.

### 2.6.1 Aggregation Procedures

In order to provide meaningful results to the stakeholders, CAASPP scores for a given grade are aggregated at the school, independently testing charter school, LEA, county, and state levels. Aggregate scores are generated by combining student scores. They can be created by combining results at the state, LEA, 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 section *Overview of Score Aggregation Procedures* on page 122 of this report.

## 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, 2015c). 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 2014–15 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 (Birnbaum,1968) and the generalized partial credit model (GPCM) (Muraki, 1992) were chosen for calibration. Refer to Equation 7.1 on page 113 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, 2015c). 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 2014–15 administration item pool are available in Appendix 8.A on page 301.

### 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 were also 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.

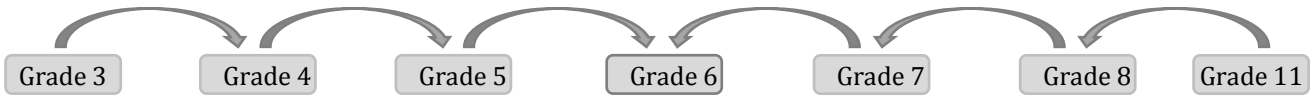


**Figure 2.1 Vertical scaling**

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.

### 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, 2015c) 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; and
- 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<br>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[5]** | **CAT Items[6]** | **PT Items[7]** | |
| 1. Reading | Literary | 2 | 0 | 7–8 | 0 | 14–16 |
| | Informational | 2 | 0 | 7–8 | | |
| 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/smarter-balanced-assessments/.
[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.
[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.

| Blueprint Table ELA/Literacy Grades 6–8<br>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[5]** | **CAT Items[6]** | **PT Items[7]** | |
| 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[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/smarter-balanced-assessments/.

[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.

[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 10.

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

| Blueprint Table ELA/Literacy Grade 11<br>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/smarter-balanced-assessments/.

[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.

[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 | 1−2[5] | | | |
| | | | 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] | 7−8 |
| | | | 11: Reasoning and Evaluation | 3 | 1−2[7] | | | |
| | | | 8: Key Details | 1, 2 | 3−6 | | 0 | |
| | | | 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/smarter-balanced-assessments/.

[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 | 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 | | | | | |
| | | 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 | | 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/smarter-balanced-assessments/.

[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 | 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 | | | | | |
| | | 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/smarter-balanced-assessments/.

[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 | 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 | | | | | 1 |
| | | | 8: Language and Vocabulary Use | | | | | |
| | | 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 | | | | |

[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 Blueprints

**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<br>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 | 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/smarter-balanced-assessments/.
[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<br>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 | 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/smarter-balanced-assessments/.

[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<br>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 | 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/smarter-balanced-assessments/.

[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<br>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.<br>C. Interpret results in the context of a situation.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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<br>4. Modeling and Data Analysis | Problem Solving<br>(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.<br>C. Interpret results in the context of a situation.<br>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<br>(drawn across content domains) | A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.<br>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.<br>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.<br>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<br>(drawn across content domains) | A. Test propositions or conjectures with specific examples.<br>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.<br>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.<br>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 | | | |

* 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 5**

| Claim | Content Category | Assessment Targets | DOK* | Items | | Total Items |
|---|---|---|---|---|---|---|
| | | | | CAT | PT | |
| 2. Problem Solving<br>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.<br>C. Interpret results in the context of a situation.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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 | 3–4 | | |
| | | 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<br>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.<br>C. Interpret results in the context of a situation.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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.<br>F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.<br>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 | | | |

* 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 7**

| Claim | Content Category | Assessment Targets | DOK* | Items | | Total Items |
|---|---|---|---|---|---|---|
| | | | | CAT | PT | |
| 2. Problem Solving<br>4. Modeling and Data Analysis | Problem Solving<br>(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.<br>C. Interpret results in the context of a situation.<br>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<br>(drawn across content domains) | A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.<br>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.<br>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.<br>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<br>(drawn across content domains) | A. Test propositions or conjectures with specific examples.<br>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.<br>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.<br>F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.<br>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 | 5-6 | | |
| | | 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 | 2-3 | | |
| | | H. Understand and apply the Pythagorean Theorem. | 1, 2 | | | |
| | 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 | | | |

* 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 8**

| Claim | Content Category | Assessment Targets | DOK* | Items | | Total Items |
|---|---|---|---|---|---|---|
| | | | | CAT | PT | |
| 2. Problem Solving<br>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.<br>C. Interpret results in the context of a situation.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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.<br>F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.<br>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 | | |

* 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 11**

| Claim | Content Category | Assessment Targets | DOK* | Items | | Total Items |
|---|---|---|---|---|---|---|
| | | | | CAT | PT | |
| 2. Problem Solving<br>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.<br>C. Interpret results in the context of a situation.<br>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.<br>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.<br>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.<br>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.<br>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.<br>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.<br>F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.<br>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, 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 Supports—American Sign Language | 158 | 0.03 | 171 | 0.04 | 154 | 0.03 | 194 | 0.04 |
| Embedded Supports—Braille | 6 | 0.00 | 7 | 0.00 | 9 | 0.00 | 14 | 0.00 |
| Embedded Supports—Closed Captioning | 408 | 0.09 | 436 | 0.09 | 457 | 0.10 | 522 | 0.11 |
| Embedded Supports—Streamlining | 782 | 0.17 | 918 | 0.20 | 988 | 0.21 | 722 | 0.16 |
| Embedded Supports—Text-to-Speech | 2,269 | 0.48 | 2,422 | 0.52 | 2,725 | 0.59 | 10,332 | 2.26 |
| Non-Embedded Supports—Alternate Response Options | 219 | 0.05 | 254 | 0.05 | 257 | 0.06 | 257 | 0.06 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 795 | 0.17 | 789 | 0.17 | 674 | 0.15 | 493 | 0.11 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 25,503 | 5.40 | 25,579 | 5.53 | 25,172 | 5.47 | 21,611 | 4.74 |
| Embedded Supports—Masking | 4,270 | 0.90 | 5,009 | 1.08 | 4,878 | 1.06 | 4,094 | 0.90 |
| Embedded Supports—Permissive Mode | 462 | 0.10 | 444 | 0.10 | 483 | 0.10 | 436 | 0.10 |
| Embedded Supports—Text-to-Speech | 27,182 | 5.75 | 26,642 | 5.76 | 25,496 | 5.54 | 14,880 | 3.26 |
| Embedded Supports—Turn off Any Universal Tool | 7 | 0.00 | 10 | 0.00 | 15 | 0.00 | 13 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 6,981 | 1.48 | 5,350 | 1.16 | 4,290 | 0.93 | 3,809 | 0.83 |
| Non-Embedded Supports—Color Contrast | 620 | 0.13 | 809 | 0.17 | 817 | 0.18 | 750 | 0.16 |
| Non-Embedded Supports—Color Overlay | 303 | 0.06 | 379 | 0.08 | 398 | 0.09 | 393 | 0.09 |
| Non-Embedded Supports—Magnification | 711 | 0.15 | 866 | 0.19 | 890 | 0.19 | 723 | 0.16 |
| Non-Embedded Supports—Noise Buffers | 2,361 | 0.50 | 2,402 | 0.52 | 2,670 | 0.58 | 1,727 | 0.38 |
| Non-Embedded Supports—Read Aloud | 10,296 | 2.18 | 11,023 | 2.38 | 11,576 | 2.52 | 8,190 | 1.79 |
| Non-Embedded Supports—Separate Setting | 13,791 | 2.92 | 15,573 | 3.37 | 16,586 | 3.60 | 14,141 | 3.10 |
| Non-Embedded Supports—Special Lighting or Acoustics | 148 | 0.03 | 156 | 0.03 | 183 | 0.04 | 170 | 0.04 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 4,303 | 0.91 | 3,084 | 0.67 | 2,421 | 0.53 | 2,303 | 0.50 |
| Designated support or accommodation is in IEP | 22,115 | 4.68 | 26,145 | 5.65 | 28,541 | 6.20 | 26,270 | 5.76 |
| Designated support or accommodation is in Sect. 504 plan | 444 | 0.09 | 616 | 0.13 | 698 | 0.15 | 618 | 0.14 |

**Table 2.B.2 Special Services Summary for ELA, Grades Seven through Eleven—All Tested**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 203 | 0.05 | 242 | 0.05 | 195 | 0.05 |
| Embedded Supports—Braille | 9 | 0.00 | 16 | 0.00 | 5 | 0.00 |
| Embedded Supports—Closed Captioning | 542 | 0.12 | 485 | 0.11 | 418 | 0.10 |
| Embedded Supports—Streamlining | 677 | 0.15 | 671 | 0.15 | 443 | 0.10 |
| Embedded Supports—Text-to-Speech | 8,811 | 1.96 | 8,173 | 1.81 | 3,708 | 0.88 |
| Non-Embedded Supports—Alternate Response Options | 205 | 0.05 | 216 | 0.05 | 107 | 0.03 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 309 | 0.07 | 256 | 0.06 | 141 | 0.03 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 17,911 | 3.98 | 16,961 | 3.76 | 10,752 | 2.55 |
| Embedded Supports—Masking | 3,879 | 0.86 | 3611 | 0.80 | 4,917 | 1.16 |
| Embedded Supports—Permissive Mode | 325 | 0.07 | 298 | 0.07 | 166 | 0.04 |
| Embedded Supports—Text-to-Speech | 11,020 | 2.45 | 9,891 | 2.19 | 8,056 | 1.91 |
| Embedded Supports—Turn off Any Universal Tool | 10 | 0.00 | 12 | 0.00 | 2 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 3,538 | 0.79 | 3,262 | 0.72 | 3,357 | 0.80 |
| Non-Embedded Supports—Color Contrast | 568 | 0.13 | 558 | 0.12 | 419 | 0.10 |
| Non-Embedded Supports—Color Overlay | 213 | 0.05 | 159 | 0.04 | 254 | 0.06 |
| Non-Embedded Supports—Magnification | 656 | 0.15 | 585 | 0.13 | 498 | 0.12 |
| Non-Embedded Supports—Noise Buffers | 1,186 | 0.26 | 981 | 0.22 | 526 | 0.12 |
| Non-Embedded Supports—Read Aloud | 6,277 | 1.40 | 5,779 | 1.28 | 2,770 | 0.66 |
| Non-Embedded Supports—Separate Setting | 12,939 | 2.88 | 12,160 | 2.70 | 8,542 | 2.02 |
| Non-Embedded Supports—Special Lighting or Acoustics | 93 | 0.02 | 74 | 0.02 | 145 | 0.03 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 2,123 | 0.47 | 1,903 | 0.42 | 2,055 | 0.49 |
| Designated support or accommodation is in IEP | 23,190 | 5.16 | 22,008 | 4.88 | 12,596 | 2.98 |
| Designated support or accommodation is in Sect. 504 plan | 544 | 0.12 | 622 | 0.14 | 450 | 0.11 |

**Table 2.B.3 Special Services Summary for ELA, Grades Three through Six—Students Not in Special Education**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 9 | 0.00 | 16 | 0.00 | 7 | 0.00 | 4 | 0.00 |
| Embedded Supports—Braille | 2 | 0.00 | 0 | 0.00 | 3 | 0.00 | 1 | 0.00 |
| Embedded Supports—Closed Captioning | 32 | 0.01 | 40 | 0.01 | 30 | 0.01 | 55 | 0.01 |
| Embedded Supports—Streamlining | 113 | 0.03 | 112 | 0.03 | 77 | 0.02 | 104 | 0.03 |
| Embedded Supports—Text-to-Speech | 559 | 0.13 | 454 | 0.11 | 379 | 0.09 | 1,013 | 0.25 |
| Non-Embedded Supports—Alternate Response Options | 20 | 0.00 | 10 | 0.00 | 17 | 0.00 | 15 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 124 | 0.03 | 101 | 0.02 | 77 | 0.02 | 44 | 0.01 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 11,623 | 2.72 | 9,271 | 2.24 | 7,677 | 1.87 | 5,808 | 1.42 |
| Embedded Supports—Masking | 1,546 | 0.36 | 1,403 | 0.34 | 1,070 | 0.26 | 823 | 0.20 |
| Embedded Supports—Permissive Mode | 200 | 0.05 | 153 | 0.04 | 146 | 0.04 | 154 | 0.04 |
| Embedded Supports—Text-to-Speech | 14,989 | 3.50 | 12,069 | 2.92 | 10,078 | 2.46 | 6,763 | 1.65 |
| Embedded Supports—Turn off Any Universal Tool | 3 | 0.00 | 0 | 0.00 | 8 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 6,318 | 1.48 | 4,702 | 1.14 | 3,692 | 0.90 | 3,084 | 0.75 |
| Non-Embedded Supports—Color Contrast | 83 | 0.02 | 83 | 0.02 | 108 | 0.03 | 118 | 0.03 |
| Non-Embedded Supports—Color Overlay | 46 | 0.01 | 38 | 0.01 | 64 | 0.02 | 94 | 0.02 |
| Non-Embedded Supports—Magnification | 138 | 0.03 | 136 | 0.03 | 150 | 0.04 | 82 | 0.02 |
| Non-Embedded Supports—Noise Buffers | 538 | 0.13 | 381 | 0.09 | 365 | 0.09 | 247 | 0.06 |
| Non-Embedded Supports—Read Aloud | 2,414 | 0.56 | 1,842 | 0.45 | 1,538 | 0.38 | 974 | 0.24 |
| Non-Embedded Supports—Separate Setting | 3,248 | 0.76 | 2,982 | 0.72 | 2,657 | 0.65 | 2,014 | 0.49 |
| Non-Embedded Supports—Special Lighting or Acoustics | 17 | 0.00 | 18 | 0.00 | 29 | 0.01 | 62 | 0.02 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 3,784 | 0.88 | 2,559 | 0.62 | 1,884 | 0.46 | 1,772 | 0.43 |
| Designated support or accommodation is in IEP | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 1 | 0.00 |
| Designated support or accommodation is in Sect. 504 plan | 329 | 0.08 | 449 | 0.11 | 522 | 0.13 | 476 | 0.12 |

**Table 2.B.4 Special Services Summary for ELA, Grades Seven through Eleven—Students Not in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 16 | 0.00 | 12 | 0.00 | 6 | 0.00 |
| Embedded Supports—Braille | 0 | 0.00 | 0 | 0.00 | 1 | 0.00 |
| Embedded Supports—Closed Captioning | 68 | 0.02 | 49 | 0.01 | 39 | 0.01 |
| Embedded Supports—Streamlining | 67 | 0.02 | 49 | 0.01 | 106 | 0.03 |
| Embedded Supports—Text-to-Speech | 826 | 0.20 | 700 | 0.17 | 327 | 0.08 |
| Non-Embedded Supports—Alternate Response Options | 6 | 0.00 | 6 | 0.00 | 6 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 20 | 0.00 | 18 | 0.00 | 10 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 4,660 | 1.15 | 4,141 | 1.02 | 4,730 | 1.22 |
| Embedded Supports—Masking | 911 | 0.23 | 728 | 0.18 | 3,460 | 0.89 |
| Embedded Supports—Permissive Mode | 118 | 0.03 | 96 | 0.02 | 47 | 0.01 |
| Embedded Supports—Text-to-Speech | 4,563 | 1.13 | 4,200 | 1.03 | 6,384 | 1.65 |
| Embedded Supports—Turn off Any Universal Tool | 1 | 0.00 | 1 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 2,950 | 0.73 | 2,781 | 0.68 | 2,893 | 0.75 |
| Non-Embedded Supports—Color Contrast | 68 | 0.02 | 61 | 0.01 | 83 | 0.02 |
| Non-Embedded Supports—Color Overlay | 38 | 0.01 | 21 | 0.01 | 71 | 0.02 |
| Non-Embedded Supports—Magnification | 51 | 0.01 | 33 | 0.01 | 94 | 0.02 |
| Non-Embedded Supports—Noise Buffers | 185 | 0.05 | 111 | 0.03 | 89 | 0.02 |
| Non-Embedded Supports—Read Aloud | 682 | 0.17 | 600 | 0.15 | 556 | 0.14 |
| Non-Embedded Supports—Separate Setting | 1,652 | 0.41 | 1,503 | 0.37 | 1,265 | 0.33 |
| Non-Embedded Supports—Special Lighting or Acoustics | 8 | 0.00 | 5 | 0.00 | 29 | 0.01 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 1,648 | 0.41 | 1,526 | 0.38 | 1,609 | 0.41 |
| Designated support or accommodation is in IEP | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in Sect. 504 plan | 428 | 0.11 | 495 | 0.12 | 398 | 0.10 |

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

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 149 | 0.33 | 155 | 0.32 | 147 | 0.29 | 190 | 0.40 |
| Embedded Supports—Braille | 4 | 0.01 | 7 | 0.01 | 6 | 0.01 | 13 | 0.03 |
| Embedded Supports—Closed Captioning | 376 | 0.84 | 396 | 0.81 | 427 | 0.84 | 467 | 0.98 |
| Embedded Supports—Streamlining | 669 | 1.49 | 806 | 1.65 | 911 | 1.80 | 618 | 1.30 |
| Embedded Supports—Text-to-Speech | 1,710 | 3.80 | 1,968 | 4.03 | 2,346 | 4.64 | 9,319 | 19.61 |
| Non-Embedded Supports—Alternate Response Options | 199 | 0.44 | 244 | 0.50 | 240 | 0.47 | 242 | 0.51 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 671 | 1.49 | 688 | 1.41 | 597 | 1.18 | 449 | 0.95 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 13,880 | 30.87 | 16,308 | 33.40 | 17,495 | 34.59 | 15,803 | 33.26 |
| Embedded Supports—Masking | 2,724 | 6.06 | 3,606 | 7.38 | 3,808 | 7.53 | 3,271 | 6.88 |
| Embedded Supports—Permissive Mode | 262 | 0.58 | 291 | 0.60 | 337 | 0.67 | 282 | 0.59 |
| Embedded Supports—Text-to-Speech | 12,193 | 27.11 | 14,573 | 29.84 | 15,418 | 30.48 | 8,117 | 17.08 |
| Embedded Supports—Turn off Any Universal Tool | 4 | 0.01 | 10 | 0.02 | 7 | 0.01 | 12 | 0.03 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 663 | 1.47 | 648 | 1.33 | 598 | 1.18 | 725 | 1.53 |
| Non-Embedded Supports—Color Contrast | 537 | 1.19 | 726 | 1.49 | 709 | 1.40 | 632 | 1.33 |
| Non-Embedded Supports—Color Overlay | 257 | 0.57 | 341 | 0.70 | 334 | 0.66 | 299 | 0.63 |
| Non-Embedded Supports—Magnification | 573 | 1.27 | 730 | 1.49 | 740 | 1.46 | 641 | 1.35 |
| Non-Embedded Supports—Noise Buffers | 1,823 | 4.05 | 2,021 | 4.14 | 2,305 | 4.56 | 1,480 | 3.12 |
| Non-Embedded Supports—Read Aloud | 7,882 | 17.53 | 9,181 | 18.80 | 10,038 | 19.85 | 7,216 | 15.19 |
| Non-Embedded Supports—Separate Setting | 10,543 | 23.44 | 12,591 | 25.78 | 13,929 | 27.54 | 12,127 | 25.52 |
| Non-Embedded Supports—Special Lighting or Acoustics | 131 | 0.29 | 138 | 0.28 | 154 | 0.30 | 108 | 0.23 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 519 | 1.15 | 525 | 1.08 | 537 | 1.06 | 531 | 1.12 |
| Designated support or accommodation is in IEP | 22,115 | 49.18 | 26,145 | 53.54 | 28,541 | 56.43 | 26,269 | 55.29 |
| Designated support or accommodation is in Sect. 504 plan | 115 | 0.26 | 167 | 0.34 | 176 | 0.35 | 142 | 0.30 |

**Table 2.B.6 Special Services Summary for ELA, Grades Seven through Eleven—Students in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 187 | 0.41 | 230 | 0.52 | 189 | 0.55 |
| Embedded Supports—Braille | 9 | 0.02 | 16 | 0.04 | 4 | 0.01 |
| Embedded Supports—Closed Captioning | 474 | 1.05 | 436 | 0.98 | 379 | 1.10 |
| Embedded Supports—Streamlining | 610 | 1.35 | 622 | 1.40 | 337 | 0.98 |
| Embedded Supports—Text-to-Speech | 7,985 | 17.68 | 7,473 | 16.84 | 3,381 | 9.85 |
| Non-Embedded Supports—Alternate Response Options | 199 | 0.44 | 210 | 0.47 | 101 | 0.29 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 289 | 0.64 | 238 | 0.54 | 131 | 0.38 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 13,251 | 29.34 | 12,820 | 28.89 | 6,022 | 17.54 |
| Embedded Supports—Masking | 2,968 | 6.57 | 2,883 | 6.50 | 1,457 | 4.24 |
| Embedded Supports—Permissive Mode | 207 | 0.46 | 202 | 0.46 | 119 | 0.35 |
| Embedded Supports—Text-to-Speech | 6,457 | 14.30 | 5,691 | 12.82 | 1,672 | 4.87 |
| Embedded Supports—Turn off Any Universal Tool | 9 | 0.02 | 11 | 0.02 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 588 | 1.30 | 481 | 1.08 | 464 | 1.35 |
| Non-Embedded Supports—Color Contrast | 500 | 1.11 | 497 | 1.12 | 336 | 0.98 |
| Non-Embedded Supports—Color Overlay | 175 | 0.39 | 138 | 0.31 | 183 | 0.53 |
| Non-Embedded Supports—Magnification | 605 | 1.34 | 552 | 1.24 | 404 | 1.18 |
| Non-Embedded Supports—Noise Buffers | 1,001 | 2.22 | 870 | 1.96 | 437 | 1.27 |
| Non-Embedded Supports—Read Aloud | 5,595 | 12.39 | 5,179 | 11.67 | 2,214 | 6.45 |
| Non-Embedded Supports—Separate Setting | 11,287 | 24.99 | 10,657 | 24.02 | 7,277 | 21.19 |
| Non-Embedded Supports—Special Lighting or Acoustics | 85 | 0.19 | 69 | 0.16 | 116 | 0.34 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 475 | 1.05 | 377 | 0.85 | 446 | 1.30 |
| Designated support or accommodation is in IEP | 23,190 | 51.34 | 22,008 | 49.59 | 12,596 | 36.68 |
| Designated support or accommodation is in Sect. 504 plan | 116 | 0.26 | 127 | 0.29 | 52 | 0.15 |

**Table 2.B.7 Special Services Summary for ELA, 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 |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 111 | 0.04 | 116 | 0.04 | 100 | 0.04 | 144 | 0.06 |
| Embedded Supports—Braille | 3 | 0.00 | 6 | 0.00 | 4 | 0.00 | 8 | 0.00 |
| Embedded Supports—Closed Captioning | 248 | 0.09 | 247 | 0.09 | 271 | 0.11 | 293 | 0.12 |
| Embedded Supports—Streamlining | 429 | 0.16 | 500 | 0.19 | 518 | 0.20 | 409 | 0.16 |
| Embedded Supports—Text-to-Speech | 1,262 | 0.47 | 1,334 | 0.51 | 1,475 | 0.57 | 5,653 | 2.23 |
| Non-Embedded Supports—Alternate Response Options | 138 | 0.05 | 156 | 0.06 | 135 | 0.05 | 149 | 0.06 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 547 | 0.20 | 515 | 0.20 | 450 | 0.17 | 325 | 0.13 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 12,058 | 4.45 | 12,583 | 4.81 | 12,752 | 4.95 | 10,736 | 4.24 |
| Embedded Supports—Masking | 2,423 | 0.89 | 2,895 | 1.11 | 2,818 | 1.09 | 2,300 | 0.91 |
| Embedded Supports—Permissive Mode | 263 | 0.10 | 259 | 0.10 | 296 | 0.11 | 270 | 0.11 |
| Embedded Supports—Text-to-Speech | 10,811 | 3.99 | 10,986 | 4.20 | 10,885 | 4.23 | 5,906 | 2.33 |
| Embedded Supports—Turn off Any Universal Tool | 4 | 0.00 | 8 | 0.00 | 9 | 0.00 | 6 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 206 | 0.08 | 198 | 0.08 | 118 | 0.05 | 98 | 0.04 |
| Non-Embedded Supports—Color Contrast | 393 | 0.15 | 478 | 0.18 | 446 | 0.17 | 426 | 0.17 |
| Non-Embedded Supports—Color Overlay | 201 | 0.07 | 222 | 0.08 | 202 | 0.08 | 234 | 0.09 |
| Non-Embedded Supports—Magnification | 398 | 0.15 | 533 | 0.20 | 523 | 0.20 | 404 | 0.16 |
| Non-Embedded Supports—Noise Buffers | 1,366 | 0.50 | 1,403 | 0.54 | 1,486 | 0.58 | 996 | 0.39 |
| Non-Embedded Supports—Read Aloud | 5,214 | 1.92 | 5,772 | 2.21 | 6,156 | 2.39 | 4,090 | 1.61 |
| Non-Embedded Supports—Separate Setting | 7,747 | 2.86 | 8,917 | 3.41 | 9,447 | 3.67 | 8,185 | 3.23 |
| Non-Embedded Supports—Special Lighting or Acoustics | 86 | 0.03 | 95 | 0.04 | 109 | 0.04 | 95 | 0.04 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 188 | 0.07 | 154 | 0.06 | 135 | 0.05 | 131 | 0.05 |
| Designated support or accommodation is in IEP | 12,726 | 4.70 | 14,842 | 5.67 | 15,998 | 6.21 | 14,766 | 5.83 |
| Designated support or accommodation is in Sect. 504 plan | 326 | 0.12 | 464 | 0.18 | 574 | 0.22 | 484 | 0.19 |

**Table 2.B.8 Special Services Summary for ELA, Grades Seven through Eleven—English-Only Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 134 | 0.05 | 175 | 0.07 | 150 | 0.06 |
| Embedded Supports—Braille | 5 | 0.00 | 4 | 0.00 | 2 | 0.00 |
| Embedded Supports—Closed Captioning | 291 | 0.12 | 303 | 0.12 | 251 | 0.11 |
| Embedded Supports—Streamlining | 374 | 0.15 | 364 | 0.15 | 304 | 0.13 |
| Embedded Supports—Text-to-Speech | 4,836 | 1.96 | 4,458 | 1.81 | 2,032 | 0.87 |
| Non-Embedded Supports—Alternate Response Options | 132 | 0.05 | 138 | 0.06 | 72 | 0.03 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 205 | 0.08 | 171 | 0.07 | 96 | 0.04 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 8,947 | 3.62 | 8,404 | 3.41 | 4,720 | 2.03 |
| Embedded Supports—Masking | 2,208 | 0.89 | 2,037 | 0.83 | 2,229 | 0.96 |
| Embedded Supports—Permissive Mode | 197 | 0.08 | 200 | 0.08 | 103 | 0.04 |
| Embedded Supports—Text-to-Speech | 4,524 | 1.83 | 3,856 | 1.56 | 2,982 | 1.28 |
| Embedded Supports—Turn off Any Universal Tool | 4 | 0.00 | 3 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 72 | 0.03 | 48 | 0.02 | 50 | 0.02 |
| Non-Embedded Supports—Color Contrast | 303 | 0.12 | 325 | 0.13 | 225 | 0.10 |
| Non-Embedded Supports—Color Overlay | 107 | 0.04 | 102 | 0.04 | 147 | 0.06 |
| Non-Embedded Supports—Magnification | 360 | 0.15 | 346 | 0.14 | 286 | 0.12 |
| Non-Embedded Supports—Noise Buffers | 715 | 0.29 | 604 | 0.24 | 324 | 0.14 |
| Non-Embedded Supports—Read Aloud | 3,201 | 1.30 | 2,888 | 1.17 | 1,238 | 0.53 |
| Non-Embedded Supports—Separate Setting | 7,449 | 3.01 | 7,060 | 2.86 | 4,860 | 2.09 |
| Non-Embedded Supports—Special Lighting or Acoustics | 56 | 0.02 | 44 | 0.02 | 86 | 0.04 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 116 | 0.05 | 84 | 0.03 | 179 | 0.08 |
| Designated support or accommodation is in IEP | 13,022 | 5.27 | 12,303 | 4.99 | 7,189 | 3.09 |
| Designated support or accommodation is in Sect. 504 plan | 423 | 0.17 | 517 | 0.21 | 387 | 0.17 |

**Table 2.B.9 Special Services Summary for ELA, Grades Three through Six—I-FEP Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 6 | 0.03 | 7 | 0.04 | 3 | 0.01 | 7 | 0.03 |
| Embedded Supports—Braille | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 1 | 0.00 |
| Embedded Supports—Closed Captioning | 3 | 0.02 | 11 | 0.06 | 5 | 0.02 | 9 | 0.04 |
| Embedded Supports—Streamlining | 6 | 0.03 | 11 | 0.06 | 17 | 0.08 | 9 | 0.04 |
| Embedded Supports—Text-to-Speech | 15 | 0.08 | 23 | 0.13 | 36 | 0.18 | 104 | 0.48 |
| Non-Embedded Supports—Alternate Response Options | 1 | 0.01 | 1 | 0.01 | 1 | 0.00 | 6 | 0.03 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 6 | 0.03 | 8 | 0.04 | 10 | 0.05 | 6 | 0.03 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 427 | 2.35 | 348 | 1.92 | 425 | 2.10 | 310 | 1.44 |
| Embedded Supports—Masking | 51 | 0.28 | 54 | 0.30 | 69 | 0.34 | 43 | 0.20 |
| Embedded Supports—Permissive Mode | 1 | 0.01 | 4 | 0.02 | 3 | 0.01 | 6 | 0.03 |
| Embedded Supports—Text-to-Speech | 266 | 1.47 | 230 | 1.27 | 306 | 1.51 | 181 | 0.84 |
| Embedded Supports—Turn off Any Universal Tool | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 51 | 0.28 | 35 | 0.19 | 24 | 0.12 | 31 | 0.14 |
| Non-Embedded Supports—Color Contrast | 4 | 0.02 | 6 | 0.03 | 6 | 0.03 | 10 | 0.05 |
| Non-Embedded Supports—Color Overlay | 2 | 0.01 | 6 | 0.03 | 6 | 0.03 | 3 | 0.01 |
| Non-Embedded Supports—Magnification | 4 | 0.02 | 5 | 0.03 | 9 | 0.04 | 12 | 0.06 |
| Non-Embedded Supports—Noise Buffers | 36 | 0.20 | 38 | 0.21 | 44 | 0.22 | 29 | 0.13 |
| Non-Embedded Supports—Read Aloud | 89 | 0.49 | 77 | 0.42 | 138 | 0.68 | 93 | 0.43 |
| Non-Embedded Supports—Separate Setting | 138 | 0.76 | 140 | 0.77 | 213 | 1.05 | 206 | 0.96 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 3 | 0.02 | 3 | 0.01 | 2 | 0.01 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 34 | 0.19 | 15 | 0.08 | 7 | 0.03 | 12 | 0.06 |
| Designated support or accommodation is in IEP | 202 | 1.11 | 223 | 1.23 | 337 | 1.66 | 313 | 1.45 |
| Designated support or accommodation is in Sect. 504 plan | 9 | 0.05 | 14 | 0.08 | 13 | 0.06 | 10 | 0.05 |

**Table 2.B.10 Special Services Summary for ELA, Grades Seven through Eleven—I-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 3 | 0.01 | 3 | 0.01 | 1 | 0.00 |
| Embedded Supports—Braille | 0 | 0.00 | 1 | 0.00 | 0 | 0.00 |
| Embedded Supports—Closed Captioning | 11 | 0.05 | 7 | 0.03 | 9 | 0.02 |
| Embedded Supports—Streamlining | 13 | 0.06 | 9 | 0.04 | 15 | 0.04 |
| Embedded Supports—Text-to-Speech | 82 | 0.40 | 100 | 0.48 | 109 | 0.30 |
| Non-Embedded Supports—Alternate Response Options | 1 | 0.00 | 2 | 0.01 | 2 | 0.01 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 3 | 0.01 | 4 | 0.02 | 6 | 0.02 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 234 | 1.14 | 229 | 1.09 | 358 | 0.99 |
| Embedded Supports—Masking | 52 | 0.25 | 38 | 0.18 | 298 | 0.83 |
| Embedded Supports—Permissive Mode | 3 | 0.01 | 3 | 0.01 | 5 | 0.01 |
| Embedded Supports—Text-to-Speech | 121 | 0.59 | 111 | 0.53 | 494 | 1.37 |
| Embedded Supports—Turn off Any Universal Tool | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 24 | 0.12 | 24 | 0.11 | 25 | 0.07 |
| Non-Embedded Supports—Color Contrast | 6 | 0.03 | 5 | 0.02 | 15 | 0.04 |
| Non-Embedded Supports—Color Overlay | 2 | 0.01 | 1 | 0.00 | 11 | 0.03 |
| Non-Embedded Supports—Magnification | 10 | 0.05 | 5 | 0.02 | 21 | 0.06 |
| Non-Embedded Supports—Noise Buffers | 16 | 0.08 | 15 | 0.07 | 18 | 0.05 |
| Non-Embedded Supports—Read Aloud | 49 | 0.24 | 68 | 0.32 | 80 | 0.22 |
| Non-Embedded Supports—Separate Setting | 150 | 0.73 | 170 | 0.81 | 247 | 0.68 |
| Non-Embedded Supports—Special Lighting or Acoustics | 2 | 0.01 | 2 | 0.01 | 1 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 5 | 0.02 | 6 | 0.03 | 17 | 0.05 |
| Designated support or accommodation is in IEP | 236 | 1.15 | 278 | 1.32 | 364 | 1.01 |
| Designated support or accommodation is in Sect. 504 plan | 15 | 0.07 | 10 | 0.05 | 13 | 0.04 |

**Table 2.B.11 Special Services Summary for ELA, 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 Supports—American Sign Language | 40 | 0.03 | 42 | 0.04 | 43 | 0.04 | 36 | 0.05 |
| Embedded Supports—Braille | 2 | 0.00 | 1 | 0.00 | 2 | 0.00 | 4 | 0.01 |
| Embedded Supports—Closed Captioning | 152 | 0.10 | 164 | 0.14 | 156 | 0.16 | 182 | 0.24 |
| Embedded Supports—Streamlining | 338 | 0.22 | 399 | 0.33 | 433 | 0.43 | 258 | 0.34 |
| Embedded Supports—Text-to-Speech | 973 | 0.64 | 1,031 | 0.86 | 1,152 | 1.15 | 4,105 | 5.39 |
| Non-Embedded Supports—Alternate Response Options | 78 | 0.05 | 88 | 0.07 | 114 | 0.11 | 88 | 0.12 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 233 | 0.15 | 248 | 0.21 | 196 | 0.20 | 141 | 0.18 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 12,457 | 8.23 | 11,759 | 9.80 | 10,774 | 10.74 | 8,932 | 11.72 |
| Embedded Supports—Masking | 1,729 | 1.14 | 1,909 | 1.59 | 1,849 | 1.84 | 1,501 | 1.97 |
| Embedded Supports—Permissive Mode | 192 | 0.13 | 172 | 0.14 | 175 | 0.17 | 134 | 0.18 |
| Embedded Supports—Text-to-Speech | 15,405 | 10.18 | 14,296 | 11.92 | 12,714 | 12.68 | 7,188 | 9.43 |
| Embedded Supports—Turn off Any Universal Tool | 1 | 0.00 | 2 | 0.00 | 3 | 0.00 | 5 | 0.01 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 6,220 | 4.11 | 4,754 | 3.96 | 3,727 | 3.72 | 3,322 | 4.36 |
| Non-Embedded Supports—Color Contrast | 216 | 0.14 | 305 | 0.25 | 350 | 0.35 | 274 | 0.36 |
| Non-Embedded Supports—Color Overlay | 100 | 0.07 | 143 | 0.12 | 183 | 0.18 | 129 | 0.17 |
| Non-Embedded Supports—Magnification | 290 | 0.19 | 302 | 0.25 | 328 | 0.33 | 260 | 0.34 |
| Non-Embedded Supports—Noise Buffers | 906 | 0.60 | 913 | 0.76 | 1,037 | 1.03 | 596 | 0.78 |
| Non-Embedded Supports—Read Aloud | 4,913 | 3.25 | 5,026 | 4.19 | 4,985 | 4.97 | 3,623 | 4.75 |
| Non-Embedded Supports—Separate Setting | 5,634 | 3.72 | 6,152 | 5.13 | 6,349 | 6.33 | 5,006 | 6.57 |
| Non-Embedded Supports—Special Lighting or Acoustics | 56 | 0.04 | 50 | 0.04 | 62 | 0.06 | 43 | 0.06 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 3,926 | 2.59 | 2,710 | 2.26 | 2,031 | 2.03 | 1,927 | 2.53 |
| Designated support or accommodation is in IEP | 9,024 | 5.96 | 10,722 | 8.94 | 11,533 | 11.50 | 9,966 | 13.07 |
| Designated support or accommodation is in Sect. 504 plan | 101 | 0.07 | 117 | 0.10 | 98 | 0.10 | 89 | 0.12 |

**Table 2.B.12 Special Services Summary for ELA, Grades Seven through Eleven—EL Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 57 | 0.09 | 54 | 0.09 | 35 | 0.09 |
| Embedded Supports—Braille | 1 | 0.00 | 6 | 0.01 | 1 | 0.00 |
| Embedded Supports—Closed Captioning | 177 | 0.27 | 142 | 0.24 | 96 | 0.24 |
| Embedded Supports—Streamlining | 246 | 0.37 | 246 | 0.42 | 87 | 0.22 |
| Embedded Supports—Text-to-Speech | 3,285 | 5.01 | 2,928 | 5.04 | 1,146 | 2.90 |
| Non-Embedded Supports—Alternate Response Options | 51 | 0.08 | 51 | 0.09 | 24 | 0.06 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 74 | 0.11 | 60 | 0.10 | 31 | 0.08 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 7,162 | 10.92 | 6,548 | 11.27 | 4,383 | 11.09 |
| Embedded Supports—Masking | 1,324 | 2.02 | 1,198 | 2.06 | 1,029 | 2.60 |
| Embedded Supports—Permissive Mode | 110 | 0.17 | 87 | 0.15 | 53 | 0.13 |
| Embedded Supports—Text-to-Speech | 5,130 | 7.82 | 4,606 | 7.92 | 2,704 | 6.84 |
| Embedded Supports—Turn off Any Universal Tool | 2 | 0.00 | 3 | 0.01 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 3,166 | 4.83 | 2,882 | 4.96 | 3,064 | 7.76 |
| Non-Embedded Supports—Color Contrast | 219 | 0.33 | 183 | 0.31 | 134 | 0.34 |
| Non-Embedded Supports—Color Overlay | 86 | 0.13 | 48 | 0.08 | 73 | 0.18 |
| Non-Embedded Supports—Magnification | 231 | 0.35 | 178 | 0.31 | 127 | 0.32 |
| Non-Embedded Supports—Noise Buffers | 352 | 0.54 | 283 | 0.49 | 119 | 0.30 |
| Non-Embedded Supports—Read Aloud | 2,623 | 4.00 | 2,343 | 4.03 | 1,197 | 3.03 |
| Non-Embedded Supports—Separate Setting | 4,375 | 6.67 | 3,862 | 6.64 | 2,445 | 6.19 |
| Non-Embedded Supports—Special Lighting or Acoustics | 26 | 0.04 | 23 | 0.04 | 51 | 0.13 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 1,831 | 2.79 | 1,632 | 2.81 | 1,705 | 4.32 |
| Designated support or accommodation is in IEP | 8,304 | 12.66 | 7,468 | 12.85 | 3,568 | 9.03 |
| Designated support or accommodation is in Sect. 504 plan | 67 | 0.10 | 57 | 0.10 | 24 | 0.06 |

**Table 2.B.13 Special Services Summary for ELA, Grades Three through Six—Reclassified Fluent English Proficient (R-FEP) Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 1 | 0.00 | 5 | 0.01 | 8 | 0.01 | 7 | 0.01 |
| Embedded Supports—Braille | 1 | 0.00 | 0 | 0.00 | 3 | 0.00 | 0 | 0.00 |
| Embedded Supports—Closed Captioning | 5 | 0.02 | 13 | 0.02 | 24 | 0.03 | 36 | 0.03 |
| Embedded Supports—Streamlining | 5 | 0.02 | 7 | 0.01 | 20 | 0.02 | 44 | 0.04 |
| Embedded Supports—Text-to-Speech | 13 | 0.04 | 28 | 0.05 | 56 | 0.07 | 455 | 0.44 |
| Non-Embedded Supports—Alternate Response Options | 2 | 0.01 | 7 | 0.01 | 7 | 0.01 | 14 | 0.01 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 7 | 0.02 | 15 | 0.02 | 17 | 0.02 | 21 | 0.02 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 472 | 1.52 | 823 | 1.33 | 1,158 | 1.43 | 1,564 | 1.50 |
| Embedded Supports—Masking | 57 | 0.18 | 143 | 0.23 | 139 | 0.17 | 247 | 0.24 |
| Embedded Supports—Permissive Mode | 3 | 0.01 | 7 | 0.01 | 8 | 0.01 | 24 | 0.02 |
| Embedded Supports—Text-to-Speech | 650 | 2.09 | 1,090 | 1.76 | 1,557 | 1.92 | 1,578 | 1.51 |
| Embedded Supports—Turn off Any Universal Tool | 2 | 0.01 | 0 | 0.00 | 3 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 484 | 1.56 | 344 | 0.56 | 401 | 0.49 | 334 | 0.32 |
| Non-Embedded Supports—Color Contrast | 3 | 0.01 | 17 | 0.03 | 14 | 0.02 | 40 | 0.04 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 7 | 0.01 | 6 | 0.01 | 27 | 0.03 |
| Non-Embedded Supports—Magnification | 17 | 0.05 | 26 | 0.04 | 29 | 0.04 | 45 | 0.04 |
| Non-Embedded Supports—Noise Buffers | 45 | 0.14 | 44 | 0.07 | 98 | 0.12 | 104 | 0.10 |
| Non-Embedded Supports—Read Aloud | 53 | 0.17 | 128 | 0.21 | 280 | 0.35 | 367 | 0.35 |
| Non-Embedded Supports—Separate Setting | 235 | 0.76 | 339 | 0.55 | 554 | 0.68 | 726 | 0.70 |
| Non-Embedded Supports—Special Lighting or Acoustics | 6 | 0.02 | 8 | 0.01 | 8 | 0.01 | 29 | 0.03 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 137 | 0.44 | 191 | 0.31 | 232 | 0.29 | 205 | 0.20 |
| Designated support or accommodation is in IEP | 146 | 0.47 | 338 | 0.55 | 657 | 0.81 | 1,210 | 1.16 |
| Designated support or accommodation is in Sect. 504 plan | 6 | 0.02 | 21 | 0.03 | 11 | 0.01 | 33 | 0.03 |

**Table 2.B.14 Special Services Summary for ELA, Grades Seven through Eleven—R-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 9 | 0.01 | 10 | 0.01 | 7 | 0.01 |
| Embedded Supports—Braille | 3 | 0.00 | 5 | 0.00 | 2 | 0.00 |
| Embedded Supports—Closed Captioning | 62 | 0.05 | 32 | 0.03 | 60 | 0.05 |
| Embedded Supports—Streamlining | 43 | 0.04 | 52 | 0.04 | 36 | 0.03 |
| Embedded Supports—Text-to-Speech | 588 | 0.51 | 682 | 0.55 | 419 | 0.37 |
| Non-Embedded Supports—Alternate Response Options | 20 | 0.02 | 25 | 0.02 | 9 | 0.01 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 26 | 0.02 | 20 | 0.02 | 8 | 0.01 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 1,476 | 1.28 | 1,701 | 1.37 | 1,244 | 1.10 |
| Embedded Supports—Masking | 292 | 0.25 | 335 | 0.27 | 1,357 | 1.20 |
| Embedded Supports—Permissive Mode | 15 | 0.01 | 7 | 0.01 | 5 | 0.00 |
| Embedded Supports—Text-to-Speech | 1,219 | 1.06 | 1,293 | 1.04 | 1,858 | 1.64 |
| Embedded Supports—Turn off Any Universal Tool | 4 | 0.00 | 6 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 239 | 0.21 | 274 | 0.22 | 185 | 0.16 |
| Non-Embedded Supports—Color Contrast | 39 | 0.03 | 45 | 0.04 | 45 | 0.04 |
| Non-Embedded Supports—Color Overlay | 18 | 0.02 | 8 | 0.01 | 23 | 0.02 |
| Non-Embedded Supports—Magnification | 55 | 0.05 | 56 | 0.04 | 64 | 0.06 |
| Non-Embedded Supports—Noise Buffers | 99 | 0.09 | 78 | 0.06 | 65 | 0.06 |
| Non-Embedded Supports—Read Aloud | 379 | 0.33 | 469 | 0.38 | 248 | 0.22 |
| Non-Embedded Supports—Separate Setting | 939 | 0.81 | 1,056 | 0.85 | 980 | 0.87 |
| Non-Embedded Supports—Special Lighting or Acoustics | 9 | 0.01 | 5 | 0.00 | 7 | 0.01 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 137 | 0.12 | 152 | 0.12 | 129 | 0.11 |
| Designated support or accommodation is in IEP | 1,607 | 1.39 | 1,948 | 1.56 | 1,471 | 1.30 |
| Designated support or accommodation is in Sect. 504 plan | 39 | 0.03 | 38 | 0.03 | 24 | 0.02 |

**Table 2.B.15 Special Services Summary for Mathematics, 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 Supports—American Sign Language | 156 | 0.03 | 169 | 0.04 | 157 | 0.03 | 194 | 0.04 |
| Embedded Supports—Braille | 7 | 0.00 | 7 | 0.00 | 7 | 0.00 | 14 | 0.00 |
| Embedded Supports—Streamlining | 774 | 0.16 | 913 | 0.20 | 981 | 0.21 | 720 | 0.16 |
| Non-Embedded Supports—Abacus | 198 | 0.04 | 163 | 0.04 | 169 | 0.04 | 105 | 0.02 |
| Non-Embedded Supports—Alternate Response Options | 219 | 0.05 | 254 | 0.05 | 261 | 0.06 | 253 | 0.06 |
| Non-Embedded Supports—Calculator | 2,341 | 0.49 | 3,715 | 0.80 | 5,058 | 1.10 | 6,771 | 1.48 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 10,467 | 2.25 | 11,777 | 2.55 | 10,495 | 2.29 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 26,135 | 5.51 | 26,228 | 5.65 | 25,792 | 5.59 | 22,115 | 4.83 |
| Embedded Supports—Masking | 4,275 | 0.90 | 4,991 | 1.07 | 4,886 | 1.06 | 4,101 | 0.90 |
| Embedded Supports—Permissive Mode | 465 | 0.10 | 442 | 0.10 | 482 | 0.10 | 431 | 0.09 |
| Embedded Supports—Text-to-Speech | 28,981 | 6.11 | 27,632 | 5.95 | 26,537 | 5.75 | 22,465 | 4.91 |
| Embedded Supports—Translated Test Directions | 6,342 | 1.34 | 4,979 | 1.07 | 4,084 | 0.88 | 3,996 | 0.87 |
| Embedded Supports—Translations (Glossary) | 38,695 | 8.16 | 35,230 | 7.59 | 33,111 | 7.17 | 27,920 | 6.10 |
| Embedded Supports—Translations (Stacked) | 32,679 | 6.89 | 32,986 | 7.10 | 32,422 | 7.02 | 28,073 | 6.14 |
| Embedded Supports—Turn off Any Universal Tool | 6 | 0.00 | 6 | 0.00 | 6 | 0.00 | 9 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 618 | 0.13 | 806 | 0.17 | 817 | 0.18 | 749 | 0.16 |
| Non-Embedded Supports—Color Overlay | 299 | 0.06 | 375 | 0.08 | 399 | 0.09 | 392 | 0.09 |
| Non-Embedded Supports—Magnification | 711 | 0.15 | 861 | 0.19 | 885 | 0.19 | 713 | 0.16 |
| Non-Embedded Supports—Noise Buffers | 2,345 | 0.49 | 2,402 | 0.52 | 2,671 | 0.58 | 1,735 | 0.38 |
| Non-Embedded Supports—Read Aloud | 10,354 | 2.18 | 11,047 | 2.38 | 11,628 | 2.52 | 8,186 | 1.79 |
| Non-Embedded Supports—Scribe | 1,019 | 0.21 | 1,074 | 0.23 | 936 | 0.20 | 643 | 0.14 |
| Non-Embedded Supports—Separate Setting | 13,816 | 2.91 | 15,578 | 3.35 | 16,606 | 3.60 | 14,148 | 3.09 |
| Non-Embedded Supports—Special Lighting or Acoustics | 149 | 0.03 | 156 | 0.03 | 182 | 0.04 | 175 | 0.04 |
| Non-Embedded Supports—Translated Test Directions | 2,452 | 0.52 | 2,155 | 0.46 | 1,851 | 0.40 | 1,682 | 0.37 |
| Non-Embedded Supports—Translations (Glossary) | 28,762 | 6.06 | 28,218 | 6.08 | 27,407 | 5.94 | 23,581 | 5.15 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 7,139 | 1.51 | 5,558 | 1.20 | 4,491 | 0.97 | 4,026 | 0.88 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 2,754 | 0.58 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 23,414 | 4.94 | 27,735 | 5.97 | 30,230 | 6.55 | 27,945 | 6.11 |
| Designated support or accommodation is in Section 504 plan | 495 | 0.10 | 673 | 0.14 | 784 | 0.17 | 654 | 0.14 |

**Table 2.B.16 Special Services Summary for Mathematics, Grades Seven through Eleven—All Tested**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 205 | 0.05 | 245 | 0.05 | 206 | 0.05 |
| Embedded Supports—Braille | 9 | 0.00 | 13 | 0.00 | 6 | 0.00 |
| Embedded Supports—Streamlining | 680 | 0.15 | 672 | 0.15 | 438 | 0.10 |
| Non-Embedded Supports—Abacus | 41 | 0.01 | 62 | 0.01 | 17 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 201 | 0.04 | 211 | 0.05 | 107 | 0.03 |
| Non-Embedded Supports—Calculator | 6,884 | 1.53 | 6,882 | 1.52 | 5,154 | 1.23 |
| Non-Embedded Supports—Multiplication Table | 7,927 | 1.76 | 7,098 | 1.57 | 1,835 | 0.44 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 18,534 | 4.12 | 17,486 | 3.87 | 10,842 | 2.58 |
| Embedded Supports—Masking | 3,873 | 0.86 | 3,600 | 0.80 | 4,898 | 1.17 |
| Embedded Supports—Permissive Mode | 309 | 0.07 | 280 | 0.06 | 157 | 0.04 |
| Embedded Supports—Text-to-Speech | 16,391 | 3.64 | 14,940 | 3.31 | 10,411 | 2.48 |
| Embedded Supports—Translated Test Directions | 3,815 | 0.85 | 3,315 | 0.73 | 3,019 | 0.72 |
| Embedded Supports—Translations (Glossary) | 23,850 | 5.30 | 22,218 | 4.92 | 15,334 | 3.66 |
| Embedded Supports—Translations (Stacked) | 23,953 | 5.32 | 22,817 | 5.05 | 15,109 | 3.60 |
| Embedded Supports—Turn off Any Universal Tool | 7 | 0.00 | 10 | 0.00 | 2 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 572 | 0.13 | 565 | 0.13 | 411 | 0.10 |
| Non-Embedded Supports—Color Overlay | 214 | 0.05 | 161 | 0.04 | 243 | 0.06 |
| Non-Embedded Supports—Magnification | 651 | 0.14 | 584 | 0.13 | 490 | 0.12 |
| Non-Embedded Supports—Noise Buffers | 1,176 | 0.26 | 975 | 0.22 | 517 | 0.12 |
| Non-Embedded Supports—Read Aloud | 6,283 | 1.39 | 5,794 | 1.28 | 2,779 | 0.66 |
| Non-Embedded Supports—Scribe | 472 | 0.10 | 390 | 0.09 | 267 | 0.06 |
| Non-Embedded Supports—Separate Setting | 12,934 | 2.87 | 12,145 | 2.69 | 8,469 | 2.02 |
| Non-Embedded Supports—Special Lighting or Acoustics | 89 | 0.02 | 73 | 0.02 | 142 | 0.03 |
| Non-Embedded Supports—Translated Test Directions | 1,716 | 0.38 | 1,653 | 0.37 | 1,861 | 0.44 |
| Non-Embedded Supports—Translations (Glossary) | 20,173 | 4.48 | 18,923 | 4.19 | 12,075 | 2.88 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 3,819 | 0.85 | 3,539 | 0.78 | 3,474 | 0.83 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 24,752 | 5.50 | 23,800 | 5.27 | 14,420 | 3.44 |
| Designated support or accommodation is in Section 504 plan | 595 | 0.13 | 706 | 0.16 | 513 | 0.12 |

**Table 2.B.17 Special Services Summary for Mathematics, Grades Three through Six—Students Not in Special Education**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 10 | 0.00 | 17 | 0.00 | 7 | 0.00 | 4 | 0.00 |
| Embedded Supports—Braille | 2 | 0.00 | 0 | 0.00 | 2 | 0.00 | 1 | 0.00 |
| Embedded Supports—Streamlining | 112 | 0.03 | 107 | 0.03 | 78 | 0.02 | 105 | 0.03 |
| Non-Embedded Supports—Abacus | 16 | 0.00 | 10 | 0.00 | 13 | 0.00 | 6 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 20 | 0.00 | 11 | 0.00 | 17 | 0.00 | 15 | 0.00 |
| Non-Embedded Supports—Calculator | 344 | 0.08 | 343 | 0.08 | 428 | 0.10 | 541 | 0.13 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 868 | 0.21 | 812 | 0.20 | 694 | 0.17 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 12,324 | 2.87 | 9,963 | 2.40 | 8,335 | 2.03 | 6,385 | 1.56 |
| Embedded Supports—Masking | 1,562 | 0.36 | 1,405 | 0.34 | 1,078 | 0.26 | 848 | 0.21 |
| Embedded Supports—Permissive Mode | 202 | 0.05 | 152 | 0.04 | 149 | 0.04 | 152 | 0.04 |
| Embedded Supports—Text-to-Speech | 16,037 | 3.73 | 12,624 | 3.04 | 10,648 | 2.59 | 7,723 | 1.88 |
| Embedded Supports—Translated Test Directions | 5,487 | 1.28 | 4,074 | 0.98 | 3,156 | 0.77 | 2,989 | 0.73 |
| Embedded Supports—Translations (Glossary) | 24,203 | 5.64 | 18,299 | 4.40 | 15,070 | 3.66 | 11,527 | 2.81 |
| Embedded Supports—Translations (Stacked) | 15,805 | 3.68 | 13,298 | 3.20 | 11,194 | 2.72 | 8,633 | 2.10 |
| Embedded Supports—Turn off Any Universal Tool | 1 | 0.00 | 0 | 0.00 | 2 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 82 | 0.02 | 83 | 0.02 | 108 | 0.03 | 120 | 0.03 |
| Non-Embedded Supports—Color Overlay | 46 | 0.01 | 38 | 0.01 | 65 | 0.02 | 94 | 0.02 |
| Non-Embedded Supports—Magnification | 138 | 0.03 | 135 | 0.03 | 151 | 0.04 | 81 | 0.02 |
| Non-Embedded Supports—Noise Buffers | 538 | 0.13 | 387 | 0.09 | 366 | 0.09 | 251 | 0.06 |
| Non-Embedded Supports—Read Aloud | 2,498 | 0.58 | 1,897 | 0.46 | 1,613 | 0.39 | 1,008 | 0.25 |
| Non-Embedded Supports—Scribe | 191 | 0.04 | 171 | 0.04 | 117 | 0.03 | 76 | 0.02 |
| Non-Embedded Supports—Separate Setting | 3,296 | 0.77 | 3,028 | 0.73 | 2,711 | 0.66 | 2,054 | 0.50 |
| Non-Embedded Supports—Special Lighting or Acoustics | 18 | 0.00 | 18 | 0.00 | 29 | 0.01 | 62 | 0.02 |
| Non-Embedded Supports—Translated Test Directions | 2,168 | 0.50 | 1,832 | 0.44 | 1,567 | 0.38 | 1,399 | 0.34 |
| Non-Embedded Supports—Translations (Glossary) | 14,726 | 3.43 | 11,792 | 2.84 | 9,769 | 2.38 | 7,628 | 1.86 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 6,479 | 1.51 | 4,909 | 1.18 | 3,888 | 0.95 | 3,303 | 0.81 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 327 | 0.08 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 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 | 1 | 0.00 |
| Designated support or accommodation is in Section 504 plan | 370 | 0.09 | 491 | 0.12 | 589 | 0.14 | 510 | 0.12 |

**Table 2.B.18 Special Services Summary for Mathematics, Grades Seven through Eleven—Students Not in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 16 | 0.00 | 12 | 0.00 | 8 | 0.00 |
| Embedded Supports—Braille | 0 | 0.00 | 0 | 0.00 | 2 | 0.00 |
| Embedded Supports—Streamlining | 69 | 0.02 | 50 | 0.01 | 104 | 0.03 |
| Non-Embedded Supports—Abacus | 2 | 0.00 | 2 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 6 | 0.00 | 6 | 0.00 | 6 | 0.00 |
| Non-Embedded Supports—Calculator | 477 | 0.12 | 445 | 0.11 | 300 | 0.08 |
| Non-Embedded Supports—Multiplication Table | 519 | 0.13 | 408 | 0.10 | 136 | 0.04 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 5,319 | 1.31 | 4,730 | 1.16 | 4,916 | 1.27 |
| Embedded Supports—Masking | 911 | 0.22 | 735 | 0.18 | 3,455 | 0.90 |
| Embedded Supports—Permissive Mode | 113 | 0.03 | 86 | 0.02 | 47 | 0.01 |
| Embedded Supports—Text-to-Speech | 5,017 | 1.24 | 4,534 | 1.11 | 6,568 | 1.70 |
| Embedded Supports—Translated Test Directions | 2,894 | 0.71 | 2,626 | 0.64 | 2,308 | 0.60 |
| Embedded Supports—Translations (Glossary) | 10,005 | 2.47 | 8,884 | 2.18 | 8,825 | 2.29 |
| Embedded Supports—Translations (Stacked) | 7,139 | 1.76 | 6,421 | 1.57 | 6,129 | 1.59 |
| Embedded Supports—Turn off Any Universal Tool | 0 | 0.00 | 0 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 74 | 0.02 | 66 | 0.02 | 85 | 0.02 |
| Non-Embedded Supports—Color Overlay | 37 | 0.01 | 22 | 0.01 | 70 | 0.02 |
| Non-Embedded Supports—Magnification | 50 | 0.01 | 34 | 0.01 | 94 | 0.02 |
| Non-Embedded Supports—Noise Buffers | 183 | 0.05 | 108 | 0.03 | 88 | 0.02 |
| Non-Embedded Supports—Read Aloud | 730 | 0.18 | 640 | 0.16 | 579 | 0.15 |
| Non-Embedded Supports—Scribe | 60 | 0.01 | 51 | 0.01 | 83 | 0.02 |
| Non-Embedded Supports—Separate Setting | 1,685 | 0.42 | 1,536 | 0.38 | 1,267 | 0.33 |
| Non-Embedded Supports—Special Lighting or Acoustics | 8 | 0.00 | 5 | 0.00 | 28 | 0.01 |
| Non-Embedded Supports—Translated Test Directions | 1,451 | 0.36 | 1,413 | 0.35 | 1,526 | 0.40 |
| Non-Embedded Supports—Translations (Glossary) | 6,638 | 1.64 | 5,881 | 1.44 | 5,963 | 1.55 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 3,233 | 0.80 | 3,063 | 0.75 | 3,020 | 0.78 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 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 | 463 | 0.11 | 569 | 0.14 | 445 | 0.12 |

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

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 146 | 0.33 | 152 | 0.31 | 150 | 0.30 | 190 | 0.40 |
| Embedded Supports—Braille | 5 | 0.01 | 7 | 0.01 | 5 | 0.01 | 13 | 0.03 |
| Embedded Supports—Streamlining | 662 | 1.48 | 806 | 1.65 | 903 | 1.79 | 615 | 1.30 |
| Non-Embedded Supports—Abacus | 182 | 0.41 | 153 | 0.31 | 156 | 0.31 | 99 | 0.21 |
| Non-Embedded Supports—Alternate Response Options | 199 | 0.44 | 243 | 0.50 | 244 | 0.48 | 238 | 0.50 |
| Non-Embedded Supports—Calculator | 1,997 | 4.45 | 3,372 | 6.92 | 4,630 | 9.18 | 6,230 | 13.15 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 9,599 | 19.70 | 10,965 | 21.74 | 9,801 | 20.69 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 13,811 | 30.80 | 16,265 | 33.38 | 17,457 | 34.62 | 15,730 | 33.21 |
| Embedded Supports—Masking | 2,713 | 6.05 | 3,586 | 7.36 | 3,808 | 7.55 | 3,253 | 6.87 |
| Embedded Supports—Permissive Mode | 263 | 0.59 | 290 | 0.60 | 333 | 0.66 | 279 | 0.59 |
| Embedded Supports—Text-to-Speech | 12,944 | 28.87 | 15,008 | 30.80 | 15,889 | 31.51 | 14,742 | 31.12 |
| Embedded Supports—Translated Test Directions | 855 | 1.91 | 905 | 1.86 | 928 | 1.84 | 1,007 | 2.13 |
| Embedded Supports—Translations (Glossary) | 14,492 | 32.32 | 16,931 | 34.74 | 18,041 | 35.78 | 16,393 | 34.61 |
| Embedded Supports—Translations (Stacked) | 16,874 | 37.63 | 19,688 | 40.40 | 21,228 | 42.10 | 19,440 | 41.04 |
| Embedded Supports—Turn off Any Universal Tool | 5 | 0.01 | 6 | 0.01 | 4 | 0.01 | 9 | 0.02 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 536 | 1.20 | 723 | 1.48 | 709 | 1.41 | 629 | 1.33 |
| Non-Embedded Supports—Color Overlay | 253 | 0.56 | 337 | 0.69 | 334 | 0.66 | 298 | 0.63 |
| Non-Embedded Supports—Magnification | 573 | 1.28 | 726 | 1.49 | 734 | 1.46 | 632 | 1.33 |
| Non-Embedded Supports—Noise Buffers | 1,807 | 4.03 | 2,015 | 4.13 | 2,305 | 4.57 | 1,484 | 3.13 |
| Non-Embedded Supports—Read Aloud | 7,856 | 17.52 | 9,150 | 18.78 | 10,015 | 19.86 | 7,178 | 15.15 |
| Non-Embedded Supports—Scribe | 828 | 1.85 | 903 | 1.85 | 819 | 1.62 | 567 | 1.20 |
| Non-Embedded Supports—Separate Setting | 10,520 | 23.46 | 12,550 | 25.75 | 13,895 | 27.55 | 12,094 | 25.53 |
| Non-Embedded Supports—Special Lighting or Acoustics | 131 | 0.29 | 138 | 0.28 | 153 | 0.30 | 113 | 0.24 |
| Non-Embedded Supports—Translated Test Directions | 284 | 0.63 | 323 | 0.66 | 284 | 0.56 | 283 | 0.60 |
| Non-Embedded Supports—Translations (Glossary) | 14,036 | 31.30 | 16,426 | 33.71 | 17,638 | 34.98 | 15,953 | 33.68 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 660 | 1.47 | 649 | 1.33 | 603 | 1.20 | 723 | 1.53 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 2,427 | 5.41 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 23,414 | 52.21 | 27,735 | 56.91 | 30,230 | 59.95 | 27,944 | 58.99 |
| Designated support or accommodation is in Section 504 plan | 125 | 0.28 | 182 | 0.37 | 195 | 0.39 | 144 | 0.30 |

**Table 2.B.20 Special Services Summary for Mathematics, Grades Seven through Eleven—Students in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 189 | 0.42 | 233 | 0.53 | 198 | 0.58 |
| Embedded Supports—Braille | 9 | 0.02 | 13 | 0.03 | 4 | 0.01 |
| Embedded Supports—Streamlining | 611 | 1.36 | 622 | 1.41 | 334 | 0.98 |
| Non-Embedded Supports—Abacus | 39 | 0.09 | 60 | 0.14 | 17 | 0.05 |
| Non-Embedded Supports—Alternate Response Options | 195 | 0.43 | 205 | 0.46 | 101 | 0.30 |
| Non-Embedded Supports—Calculator | 6,407 | 14.24 | 6,437 | 14.55 | 4,854 | 14.31 |
| Non-Embedded Supports—Multiplication Table | 7,408 | 16.46 | 6,690 | 15.12 | 1,699 | 5.01 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 13,215 | 29.37 | 12,756 | 28.84 | 5,926 | 17.47 |
| Embedded Supports—Masking | 2,962 | 6.58 | 2,865 | 6.48 | 1,443 | 4.25 |
| Embedded Supports—Permissive Mode | 196 | 0.44 | 194 | 0.44 | 110 | 0.32 |
| Embedded Supports—Text-to-Speech | 11,374 | 25.28 | 10,406 | 23.52 | 3,843 | 11.33 |
| Embedded Supports—Translated Test Directions | 921 | 2.05 | 689 | 1.56 | 711 | 2.10 |
| Embedded Supports—Translations (Glossary) | 13,845 | 30.77 | 13,334 | 30.14 | 6,509 | 19.19 |
| Embedded Supports—Translations (Stacked) | 16,814 | 37.37 | 16,396 | 37.06 | 8,980 | 26.48 |
| Embedded Supports—Turn off Any Universal Tool | 7 | 0.02 | 10 | 0.02 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 498 | 1.11 | 499 | 1.13 | 326 | 0.96 |
| Non-Embedded Supports—Color Overlay | 177 | 0.39 | 139 | 0.31 | 173 | 0.51 |
| Non-Embedded Supports—Magnification | 601 | 1.34 | 550 | 1.24 | 396 | 1.17 |
| Non-Embedded Supports—Noise Buffers | 993 | 2.21 | 867 | 1.96 | 429 | 1.26 |
| Non-Embedded Supports—Read Aloud | 5,553 | 12.34 | 5,154 | 11.65 | 2,200 | 6.49 |
| Non-Embedded Supports—Scribe | 412 | 0.92 | 339 | 0.77 | 184 | 0.54 |
| Non-Embedded Supports—Separate Setting | 11,249 | 25.00 | 10,609 | 23.98 | 7,202 | 21.24 |
| Non-Embedded Supports—Special Lighting or Acoustics | 81 | 0.18 | 68 | 0.15 | 114 | 0.34 |
| Non-Embedded Supports—Translated Test Directions | 265 | 0.59 | 240 | 0.54 | 335 | 0.99 |
| Non-Embedded Supports—Translations (Glossary) | 13,535 | 30.08 | 13,042 | 29.48 | 6,112 | 18.02 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 586 | 1.30 | 476 | 1.08 | 454 | 1.34 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 24,752 | 55.01 | 23,800 | 53.80 | 14,420 | 42.52 |
| Designated support or accommodation is in Section 504 plan | 132 | 0.29 | 137 | 0.31 | 68 | 0.20 |

**Table 2.B.21 Special Services Summary for Mathematics, 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 |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 110 | 0.04 | 114 | 0.04 | 103 | 0.04 | 143 | 0.06 |
| Embedded Supports—Braille | 3 | 0.00 | 6 | 0.00 | 3 | 0.00 | 7 | 0.00 |
| Embedded Supports—Streamlining | 424 | 0.16 | 496 | 0.19 | 515 | 0.20 | 404 | 0.16 |
| Non-Embedded Supports—Abacus | 96 | 0.04 | 85 | 0.03 | 82 | 0.03 | 55 | 0.02 |
| Non-Embedded Supports—Alternate Response Options | 138 | 0.05 | 156 | 0.06 | 139 | 0.05 | 146 | 0.06 |
| Non-Embedded Supports—Calculator | 1,334 | 0.49 | 2,114 | 0.81 | 2,853 | 1.11 | 3,948 | 1.56 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 5,988 | 2.29 | 6,635 | 2.58 | 6,068 | 2.40 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 12,013 | 4.44 | 12,552 | 4.80 | 12,714 | 4.94 | 10,693 | 4.23 |
| Embedded Supports—Masking | 2,419 | 0.89 | 2,874 | 1.10 | 2,818 | 1.10 | 2283 | 0.90 |
| Embedded Supports—Permissive Mode | 264 | 0.10 | 259 | 0.10 | 296 | 0.12 | 269 | 0.11 |
| Embedded Supports—Text-to-Speech | 11,373 | 4.20 | 11,420 | 4.37 | 11,245 | 4.37 | 9,926 | 3.92 |
| Embedded Supports—Translated Test Directions | 448 | 0.17 | 435 | 0.17 | 395 | 0.15 | 362 | 0.14 |
| Embedded Supports—Translations (Glossary) | 12,192 | 4.51 | 12,667 | 4.85 | 12,828 | 4.99 | 10,808 | 4.27 |
| Embedded Supports—Translations (Stacked) | 14,698 | 5.43 | 15,343 | 5.87 | 15,700 | 6.10 | 13,362 | 5.28 |
| Embedded Supports—Turn off Any Universal Tool | 5 | 0.00 | 3 | 0.00 | 2 | 0.00 | 3 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 391 | 0.14 | 474 | 0.18 | 447 | 0.17 | 426 | 0.17 |
| Non-Embedded Supports—Color Overlay | 198 | 0.07 | 220 | 0.08 | 202 | 0.08 | 233 | 0.09 |
| Non-Embedded Supports—Magnification | 395 | 0.15 | 529 | 0.20 | 518 | 0.20 | 399 | 0.16 |
| Non-Embedded Supports—Noise Buffers | 1,352 | 0.50 | 1,396 | 0.53 | 1,485 | 0.58 | 1,002 | 0.40 |
| Non-Embedded Supports—Read Aloud | 5,197 | 1.92 | 5,741 | 2.20 | 6,148 | 2.39 | 4,073 | 1.61 |
| Non-Embedded Supports—Scribe | 690 | 0.26 | 689 | 0.26 | 631 | 0.25 | 395 | 0.16 |
| Non-Embedded Supports—Separate Setting | 7,725 | 2.86 | 8,886 | 3.40 | 9,415 | 3.66 | 8,153 | 3.22 |
| Non-Embedded Supports—Special Lighting or Acoustics | 87 | 0.03 | 95 | 0.04 | 108 | 0.04 | 98 | 0.04 |
| Non-Embedded Supports—Translated Test Directions | 208 | 0.08 | 179 | 0.07 | 171 | 0.07 | 135 | 0.05 |
| Non-Embedded Supports—Translations (Glossary) | 12,023 | 4.45 | 12,486 | 4.78 | 12,676 | 4.93 | 10,764 | 4.25 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 206 | 0.08 | 198 | 0.08 | 118 | 0.05 | 100 | 0.04 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 1,627 | 0.60 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 13,509 | 4.99 | 15,838 | 6.06 | 17,123 | 6.66 | 15,824 | 6.25 |
| Designated support or accommodation is in Section 504 plan | 355 | 0.13 | 504 | 0.19 | 636 | 0.25 | 508 | 0.20 |

**Table 2.B.22 Special Services Summary for Mathematics, Grades Seven through Eleven—English-Only Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 133 | 0.05 | 177 | 0.07 | 159 | 0.07 |
| Embedded Supports—Braille | 5 | 0.00 | 2 | 0.00 | 3 | 0.00 |
| Embedded Supports—Streamlining | 373 | 0.15 | 368 | 0.15 | 299 | 0.13 |
| Non-Embedded Supports—Abacus | 20 | 0.01 | 32 | 0.01 | 12 | 0.01 |
| Non-Embedded Supports—Alternate Response Options | 129 | 0.05 | 133 | 0.05 | 69 | 0.03 |
| Non-Embedded Supports—Calculator | 4,042 | 1.64 | 4,049 | 1.65 | 3,023 | 1.31 |
| Non-Embedded Supports—Multiplication Table | 4,646 | 1.88 | 4,101 | 1.67 | 1033 | 0.45 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 8,904 | 3.61 | 8,357 | 3.40 | 4,652 | 2.02 |
| Embedded Supports—Masking | 2,194 | 0.89 | 2,021 | 0.82 | 2,195 | 0.95 |
| Embedded Supports—Permissive Mode | 187 | 0.08 | 191 | 0.08 | 98 | 0.04 |
| Embedded Supports—Text-to-Speech | 7,282 | 2.95 | 6,577 | 2.67 | 4,363 | 1.89 |
| Embedded Supports—Translated Test Directions | 338 | 0.14 | 245 | 0.10 | 293 | 0.13 |
| Embedded Supports—Translations (Glossary) | 9,044 | 3.67 | 8,482 | 3.45 | 4,569 | 1.98 |
| Embedded Supports—Translations (Stacked) | 11,496 | 4.66 | 11,019 | 4.48 | 6,622 | 2.88 |
| Embedded Supports—Turn off Any Universal Tool | 3 | 0.00 | 2 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 301 | 0.12 | 323 | 0.13 | 219 | 0.10 |
| Non-Embedded Supports—Color Overlay | 107 | 0.04 | 101 | 0.04 | 141 | 0.06 |
| Non-Embedded Supports—Magnification | 358 | 0.15 | 344 | 0.14 | 282 | 0.12 |
| Non-Embedded Supports—Noise Buffers | 705 | 0.29 | 595 | 0.24 | 317 | 0.14 |
| Non-Embedded Supports—Read Aloud | 3,180 | 1.29 | 2,855 | 1.16 | 1,233 | 0.54 |
| Non-Embedded Supports—Scribe | 298 | 0.12 | 254 | 0.10 | 125 | 0.05 |
| Non-Embedded Supports—Separate Setting | 7,404 | 3.00 | 7,007 | 2.85 | 4,787 | 2.08 |
| Non-Embedded Supports—Special Lighting or Acoustics | 53 | 0.02 | 44 | 0.02 | 83 | 0.04 |
| Non-Embedded Supports—Translated Test Directions | 101 | 0.04 | 99 | 0.04 | 190 | 0.08 |
| Non-Embedded Supports—Translations (Glossary) | 9,016 | 3.66 | 8,444 | 3.43 | 4,436 | 1.93 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 73 | 0.03 | 51 | 0.02 | 49 | 0.02 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 13,970 | 5.67 | 13,445 | 5.47 | 8,289 | 3.60 |
| Designated support or accommodation is in Section 504 plan | 460 | 0.19 | 578 | 0.24 | 427 | 0.19 |

**Table 2.B.23 Special Services Summary for Mathematics, Grades Three through Six—I-FEP Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 6 | 0.03 | 7 | 0.04 | 3 | 0.01 | 7 | 0.03 |
| Embedded Supports—Braille | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 1 | 0.00 |
| Embedded Supports—Streamlining | 6 | 0.03 | 11 | 0.06 | 17 | 0.08 | 9 | 0.04 |
| Non-Embedded Supports—Abacus | 5 | 0.03 | 0 | 0.00 | 3 | 0.01 | 1 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 1 | 0.01 | 1 | 0.00 | 6 | 0.03 |
| Non-Embedded Supports—Calculator | 9 | 0.05 | 24 | 0.13 | 48 | 0.24 | 79 | 0.37 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 79 | 0.44 | 113 | 0.56 | 112 | 0.52 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 424 | 2.34 | 347 | 1.91 | 426 | 2.10 | 308 | 1.43 |
| Embedded Supports—Masking | 52 | 0.29 | 53 | 0.29 | 69 | 0.34 | 43 | 0.20 |
| Embedded Supports—Permissive Mode | 1 | 0.01 | 4 | 0.02 | 3 | 0.01 | 6 | 0.03 |
| Embedded Supports—Text-to-Speech | 284 | 1.57 | 242 | 1.33 | 333 | 1.65 | 251 | 1.17 |
| Embedded Supports—Translated Test Directions | 34 | 0.19 | 31 | 0.17 | 33 | 0.16 | 14 | 0.07 |
| Embedded Supports—Translations (Glossary) | 464 | 2.56 | 382 | 2.11 | 463 | 2.29 | 344 | 1.60 |
| Embedded Supports—Translations (Stacked) | 461 | 2.54 | 405 | 2.23 | 493 | 2.44 | 365 | 1.70 |
| Embedded Supports—Turn off Any Universal Tool | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 4 | 0.02 | 6 | 0.03 | 6 | 0.03 | 11 | 0.05 |
| Non-Embedded Supports—Color Overlay | 2 | 0.01 | 6 | 0.03 | 6 | 0.03 | 3 | 0.01 |
| Non-Embedded Supports—Magnification | 4 | 0.02 | 5 | 0.03 | 9 | 0.04 | 12 | 0.06 |
| Non-Embedded Supports—Noise Buffers | 36 | 0.20 | 38 | 0.21 | 44 | 0.22 | 29 | 0.13 |
| Non-Embedded Supports—Read Aloud | 89 | 0.49 | 78 | 0.43 | 140 | 0.69 | 92 | 0.43 |
| Non-Embedded Supports—Scribe | 7 | 0.04 | 8 | 0.04 | 15 | 0.07 | 8 | 0.04 |
| Non-Embedded Supports—Separate Setting | 140 | 0.77 | 139 | 0.77 | 214 | 1.06 | 202 | 0.94 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 3 | 0.02 | 3 | 0.01 | 2 | 0.01 |
| Non-Embedded Supports—Translated Test Directions | 18 | 0.10 | 19 | 0.10 | 8 | 0.04 | 7 | 0.03 |
| Non-Embedded Supports—Translations (Glossary) | 435 | 2.40 | 350 | 1.93 | 431 | 2.13 | 324 | 1.51 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 51 | 0.28 | 35 | 0.19 | 24 | 0.12 | 31 | 0.14 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 17 | 0.09 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 211 | 1.16 | 243 | 1.34 | 353 | 1.74 | 332 | 1.54 |
| Designated support or accommodation is in Section 504 plan | 10 | 0.06 | 15 | 0.08 | 16 | 0.08 | 10 | 0.05 |

**Table 2.B.24 Special Services Summary for Mathematics, Grades Seven through Eleven—I-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 5 | 0.02 | 4 | 0.02 | 2 | 0.01 |
| Embedded Supports—Braille | 0 | 0.00 | 1 | 0.00 | 0 | 0.00 |
| Embedded Supports—Streamlining | 14 | 0.07 | 9 | 0.04 | 15 | 0.04 |
| Non-Embedded Supports—Abacus | 3 | 0.01 | 2 | 0.01 | 1 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 2 | 0.01 | 2 | 0.01 | 2 | 0.01 |
| Non-Embedded Supports—Calculator | 68 | 0.33 | 96 | 0.46 | 139 | 0.39 |
| Non-Embedded Supports—Multiplication Table | 73 | 0.36 | 73 | 0.35 | 40 | 0.11 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 235 | 1.15 | 235 | 1.12 | 356 | 0.99 |
| Embedded Supports—Masking | 53 | 0.26 | 38 | 0.18 | 297 | 0.83 |
| Embedded Supports—Permissive Mode | 4 | 0.02 | 3 | 0.01 | 5 | 0.01 |
| Embedded Supports—Text-to-Speech | 172 | 0.84 | 160 | 0.76 | 561 | 1.56 |
| Embedded Supports—Translated Test Directions | 18 | 0.09 | 19 | 0.09 | 49 | 0.14 |
| Embedded Supports—Translations (Glossary) | 273 | 1.33 | 279 | 1.33 | 386 | 1.08 |
| Embedded Supports—Translations (Stacked) | 287 | 1.40 | 295 | 1.40 | 417 | 1.16 |
| Embedded Supports—Turn off Any Universal Tool | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 8 | 0.04 | 5 | 0.02 | 16 | 0.04 |
| Non-Embedded Supports—Color Overlay | 2 | 0.01 | 1 | 0.00 | 12 | 0.03 |
| Non-Embedded Supports—Magnification | 9 | 0.04 | 5 | 0.02 | 21 | 0.06 |
| Non-Embedded Supports—Noise Buffers | 16 | 0.08 | 15 | 0.07 | 19 | 0.05 |
| Non-Embedded Supports—Read Aloud | 49 | 0.24 | 70 | 0.33 | 79 | 0.22 |
| Non-Embedded Supports—Scribe | 3 | 0.01 | 6 | 0.03 | 4 | 0.01 |
| Non-Embedded Supports—Separate Setting | 153 | 0.75 | 171 | 0.81 | 247 | 0.69 |
| Non-Embedded Supports—Special Lighting or Acoustics | 2 | 0.01 | 2 | 0.01 | 1 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 3 | 0.01 | 8 | 0.04 | 15 | 0.04 |
| Non-Embedded Supports—Translations (Glossary) | 250 | 1.22 | 257 | 1.22 | 328 | 0.91 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 25 | 0.12 | 25 | 0.12 | 24 | 0.07 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 252 | 1.23 | 309 | 1.47 | 403 | 1.12 |
| Designated support or accommodation is in Section 504 plan | 17 | 0.08 | 12 | 0.06 | 15 | 0.04 |

**Table 2.B.25 Special Services Summary for Mathematics, 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 Supports—American Sign Language | 39 | 0.03 | 42 | 0.03 | 43 | 0.04 | 37 | 0.05 |
| Embedded Supports—Braille | 3 | 0.00 | 1 | 0.00 | 1 | 0.00 | 5 | 0.01 |
| Embedded Supports—Streamlining | 335 | 0.22 | 398 | 0.33 | 428 | 0.42 | 260 | 0.34 |
| Non-Embedded Supports—Abacus | 95 | 0.06 | 74 | 0.06 | 80 | 0.08 | 39 | 0.05 |
| Non-Embedded Supports—Alternate Response Options | 79 | 0.05 | 88 | 0.07 | 114 | 0.11 | 87 | 0.11 |
| Non-Embedded Supports—Calculator | 967 | 0.63 | 1,537 | 1.26 | 2,051 | 2.02 | 2,492 | 3.21 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 4,268 | 3.51 | 4,774 | 4.69 | 3,922 | 5.06 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 12,977 | 8.49 | 12,317 | 10.13 | 11,306 | 11.11 | 9,383 | 12.11 |
| Embedded Supports—Masking | 1,736 | 1.14 | 1,911 | 1.57 | 1,854 | 1.82 | 1,522 | 1.96 |
| Embedded Supports—Permissive Mode | 193 | 0.13 | 169 | 0.14 | 171 | 0.17 | 130 | 0.17 |
| Embedded Supports—Text-to-Speech | 16,627 | 10.88 | 14,880 | 12.24 | 13,427 | 13.20 | 10,310 | 13.30 |
| Embedded Supports—Translated Test Directions | 5,616 | 3.67 | 4,149 | 3.41 | 3,304 | 3.25 | 3,212 | 4.14 |
| Embedded Supports—Translations (Glossary) | 24,538 | 16.05 | 20,355 | 16.75 | 17,721 | 17.42 | 14,557 | 18.78 |
| Embedded Supports—Translations (Stacked) | 16,672 | 10.91 | 16,005 | 13.17 | 14,579 | 14.33 | 12,256 | 15.81 |
| Embedded Supports—Turn off Any Universal Tool | 0 | 0.00 | 3 | 0.00 | 1 | 0.00 | 4 | 0.01 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 217 | 0.14 | 306 | 0.25 | 348 | 0.34 | 273 | 0.35 |
| Non-Embedded Supports—Color Overlay | 99 | 0.06 | 141 | 0.12 | 184 | 0.18 | 129 | 0.17 |
| Non-Embedded Supports—Magnification | 292 | 0.19 | 301 | 0.25 | 328 | 0.32 | 255 | 0.33 |
| Non-Embedded Supports—Noise Buffers | 904 | 0.59 | 919 | 0.76 | 1,038 | 1.02 | 598 | 0.77 |
| Non-Embedded Supports—Read Aloud | 4,979 | 3.26 | 5,071 | 4.17 | 5,025 | 4.94 | 3,635 | 4.69 |
| Non-Embedded Supports—Scribe | 308 | 0.20 | 353 | 0.29 | 267 | 0.26 | 212 | 0.27 |
| Non-Embedded Supports—Separate Setting | 5,671 | 3.71 | 6,180 | 5.08 | 6,387 | 6.28 | 5,046 | 6.51 |
| Non-Embedded Supports—Special Lighting or Acoustics | 56 | 0.04 | 50 | 0.04 | 62 | 0.06 | 45 | 0.06 |
| Non-Embedded Supports—Translated Test Directions | 2,032 | 1.33 | 1,744 | 1.43 | 1,415 | 1.39 | 1,358 | 1.75 |
| Non-Embedded Supports—Translations (Glossary) | 15,295 | 10.01 | 14,040 | 11.55 | 12,705 | 12.49 | 10,594 | 13.67 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 6,349 | 4.15 | 4,933 | 4.06 | 3,901 | 3.83 | 3,500 | 4.52 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 1,087 | 0.71 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 9,508 | 6.22 | 11,246 | 9.25 | 12,024 | 11.82 | 10,474 | 13.51 |
| Designated support or accommodation is in Section 504 plan | 122 | 0.08 | 129 | 0.11 | 114 | 0.11 | 100 | 0.13 |

**Table 2.B.26 Special Services Summary for Mathematics, Grades Seven through Eleven—EL Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 58 | 0.09 | 54 | 0.09 | 35 | 0.09 |
| Embedded Supports—Braille | 1 | 0.00 | 6 | 0.01 | 2 | 0.01 |
| Embedded Supports—Streamlining | 249 | 0.37 | 242 | 0.41 | 87 | 0.22 |
| Non-Embedded Supports—Abacus | 15 | 0.02 | 23 | 0.04 | 3 | 0.01 |
| Non-Embedded Supports—Alternate Response Options | 50 | 0.07 | 51 | 0.09 | 26 | 0.07 |
| Non-Embedded Supports—Calculator | 2,386 | 3.57 | 2,232 | 3.76 | 1,438 | 3.62 |
| Non-Embedded Supports—Multiplication Table | 2,763 | 4.13 | 2,381 | 4.01 | 559 | 1.41 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 7,712 | 11.53 | 7,015 | 11.81 | 4,524 | 11.37 |
| Embedded Supports—Masking | 1,333 | 1.99 | 1,200 | 2.02 | 1,049 | 2.64 |
| Embedded Supports—Permissive Mode | 103 | 0.15 | 78 | 0.13 | 48 | 0.12 |
| Embedded Supports—Text-to-Speech | 7,315 | 10.94 | 6,481 | 10.91 | 3,279 | 8.24 |
| Embedded Supports—Translated Test Directions | 3,101 | 4.64 | 2,705 | 4.56 | 2,415 | 6.07 |
| Embedded Supports—Translations (Glossary) | 12,360 | 18.48 | 11,136 | 18.75 | 8,366 | 21.03 |
| Embedded Supports—Translations (Stacked) | 10,083 | 15.08 | 9,140 | 15.39 | 6,324 | 15.90 |
| Embedded Supports—Turn off Any Universal Tool | 1 | 0.00 | 5 | 0.01 | 1 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 217 | 0.32 | 189 | 0.32 | 133 | 0.33 |
| Non-Embedded Supports—Color Overlay | 87 | 0.13 | 51 | 0.09 | 68 | 0.17 |
| Non-Embedded Supports—Magnification | 230 | 0.34 | 179 | 0.30 | 127 | 0.32 |
| Non-Embedded Supports—Noise Buffers | 352 | 0.53 | 287 | 0.48 | 119 | 0.30 |
| Non-Embedded Supports—Read Aloud | 2,642 | 3.95 | 2,382 | 4.01 | 1,210 | 3.04 |
| Non-Embedded Supports—Scribe | 134 | 0.20 | 89 | 0.15 | 122 | 0.31 |
| Non-Embedded Supports—Separate Setting | 4,401 | 6.58 | 3,891 | 6.55 | 2,461 | 6.19 |
| Non-Embedded Supports—Special Lighting or Acoustics | 25 | 0.04 | 22 | 0.04 | 51 | 0.13 |
| Non-Embedded Supports—Translated Test Directions | 1,435 | 2.15 | 1,356 | 2.28 | 1,491 | 3.75 |
| Non-Embedded Supports—Translations (Glossary) | 8,991 | 13.45 | 8,155 | 13.73 | 5,908 | 14.85 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 3,401 | 5.09 | 3,109 | 5.24 | 3,167 | 7.96 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 8,800 | 13.16 | 7,953 | 13.39 | 4,041 | 10.16 |
| Designated support or accommodation is in Section 504 plan | 76 | 0.11 | 72 | 0.12 | 33 | 0.08 |

**Table 2.B.27 Special Services Summary for Mathematics, Grades Three through Six—R-FEP Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Embedded Supports—American Sign Language | 1 | 0.00 | 5 | 0.01 | 8 | 0.01 | 7 | 0.01 |
| Embedded Supports—Braille | 1 | 0.00 | 0 | 0.00 | 3 | 0.00 | 0 | 0.00 |
| Embedded Supports—Streamlining | 5 | 0.02 | 7 | 0.01 | 21 | 0.03 | 44 | 0.04 |
| Non-Embedded Supports—Abacus | 2 | 0.01 | 4 | 0.01 | 3 | 0.00 | 8 | 0.01 |
| Non-Embedded Supports—Alternate Response Options | 2 | 0.01 | 7 | 0.01 | 7 | 0.01 | 14 | 0.01 |
| Non-Embedded Supports—Calculator | 27 | 0.09 | 37 | 0.06 | 96 | 0.12 | 246 | 0.24 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 115 | 0.19 | 236 | 0.29 | 386 | 0.37 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Embedded Supports—Color Contrast | 473 | 1.52 | 822 | 1.33 | 1,157 | 1.43 | 1,560 | 1.50 |
| Embedded Supports—Masking | 57 | 0.18 | 142 | 0.23 | 140 | 0.17 | 247 | 0.24 |
| Embedded Supports—Permissive Mode | 3 | 0.01 | 7 | 0.01 | 8 | 0.01 | 24 | 0.02 |
| Embedded Supports—Text-to-Speech | 569 | 1.83 | 977 | 1.58 | 1,447 | 1.78 | 1,897 | 1.82 |
| Embedded Supports—Translated Test Directions | 105 | 0.34 | 247 | 0.40 | 230 | 0.28 | 300 | 0.29 |
| Embedded Supports—Translations (Glossary) | 1,197 | 3.85 | 1,581 | 2.55 | 1,861 | 2.30 | 2,003 | 1.92 |
| Embedded Supports—Translations (Stacked) | 559 | 1.80 | 1,003 | 1.62 | 1,433 | 1.77 | 1,898 | 1.82 |
| Embedded Supports—Turn off Any Universal Tool | 1 | 0.00 | 0 | 0.00 | 3 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 3 | 0.01 | 17 | 0.03 | 15 | 0.02 | 39 | 0.04 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 7 | 0.01 | 6 | 0.01 | 27 | 0.03 |
| Non-Embedded Supports—Magnification | 17 | 0.05 | 26 | 0.04 | 29 | 0.04 | 45 | 0.04 |
| Non-Embedded Supports—Noise Buffers | 45 | 0.14 | 45 | 0.07 | 99 | 0.12 | 104 | 0.10 |
| Non-Embedded Supports—Read Aloud | 54 | 0.17 | 129 | 0.21 | 280 | 0.35 | 364 | 0.35 |
| Non-Embedded Supports—Scribe | 10 | 0.03 | 23 | 0.04 | 22 | 0.03 | 26 | 0.02 |
| Non-Embedded Supports—Separate Setting | 235 | 0.76 | 340 | 0.55 | 555 | 0.68 | 720 | 0.69 |
| Non-Embedded Supports—Special Lighting or Acoustics | 6 | 0.02 | 8 | 0.01 | 8 | 0.01 | 29 | 0.03 |
| Non-Embedded Supports—Translated Test Directions | 109 | 0.35 | 151 | 0.24 | 189 | 0.23 | 105 | 0.10 |
| Non-Embedded Supports—Translations (Glossary) | 730 | 2.35 | 1,129 | 1.82 | 1,388 | 1.71 | 1,708 | 1.64 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 485 | 1.56 | 344 | 0.56 | 400 | 0.49 | 334 | 0.32 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 16 | 0.05 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 169 | 0.54 | 387 | 0.63 | 713 | 0.88 | 1,298 | 1.25 |
| Designated support or accommodation is in Section 504 plan | 6 | 0.02 | 25 | 0.04 | 16 | 0.02 | 34 | 0.03 |

**Table 2.B.28 Special Services Summary for Mathematics, Grades Seven through Eleven—R-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Embedded Supports—American Sign Language | 9 | 0.01 | 10 | 0.01 | 8 | 0.01 |
| Embedded Supports—Braille | 3 | 0.00 | 4 | 0.00 | 1 | 0.00 |
| Embedded Supports—Streamlining | 42 | 0.04 | 53 | 0.04 | 36 | 0.03 |
| Non-Embedded Supports—Abacus | 3 | 0.00 | 5 | 0.00 | 1 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 19 | 0.02 | 25 | 0.02 | 10 | 0.01 |
| Non-Embedded Supports—Calculator | 375 | 0.33 | 497 | 0.40 | 553 | 0.49 |
| Non-Embedded Supports—Multiplication Table | 435 | 0.38 | 539 | 0.43 | 202 | 0.18 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Embedded Supports—Color Contrast | 1,468 | 1.28 | 1,692 | 1.36 | 1,228 | 1.09 |
| Embedded Supports—Masking | 288 | 0.25 | 333 | 0.27 | 1,353 | 1.20 |
| Embedded Supports—Permissive Mode | 14 | 0.01 | 6 | 0.00 | 6 | 0.01 |
| Embedded Supports—Text-to-Speech | 1,522 | 1.32 | 1,646 | 1.32 | 2,176 | 1.93 |
| Embedded Supports—Translated Test Directions | 210 | 0.18 | 233 | 0.19 | 204 | 0.18 |
| Embedded Supports—Translations (Glossary) | 1,916 | 1.66 | 2,097 | 1.69 | 1,873 | 1.67 |
| Embedded Supports—Translations (Stacked) | 1,851 | 1.61 | 2,158 | 1.73 | 1,650 | 1.47 |
| Embedded Supports—Turn off Any Universal Tool | 3 | 0.00 | 3 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 39 | 0.03 | 46 | 0.04 | 43 | 0.04 |
| Non-Embedded Supports—Color Overlay | 18 | 0.02 | 8 | 0.01 | 22 | 0.02 |
| Non-Embedded Supports—Magnification | 54 | 0.05 | 56 | 0.05 | 60 | 0.05 |
| Non-Embedded Supports—Noise Buffers | 99 | 0.09 | 77 | 0.06 | 62 | 0.06 |
| Non-Embedded Supports—Read Aloud | 375 | 0.33 | 467 | 0.38 | 249 | 0.22 |
| Non-Embedded Supports—Scribe | 32 | 0.03 | 33 | 0.03 | 15 | 0.01 |
| Non-Embedded Supports—Separate Setting | 933 | 0.81 | 1,050 | 0.84 | 958 | 0.85 |
| Non-Embedded Supports—Special Lighting or Acoustics | 9 | 0.01 | 5 | 0.00 | 7 | 0.01 |
| Non-Embedded Supports—Translated Test Directions | 72 | 0.06 | 102 | 0.08 | 124 | 0.11 |
| Non-Embedded Supports—Translations (Glossary) | 1,685 | 1.46 | 1,869 | 1.50 | 1,305 | 1.16 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 238 | 0.21 | 269 | 0.22 | 183 | 0.16 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Math Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 1,708 | 1.48 | 2,081 | 1.67 | 1,683 | 1.50 |
| Designated support or accommodation is in Section 504 plan | 42 | 0.04 | 44 | 0.04 | 36 | 0.03 |

# 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–12 educators who were trained in item development, content experts, and other participants at various stages in the item development process.

## 3.2. Additional Information

More information regarding the item development process, 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, 2015).

# Reference

Smarter Balanced Assessment Consortium. (2015). *2013–14 Technical report.* Retrieved from http://www.smarterbalanced.org/wp-content/uploads/2015/08/2013-14_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 (PT). The Smarter Balanced Summative Assessments are constructed to measure students' performance relative to Common Core State Standards (CCSS). The assessments are also 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 section 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.

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

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 19 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 121.

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,* an unpublished report, 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 precisely estimated 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. 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.* Unpublished report.

# 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 approximately March 10, 2015, through the end of July 2015. 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.

#### 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 *Smarter Balanced Adaptive Item Selection Algorithm,* which starts on page 76. 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 a 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], 2015a). A Classroom Activity is assigned by school and grade, and all the grades within a school are assigned to the same 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 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), "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.

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* provide 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, 2015a and 2015b).

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, Proctors, Translators, Scribes, and Any Other Person Having Access to CAASPP Tests, 2014–2015 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 section on Systems Overview and Functionality on page 6 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. For example, a CAASPP test site coordinator would only have access to the data for the students at his or her test site and not the data for students at other schools within the LEA. In this way, personally identifiable student data remains fully secure.

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 and the Children's Online Privacy Protection Act.

### 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 extracts the data from the database and performs 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 Elementary and Secondary Education Act (and now the Every Student Succeeds Act) and 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), and
- 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). 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 Test Security Incidents

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, 2015a). Test security incidents have impacts on scoring and affect student's performance on the test.

#### 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; should an appeal be required, an LEA coordinator could report the incident using a form that was faxed to the CDE.

Improprieties are escalated within 24 hours of the incident by individual LEAs.

#### 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—for example, a test security breach or an invalid score interpretation. An irregularity must be reported to the LEA CAASPP coordinator or CAASPP test site coordinator, who then reports the irregularity using a form that was faxed to the CDE.

Irregularities must be escalated by the end of the day of the incident to the CDE.

#### 5.2.9.3 Breach

A testing breach is an event that poses the greatest threat to the validity of the interpretation of test scores (e.g., the release of secure materials). A testing breach has implications for the Smarter Balanced Assessment Consortium and may result in a Consortium decision to remove the test items from the available item bank.

A breach must be immediately escalated by telephone to the CDE by the LEA CAASPP coordinator.

### 5.2.10 Appeals

For incidents that result in a need to reset, reopen, 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 (CDE, 2015j).

## 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 subsection *Approach to Scoring Item Responses*. Outcomes of CR items are scored by artificial intelligence or by human scoring. Depending on the grade level, human-scored CR items

are flowed to either ETS or Measurement Incorporated (MI). Table 5.1 shows the scoring process assignments for ETS and MI, by content area and grade.

**Table 5.1 Performance Task and CR Scoring by Content Area and Grade**

| | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 | Grade 11 |
|---|---|---|---|---|---|---|---|
| ELA | ETS | ETS | ETS | MI | MI | MI | ETS |
| Mathematics | MI | MI | MI | ETS | ETS | ETS | ETS |

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, Smarter Balanced-specific scoring policies and procedures, as well as 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 section *Rater Training* on page 106 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 section *10.4 Test Administration* 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 2014–15 school year. LEAs include public school districts, statewide benefit charter schools, state board-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 the following activities:

- 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.

### 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 comprise the following:

- 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 ensuring 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.

### 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 comprise the following:

- 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 (TA Interface).
- Fully comply with all directions provided in the *Directions for Administration for the Smarter Balanced Online Summative Assessments* (CDE, 2015h).

### 5.4.4 Instructions for Test Administrators

#### 5.4.4.1 Directions for Administration

The *Directions for Administration for the Smarter Balanced Online Summative Assessments* are used by test administrators to administer the Smarter Balanced assessments to students (CDE, 2015b). 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 Online Test Administration Manual* [CDE, 2015a].)

#### 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, 2015c).

#### 5.4.4.3 CAASPP Online Test Administration Manual

The *CAASPP Online Test Administration Manual* (CDE, 2015a) 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:

- Test security
- Responding to testing incidents
- Filing appeals
- 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 the following:

- **Test Administration Setup—**Allows LEAs to determine and calculate dates for the LEA's 2014–15 administration of the CAASPP assessments (CDE, 2015d).
- **Adding and Managing Users—**Allows LEA CAASPP coordinators to add CAASPP test site coordinators and test administrators to TOMS so that the designated user can administer, monitor, and manage the online Smarter Balanced summative and interim assessments (CDE, 2015e).
- **Online Student Test Settings—**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, 2015f).

- **Student Paper-Pencil Test Registration—**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, 2015g).

#### 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, 2015h).
- **Technical Specifications Manual**—Provides information, tools, and recommended configuration details to help technology staff prepare computers to be used for the online CAASPP assessments (CDE, 2015i).
- **Online Testing Appeals User Guide**—Provides information on how to submit an appeal to the CDE to reset, reopen, invalidate, or restore individual online student assessments within TOMS (CDE, 2015j).
- **Braille Requirements for Online Testing**—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, 2015k).

## 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 21 workshops and 19 Webcasts for the 2014–15 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 2015, 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 2014–15 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 5 locations for the post-test workshops.

### 5.5.2 Webcasts

ETS provided a series of live Webcasts that were available for training prior to the availability of the summative assessments as well as for training during the administration. 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 Resources 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, 11 tutorials were produced for the 2014–15 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, 2015l) are intended for school-level personnel and individualized education program (IEP) and Section 504 plan decision-making 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 and Smarter Balanced Assessment Consortium 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: PT Test Length

**Table 5.A.1 Assignment Proportions for ELA**

| Grade | Proportion | Performance task name | # of items |
|---|---|---|---|
| 3 | 0.36 | HEATWAVES | 5 |
| 3 | 0.36 | LAND FORMATIONS | 5 |
| 3 | 0.29 | TREES | 4 |
| 4 | 0.21 | CLASSIFYING VERTEBRATES | 4 |
| 4 | 0.26 | DESERTS | 5 |
| 4 | 0.26 | SPIDERS AND INSECTS | 5 |
| 4 | 0.26 | THUNDERSTORMS | 5 |
| 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 | 0.29 | INVENTIONS | 4 |
| 7 | 0.26 | EXPLORING THE WORLD | 5 |
| 7 | 0.21 | INVASIVE SPECIES | 4 |
| 7 | 0.26 | MONUMENTS | 5 |
| 7 | 0.26 | RENEWABLE ENERGY SOURCES | 5 |
| 8 | 0.24 | ADVERTISING | 5 |
| 8 | 0.24 | FOOD WASTE | 5 |
| 8 | 0.24 | HOW THE BRAIN WORKS | 5 |
| 8 | 0.19 | SPACE EXPLORATION | 4 |
| 8 | 0.10 | THE INTERNET | 2 |
| 11 | 0.21 | A NEW KIND OF NEWS | 5 |
| 11 | 0.17 | COMMUNICABLE DISEASES | 4 |
| 11 | 0.21 | ENVIRONMENTAL AWARENESS | 5 |
| 11 | 0.21 | INTELLECTUAL PROPERTY | 5 |
| 11 | 0.21 | POETRY | 5 |

**Table 5.A.2 Assignment Proportions for Mathematics**

| Grade | Proportion | Performance task name | # of items |
|---|---|---|---|
| 3 | 0.22 | FITNESS CHALLENGE | 4 |
| 3 | 0.33 | MAKING SANDWICHES | 6 |
| 3 | 0.22 | SCHOOL LIBRARY | 4 |
| 3 | 0.22 | SCIENCE KIT | 4 |
| 4 | 0.32 | CLASSPET | 6 |
| 4 | 0.26 | COMMUNITY GARDEN | 5 |
| 4 | 0.21 | FIELD TRIP | 4 |
| 4 | 0.21 | SOCCER | 4 |
| 5 | 0.27 | CABINET ORGANIZATION | 4 |
| 5 | 0.20 | SANDBOX | 3 |
| 5 | 0.27 | SCHOOL FAIR | 4 |
| 5 | 0.27 | SPACE MUSEUM | 4 |
| 6 | 0.33 | AMUSEMENT PARK | 6 |
| 6 | 0.33 | BUDGETING | 6 |
| 6 | 0.33 | TALENT SHOW | 6 |
| 7 | 0.38 | DONUTS | 6 |
| 7 | 0.38 | MINIATURE GOLF | 6 |
| 7 | 0.25 | WALKING PATH | 4 |
| 8 | 0.33 | SIGNS | 6 |
| 8 | 0.33 | SOUTH POLE | 6 |
| 8 | 0.33 | YOGURT | 6 |
| 11 | 0.12 | GREAT COFFEE CUP | 2 |
| 11 | 0.29 | LANDSURVEY | 5 |
| 11 | 0.24 | ROOFTRUSS | 4 |
| 11 | 0.35 | 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 Total | Min | 25% | 50% | 75% | Max | Mean | Mode |
|---|---|---|---|---|---|---|---|---|---|
| ELA | 3 | 472,496 | 12 | 43 | 44 | 44 | 45 | 43.72 | 44 |
| | 4 | 462,551 | 12 | 44 | 45 | 45 | 45 | 44.44 | 45 |
| | 5 | 460,076 | 13 | 45 | 45 | 45 | 46 | 44.81 | 45 |
| | 6 | 456,022 | 12 | 42 | 43 | 44 | 46 | 43.01 | 43 |
| | 7 | 449,271 | 12 | 43 | 44 | 44 | 46 | 43.54 | 44 |
| | 8 | 450,956 | 12 | 44 | 45 | 45 | 46 | 44.50 | 45 |
| | 11 | 421,313 | 13 | 43 | 43 | 44 | 46 | 43.41 | 43 |
| Mathematics | 3 | 474,113 | 15 | 39 | 40 | 40 | 40 | 39.66 | 40 |
| | 4 | 464,260 | 14 | 38 | 39 | 40 | 40 | 38.97 | 40 |
| | 5 | 461,432 | 14 | 39 | 40 | 40 | 40 | 39.66 | 40 |
| | 6 | 457,351 | 15 | 39 | 39 | 39 | 39 | 38.81 | 39 |
| | 7 | 450,163 | 14 | 39 | 40 | 40 | 40 | 39.40 | 40 |
| | 8 | 451,675 | 14 | 38 | 39 | 39 | 40 | 38.75 | 39 |
| | 11 | 419,018 | 14 | 41 | 41 | 42 | 42 | 41.18 | 42 |

**Table 5.B.2 Summary of Items Presented in the CAT Component of the Test**

| Content Area | Grade | No. Examinees Total | Min | 25% | 50% | 75% | Max | Mean | Mode |
|---|---|---|---|---|---|---|---|---|---|
| ELA | 3 | 472,496 | 10 | 39 | 39 | 40 | 40 | 39.30 | 39 |
| | 4 | 462,551 | 10 | 40 | 40 | 40 | 40 | 39.98 | 40 |
| | 5 | 460,076 | 10 | 40 | 40 | 40 | 41 | 40.06 | 40 |
| | 6 | 456,022 | 10 | 38 | 39 | 39 | 41 | 38.66 | 38 |
| | 7 | 449,271 | 10 | 39 | 39 | 40 | 41 | 39.39 | 39 |
| | 8 | 450,956 | 10 | 40 | 40 | 40 | 41 | 40.04 | 40 |
| | 11 | 421,313 | 10 | 39 | 39 | 39 | 41 | 39.05 | 39 |
| Mathematics | 3 | 474,113 | 10 | 34 | 34 | 34 | 34 | 33.99 | 34 |
| | 4 | 464,260 | 10 | 34 | 34 | 34 | 34 | 33.99 | 34 |
| | 5 | 461,432 | 10 | 34 | 34 | 34 | 34 | 33.99 | 34 |
| | 6 | 457,351 | 10 | 33 | 33 | 33 | 33 | 32.98 | 33 |
| | 7 | 450,163 | 10 | 34 | 34 | 34 | 34 | 33.96 | 34 |
| | 8 | 451,675 | 10 | 34 | 34 | 34 | 34 | 33.97 | 34 |
| | 11 | 419,018 | 10 | 36 | 36 | 36 | 36 | 35.94 | 36 |

**Table 5.B.3 Summary of Items Presented in the PT Component of the Test**

| Content Area | Grade | No. Examinees Total | Min | 25% | 50% | 75% | Max | Mean | Mode |
|---|---|---|---|---|---|---|---|---|---|
| ELA | 3 | 472,496 | 2 | 4 | 4 | 5 | 5 | 4.43 | 4 |
| | 4 | 462,551 | 1 | 4 | 5 | 5 | 5 | 4.47 | 5 |
| | 5 | 460,076 | 2 | 4 | 5 | 5 | 5 | 4.75 | 5 |
| | 6 | 456,022 | 2 | 4 | 4 | 5 | 5 | 4.35 | 4 |
| | 7 | 449,271 | 2 | 4 | 4 | 4 | 5 | 4.15 | 4 |
| | 8 | 450,956 | 2 | 4 | 4 | 5 | 5 | 4.47 | 4 |
| | 11 | 421,313 | 2 | 4 | 4 | 5 | 5 | 4.36 | 4 |
| Mathematics | 3 | 474,113 | 5 | 5 | 6 | 6 | 6 | 5.67 | 6 |
| | 4 | 464,260 | 3 | 4 | 5 | 6 | 6 | 4.98 | 6 |
| | 5 | 461,432 | 4 | 5 | 6 | 6 | 6 | 5.67 | 6 |
| | 6 | 457,351 | 5 | 6 | 6 | 6 | 6 | 5.83 | 6 |
| | 7 | 450,163 | 4 | 5 | 6 | 6 | 6 | 5.43 | 6 |
| | 8 | 451,675 | 4 | 4 | 5 | 5 | 6 | 4.78 | 5 |
| | 11 | 419,018 | 4 | 5 | 5 | 6 | 6 | 5.24 | 6 |

**Table 5.B.4 Percent of Students Meeting Blueprint**

| | | | | Claim 1 | | | Claim 2 | | | Claim 3 | | | Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Percent of students meeting blue prints | Not meeting | Meeting | Exceeding | Not meeting | Meeting | Exceeding | Not meeting | Meeting | Exceeding | Not meeting | Meeting | Exceeding |
| ELA | 3 | 472,674 | 99.54 | 0.18 | 99.82 | 0.00 | 0.42 | 99.47 | 0.10 | 0.12 | 99.88 | 0.00 | 0.23 | 99.77 | 0.00 |
| | 4 | 462,679 | 94.37 | 0.15 | 99.85 | 0.00 | 0.34 | 99.66 | 0.00 | 0.10 | 99.90 | 0.00 | 5.48 | 94.52 | 0.00 |
| | 5 | 460,190 | 99.72 | 0.14 | 99.86 | 0.00 | 0.26 | 99.74 | 0.00 | 0.11 | 99.89 | 0.00 | 0.02 | 99.98 | 0.00 |
| | 6 | 456,321 | 99.41 | 0.35 | 99.65 | 0.00 | 0.57 | 99.16 | 0.27 | 0.31 | 99.69 | 0.00 | 0.22 | 99.78 | 0.00 |
| | 7 | 449,714 | 99.21 | 0.45 | 99.55 | 0.00 | 0.64 | 96.89 | 2.47 | 0.39 | 99.61 | 0.00 | 0.46 | 99.54 | 0.00 |
| | 8 | 451,185 | 99.14 | 0.39 | 99.61 | 0.00 | 0.86 | 99.14 | 0.00 | 0.34 | 99.66 | 0.00 | 0.50 | 99.50 | 0.00 |
| | 11 | 422,098 | 98.49 | 0.55 | 99.44 | 0.01 | 1.39 | 98.61 | 0.00 | 0.80 | 99.20 | 0.00 | 0.96 | 99.04 | 0.00 |
| Mathematics | 3 | 474,261 | 99.88 | 0.09 | 99.85 | 0.06 | 0.07 | 83.03 | 16.90 | 0.11 | 94.20 | 5.68 | | | |
| | 4 | 464,355 | 99.90 | 0.07 | 99.90 | 0.03 | 0.07 | 99.93 | 0.00 | 0.10 | 99.90 | 0.00 | | | |
| | 5 | 461,617 | 99.89 | 0.09 | 99.91 | 0.00 | 0.07 | 99.91 | 0.01 | 0.11 | 99.89 | 0.00 | | | |
| | 6 | 457,550 | 99.79 | 0.20 | 99.79 | 0.00 | 0.04 | 99.95 | 0.00 | 0.09 | 94.43 | 5.48 | | | |
| | 7 | 450,395 | 99.67 | 0.32 | 99.68 | 0.00 | 0.09 | 99.89 | 0.03 | 0.19 | 99.81 | 0.00 | | | |
| | 8 | 451,965 | 99.68 | 0.32 | 99.68 | 0.00 | 0.17 | 99.82 | 0.01 | 0.22 | 99.78 | 0.00 | | | |
| | 11 | 419,508 | 99.44 | 0.38 | 99.59 | 0.03 | 0.56 | 99.44 | 0.00 | 0.30 | 93.81 | 5.88 | | | |

# Chapter 6: Standard Setting

## 6.1. Description

Standard setting, which is also 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, 2015).

# Reference

Smarter Balanced Assessment Consortium. (2015). *2013–14 Technical report.* Retrieved from http://www.smarterbalanced.org/wp-content/uploads/2015/08/2013-14_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 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 *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 2015b). The combination of the CAT and the PT components fulfills the content requirements for the test blueprint (see Appendix 2.A on page 19).

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, and 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. | English language arts/literacy (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 as well as short-text 0–2 point items and WER items worth 0–6 points. A small number of mathematics performance tasks 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, 2015).

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, as well as the metrics used to evaluate rater accuracy that apply to the human scoring of CR items. ETS’s subcontractor, 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 is 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, 2014a).

## 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 at 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* section on page 105 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
- Raters must be 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. California educations should meet the following qualifications:

- Must have a current California teaching credential
- California charter school teachers who may or may not have a teaching credential
- 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 *Rater Training* on page 106 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 electronically captured 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, ten 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 to provide additional quality review.

Validity papers are also used to monitor rater performance. Validity papers 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 following information:

- 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;
- read rate, which is defined as the number of response read per hour;
- individual and overall percentage of agreement for validity paper ratings; and
- 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 are then 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 correction 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 294.

### 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 *Quality Control of Psychometric Processes* on page 497.

## 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/Literacy 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
- Conventions

Writing traits for narrative writing are:

- Organization/Purpose
- Development/Elaboration
- Conventions

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

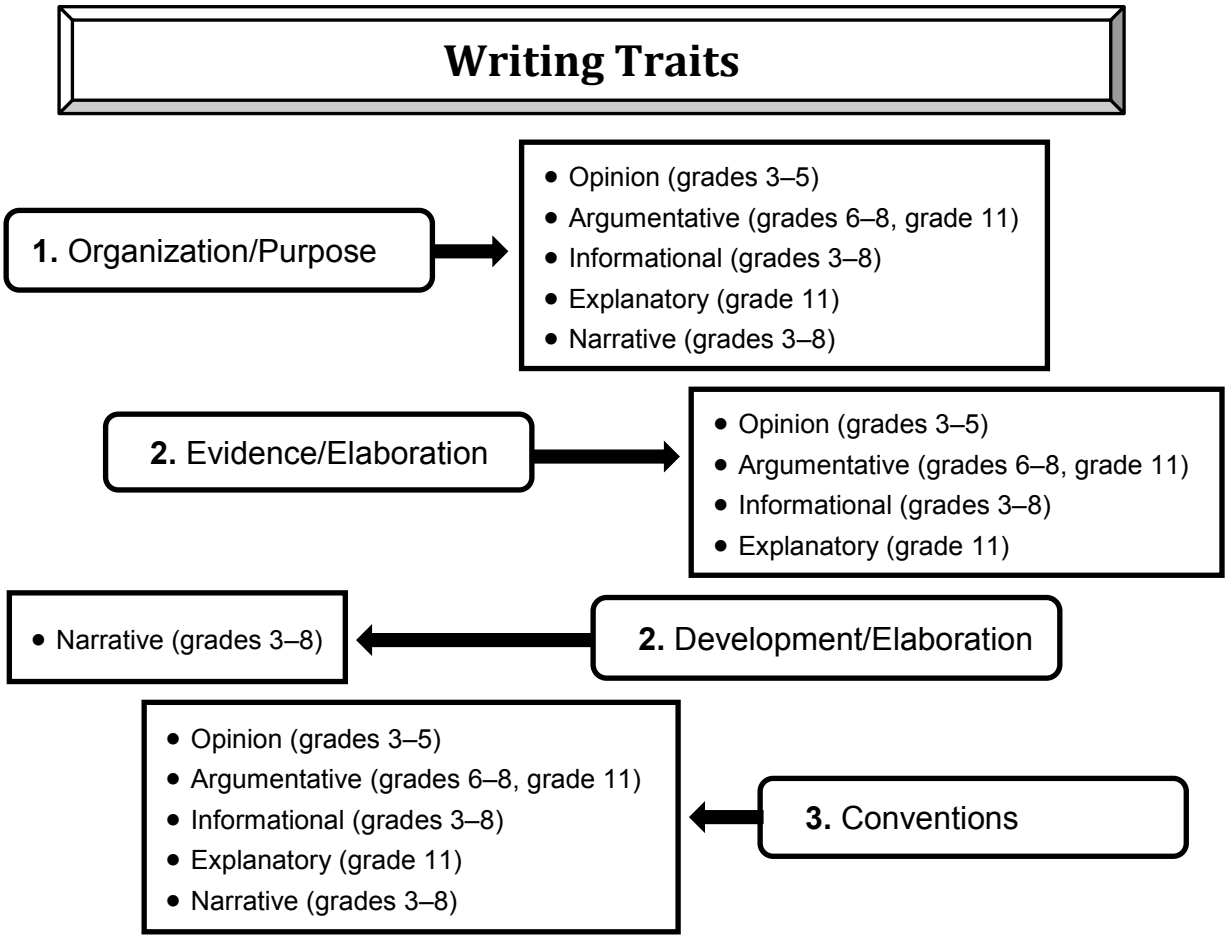


**Figure 7.1 Writing Traits**

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-Finding[1]
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/Literacy 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.

**Training steps:**

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.

**Materials for short answer item training:**

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.

**Training Steps:**

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.
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.

**Material for mathematics training:**

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, 2014b).

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** | **Insufficient**<br>a. Use the "I" code when a student has not provided a meaningful response; for example:<br>• Random keystrokes<br>• Undecipherable text<br>• "I hate this test"<br>• "I don't know, IDK"<br>• "I don't care"<br>• "I like pizza!" (in response to a reading passage about helicopters)<br>• Response consisting entirely of profanity<br>b. For ELA WER items, use the "I" code (Insufficient) for responses described above and also if:<br>• 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<br>• Response is too brief to make a determination regarding whether it is on purpose or on topic |
| **L** | **Nonscorable Language**<br>ELA: Language other than English<br>Mathematics: Language other than English or Spanish |
| **T** | **Off-Topic for ELA WER Items Only**<br>• 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)<br>• "Off topic" responses are generally substantial responses |
| **M** | **Off-Purpose for ELA WER Items Only**<br>The student has clearly not written to the purpose designated in the task.<br>• An off-purpose response addresses the topic of the task but not the purpose of the task.<br>• Students may use narrative techniques in an explanatory essay or use argumentative/persuasive techniques to explain, for example, and still be on purpose.<br>• 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 collects, scores, and delivers individual students' scores to the ETS reporting system; the parallel scoring system developed by ETS Technology and Information Processing Services collects and scores individual students' scores. The scores from the two systems are then compared for the purpose of internal quality control. The two scoring systems independently apply the same methods, scoring algorithms, and specifications. Students' scores are reported when the two parallel systems produce identical results.

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

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

where,

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

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

$a_i$ 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 $\theta_j$, given the observed response vector $U$, is:

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

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

where,

$l$ 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:

$$\theta_t = \theta_{t-1} - \frac{L'_{t-1}}{L''_{t-1}} \tag{7.3}$$

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 117.

### *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 -∞.
- The student got the highest possible score on the total test, which would lead to an MLE of +∞.
- 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 | $\theta$ | |
|---|---|---|---|
| | | 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.

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

where,

$\theta_{adj}$ is a student's incomplete theta score,

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

$\theta_{min}$ 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:

For ELA: $$SS = 85.8\,\theta + 2508.2 \tag{7.5}$$

For mathematics: $$SS = 79.3\,\theta + 2514.9 \tag{7.6}$$

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, 2015c) and the *Smarter Balanced Scoring Specification: 2014–2015 Administration* (2015).

**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 |
| 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, 2015c) for details related to the standard setting procedure; *Reporting Achievement Level Descriptors* (Smarter Balanced, 2015d) for the descriptors used to describe Smarter Balanced achievement levels; and *Interpretation and Use of Scores and Achievement Levels* (Smarter Balanced, 2014c) 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 ($\theta$) 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 19.

**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. |

| Content Area | Claim | Description |
|---|---|---|
| **Mathematics**<br>*Note*: In mathematics, claims 2 and 4 are reported together, so there are only three reporting categories with four claims. | 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. |

#### 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 Achievement Levels for Claims

The relative strengths and weaknesses for each student are reported for each claim. The three achievement 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 scores is included in the determination of the student's estimated theta score on a claim. $\theta_{claim}$ is a student's estimated theta score on a claim. A range of possible student thetas is calculated for each student from $\theta_{Claim} - 1.5 \times SE_{\theta_{Claim}}$ to $\theta_{Claim} + 1.5 \times SE_{\theta_{Claim}}$, 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 "Met" achievement classification, the claim achievement 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 "Met" achievement classification, the claim achievement level is reported as

"Above Standard." This claim achievement level is also reported when all student responses are correct.

Theta 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 $\theta_j$ is:

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

where,

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

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

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:

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

where,

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

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

and

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

where

$p_{ih}(\theta_j)$ is the probability of an examinee with $\theta_j$ 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, 2015).

### 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:

$$SE_{scaled} = a * SE_{\theta_j} \tag{7.12}$$

where

$SE_\theta$ is the standard error of the ability estimate on the $\theta$ scale ,

and $a$ is the slope of the scaling constants that transform $\theta$ 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

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

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.

## 7.5. 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, 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 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 7.10. 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. 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 7.11.

**Table 7.10 Mean and Standard Deviation of Theta and Scale Scores**

| | | | Scale Score | | Theta Score | |
|---|---|---|---|---|---|---|
| Content Area | Grade | Number of Students | Mean | SD | Mean | SD |
| ELA | 3 | 472,674 | 2403 | 88 | –1.23 | 1.02 |
| | 4 | 462,679 | 2446 | 93 | –0.73 | 1.08 |
| | 5 | 460,190 | 2487 | 95 | –0.25 | 1.10 |
| | 6 | 456,321 | 2512 | 92 | 0.04 | 1.07 |
| | 7 | 449,714 | 2531 | 97 | 0.27 | 1.12 |
| | 8 | 451,185 | 2552 | 95 | 0.52 | 1.10 |
| | 11 | 422,098 | 2591 | 110 | 0.97 | 1.28 |
| Mathematics | 3 | 474,261 | 2415 | 80 | –1.26 | 1.01 |
| | 4 | 464,355 | 2454 | 81 | –0.77 | 1.02 |
| | 5 | 461,617 | 2480 | 90 | –0.44 | 1.13 |
| | 6 | 457,550 | 2504 | 102 | –0.13 | 1.29 |
| | 7 | 450,395 | 2518 | 109 | 0.04 | 1.38 |
| | 8 | 451,965 | 2534 | 116 | 0.24 | 1.47 |
| | 11 | 419,508 | 2560 | 125 | 0.57 | 1.58 |

**Table 7.11 Percentages and Counts of Students in Achievement Levels for CAASPP Online Summative Assessments**

| | | Standard Not Met | | Standard Nearly Met | | Standard Met | | Standard Exceeded | | Standard Met/ Exceeded * | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | n | % | n | % | n | % | n | % | n | % |
| ELA | 3 | 170,767 | 36 | 124,621 | 26 | 94,053 | 20 | 83,233 | 18 | 177,286 | 38 |
| | 4 | 181,029 | 39 | 98,855 | 21 | 94,947 | 21 | 87,848 | 19 | 182,795 | 40 |
| | 5 | 155,478 | 34 | 98,662 | 21 | 126,124 | 27 | 79,926 | 17 | 206,050 | 45 |
| | 6 | 128,732 | 28 | 132,503 | 29 | 134,469 | 29 | 60,617 | 13 | 195,086 | 43 |
| | 7 | 139,302 | 31 | 114,520 | 25 | 142,405 | 32 | 53,487 | 12 | 195,892 | 44 |
| | 8 | 115,826 | 26 | 131,481 | 29 | 150,604 | 33 | 53,274 | 12 | 203,878 | 45 |
| | 11 | 84,369 | 20 | 102,568 | 24 | 139,951 | 33 | 95,210 | 23 | 235,161 | 56 |
| Mathematics | 3 | 157,269 | 33 | 126,157 | 27 | 124,278 | 26 | 66,557 | 14 | 190,835 | 40 |
| | 4 | 142,408 | 31 | 161,100 | 35 | 101,560 | 22 | 59,287 | 13 | 160,847 | 35 |
| | 5 | 189,045 | 41 | 132,398 | 29 | 71,243 | 15 | 68,931 | 15 | 140,174 | 30 |
| | 6 | 165,353 | 36 | 141,778 | 31 | 82,021 | 18 | 68,398 | 15 | 150,419 | 33 |
| | 7 | 166,921 | 37 | 131,422 | 29 | 85,325 | 19 | 66,727 | 15 | 152,052 | 34 |
| | 8 | 183,683 | 41 | 118,529 | 26 | 75,459 | 17 | 74,294 | 16 | 149,753 | 33 |
| | 11 | 190,798 | 45 | 104,315 | 25 | 76,935 | 18 | 47,460 | 11 | 124,395 | 30 |

* 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.

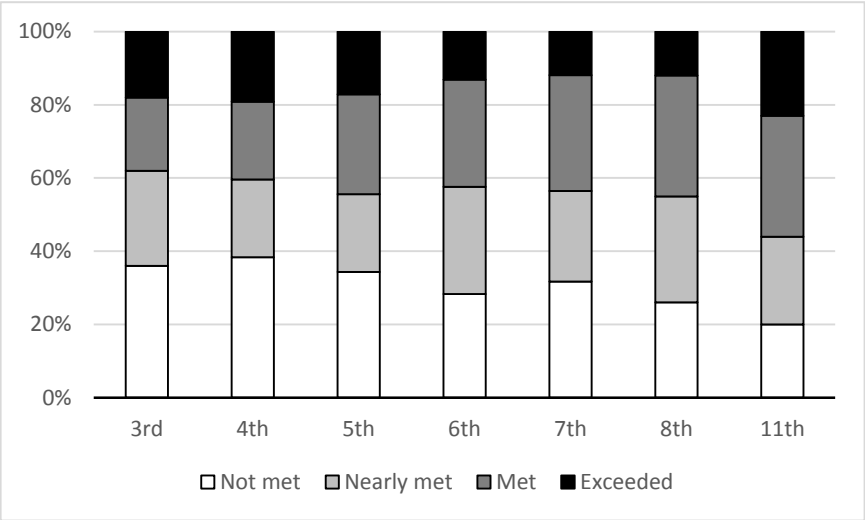


**Figure 7.5 Percentages of Achievement Levels in ELA**

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

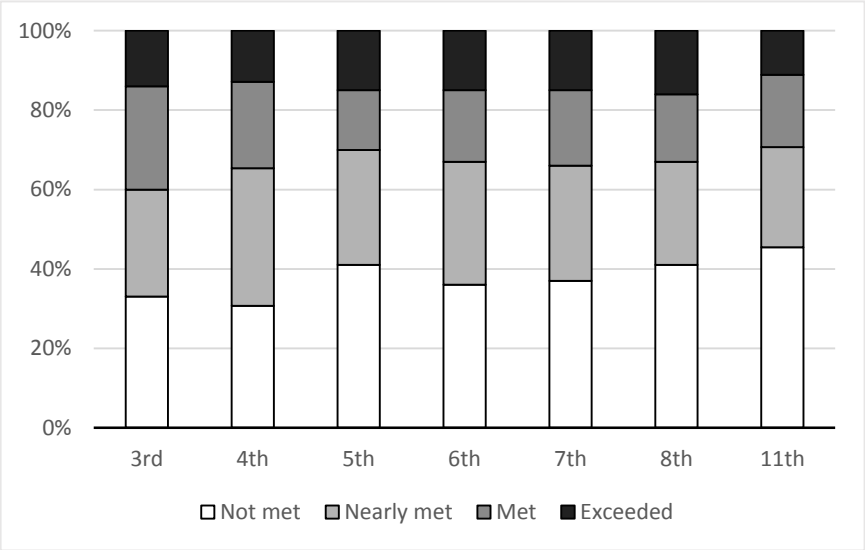


**Figure 7.6 Percentages of Achievement Levels in Mathematics**

Detailed score distribution information is available in Appendix 7. Table 7.B.1 and Table 7.B.2 in Appendix 7.B on page 147 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 achievement level as well as the percentage of students in that claim achievement 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 189 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), need for special education services, 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 achievement level.

Table 7.12 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 7.12 Demographic Groups to Be Reported**

| | Subgroups |
|---|---|
| Gender | Male<br>Female<br>Gender Unknown |
| Ethnicity | American Indian or Alaska Native<br>Asian<br>Black or African American<br>Filipino<br>Hispanic or Latino<br>Native Hawaiian or Pacific Islander<br>White<br>Two or More Races |
| English-language Fluency | English only<br>Initially fluent English proficient<br>English learner<br>Reclassified fluent English proficient<br>To be determined<br>English proficiency Unknown |
| Economic Status | Not economically disadvantaged<br>Economically disadvantaged<br>Unknown Economic Status |
| Primary Disability Type | No special services<br>Special services<br>Special Ed Unknown |
| Migrant Status | Change school or LEA<br>Remain in the same school or LEA |

## 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 section 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, and
- 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 provides 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 achievement 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 format.

### 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 who 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 achievement 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 CAASPP Post-Test Guide* (CDE, 2015).

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# Appendix 7.A: Participation Rates

**Notes:**

- The number of students is derived from the 2014–15 data that were received on October 5, 2015.
- 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 (R-FEP) | Initially Fluent English Proficient (I-FEP) | To Be Determined (TBD) | No Response |
| **Number of students** | 488,520 | 250,078 | 238,442 | 156,080 | 280,098 | 31,333 | 18,446 | 531 | 2,032 |
| **Number of participants** | 475,228 | 242,970 | 232,258 | 151,983 | 272,558 | 31,146 | 18,192 | 274 | 1,075 |
| **Percent of participation** | 97.28% | 97.16% | 97.41% | 97.38% | 97.31% | 99.40% | 98.62% | 51.60% | 52.90% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 302,768 | 185,752 | 2,689 | 42,343 | 2,323 | 11,210 | 268,169 | 27,786 | 114,682 | 16,321 | 2,997 |
| **Number of participants** | 296,138 | 179,090 | 2,571 | 40,935 | 2,232 | 10,799 | 262,896 | 26,688 | 110,663 | 15,534 | 2,910 |
| **Percent of participation** | 97.81% | 96.41% | 95.61% | 96.67% | 96.08% | 96.33% | 98.03% | 96.05% | 96.50% | 95.18% | 97.10% |

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

| | | Gender | | English-Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 477,280 | 243,394 | 233,886 | 124,146 | 270,191 | 62,361 | 18,463 | 459 | 1,660 |
| **Number of participants** | 465,425 | 237,085 | 228,340 | 120,692 | 263,352 | 62,035 | 18,183 | 237 | 926 |
| **Percent of participation** | 97.52% | 97.41% | 97.63% | 97.22% | 97.47% | 99.48% | 98.48% | 51.63% | 55.78% |

**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/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 293,370 | 183,910 | 2,615 | 42,518 | 2,383 | 11,509 | 258,890 | 27,231 | 114,520 | 15,058 | 2,556 |
| **Number of participants** | 287,408 | 178,017 | 2,485 | 41,255 | 2,301 | 11,206 | 254,171 | 26,270 | 110,821 | 14,443 | 2,473 |
| **Percent of participation** | 97.97% | 96.80% | 95.03% | 97.03% | 96.56% | 97.37% | 98.18% | 96.47% | 96.77% | 95.92% | 96.75% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 479,011 | 245,785 | 233,226 | 105,750 | 268,760 | 81,882 | 20,623 | 460 | 1,536 |
| **Number of participants** | 462,675 | 236,304 | 226,371 | 100,933 | 259,150 | 81,255 | 20,290 | 224 | 823 |
| **Percent of participation** | 96.59% | 96.14% | 97.06% | 95.44% | 96.42% | 99.23% | 98.39% | 48.70% | 53.58% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 290,198 | 188,813 | 2,686 | 43,919 | 2,499 | 12,265 | 255,384 | 28,057 | 117,791 | 13,867 | 2,543 |
| **Number of participants** | 281,427 | 181,248 | 2,548 | 42,352 | 2,402 | 11,836 | 248,199 | 26,679 | 113,040 | 13,174 | 2,445 |
| **Percent of participation** | 96.98% | 95.99% | 94.86% | 96.43% | 96.12% | 96.50% | 97.19% | 95.09% | 95.97% | 95.00% | 96.15% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 470,945 | 240,829 | 230,116 | 79,895 | 262,014 | 105,187 | 21,888 | 479 | 1,482 |
| **Number of participants** | 459,401 | 234,656 | 224,745 | 76,945 | 255,197 | 104,577 | 21,621 | 280 | 781 |
| **Percent of participation** | 97.55% | 97.44% | 97.67% | 96.31% | 97.40% | 99.42% | 98.78% | 58.46% | 52.70% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 283,852 | 187,093 | 2,679 | 42,955 | 2,384 | 12,766 | 249,656 | 27,896 | 117,103 | 12,470 | 3,036 |
| **Number of participants** | 277,942 | 181,459 | 2,547 | 41,934 | 2,314 | 12,486 | 245,109 | 26,830 | 113,383 | 11,844 | 2,954 |
| **Percent of participation** | 97.92% | 96.99% | 95.07% | 97.62% | 97.06% | 97.81% | 98.18% | 96.18% | 96.82% | 94.98% | 97.30% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 466,612 | 238,270 | 228,342 | 69,582 | 257,311 | 116,682 | 20,946 | 476 | 1,615 |
| **Number of participants** | 453,373 | 231,152 | 222,221 | 66,445 | 249,299 | 115,829 | 20,641 | 250 | 909 |
| **Percent of participation** | 97.16% | 97.01% | 97.32% | 95.49% | 96.89% | 99.27% | 98.54% | 52.52% | 56.28% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 279,967 | 186,645 | 2,868 | 41,630 | 2,446 | 12,858 | 247,960 | 28,711 | 115,764 | 11,829 | 2,546 |
| **Number of participants** | 272,876 | 180,497 | 2,723 | 40,634 | 2,353 | 12,545 | 242,344 | 27,369 | 111,759 | 11,200 | 2,446 |
| **Percent of participation** | 97.47% | 96.71% | 94.94% | 97.61% | 96.20% | 97.57% | 97.74% | 95.33% | 96.54% | 94.68% | 96.07% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 474,479 | 243,177 | 231,302 | 63,677 | 260,527 | 126,717 | 21,565 | 343 | 1,650 |
| **Number of participants** | 455,494 | 232,555 | 222,939 | 59,042 | 248,977 | 125,318 | 21,132 | 187 | 838 |
| **Percent of participation** | 96.00% | 95.63% | 96.38% | 92.72% | 95.57% | 98.90% | 97.99% | 54.52% | 50.79% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 281,180 | 193,299 | 2,864 | 42,220 | 2,435 | 13,526 | 250,638 | 30,219 | 118,612 | 11,373 | 2,592 |
| **Number of participants** | 270,611 | 184,883 | 2,654 | 40,902 | 2,339 | 13,034 | 241,998 | 28,305 | 113,261 | 10,555 | 2,446 |
| **Percent of participation** | 96.24% | 95.65% | 92.67% | 96.88% | 96.06% | 96.36% | 96.55% | 93.67% | 95.49% | 92.81% | 94.37% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 479,423 | 244,823 | 234,600 | 49,065 | 267,613 | 121,647 | 39,152 | 367 | 1,579 |
| **Number of participants** | 432,825 | 220,120 | 212,705 | 41,497 | 238,319 | 115,339 | 36,683 | 199 | 788 |
| **Percent of participation** | 90.28% | 89.91% | 90.67% | 84.58% | 89.05% | 94.81% | 93.69% | 54.22% | 49.91% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 263,774 | 215,649 | 3,261 | 41,556 | 2,694 | 14,765 | 247,120 | 31,242 | 125,232 | 11,722 | 1,831 |
| **Number of participants** | 238,727 | 194,098 | 2,726 | 39,170 | 2,440 | 13,963 | 224,949 | 26,730 | 111,128 | 10,162 | 1,557 |
| **Percent of participation** | 90.50% | 90.01% | 83.59% | 94.26% | 90.57% | 94.57% | 91.03% | 85.56% | 88.74% | 86.69% | 85.04% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 488,520 | 250,078 | 238,442 | 156,080 | 280,098 | 31,333 | 18,446 | 531 | 2,032 |
| **Number of participants** | 477,045 | 243,931 | 233,114 | 153,537 | 272,409 | 31,148 | 18,192 | 392 | 1,367 |
| **Percent of participation** | 97.65% | 97.54% | 97.77% | 98.37% | 97.25% | 99.41% | 98.62% | 73.82% | 67.27% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 302,768 | 185,752 | 2,689 | 42,343 | 2,323 | 11,210 | 268,169 | 27,786 | 114,682 | 16,321 | 2,997 |
| **Number of participants** | 297,128 | 179,917 | 2,569 | 41,484 | 2,239 | 10,900 | 263,880 | 26,674 | 110,835 | 15,540 | 2,924 |
| **Percent of participation** | 98.14% | 96.86% | 95.54% | 97.97% | 96.38% | 97.23% | 98.40% | 96.00% | 96.65% | 95.21% | 97.56% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 477,280 | 243,394 | 233,886 | 124,146 | 270,191 | 62,361 | 18,463 | 459 | 1,660 |
| **Number of participants** | 466,980 | 237,918 | 229,062 | 122,115 | 263,133 | 62,025 | 18,170 | 331 | 1,206 |
| **Percent of participation** | 97.84% | 97.75% | 97.94% | 98.36% | 97.39% | 99.46% | 98.41% | 72.11% | 72.65% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 293,370 | 183,910 | 2,615 | 42,518 | 2,383 | 11,509 | 258,890 | 27,231 | 114,520 | 15,058 | 2,556 |
| **Number of participants** | 288,308 | 178,672 | 2,485 | 41,774 | 2,301 | 11,311 | 255,013 | 26,247 | 110,898 | 14,456 | 2,495 |
| **Percent of participation** | 98.27 | 97.15 | 95.03 | 98.25 | 96.56 | 98.28 | 98.50 | 96.39 | 96.84 | 96.00 | 97.61 |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 479,011 | 245,785 | 233,226 | 105,750 | 268,760 | 81,882 | 20,623 | 460 | 1,536 |
| **Number of participants** | 464,153 | 237,068 | 227,085 | 102,242 | 258,960 | 81,248 | 20,292 | 318 | 1,093 |
| **Percent of participation** | 96.90% | 96.45% | 97.37% | 96.68% | 96.35% | 99.23% | 98.39% | 69.13% | 71.16% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 290,198 | 188,813 | 2,686 | 43,919 | 2,499 | 12,265 | 255,384 | 28,057 | 117,791 | 13,867 | 2,543 |
| **Number of participants** | 282,277 | 181,876 | 2,551 | 42,825 | 2,407 | 11,903 | 249,029 | 26,651 | 113,142 | 13,194 | 2,451 |
| **Percent of participation** | 97.27% | 96.33% | 94.97% | 97.51% | 96.32% | 97.05% | 97.51% | 94.99% | 96.05% | 95.15% | 96.38% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 470,945 | 240,829 | 230,116 | 79,895 | 262,014 | 105,187 | 21,888 | 479 | 1,482 |
| **Number of participants** | 460,624 | 235,282 | 225,342 | 78,172 | 254,937 | 104,543 | 21,613 | 353 | 1,006 |
| **Percent of participation** | 97.81% | 97.70% | 97.93% | 97.84% | 97.30% | 99.39% | 98.74% | 73.70% | 67.88% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 283,852 | 187,093 | 2,679 | 42,955 | 2,384 | 12,766 | 249,656 | 27,896 | 117,103 | 12,470 | 3,036 |
| **Number of participants** | 278,650 | 181,974 | 2,539 | 42,347 | 2,320 | 12,575 | 245,754 | 26,799 | 113,483 | 11,839 | 2,968 |
| **Percent of participation** | 98.17% | 97.26% | 94.77% | 98.58% | 97.32% | 98.50% | 98.44% | 96.07% | 96.91% | 94.94% | 97.76% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 466,612 | 238,270 | 228,342 | 69,582 | 257,311 | 116,682 | 20,946 | 476 | 1,615 |
| **Number of participants** | 454,517 | 231,752 | 222,765 | 67,677 | 248,925 | 115,772 | 20,636 | 348 | 1,159 |
| **Percent of participation** | 97.41% | 97.26% | 97.56% | 97.26% | 96.74% | 99.22% | 98.52% | 73.11% | 71.76% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 279,967 | 186,645 | 2,868 | 41,630 | 2,446 | 12,858 | 247,960 | 28,711 | 115,764 | 11,829 | 2,546 |
| **Number of participants** | 273,587 | 180,930 | 2,725 | 41,046 | 2,355 | 12,621 | 243,053 | 27,311 | 111,748 | 11,193 | 2,465 |
| **Percent of participation** | 97.72% | 96.94% | 95.01% | 98.60% | 96.28% | 98.16% | 98.02% | 95.12% | 96.53% | 94.62% | 96.82% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 474,479 | 243,177 | 231,302 | 63,677 | 260,527 | 126,717 | 21,565 | 343 | 1,650 |
| **Number of participants** | 456,448 | 233,054 | 223,394 | 60,203 | 248,558 | 125,239 | 21,134 | 254 | 1,060 |
| **Percent of participation** | 96.20% | 95.84% | 96.58% | 94.54% | 95.41% | 98.83% | 98.00% | 74.05% | 64.24% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 281,180 | 193,299 | 2,864 | 42,220 | 2,435 | 13,526 | 250,638 | 30,219 | 118,612 | 11,373 | 2,592 |
| **Number of participants** | 271,225 | 185,223 | 2,652 | 41,269 | 2,342 | 13,132 | 242,644 | 28,211 | 113,180 | 10,550 | 2,468 |
| **Percent of participation** | 96.46% | 95.82% | 92.60% | 97.75% | 96.18% | 97.09% | 96.81% | 93.36% | 95.42% | 92.76% | 95.22% |

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

| | | Gender | | English Language Fluency | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All | Male | Female | EL | EO | R-FEP | I-FEP | TBD | No Response |
| **Number of students** | 479,423 | 244,823 | 234,600 | 49,065 | 267,613 | 121,647 | 39,152 | 367 | 1,579 |
| **Number of participants** | 430,227 | 218,922 | 211,305 | 41,543 | 236,385 | 114,702 | 36,473 | 205 | 919 |
| **Percent of participation** | 89.74% | 89.42% | 90.07% | 84.67% | 88.33% | 94.29% | 93.16% | 55.86% | 58.20% |

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

| | Economic Status | | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Economically Disadvantaged | Not Economically Disadvantaged | American Indian/ Alaskan Native | Asian | Pacific Islander | Filipino | Hispanic or Latino | African American | White | Two or More Races | Unknown |
| **Number of students** | 263,774 | 215,649 | 3,261 | 41,556 | 2,694 | 14,765 | 247,120 | 31,242 | 125,232 | 11,722 | 1,831 |
| **Number of participants** | 237,190 | 193,037 | 2,688 | 39,235 | 2,428 | 13,942 | 223,473 | 26,415 | 110,417 | 10,072 | 1,557 |
| **Percent of participation** | 89.92% | 89.51% | 82.43% | 94.41% | 90.13% | 94.43% | 90.43% | 84.55% | 88.17% | 85.92% | 85.04% |

# 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] | 103 | – | – | – | – | – | – |
| (–4.5,–4.0] | 424 | 174 | – | – | – | – | – |
| (–4.0,–3.5] | 2,156 | 710 | 371 | – | – | – | – |
| (–3.5,–3.0] | 11,761 | 3,648 | 1,149 | 856 | – | – | – |
| (–3.0,–2.5] | 37,857 | 15,613 | 4,900 | 2,555 | 1,896 | 993 | – |
| (–2.5,–2.0] | 63,911 | 40,150 | 17,334 | 9,386 | 5,782 | 3,059 | 4,462 |
| (–2.0,–1.5] | 79,137 | 61,249 | 40,100 | 24,307 | 18,621 | 11,023 | 9,284 |
| (–1.5,–1.0] | 83,325 | 71,456 | 61,449 | 43,413 | 38,895 | 26,366 | 19,452 |
| (–1.0,–0.5] | 74,919 | 74,420 | 68,800 | 61,834 | 55,041 | 45,222 | 28,326 |
| (–0.5,0.0] | 59,378 | 72,030 | 71,427 | 76,538 | 64,075 | 62,767 | 37,678 |
| (0.0,0.5] | 36,730 | 58,635 | 71,320 | 79,770 | 68,868 | 71,996 | 47,284 |
| (0.5,1.0] | 16,569 | 37,351 | 58,498 | 67,294 | 70,627 | 71,142 | 56,094 |
| (1.0,1.5] | 6,404 | 18,604 | 37,803 | 49,473 | 59,437 | 66,990 | 62,142 |
| (1.5,2.0] | – | 8,639 | 18,821 | 27,550 | 39,928 | 50,487 | 60,043 |
| (2.0,2.5] | – | – | 8,218 | 10,063 | 18,448 | 27,645 | 48,637 |
| (2.5,3.0] | – | – | – | 3,282 | 8,096 | 10,167 | 29,737 |
| (3.0,3.5] | – | – | – | – | – | 3,328 | 18,959 |

**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] | 3,179 | – | – | – | – | – | – |
| (–4.0,–3.5] | 5,692 | 1,752 | 1,303 | 4,238 | – | – | – |
| (–3.5,–3.0] | 12,460 | 4,263 | 2,765 | 4,725 | 8,292 | 5,605 | – |
| (–3.0,–2.5] | 27,977 | 12,528 | 8,816 | 10,149 | 8,610 | 7,500 | 9,787 |
| (–2.5,–2.0] | 57,560 | 31,746 | 21,914 | 18,820 | 17,018 | 15,980 | 10,324 |
| (–2.0,–1.5] | 85,734 | 63,126 | 46,263 | 29,891 | 27,506 | 27,220 | 19,395 |
| (–1.5,–1.0] | 91,082 | 83,404 | 71,476 | 42,684 | 40,054 | 38,456 | 30,551 |
| (–1.0,–0.5] | 83,994 | 87,530 | 76,167 | 59,525 | 53,148 | 48,767 | 40,657 |
| (–0.5,0.0] | 57,582 | 75,219 | 72,164 | 71,706 | 62,666 | 57,012 | 46,227 |
| (0.0,0.5] | 29,773 | 51,995 | 61,105 | 70,614 | 63,248 | 59,049 | 49,098 |
| (0.5,1.0] | 12,824 | 31,547 | 47,784 | 58,420 | 56,528 | 53,655 | 49,580 |
| (1.0,1.5] | 6,404 | 14,291 | 30,320 | 41,347 | 45,946 | 45,903 | 46,200 |
| (1.5,2.0] | – | 6,954 | 14,047 | 24,892 | 32,002 | 36,553 | 37,884 |
| (2.0,2.5] | – | – | 7,493 | 12,564 | 19,903 | 25,694 | 29,637 |
| (2.5,3.0] | – | – | – | 7,975 | 9,400 | 15,741 | 20,996 |
| (3.0,3.5] | – | – | – | – | 6,074 | 8,360 | 13,822 |
| (3.5,4.0] | – | – | – | – | – | 6,470 | 8,457 |
| (4.0,4.5] | – | – | – | – | – | – | 6,893 |

**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] | 6,667 | 4,734 | 17,352 | 20,744 | 1% | 1% | 4% | 4% |
| (–4.5, –4] | 786 | 3,644 | 16 | 327 | 0% | 1% | 0% | 0% |
| (–4, –3.5] | 6,972 | 8,855 | 14,870 | 9,853 | 1% | 2% | 3% | 2% |
| (–3.5, –3] | 15,031 | 19,950 | 11,844 | 23,020 | 3% | 4% | 3% | 5% |
| (–3, –2.5] | 35,896 | 37,980 | 29,535 | 38,839 | 8% | 8% | 6% | 8% |
| (–2.5, –2] | 63,978 | 57,512 | 40,560 | 57,584 | 14% | 12% | 9% | 12% |
| (–2, –1.5] | 78,196 | 72,382 | 61,924 | 63,530 | 17% | 15% | 13% | 13% |
| (–1.5, –1] | 74,683 | 78,232 | 74,474 | 62,659 | 16% | 17% | 16% | 13% |
| (–1, –0.5] | 67,144 | 72,303 | 72,090 | 60,315 | 14% | 15% | 15% | 13% |
| (–0.5, 0] | 56,178 | 53,661 | 57,977 | 53,550 | 12% | 11% | 12% | 11% |
| (0, 0.5] | 36,700 | 33,622 | 40,254 | 40,760 | 8% | 7% | 9% | 9% |
| (0.5, 1] | 18,076 | 17,564 | 24,498 | 24,124 | 4% | 4% | 5% | 5% |
| (1, HOT] | 12,208 | 12,223 | 27,170 | 17,358 | 3% | 3% | 6% | 4% |

**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] | 7,030 | 3,476 | 11,605 | 19,283 | 2% | 1% | 3% | 4% |
| (–4, –3.5] | 2,255 | 3,912 | 6,391 | 584 | 0% | 1% | 1% | 0% |
| (–3.5, –3] | 9,225 | 7,881 | 11,931 | 8,069 | 2% | 2% | 3% | 2% |
| (–3, –2.5] | 20,185 | 17,234 | 20,258 | 37,292 | 4% | 4% | 4% | 8% |
| (–2.5, –2] | 41,353 | 33,669 | 31,665 | 34,913 | 9% | 7% | 7% | 8% |
| (–2, –1.5] | 62,058 | 52,914 | 45,540 | 52,638 | 13% | 11% | 10% | 11% |
| (–1.5, –1] | 69,062 | 68,521 | 59,105 | 57,601 | 15% | 15% | 13% | 12% |
| (–1, –0.5] | 64,889 | 75,814 | 66,531 | 57,918 | 14% | 16% | 14% | 13% |
| (–0.5, 0] | 60,436 | 71,433 | 64,672 | 57,919 | 13% | 15% | 14% | 13% |
| (0, 0.5] | 52,636 | 55,081 | 54,548 | 53,601 | 11% | 12% | 12% | 12% |
| (0.5, 1] | 37,505 | 34,737 | 38,924 | 40,341 | 8% | 8% | 8% | 9% |
| (1, 1.5] | 21,378 | 19,720 | 24,324 | 23,866 | 5% | 4% | 5% | 5% |
| (1.5, HOT] | 14,552 | 18,278 | 27,116 | 18,634 | 3% | 4% | 6% | 4% |

**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] | 5,798 | 4,007 | 17,788 | 14,101 | 1% | 1% | 4% | 3% |
| (–3.5, –3] | 4,053 | 3,508 | 13,171 | 143 | 1% | 1% | 3% | 0% |
| (–3, –2.5] | 9,186 | 8,302 | 21,656 | 7,000 | 2% | 2% | 5% | 2% |
| (–2.5, –2] | 23,171 | 18,601 | 24,119 | 13,535 | 5% | 4% | 5% | 3% |
| (–2, –1.5] | 46,476 | 37,159 | 39,165 | 28,273 | 10% | 8% | 9% | 6% |
| (–1.5, –1] | 64,219 | 56,223 | 50,194 | 44,205 | 14% | 12% | 11% | 10% |
| (–1, –0.5] | 66,857 | 65,628 | 53,550 | 55,769 | 15% | 14% | 12% | 12% |
| (–0.5, 0] | 65,982 | 68,881 | 54,379 | 64,680 | 14% | 15% | 12% | 14% |
| (0, 0.5] | 61,812 | 65,470 | 52,214 | 68,193 | 13% | 14% | 11% | 15% |
| (0.5, 1] | 49,397 | 53,538 | 48,286 | 62,842 | 11% | 12% | 10% | 14% |
| (1, 1.5] | 33,071 | 37,036 | 36,470 | 47,265 | 7% | 8% | 8% | 10% |
| (1.5, 2] | 18,061 | 21,659 | 23,616 | 28,304 | 4% | 5% | 5% | 6% |
| (2, HOT] | 11,952 | 20,172 | 25,464 | 25,878 | 3% | 4% | 6% | 6% |

**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] | 11,462 | 5,386 | 14,582 | 11,444 | 3% | 1% | 3% | 3% |
| (–3, –2.5] | 15,378 | 4,703 | 9,271 | 8,336 | 3% | 1% | 2% | 2% |
| (–2.5, –2] | 18,852 | 10,491 | 18,391 | 11,705 | 4% | 2% | 4% | 3% |
| (–2, –1.5] | 36,628 | 20,944 | 21,450 | 23,094 | 8% | 5% | 5% | 5% |
| (–1.5, –1] | 53,091 | 37,594 | 32,530 | 34,017 | 12% | 8% | 7% | 7% |
| (–1, –0.5] | 61,211 | 56,780 | 50,467 | 48,904 | 13% | 12% | 11% | 11% |
| (–0.5, 0] | 63,857 | 74,067 | 53,853 | 61,141 | 14% | 16% | 12% | 13% |
| (0, 0.5] | 59,838 | 80,617 | 59,339 | 69,049 | 13% | 18% | 13% | 15% |
| (0.5, 1] | 51,154 | 67,490 | 60,407 | 68,625 | 11% | 15% | 13% | 15% |
| (1, 1.5] | 39,591 | 46,963 | 48,309 | 57,347 | 9% | 10% | 11% | 13% |
| (1.5, 2] | 24,974 | 27,960 | 32,009 | 36,350 | 5% | 6% | 7% | 8% |
| (2, 2.5] | 12,394 | 13,809 | 23,590 | 16,477 | 3% | 3% | 5% | 4% |
| (2.5, HOT] | 7,579 | 9,505 | 31,785 | 9,825 | 2% | 2% | 7% | 2% |

**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] | 11,488 | 8,988 | 15,607 | 21,006 | 3% | 2% | 3% | 5% |
| (–2.5, –2] | 12,582 | 9,148 | 16,487 | 16,040 | 3% | 2% | 4% | 4% |
| (–2, –1.5] | 23,841 | 17,408 | 24,388 | 21,481 | 5% | 4% | 5% | 5% |
| (–1.5, –1] | 42,651 | 29,559 | 33,968 | 33,921 | 9% | 7% | 8% | 8% |
| (–1, –0.5] | 57,944 | 43,809 | 48,801 | 45,578 | 13% | 10% | 11% | 10% |
| (–0.5, 0] | 62,771 | 58,077 | 54,050 | 51,728 | 14% | 13% | 12% | 12% |
| (0, 0.5] | 62,069 | 68,479 | 58,631 | 55,987 | 14% | 15% | 13% | 12% |
| (0.5, 1] | 58,554 | 69,604 | 56,177 | 60,734 | 13% | 15% | 12% | 14% |
| (1, 1.5] | 48,716 | 60,515 | 46,513 | 58,787 | 11% | 13% | 10% | 13% |
| (1.5, 2] | 33,841 | 41,442 | 37,630 | 43,361 | 8% | 9% | 8% | 10% |
| (2, 2.5] | 19,082 | 23,468 | 24,480 | 23,740 | 4% | 5% | 5% | 5% |
| (2.5, HOT] | 15,949 | 19,200 | 32,720 | 17,299 | 4% | 4% | 7% | 4% |

**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] | 8,741 | 6,065 | 15,829 | 14,292 | 2% | 1% | 4% | 3% |
| (–2.5, –2] | 8,404 | 5,907 | 12,033 | 16,885 | 2% | 1% | 3% | 4% |
| (–2, –1.5] | 14,670 | 11,989 | 16,349 | 14,763 | 3% | 3% | 4% | 3% |
| (–1.5, –1] | 28,853 | 22,564 | 27,881 | 29,245 | 6% | 5% | 6% | 6% |
| (–1, –0.5] | 45,555 | 37,906 | 39,317 | 40,785 | 10% | 8% | 9% | 9% |
| (–0.5, 0] | 57,501 | 56,751 | 52,213 | 50,492 | 13% | 13% | 12% | 11% |
| (0, 0.5] | 63,344 | 70,727 | 60,840 | 55,020 | 14% | 16% | 13% | 12% |
| (0.5, 1] | 66,596 | 73,731 | 63,245 | 60,042 | 15% | 16% | 14% | 13% |
| (1, 1.5] | 61,473 | 63,205 | 53,355 | 60,337 | 14% | 14% | 12% | 13% |
| (1.5, 2] | 48,387 | 46,080 | 41,681 | 50,187 | 11% | 10% | 9% | 11% |
| (2, 2.5] | 29,096 | 29,105 | 28,111 | 32,126 | 6% | 6% | 6% | 7% |
| (2.5, 3] | 12,711 | 15,267 | 17,660 | 15,919 | 3% | 3% | 4% | 4% |
| (3, HOT] | 5,720 | 11,873 | 22,175 | 11,037 | 1% | 3% | 5% | 2% |

**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] | 8,973 | 15,681 | 24,188 | 26,219 | 2% | 4% | 6% | 6% |
| (–2, –1.5] | 7,566 | 11,578 | 15,582 | 10,494 | 2% | 3% | 4% | 2% |
| (–1.5, –1] | 15,834 | 17,803 | 23,714 | 16,958 | 4% | 4% | 6% | 4% |
| (–1, –0.5] | 27,068 | 25,429 | 31,286 | 22,955 | 6% | 6% | 7% | 5% |
| (–0.5, 0] | 39,325 | 34,465 | 39,162 | 30,365 | 9% | 8% | 9% | 7% |
| (0, 0.5] | 51,175 | 44,247 | 44,537 | 36,783 | 12% | 10% | 11% | 9% |
| (0.5, 1] | 57,433 | 53,589 | 47,895 | 44,622 | 14% | 13% | 11% | 11% |
| (1, 1.5] | 59,259 | 57,743 | 47,370 | 52,636 | 14% | 14% | 11% | 12% |
| (1.5, 2] | 55,321 | 52,780 | 43,610 | 56,795 | 13% | 13% | 10% | 13% |
| (2, 2.5] | 43,167 | 42,409 | 35,948 | 50,966 | 10% | 10% | 9% | 12% |
| (2.5, 3] | 28,302 | 29,756 | 26,486 | 35,552 | 7% | 7% | 6% | 8% |
| (3, HOT] | 28,444 | 36,526 | 40,938 | 37,631 | 7% | 9% | 10% | 9% |

**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] | 6,494 | 22,921 | 19,023 | 1% | 5% | 4% |
| (–4, –3.5] | 6,135 | 4,054 | 5,791 | 1% | 1% | 1% |
| (–3.5, –3] | 12,279 | 16,051 | 19,627 | 3% | 3% | 4% |
| (–3, –2.5] | 25,575 | 34,601 | 32,000 | 5% | 7% | 7% |
| (–2.5, –2] | 51,030 | 56,161 | 54,215 | 11% | 12% | 11% |
| (–2, –1.5] | 82,712 | 74,015 | 72,675 | 17% | 16% | 15% |
| (–1.5, –1] | 94,015 | 81,751 | 80,026 | 20% | 17% | 17% |
| (–1, –0.5] | 82,373 | 76,219 | 74,744 | 17% | 16% | 16% |
| (–0.5, 0] | 57,006 | 56,117 | 57,070 | 12% | 12% | 12% |
| (0, 0.5] | 31,955 | 30,735 | 32,918 | 7% | 6% | 7% |
| (0.5, 1] | 14,379 | 13,165 | 15,057 | 3% | 3% | 3% |
| (1, HOT] | 10,279 | 8,470 | 11,106 | 2% | 2% | 2% |

**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] | 4,516 | 31,561 | 11,578 | 1% | 7% | 2% |
| (–3.5, –3] | 5,436 | 2,122 | 8,058 | 1% | 0% | 2% |
| (–3, –2.5] | 12,508 | 14,658 | 17,370 | 3% | 3% | 4% |
| (–2.5, –2] | 29,009 | 34,076 | 34,600 | 6% | 7% | 7% |
| (–2, –1.5] | 58,155 | 52,537 | 57,408 | 13% | 11% | 12% |
| (–1.5, –1] | 82,078 | 70,622 | 75,785 | 18% | 15% | 16% |
| (–1, –0.5] | 89,228 | 79,003 | 78,584 | 19% | 17% | 17% |
| (–0.5, 0] | 74,130 | 71,859 | 71,018 | 16% | 15% | 15% |
| (0, 0.5] | 50,944 | 52,911 | 53,521 | 11% | 11% | 12% |
| (0.5, 1] | 31,587 | 30,480 | 32,426 | 7% | 7% | 7% |
| (1, 1.5] | 16,427 | 14,149 | 14,659 | 4% | 3% | 3% |
| (1.5, HOT] | 10,314 | 10,375 | 9,342 | 2% | 2% | 2% |

**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] | 3,208 | 59,666 | 23,629 | 1% | 13% | 5% |
| (–3.5, –3] | 4,429 | 11 | 480 | 1% | 0% | 0% |
| (–3, –2.5] | 10,183 | 814 | 10,946 | 2% | 0% | 2% |
| (–2.5, –2] | 21,265 | 12,808 | 33,151 | 5% | 3% | 7% |
| (–2, –1.5] | 41,197 | 41,239 | 41,451 | 9% | 9% | 9% |
| (–1.5, –1] | 63,934 | 55,971 | 61,124 | 14% | 12% | 13% |
| (–1, –0.5] | 75,709 | 64,973 | 69,608 | 16% | 14% | 15% |
| (–0.5, 0] | 72,918 | 65,634 | 64,790 | 16% | 14% | 14% |
| (0, 0.5] | 62,489 | 58,977 | 54,993 | 14% | 13% | 12% |
| (0.5, 1] | 48,725 | 47,065 | 44,144 | 11% | 10% | 10% |
| (1, 1.5] | 31,207 | 30,936 | 30,059 | 7% | 7% | 7% |
| (1.5, 2] | 15,172 | 15,010 | 15,698 | 3% | 3% | 3% |
| (2, HOT] | 11,152 | 8,509 | 11,539 | 2% | 2% | 2% |

**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] | 7,613 | 51,962 | 18,155 | 2% | 11% | 4% |
| (–3.5, –3] | 5,580 | 475 | 2,039 | 1% | 0% | 0% |
| (–3, –2.5] | 10,588 | 3,386 | 10,440 | 2% | 1% | 2% |
| (–2.5, –2] | 18,344 | 11,428 | 22,029 | 4% | 2% | 5% |
| (–2, –1.5] | 28,295 | 28,983 | 31,873 | 6% | 6% | 7% |
| (–1.5, –1] | 40,137 | 40,482 | 45,730 | 9% | 9% | 10% |
| (–1, –0.5] | 55,202 | 51,555 | 56,120 | 12% | 11% | 12% |
| (–0.5, 0] | 68,697 | 63,978 | 62,074 | 15% | 14% | 14% |
| (0, 0.5] | 68,250 | 66,471 | 60,286 | 15% | 15% | 13% |
| (0.5, 1] | 57,439 | 55,368 | 53,983 | 13% | 12% | 12% |
| (1, 1.5] | 42,559 | 39,235 | 41,777 | 9% | 9% | 9% |
| (1.5, 2] | 26,862 | 23,498 | 27,085 | 6% | 5% | 6% |
| (2, 2.5] | 15,074 | 11,806 | 14,225 | 3% | 3% | 3% |
| (2.5, HOT] | 12,855 | 8,921 | 11,712 | 3% | 2% | 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] | 12,283 | 77,798 | 51,740 | 3% | 17% | 11% |
| (–3, –2.5] | 9,586 | 470 | 2,291 | 2% | 0% | 1% |
| (–2.5, –2] | 15,993 | 5,657 | 8,191 | 4% | 1% | 2% |
| (–2, –1.5] | 25,362 | 15,959 | 21,081 | 6% | 4% | 5% |
| (–1.5, –1] | 37,393 | 33,936 | 36,719 | 8% | 8% | 8% |
| (–1, –0.5] | 50,101 | 47,641 | 46,192 | 11% | 11% | 10% |
| (–0.5, 0] | 60,174 | 53,180 | 53,106 | 13% | 12% | 12% |
| (0, 0.5] | 63,024 | 54,716 | 57,763 | 14% | 12% | 13% |
| (0.5, 1] | 55,613 | 50,803 | 55,633 | 12% | 11% | 12% |
| (1, 1.5] | 45,741 | 42,935 | 45,777 | 10% | 10% | 10% |
| (1.5, 2] | 33,603 | 31,124 | 32,131 | 7% | 7% | 7% |
| (2, 2.5] | 21,061 | 19,353 | 19,771 | 5% | 4% | 4% |
| (2.5, 3] | 11,048 | 9,601 | 10,715 | 2% | 2% | 2% |
| (3, HOT] | 9,368 | 7,215 | 9,264 | 2% | 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] | 10,790 | 74,364 | 19,694 | 2% | 16% | 4% |
| (–3, –2.5] | 8,548 | 513 | 10,397 | 2% | 0% | 2% |
| (–2.5, –2] | 15,492 | 6,885 | 16,458 | 3% | 2% | 4% |
| (–2, –1.5] | 25,694 | 11,264 | 25,067 | 6% | 2% | 6% |
| (–1.5, –1] | 37,602 | 23,469 | 34,164 | 8% | 5% | 8% |
| (–1, –0.5] | 46,985 | 51,595 | 43,520 | 10% | 11% | 10% |
| (–0.5, 0] | 53,960 | 48,985 | 51,974 | 12% | 11% | 12% |
| (0, 0.5] | 55,607 | 50,218 | 56,066 | 12% | 11% | 12% |
| (0.5, 1] | 52,444 | 47,911 | 52,619 | 12% | 11% | 12% |
| (1, 1.5] | 45,506 | 43,705 | 44,279 | 10% | 10% | 10% |
| (1.5, 2] | 36,772 | 36,509 | 35,342 | 8% | 8% | 8% |
| (2, 2.5] | 26,218 | 25,869 | 26,478 | 6% | 6% | 6% |
| (2.5, 3] | 16,614 | 15,587 | 17,251 | 4% | 3% | 4% |
| (3, 3.5] | 9,518 | 7,919 | 9,113 | 2% | 2% | 2% |
| (3.5, HOT] | 10,178 | 7,166 | 9,520 | 2% | 2% | 2% |

**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] | 16,754 | 77,708 | 31,892 | 4% | 19% | 8% |
| (–2.5, –2] | 11,665 | 5,494 | 12,138 | 3% | 1% | 3% |
| (–2, –1.5] | 17,853 | 9,894 | 13,716 | 4% | 2% | 3% |
| (–1.5, –1] | 26,459 | 18,100 | 23,531 | 6% | 4% | 6% |
| (–1, –0.5] | 34,871 | 28,738 | 34,950 | 8% | 7% | 8% |
| (–0.5, 0] | 42,476 | 43,806 | 41,756 | 10% | 10% | 10% |
| (0, 0.5] | 47,287 | 41,629 | 46,594 | 11% | 10% | 11% |
| (0.5, 1] | 51,036 | 40,056 | 46,222 | 12% | 10% | 11% |
| (1, 1.5] | 48,277 | 38,753 | 42,523 | 12% | 9% | 10% |
| (1.5, 2] | 38,355 | 35,600 | 37,933 | 9% | 8% | 9% |
| (2, 2.5] | 28,666 | 30,081 | 31,323 | 7% | 7% | 7% |
| (2.5, 3] | 21,276 | 21,281 | 22,807 | 5% | 5% | 5% |
| (3, 3.5] | 15,000 | 13,151 | 15,127 | 4% | 3% | 4% |
| (3.5, 4] | 9,496 | 7,662 | 8,574 | 2% | 2% | 2% |
| (4, HOT] | 9,969 | 7,454 | 10,359 | 2% | 2% | 2% |

# 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 | 2,222 | 2,251 | 2,283 | 2,303 | 2,320 | 2,340 | 2,334 |
| p10 | 2,290 | 2,324 | 2,364 | 2,390 | 2,403 | 2,427 | 2,438 |
| p20 | 2,324 | 2,360 | 2,400 | 2,431 | 2,443 | 2,468 | 2,493 |
| p30 | 2,351 | 2,390 | 2,431 | 2,462 | 2,476 | 2,499 | 2,534 |
| p40 | 2,376 | 2,418 | 2,459 | 2,489 | 2,505 | 2,527 | 2,569 |
| p50 | 2,400 | 2,445 | 2,487 | 2,513 | 2,534 | 2,554 | 2,600 |
| p60 | 2,425 | 2,471 | 2,515 | 2,537 | 2,561 | 2,581 | 2,629 |
| p70 | 2,451 | 2,499 | 2,542 | 2,563 | 2,588 | 2,608 | 2,658 |
| p80 | 2,481 | 2,529 | 2,572 | 2,593 | 2,618 | 2,638 | 2,690 |
| p90 | 2,520 | 2,569 | 2,612 | 2,632 | 2,657 | 2,676 | 2,730 |
| p99 | 2,603 | 2,657 | 2,697 | 2,713 | 2,742 | 2,757 | 2,795 |

**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 | 2,212 | 2,268 | 2,280 | 2,240 | 2,250 | 2,265 | 2,280 |
| p10 | 2,315 | 2,353 | 2,369 | 2,368 | 2,374 | 2,382 | 2,400 |
| p20 | 2,350 | 2,385 | 2,403 | 2,420 | 2,426 | 2,432 | 2,450 |
| p30 | 2,374 | 2,409 | 2,428 | 2,455 | 2,462 | 2,469 | 2,489 |
| p40 | 2,395 | 2,431 | 2,452 | 2,483 | 2,492 | 2,502 | 2,524 |
| p50 | 2,415 | 2,451 | 2,476 | 2,508 | 2,520 | 2,532 | 2,557 |
| p60 | 2,436 | 2,473 | 2,501 | 2,533 | 2,548 | 2,563 | 2,591 |
| p70 | 2,457 | 2,495 | 2,529 | 2,559 | 2,578 | 2,597 | 2,626 |
| p80 | 2,482 | 2,523 | 2,560 | 2,591 | 2,613 | 2,636 | 2,669 |
| p90 | 2,516 | 2,561 | 2,600 | 2,633 | 2,660 | 2,689 | 2,727 |
| p99 | 2,603 | 2,648 | 2,690 | 2,735 | 2,765 | 2,802 | 2,854 |

**Table 7.C.3 Frequency Distribution of Overall Scale Scores—ELA, Grade Three**

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2114, 2119] | 272 | 272 | 0% | 0% |
| [2120, 2129] | 48 | 320 | 0% | 0% |
| [2130, 2139] | 55 | 375 | 0% | 0% |
| [2140, 2149] | 81 | 456 | 0% | 0% |
| [2150, 2159] | 121 | 577 | 0% | 0% |
| [2160, 2169] | 188 | 765 | 0% | 0% |
| [2170, 2179] | 268 | 1,033 | 0% | 0% |
| [2180, 2189] | 424 | 1,457 | 0% | 0% |
| [2190, 2199] | 621 | 2,078 | 0% | 0% |
| [2200, 2209] | 894 | 2,972 | 0% | 1% |
| [2210, 2219] | 1,365 | 4,337 | 0% | 1% |
| [2220, 2229] | 2,068 | 6,405 | 0% | 1% |
| [2230, 2239] | 3,144 | 9,549 | 1% | 2% |
| [2240, 2249] | 4,259 | 13,808 | 1% | 3% |
| [2250, 2259] | 5,695 | 19,503 | 1% | 4% |
| [2260, 2269] | 7,514 | 27,017 | 2% | 6% |
| [2270, 2279] | 9,005 | 36,022 | 2% | 8% |
| [2280, 2289] | 11,065 | 47,087 | 2% | 10% |
| [2290, 2299] | 12,831 | 59,918 | 3% | 13% |
| [2300, 2309] | 13,458 | 73,376 | 3% | 16% |
| [2310, 2319] | 14,719 | 88,095 | 3% | 19% |
| [2320, 2329] | 16,000 | 104,095 | 3% | 22% |
| [2330, 2339] | 17,155 | 121,250 | 4% | 26% |
| [2340, 2349] | 17,988 | 139,238 | 4% | 29% |
| [2350, 2359] | 18,254 | 157,492 | 4% | 33% |
| [2360, 2369] | 18,857 | 176,349 | 4% | 37% |
| [2370, 2379] | 18,996 | 195,345 | 4% | 41% |
| [2380, 2389] | 19,464 | 214,809 | 4% | 45% |
| [2390, 2399] | 19,794 | 234,603 | 4% | 50% |
| [2400, 2409] | 19,706 | 254,309 | 4% | 54% |
| [2410, 2419] | 19,014 | 273,323 | 4% | 58% |
| [2420, 2429] | 18,456 | 291,779 | 4% | 62% |
| [2430, 2439] | 18,057 | 309,836 | 4% | 66% |
| [2440, 2449] | 17,632 | 327,468 | 4% | 69% |
| [2450, 2459] | 16,788 | 344,256 | 4% | 73% |
| [2460, 2469] | 15,912 | 360,168 | 3% | 76% |
| [2470, 2479] | 15,200 | 375,368 | 3% | 79% |
| [2480, 2489] | 14,073 | 389,441 | 3% | 82% |
| [2490, 2499] | 13,182 | 402,623 | 3% | 85% |
| [2500, 2509] | 11,737 | 414,360 | 2% | 88% |
| [2510, 2519] | 10,582 | 424,942 | 2% | 90% |
| [2520, 2529] | 9,135 | 434,077 | 2% | 92% |
| [2530, 2539] | 7,959 | 442,036 | 2% | 94% |
| [2540, 2549] | 6,685 | 448,721 | 1% | 95% |
| [2550, 2559] | 5,665 | 454,386 | 1% | 96% |
| [2560, 2569] | 4,483 | 458,869 | 1% | 97% |
| [2570, 2579] | 3,628 | 462,497 | 1% | 98% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2580, 2589] | 2,760 | 465,257 | 1% | 98% |
| [2590, 2599] | 2,101 | 467,358 | 0% | 99% |
| [2600, 2609] | 1,592 | 468,950 | 0% | 99% |
| [2610, 2619] | 1,160 | 470,110 | 0% | 99% |
| [2620, 2623] | 2,564 | 472,674 | 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] | 199 | 199 | 0% | 0% |
| [2140, 2149] | 21 | 220 | 0% | 0% |
| [2150, 2159] | 35 | 255 | 0% | 0% |
| [2160, 2169] | 67 | 322 | 0% | 0% |
| [2170, 2179] | 83 | 405 | 0% | 0% |
| [2180, 2189] | 120 | 525 | 0% | 0% |
| [2190, 2199] | 202 | 727 | 0% | 0% |
| [2200, 2209] | 304 | 1,031 | 0% | 0% |
| [2210, 2219] | 406 | 1,437 | 0% | 0% |
| [2220, 2229] | 628 | 2,065 | 0% | 0% |
| [2230, 2239] | 951 | 3,016 | 0% | 1% |
| [2240, 2249] | 1,336 | 4,352 | 0% | 1% |
| [2250, 2259] | 1,940 | 6,292 | 0% | 1% |
| [2260, 2269] | 2,836 | 9,128 | 1% | 2% |
| [2270, 2279] | 3,673 | 12,801 | 1% | 3% |
| [2280, 2289] | 4,926 | 17,727 | 1% | 4% |
| [2290, 2299] | 6,167 | 23,894 | 1% | 5% |
| [2300, 2309] | 7,728 | 31,622 | 2% | 7% |
| [2310, 2319] | 9,539 | 41,161 | 2% | 9% |
| [2320, 2329] | 10,807 | 51,968 | 2% | 11% |
| [2330, 2339] | 11,932 | 63,900 | 3% | 14% |
| [2340, 2349] | 13,196 | 77,096 | 3% | 17% |
| [2350, 2359] | 14,111 | 91,207 | 3% | 20% |
| [2360, 2369] | 14,943 | 106,150 | 3% | 23% |
| [2370, 2379] | 15,391 | 121,541 | 3% | 26% |
| [2380, 2389] | 15,850 | 137,391 | 3% | 30% |
| [2390, 2399] | 16,313 | 153,704 | 4% | 33% |
| [2400, 2409] | 16,990 | 170,694 | 4% | 37% |
| [2410, 2419] | 17,248 | 187,942 | 4% | 41% |
| [2420, 2429] | 17,475 | 205,417 | 4% | 44% |
| [2430, 2439] | 17,201 | 222,618 | 4% | 48% |
| [2440, 2449] | 17,344 | 239,962 | 4% | 52% |
| [2450, 2459] | 17,408 | 257,370 | 4% | 56% |
| [2460, 2469] | 17,269 | 274,639 | 4% | 59% |
| [2470, 2479] | 17,097 | 291,736 | 4% | 63% |
| [2480, 2489] | 17,060 | 308,796 | 4% | 67% |
| [2490, 2499] | 16,505 | 325,301 | 4% | 70% |
| [2500, 2509] | 16,130 | 341,431 | 3% | 74% |
| [2510, 2519] | 15,103 | 356,534 | 3% | 77% |
| [2520, 2529] | 14,181 | 370,715 | 3% | 80% |
| [2530, 2539] | 13,385 | 384,100 | 3% | 83% |
| [2540, 2549] | 12,158 | 396,258 | 3% | 86% |
| [2550, 2559] | 10,793 | 407,051 | 2% | 88% |
| [2560, 2569] | 9,476 | 416,527 | 2% | 90% |
| [2570, 2579] | 8,600 | 425,127 | 2% | 92% |
| [2580, 2589] | 7,348 | 432,475 | 2% | 93% |
| [2590, 2599] | 6,390 | 438,865 | 1% | 95% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2600, 2609] | 5,318 | 444,183 | 1% | 96% |
| [2610, 2619] | 4,318 | 448,501 | 1% | 97% |
| [2620, 2629] | 3,468 | 451,969 | 1% | 98% |
| [2630, 2639] | 2,693 | 454,662 | 1% | 98% |
| [2640, 2649] | 2,152 | 456,814 | 0% | 99% |
| [2650, 2659] | 1,648 | 458,462 | 0% | 99% |
| [2660, 2663] | 4,217 | 462,679 | 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] | 485 | 485 | 0% | 0% |
| [2210, 2219] | 141 | 626 | 0% | 0% |
| [2220, 2229] | 199 | 825 | 0% | 0% |
| [2230, 2239] | 270 | 1,095 | 0% | 0% |
| [2240, 2249] | 394 | 1,489 | 0% | 0% |
| [2250, 2259] | 618 | 2,107 | 0% | 0% |
| [2260, 2269] | 771 | 2,878 | 0% | 1% |
| [2270, 2279] | 1,149 | 4,027 | 0% | 1% |
| [2280, 2289] | 1,571 | 5,598 | 0% | 1% |
| [2290, 2299] | 2,218 | 7,816 | 0% | 2% |
| [2300, 2309] | 2,894 | 10,710 | 1% | 2% |
| [2310, 2319] | 3,734 | 14,444 | 1% | 3% |
| [2320, 2329] | 5,084 | 19,528 | 1% | 4% |
| [2330, 2339] | 6,088 | 25,616 | 1% | 6% |
| [2340, 2349] | 7,482 | 33,098 | 2% | 7% |
| [2350, 2359] | 8,928 | 42,026 | 2% | 9% |
| [2360, 2369] | 10,188 | 52,214 | 2% | 11% |
| [2370, 2379] | 11,642 | 63,856 | 3% | 14% |
| [2380, 2389] | 12,995 | 76,851 | 3% | 17% |
| [2390, 2399] | 14,036 | 90,887 | 3% | 20% |
| [2400, 2409] | 14,608 | 105,495 | 3% | 23% |
| [2410, 2419] | 15,314 | 120,809 | 3% | 26% |
| [2420, 2429] | 15,613 | 136,422 | 3% | 30% |
| [2430, 2439] | 15,864 | 152,286 | 3% | 33% |
| [2440, 2449] | 16,085 | 168,371 | 3% | 37% |
| [2450, 2459] | 16,209 | 184,580 | 4% | 40% |
| [2460, 2469] | 16,481 | 201,061 | 4% | 44% |
| [2470, 2479] | 16,511 | 217,572 | 4% | 47% |
| [2480, 2489] | 16,675 | 234,247 | 4% | 51% |
| [2490, 2499] | 16,534 | 250,781 | 4% | 54% |
| [2500, 2509] | 16,921 | 267,702 | 4% | 58% |
| [2510, 2519] | 17,012 | 284,714 | 4% | 62% |
| [2520, 2529] | 17,018 | 301,732 | 4% | 66% |
| [2530, 2539] | 16,646 | 318,378 | 4% | 69% |
| [2540, 2549] | 16,023 | 334,401 | 3% | 73% |
| [2550, 2559] | 15,225 | 349,626 | 3% | 76% |
| [2560, 2569] | 14,458 | 364,084 | 3% | 79% |
| [2570, 2579] | 13,590 | 377,674 | 3% | 82% |
| [2580, 2589] | 12,475 | 390,149 | 3% | 85% |
| [2590, 2599] | 11,211 | 401,360 | 2% | 87% |
| [2600, 2609] | 10,097 | 411,457 | 2% | 89% |
| [2610, 2619] | 8,902 | 420,359 | 2% | 91% |
| [2620, 2629] | 7,826 | 428,185 | 2% | 93% |
| [2630, 2639] | 6,639 | 434,824 | 1% | 94% |
| [2640, 2649] | 5,575 | 440,399 | 1% | 96% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2650, 2659] | 4,649 | 445,048 | 1% | 97% |
| [2660, 2669] | 3,833 | 448,881 | 1% | 98% |
| [2670, 2679] | 3,020 | 451,901 | 1% | 98% |
| [2680, 2689] | 2,285 | 454,186 | 0% | 99% |
| [2690, 2699] | 1,798 | 455,984 | 0% | 99% |
| [2700, 2701] | 4,206 | 460,190 | 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] | 564 | 564 | 0% | 0% |
| [2220, 2229] | 93 | 657 | 0% | 0% |
| [2230, 2239] | 144 | 801 | 0% | 0% |
| [2240, 2249] | 211 | 1,012 | 0% | 0% |
| [2250, 2259] | 283 | 1,295 | 0% | 0% |
| [2260, 2269] | 388 | 1,683 | 0% | 0% |
| [2270, 2279] | 539 | 2,222 | 0% | 0% |
| [2280, 2289] | 809 | 3,031 | 0% | 1% |
| [2290, 2299] | 1,140 | 4,171 | 0% | 1% |
| [2300, 2309] | 1,554 | 5,725 | 0% | 1% |
| [2310, 2319] | 2,104 | 7,829 | 0% | 2% |
| [2320, 2329] | 2,635 | 10,464 | 1% | 2% |
| [2330, 2339] | 3,489 | 13,953 | 1% | 3% |
| [2340, 2349] | 4,307 | 18,260 | 1% | 4% |
| [2350, 2359] | 5,303 | 23,563 | 1% | 5% |
| [2360, 2369] | 6,226 | 29,789 | 1% | 7% |
| [2370, 2379] | 7,323 | 37,112 | 2% | 8% |
| [2380, 2389] | 8,289 | 45,401 | 2% | 10% |
| [2390, 2399] | 9,396 | 54,797 | 2% | 12% |
| [2400, 2409] | 10,427 | 65,224 | 2% | 14% |
| [2410, 2419] | 11,680 | 76,904 | 3% | 17% |
| [2420, 2429] | 12,678 | 89,582 | 3% | 20% |
| [2430, 2439] | 13,727 | 103,309 | 3% | 23% |
| [2440, 2449] | 14,575 | 117,884 | 3% | 26% |
| [2450, 2459] | 15,464 | 133,348 | 3% | 29% |
| [2460, 2469] | 15,876 | 149,224 | 3% | 33% |
| [2470, 2479] | 17,263 | 166,487 | 4% | 36% |
| [2480, 2489] | 17,679 | 184,166 | 4% | 40% |
| [2490, 2499] | 18,349 | 202,515 | 4% | 44% |
| [2500, 2509] | 18,868 | 221,383 | 4% | 49% |
| [2510, 2519] | 19,015 | 240,398 | 4% | 53% |
| [2520, 2529] | 18,941 | 259,339 | 4% | 57% |
| [2530, 2539] | 18,618 | 277,957 | 4% | 61% |
| [2540, 2549] | 17,844 | 295,801 | 4% | 65% |
| [2550, 2559] | 17,240 | 313,041 | 4% | 69% |
| [2560, 2569] | 16,221 | 329,262 | 4% | 72% |
| [2570, 2579] | 15,470 | 344,732 | 3% | 76% |
| [2580, 2589] | 14,940 | 359,672 | 3% | 79% |
| [2590, 2599] | 13,565 | 373,237 | 3% | 82% |
| [2600, 2609] | 12,875 | 386,112 | 3% | 85% |
| [2610, 2619] | 11,833 | 397,945 | 3% | 87% |
| [2620, 2629] | 10,382 | 408,327 | 2% | 89% |
| [2630, 2639] | 9,433 | 417,760 | 2% | 92% |
| [2640, 2649] | 8,116 | 425,876 | 2% | 93% |
| [2650, 2659] | 6,753 | 432,629 | 1% | 95% |
| [2660, 2669] | 5,618 | 438,247 | 1% | 96% |
| [2670, 2679] | 4,602 | 442,849 | 1% | 97% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2680, 2689] | 3,597 | 446,446 | 1% | 98% |
| [2690, 2699] | 2,730 | 449,176 | 1% | 98% |
| [2700, 2709] | 2,008 | 451,184 | 0% | 99% |
| [2710, 2719] | 1,448 | 452,632 | 0% | 99% |
| [2720, 2724] | 3,689 | 456,321 | 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] | 926 | 926 | 0% | 0% |
| [2260, 2269] | 200 | 1,126 | 0% | 0% |
| [2270, 2279] | 272 | 1,398 | 0% | 0% |
| [2280, 2289] | 403 | 1,801 | 0% | 0% |
| [2290, 2299] | 570 | 2,371 | 0% | 1% |
| [2300, 2309] | 902 | 3,273 | 0% | 1% |
| [2310, 2319] | 1,216 | 4,489 | 0% | 1% |
| [2320, 2329] | 1,645 | 6,134 | 0% | 1% |
| [2330, 2339] | 2,319 | 8,453 | 1% | 2% |
| [2340, 2349] | 3,043 | 11,496 | 1% | 3% |
| [2350, 2359] | 3,904 | 15,400 | 1% | 3% |
| [2360, 2369] | 4,914 | 20,314 | 1% | 5% |
| [2370, 2379] | 6,009 | 26,323 | 1% | 6% |
| [2380, 2389] | 7,114 | 33,437 | 2% | 7% |
| [2390, 2399] | 8,503 | 41,940 | 2% | 9% |
| [2400, 2409] | 9,680 | 51,620 | 2% | 11% |
| [2410, 2419] | 10,414 | 62,034 | 2% | 14% |
| [2420, 2429] | 11,260 | 73,294 | 3% | 16% |
| [2430, 2439] | 12,188 | 85,482 | 3% | 19% |
| [2440, 2449] | 13,035 | 98,517 | 3% | 22% |
| [2450, 2459] | 13,613 | 112,130 | 3% | 25% |
| [2460, 2469] | 13,965 | 126,095 | 3% | 28% |
| [2470, 2479] | 14,676 | 140,771 | 3% | 31% |
| [2480, 2489] | 14,799 | 155,570 | 3% | 35% |
| [2490, 2499] | 15,148 | 170,718 | 3% | 38% |
| [2500, 2509] | 15,623 | 186,341 | 3% | 41% |
| [2510, 2519] | 15,479 | 201,820 | 3% | 45% |
| [2520, 2529] | 15,884 | 217,704 | 4% | 48% |
| [2530, 2539] | 16,452 | 234,156 | 4% | 52% |
| [2540, 2549] | 16,350 | 250,506 | 4% | 56% |
| [2550, 2559] | 16,759 | 267,265 | 4% | 59% |
| [2560, 2569] | 16,713 | 283,978 | 4% | 63% |
| [2570, 2579] | 16,472 | 300,450 | 4% | 67% |
| [2580, 2589] | 16,289 | 316,739 | 4% | 70% |
| [2590, 2599] | 15,629 | 332,368 | 3% | 74% |
| [2600, 2609] | 14,905 | 347,273 | 3% | 77% |
| [2610, 2619] | 13,958 | 361,231 | 3% | 80% |
| [2620, 2629] | 13,121 | 374,352 | 3% | 83% |
| [2630, 2639] | 11,872 | 386,224 | 3% | 86% |
| [2640, 2649] | 11,050 | 397,274 | 2% | 88% |
| [2650, 2659] | 9,686 | 406,960 | 2% | 90% |
| [2660, 2669] | 8,703 | 415,663 | 2% | 92% |
| [2670, 2679] | 7,306 | 422,969 | 2% | 94% |
| [2680, 2689] | 6,047 | 429,016 | 1% | 95% |
| [2690, 2699] | 4,842 | 433,858 | 1% | 96% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2700, 2709] | 3,869 | 437,727 | 1% | 97% |
| [2710, 2719] | 3,050 | 440,777 | 1% | 98% |
| [2720, 2729] | 2,299 | 443,076 | 1% | 99% |
| [2730, 2739] | 1,806 | 444,882 | 0% | 99% |
| [2740, 2745] | 4,832 | 449,714 | 1% | 100% |

**Table 7.C.8 Frequency Distribution of Overall Scale Scores—ELA, Grade Eight**

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2288, 2289] | 950 | 950 | 0% | 0% |
| [2290, 2299] | 314 | 1,264 | 0% | 0% |
| [2300, 2309] | 475 | 1,739 | 0% | 0% |
| [2310, 2319] | 649 | 2,388 | 0% | 1% |
| [2320, 2329] | 849 | 3,237 | 0% | 1% |
| [2330, 2339] | 1,266 | 4,503 | 0% | 1% |
| [2340, 2349] | 1,750 | 6,253 | 0% | 1% |
| [2350, 2359] | 2,216 | 8,469 | 0% | 2% |
| [2360, 2369] | 2,932 | 11,401 | 1% | 3% |
| [2370, 2379] | 3,690 | 15,091 | 1% | 3% |
| [2380, 2389] | 4,665 | 19,756 | 1% | 4% |
| [2390, 2399] | 5,566 | 25,322 | 1% | 6% |
| [2400, 2409] | 6,382 | 31,704 | 1% | 7% |
| [2410, 2419] | 7,394 | 39,098 | 2% | 9% |
| [2420, 2429] | 8,584 | 47,682 | 2% | 11% |
| [2430, 2439] | 9,549 | 57,231 | 2% | 13% |
| [2440, 2449] | 10,556 | 67,787 | 2% | 15% |
| [2450, 2459] | 11,552 | 79,339 | 3% | 18% |
| [2460, 2469] | 12,669 | 92,008 | 3% | 20% |
| [2470, 2479] | 13,820 | 105,828 | 3% | 23% |
| [2480, 2489] | 14,466 | 120,294 | 3% | 27% |
| [2490, 2499] | 15,310 | 135,604 | 3% | 30% |
| [2500, 2509] | 15,917 | 151,521 | 4% | 34% |
| [2510, 2519] | 16,630 | 168,151 | 4% | 37% |
| [2520, 2529] | 16,769 | 184,920 | 4% | 41% |
| [2530, 2539] | 17,009 | 201,929 | 4% | 45% |
| [2540, 2549] | 16,787 | 218,716 | 4% | 48% |
| [2550, 2559] | 16,830 | 235,546 | 4% | 52% |
| [2560, 2569] | 16,765 | 252,311 | 4% | 56% |
| [2570, 2579] | 16,328 | 268,639 | 4% | 60% |
| [2580, 2589] | 16,601 | 285,240 | 4% | 63% |
| [2590, 2599] | 16,412 | 301,652 | 4% | 67% |
| [2600, 2609] | 16,294 | 317,946 | 4% | 70% |
| [2610, 2619] | 15,758 | 333,704 | 3% | 74% |
| [2620, 2629] | 15,222 | 348,926 | 3% | 77% |
| [2630, 2639] | 14,289 | 363,215 | 3% | 81% |
| [2640, 2649] | 13,538 | 376,753 | 3% | 84% |
| [2650, 2659] | 12,172 | 388,925 | 3% | 86% |
| [2660, 2669] | 11,083 | 400,008 | 2% | 89% |
| [2670, 2679] | 9,777 | 409,785 | 2% | 91% |
| [2680, 2689] | 8,367 | 418,152 | 2% | 93% |
| [2690, 2699] | 7,116 | 425,268 | 2% | 94% |
| [2700, 2709] | 6,163 | 431,431 | 1% | 96% |
| [2710, 2719] | 4,869 | 436,300 | 1% | 97% |
| [2720, 2729] | 3,880 | 440,180 | 1% | 98% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2730, 2739] | 2,923 | 443,103 | 1% | 98% |
| [2740, 2749] | 2,315 | 445,418 | 1% | 99% |
| [2750, 2759] | 1,672 | 447,090 | 0% | 99% |
| [2760, 2769] | 4,095 | 451,185 | 1% | 100% |

**Table 7.C.9 Frequency Distribution of Overall Scale Scores—ELA, Grade Eleven**

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2299, 2299] | 1,781 | 1,781 | 0% | 0% |
| [2300, 2309] | 453 | 2,234 | 0% | 1% |
| [2310, 2319] | 632 | 2,866 | 0% | 1% |
| [2320, 2329] | 847 | 3,713 | 0% | 1% |
| [2330, 2339] | 1,193 | 4,906 | 0% | 1% |
| [2340, 2349] | 1,461 | 6,367 | 0% | 2% |
| [2350, 2359] | 1,952 | 8,319 | 0% | 2% |
| [2360, 2369] | 2,473 | 10,792 | 1% | 3% |
| [2370, 2379] | 2,990 | 13,782 | 1% | 3% |
| [2380, 2389] | 3,645 | 17,427 | 1% | 4% |
| [2390, 2399] | 4,144 | 21,571 | 1% | 5% |
| [2400, 2409] | 4,658 | 26,229 | 1% | 6% |
| [2410, 2419] | 5,385 | 31,614 | 1% | 7% |
| [2420, 2429] | 5,716 | 37,330 | 1% | 9% |
| [2430, 2439] | 6,158 | 43,488 | 1% | 10% |
| [2440, 2449] | 6,619 | 50,107 | 2% | 12% |
| [2450, 2459] | 7,160 | 57,267 | 2% | 14% |
| [2460, 2469] | 7,561 | 64,828 | 2% | 15% |
| [2470, 2479] | 8,337 | 73,165 | 2% | 17% |
| [2480, 2489] | 8,496 | 81,661 | 2% | 19% |
| [2490, 2499] | 9,148 | 90,809 | 2% | 22% |
| [2500, 2509] | 9,676 | 100,485 | 2% | 24% |
| [2510, 2519] | 10,234 | 110,719 | 2% | 26% |
| [2520, 2529] | 10,662 | 121,381 | 3% | 29% |
| [2530, 2539] | 11,363 | 132,744 | 3% | 31% |
| [2540, 2549] | 11,794 | 144,538 | 3% | 34% |
| [2550, 2559] | 12,208 | 156,746 | 3% | 37% |
| [2560, 2569] | 12,868 | 169,614 | 3% | 40% |
| [2570, 2579] | 13,235 | 182,849 | 3% | 43% |
| [2580, 2589] | 13,625 | 196,474 | 3% | 47% |
| [2590, 2599] | 13,850 | 210,324 | 3% | 50% |
| [2600, 2609] | 14,363 | 224,687 | 3% | 53% |
| [2610, 2619] | 14,427 | 239,114 | 3% | 57% |
| [2620, 2629] | 14,806 | 253,920 | 4% | 60% |
| [2630, 2639] | 14,660 | 268,580 | 3% | 64% |
| [2640, 2649] | 14,496 | 283,076 | 3% | 67% |
| [2650, 2659] | 14,331 | 297,407 | 3% | 70% |
| [2660, 2669] | 13,658 | 311,065 | 3% | 74% |
| [2670, 2679] | 13,307 | 324,372 | 3% | 77% |
| [2680, 2689] | 12,615 | 336,987 | 3% | 80% |
| [2690, 2699] | 11,965 | 348,952 | 3% | 83% |
| [2700, 2709] | 11,115 | 360,067 | 3% | 85% |
| [2710, 2719] | 10,252 | 370,319 | 2% | 88% |
| [2720, 2729] | 9,199 | 379,518 | 2% | 90% |
| [2730, 2739] | 8,092 | 387,610 | 2% | 92% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2740, 2749] | 6,729 | 394,339 | 2% | 93% |
| [2750, 2759] | 5,838 | 400,177 | 1% | 95% |
| [2760, 2769] | 4,728 | 404,905 | 1% | 96% |
| [2770, 2779] | 3,818 | 408,723 | 1% | 97% |
| [2780, 2789] | 3,086 | 411,809 | 1% | 98% |
| [2790, 2795] | 10,289 | 422,098 | 2% | 100% |

**Table 7.C.10 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Three**

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2189, 2189] | 2,606 | 2,606 | 1% | 1% |
| [2190, 2199] | 845 | 3,451 | 0% | 1% |
| [2200, 2209] | 1,029 | 4,480 | 0% | 1% |
| [2210, 2219] | 1,324 | 5,804 | 0% | 1% |
| [2220, 2229] | 1,634 | 7,438 | 0% | 2% |
| [2230, 2239] | 1,970 | 9,408 | 0% | 2% |
| [2240, 2249] | 2,400 | 11,808 | 1% | 2% |
| [2250, 2259] | 2,848 | 14,656 | 1% | 3% |
| [2260, 2269] | 3,515 | 18,171 | 1% | 4% |
| [2270, 2279] | 4,368 | 22,539 | 1% | 5% |
| [2280, 2289] | 5,309 | 27,848 | 1% | 6% |
| [2290, 2299] | 6,589 | 34,437 | 1% | 7% |
| [2300, 2309] | 8,115 | 42,552 | 2% | 9% |
| [2310, 2319] | 9,861 | 52,413 | 2% | 11% |
| [2320, 2329] | 11,725 | 64,138 | 2% | 14% |
| [2330, 2339] | 13,959 | 78,097 | 3% | 16% |
| [2340, 2349] | 16,452 | 94,549 | 3% | 20% |
| [2350, 2359] | 18,448 | 112,997 | 4% | 24% |
| [2360, 2369] | 20,315 | 133,312 | 4% | 28% |
| [2370, 2379] | 21,679 | 154,991 | 5% | 33% |
| [2380, 2389] | 22,918 | 177,909 | 5% | 38% |
| [2390, 2399] | 22,747 | 200,656 | 5% | 42% |
| [2400, 2409] | 22,998 | 223,654 | 5% | 47% |
| [2410, 2419] | 23,233 | 246,887 | 5% | 52% |
| [2420, 2429] | 22,956 | 269,843 | 5% | 57% |
| [2430, 2439] | 22,604 | 292,447 | 5% | 62% |
| [2440, 2449] | 22,675 | 315,122 | 5% | 66% |
| [2450, 2459] | 21,589 | 336,711 | 5% | 71% |
| [2460, 2469] | 19,962 | 356,673 | 4% | 75% |
| [2470, 2479] | 18,548 | 375,221 | 4% | 79% |
| [2480, 2489] | 16,589 | 391,810 | 3% | 83% |
| [2490, 2499] | 14,531 | 406,341 | 3% | 86% |
| [2500, 2509] | 12,936 | 419,277 | 3% | 88% |
| [2510, 2519] | 10,788 | 430,065 | 2% | 91% |
| [2520, 2529] | 9,007 | 439,072 | 2% | 93% |
| [2530, 2539] | 7,394 | 446,466 | 2% | 94% |
| [2540, 2549] | 6,030 | 452,496 | 1% | 95% |
| [2550, 2559] | 4,821 | 457,317 | 1% | 96% |
| [2560, 2569] | 3,777 | 461,094 | 1% | 97% |
| [2570, 2579] | 3,204 | 464,298 | 1% | 98% |
| [2580, 2589] | 2,529 | 466,827 | 1% | 98% |
| [2590, 2599] | 2,011 | 468,838 | 0% | 99% |
| [2600, 2609] | 1,562 | 470,400 | 0% | 99% |
| [2610, 2619] | 1,075 | 471,475 | 0% | 99% |
| [2620, 2621] | 2,786 | 474,261 | 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] | 802 | 802 | 0% | 0% |
| [2210, 2219] | 273 | 1,075 | 0% | 0% |
| [2220, 2229] | 337 | 1,412 | 0% | 0% |
| [2230, 2239] | 514 | 1,926 | 0% | 0% |
| [2240, 2249] | 666 | 2,592 | 0% | 1% |
| [2250, 2259] | 957 | 3,549 | 0% | 1% |
| [2260, 2269] | 1,270 | 4,819 | 0% | 1% |
| [2270, 2279] | 1,724 | 6,543 | 0% | 1% |
| [2280, 2289] | 2,264 | 8,807 | 0% | 2% |
| [2290, 2299] | 2,885 | 11,692 | 1% | 3% |
| [2300, 2309] | 3,611 | 15,303 | 1% | 3% |
| [2310, 2319] | 4,704 | 20,007 | 1% | 4% |
| [2320, 2329] | 5,959 | 25,966 | 1% | 6% |
| [2330, 2339] | 7,351 | 33,317 | 2% | 7% |
| [2340, 2349] | 9,489 | 42,806 | 2% | 9% |
| [2350, 2359] | 11,283 | 54,089 | 2% | 12% |
| [2360, 2369] | 13,542 | 67,631 | 3% | 15% |
| [2370, 2379] | 15,899 | 83,530 | 3% | 18% |
| [2380, 2389] | 17,648 | 101,178 | 4% | 22% |
| [2390, 2399] | 19,081 | 120,259 | 4% | 26% |
| [2400, 2409] | 20,085 | 140,344 | 4% | 30% |
| [2410, 2419] | 21,066 | 161,410 | 5% | 35% |
| [2420, 2429] | 21,837 | 183,247 | 5% | 39% |
| [2430, 2439] | 22,343 | 205,590 | 5% | 44% |
| [2440, 2449] | 22,198 | 227,788 | 5% | 49% |
| [2450, 2459] | 22,564 | 250,352 | 5% | 54% |
| [2460, 2469] | 21,794 | 272,146 | 5% | 59% |
| [2470, 2479] | 21,141 | 293,287 | 5% | 63% |
| [2480, 2489] | 20,068 | 313,355 | 4% | 67% |
| [2490, 2499] | 19,454 | 332,809 | 4% | 72% |
| [2500, 2509] | 17,910 | 350,719 | 4% | 76% |
| [2510, 2519] | 16,094 | 366,813 | 3% | 79% |
| [2520, 2529] | 14,657 | 381,470 | 3% | 82% |
| [2530, 2539] | 13,066 | 394,536 | 3% | 85% |
| [2540, 2549] | 11,651 | 406,187 | 3% | 87% |
| [2550, 2559] | 10,329 | 416,516 | 2% | 90% |
| [2560, 2569] | 9,111 | 425,627 | 2% | 92% |
| [2570, 2579] | 7,853 | 433,480 | 2% | 93% |
| [2580, 2589] | 6,807 | 440,287 | 1% | 95% |
| [2590, 2599] | 5,720 | 446,007 | 1% | 96% |
| [2600, 2609] | 4,388 | 450,395 | 1% | 97% |
| [2610, 2619] | 3,471 | 453,866 | 1% | 98% |
| [2620, 2629] | 2,558 | 456,424 | 1% | 98% |
| [2630, 2639] | 1,991 | 458,415 | 0% | 99% |
| [2640, 2649] | 1,476 | 459,891 | 0% | 99% |
| [2650, 2659] | 4,464 | 464,355 | 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] | 942 | 942 | 0% | 0% |
| [2220, 2229] | 262 | 1,204 | 0% | 0% |
| [2230, 2239] | 300 | 1,504 | 0% | 0% |
| [2240, 2249] | 412 | 1,916 | 0% | 0% |
| [2250, 2259] | 620 | 2,536 | 0% | 1% |
| [2260, 2269] | 788 | 3,324 | 0% | 1% |
| [2270, 2279] | 1,176 | 4,500 | 0% | 1% |
| [2280, 2289] | 1,520 | 6,020 | 0% | 1% |
| [2290, 2299] | 2,050 | 8,070 | 0% | 2% |
| [2300, 2309] | 2,569 | 10,639 | 1% | 2% |
| [2310, 2319] | 3,337 | 13,976 | 1% | 3% |
| [2320, 2329] | 4,043 | 18,019 | 1% | 4% |
| [2330, 2339] | 5,273 | 23,292 | 1% | 5% |
| [2340, 2349] | 6,288 | 29,580 | 1% | 6% |
| [2350, 2359] | 7,881 | 37,461 | 2% | 8% |
| [2360, 2369] | 9,529 | 46,990 | 2% | 10% |
| [2370, 2379] | 11,308 | 58,298 | 2% | 13% |
| [2380, 2389] | 13,158 | 71,456 | 3% | 15% |
| [2390, 2399] | 15,302 | 86,758 | 3% | 19% |
| [2400, 2409] | 17,017 | 103,775 | 4% | 22% |
| [2410, 2419] | 18,262 | 122,037 | 4% | 26% |
| [2420, 2429] | 18,694 | 140,731 | 4% | 30% |
| [2430, 2439] | 19,404 | 160,135 | 4% | 35% |
| [2440, 2449] | 19,129 | 179,264 | 4% | 39% |
| [2450, 2459] | 19,546 | 198,810 | 4% | 43% |
| [2460, 2469] | 19,140 | 217,950 | 4% | 47% |
| [2470, 2479] | 18,780 | 236,730 | 4% | 51% |
| [2480, 2489] | 18,380 | 255,110 | 4% | 55% |
| [2490, 2499] | 18,305 | 273,415 | 4% | 59% |
| [2500, 2509] | 17,926 | 291,341 | 4% | 63% |
| [2510, 2519] | 17,136 | 308,477 | 4% | 67% |
| [2520, 2529] | 16,178 | 324,655 | 4% | 70% |
| [2530, 2539] | 15,359 | 340,014 | 3% | 74% |
| [2540, 2549] | 14,692 | 354,706 | 3% | 77% |
| [2550, 2559] | 13,937 | 368,643 | 3% | 80% |
| [2560, 2569] | 13,032 | 381,675 | 3% | 83% |
| [2570, 2579] | 12,142 | 393,817 | 3% | 85% |
| [2580, 2589] | 11,078 | 404,895 | 2% | 88% |
| [2590, 2599] | 10,097 | 414,992 | 2% | 90% |
| [2600, 2609] | 8,725 | 423,717 | 2% | 92% |
| [2610, 2619] | 7,493 | 431,210 | 2% | 93% |
| [2620, 2629] | 6,332 | 437,542 | 1% | 95% |
| [2630, 2639] | 5,384 | 442,926 | 1% | 96% |
| [2640, 2649] | 4,219 | 447,145 | 1% | 97% |
| [2650, 2659] | 3,410 | 450,555 | 1% | 98% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2660, 2669] | 2,704 | 453,259 | 1% | 98% |
| [2670, 2679] | 2,055 | 455,314 | 0% | 99% |
| [2680, 2689] | 1,617 | 456,931 | 0% | 99% |
| [2690, 2699] | 1,248 | 458,179 | 0% | 99% |
| [2700, 2700] | 3,438 | 461,617 | 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] | 4,541 | 4,541 | 1% | 1% |
| [2240, 2249] | 851 | 5,392 | 0% | 1% |
| [2250, 2259] | 1,085 | 6,477 | 0% | 1% |
| [2260, 2269] | 1,299 | 7,776 | 0% | 2% |
| [2270, 2279] | 1,745 | 9,521 | 0% | 2% |
| [2280, 2289] | 2,051 | 11,572 | 0% | 3% |
| [2290, 2299] | 2,398 | 13,970 | 1% | 3% |
| [2300, 2309] | 2,884 | 16,854 | 1% | 4% |
| [2310, 2319] | 3,305 | 20,159 | 1% | 4% |
| [2320, 2329] | 3,986 | 24,145 | 1% | 5% |
| [2330, 2339] | 4,617 | 28,762 | 1% | 6% |
| [2340, 2349] | 5,138 | 33,900 | 1% | 7% |
| [2350, 2359] | 6,052 | 39,952 | 1% | 9% |
| [2360, 2369] | 6,649 | 46,601 | 1% | 10% |
| [2370, 2379] | 7,479 | 54,080 | 2% | 12% |
| [2380, 2389] | 8,156 | 62,236 | 2% | 14% |
| [2390, 2399] | 8,744 | 70,980 | 2% | 16% |
| [2400, 2409] | 9,755 | 80,735 | 2% | 18% |
| [2410, 2419] | 10,563 | 91,298 | 2% | 20% |
| [2420, 2429] | 11,612 | 102,910 | 3% | 22% |
| [2430, 2439] | 12,685 | 115,595 | 3% | 25% |
| [2440, 2449] | 13,821 | 129,416 | 3% | 28% |
| [2450, 2459] | 15,099 | 144,515 | 3% | 32% |
| [2460, 2469] | 15,860 | 160,375 | 3% | 35% |
| [2470, 2479] | 16,995 | 177,370 | 4% | 39% |
| [2480, 2489] | 17,622 | 194,992 | 4% | 43% |
| [2490, 2499] | 18,157 | 213,149 | 4% | 47% |
| [2500, 2509] | 18,452 | 231,601 | 4% | 51% |
| [2510, 2519] | 18,556 | 250,157 | 4% | 55% |
| [2520, 2529] | 18,518 | 268,675 | 4% | 59% |
| [2530, 2539] | 17,638 | 286,313 | 4% | 63% |
| [2540, 2549] | 17,433 | 303,746 | 4% | 66% |
| [2550, 2559] | 16,635 | 320,381 | 4% | 70% |
| [2560, 2569] | 15,860 | 336,241 | 3% | 73% |
| [2570, 2579] | 14,631 | 350,872 | 3% | 77% |
| [2580, 2589] | 13,755 | 364,627 | 3% | 80% |
| [2590, 2599] | 12,712 | 377,339 | 3% | 82% |
| [2600, 2609] | 11,813 | 389,152 | 3% | 85% |
| [2610, 2619] | 10,217 | 399,369 | 2% | 87% |
| [2620, 2629] | 9,086 | 408,455 | 2% | 89% |
| [2630, 2639] | 8,036 | 416,491 | 2% | 91% |
| [2640, 2649] | 7,062 | 423,553 | 2% | 93% |
| [2650, 2659] | 6,309 | 429,862 | 1% | 94% |
| [2660, 2669] | 5,199 | 435,061 | 1% | 95% |
| [2670, 2679] | 4,580 | 439,641 | 1% | 96% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2680, 2689] | 3,785 | 443,426 | 1% | 97% |
| [2690, 2699] | 3,017 | 446,443 | 1% | 98% |
| [2700, 2709] | 2,388 | 448,831 | 1% | 98% |
| [2710, 2719] | 1,914 | 450,745 | 0% | 99% |
| [2720, 2729] | 1,488 | 452,233 | 0% | 99% |
| [2730, 2739] | 1,196 | 453,429 | 0% | 99% |
| [2740, 2748] | 4,121 | 457,550 | 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] | 6,209 | 6,209 | 1% | 1% |
| [2260, 2269] | 1,216 | 7,425 | 0% | 2% |
| [2270, 2279] | 1,382 | 8,807 | 0% | 2% |
| [2280, 2289] | 1,704 | 10,511 | 0% | 2% |
| [2290, 2299] | 2,018 | 12,529 | 0% | 3% |
| [2300, 2309] | 2,460 | 14,989 | 1% | 3% |
| [2310, 2319] | 2,891 | 17,880 | 1% | 4% |
| [2320, 2329] | 3,640 | 21,520 | 1% | 5% |
| [2330, 2339] | 4,134 | 25,654 | 1% | 6% |
| [2340, 2349] | 4,685 | 30,339 | 1% | 7% |
| [2350, 2359] | 5,391 | 35,730 | 1% | 8% |
| [2360, 2369] | 6,077 | 41,807 | 1% | 9% |
| [2370, 2379] | 7,011 | 48,818 | 2% | 11% |
| [2380, 2389] | 7,486 | 56,304 | 2% | 13% |
| [2390, 2399] | 8,117 | 64,421 | 2% | 14% |
| [2400, 2409] | 9,295 | 73,716 | 2% | 16% |
| [2410, 2419] | 9,893 | 83,609 | 2% | 19% |
| [2420, 2429] | 10,886 | 94,495 | 2% | 21% |
| [2430, 2439] | 11,612 | 106,107 | 3% | 24% |
| [2440, 2449] | 12,642 | 118,749 | 3% | 26% |
| [2450, 2459] | 13,591 | 132,340 | 3% | 29% |
| [2460, 2469] | 13,961 | 146,301 | 3% | 32% |
| [2470, 2479] | 14,715 | 161,016 | 3% | 36% |
| [2480, 2489] | 15,144 | 176,160 | 3% | 39% |
| [2490, 2499] | 15,839 | 191,999 | 4% | 43% |
| [2500, 2509] | 16,550 | 208,549 | 4% | 46% |
| [2510, 2519] | 16,344 | 224,893 | 4% | 50% |
| [2520, 2529] | 16,218 | 241,111 | 4% | 54% |
| [2530, 2539] | 16,157 | 257,268 | 4% | 57% |
| [2540, 2549] | 15,540 | 272,808 | 3% | 61% |
| [2550, 2559] | 15,126 | 287,934 | 3% | 64% |
| [2560, 2569] | 14,773 | 302,707 | 3% | 67% |
| [2570, 2579] | 14,192 | 316,899 | 3% | 70% |
| [2580, 2589] | 13,903 | 330,802 | 3% | 73% |
| [2590, 2599] | 13,172 | 343,974 | 3% | 76% |
| [2600, 2609] | 12,317 | 356,291 | 3% | 79% |
| [2610, 2619] | 11,701 | 367,992 | 3% | 82% |
| [2620, 2629] | 10,693 | 378,685 | 2% | 84% |
| [2630, 2639] | 9,746 | 388,431 | 2% | 86% |
| [2640, 2649] | 8,681 | 397,112 | 2% | 88% |
| [2650, 2659] | 7,906 | 405,018 | 2% | 90% |
| [2660, 2669] | 7,336 | 412,354 | 2% | 92% |
| [2670, 2679] | 6,387 | 418,741 | 1% | 93% |
| [2680, 2689] | 5,648 | 424,389 | 1% | 94% |
| [2690, 2699] | 4,948 | 429,337 | 1% | 95% |
| [2700, 2709] | 4,222 | 433,559 | 1% | 96% |
| [2710, 2719] | 3,494 | 437,053 | 1% | 97% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2720, 2729] | 2,719 | 439,772 | 1% | 98% |
| [2730, 2739] | 2,304 | 442,076 | 1% | 98% |
| [2740, 2749] | 1,764 | 443,840 | 0% | 99% |
| [2750, 2759] | 1,429 | 445,269 | 0% | 99% |
| [2760, 2769] | 1,105 | 446,374 | 0% | 99% |
| [2770, 2778] | 4,021 | 450,395 | 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] | 4,974 | 4,974 | 1% | 1% |
| [2270, 2279] | 1,131 | 6,105 | 0% | 1% |
| [2280, 2289] | 1,422 | 7,527 | 0% | 2% |
| [2290, 2299] | 1,596 | 9,123 | 0% | 2% |
| [2300, 2309] | 2,221 | 11,344 | 0% | 3% |
| [2310, 2319] | 2,689 | 14,033 | 1% | 3% |
| [2320, 2329] | 3,167 | 17,200 | 1% | 4% |
| [2330, 2339] | 3,944 | 21,144 | 1% | 5% |
| [2340, 2349] | 4,532 | 25,676 | 1% | 6% |
| [2350, 2359] | 5,212 | 30,888 | 1% | 7% |
| [2360, 2369] | 5,923 | 36,811 | 1% | 8% |
| [2370, 2379] | 6,777 | 43,588 | 1% | 10% |
| [2380, 2389] | 7,475 | 51,063 | 2% | 11% |
| [2390, 2399] | 8,304 | 59,367 | 2% | 13% |
| [2400, 2409] | 8,818 | 68,185 | 2% | 15% |
| [2410, 2419] | 9,710 | 77,895 | 2% | 17% |
| [2420, 2429] | 10,344 | 88,239 | 2% | 20% |
| [2430, 2439] | 10,864 | 99,103 | 2% | 22% |
| [2440, 2449] | 11,606 | 110,709 | 3% | 24% |
| [2450, 2459] | 12,158 | 122,867 | 3% | 27% |
| [2460, 2469] | 12,937 | 135,804 | 3% | 30% |
| [2470, 2479] | 13,656 | 149,460 | 3% | 33% |
| [2480, 2489] | 13,975 | 163,435 | 3% | 36% |
| [2490, 2499] | 14,375 | 177,810 | 3% | 39% |
| [2500, 2509] | 14,754 | 192,564 | 3% | 43% |
| [2510, 2519] | 14,920 | 207,484 | 3% | 46% |
| [2520, 2529] | 14,960 | 222,444 | 3% | 49% |
| [2530, 2539] | 15,010 | 237,454 | 3% | 53% |
| [2540, 2549] | 14,781 | 252,235 | 3% | 56% |
| [2550, 2559] | 14,560 | 266,795 | 3% | 59% |
| [2560, 2569] | 13,891 | 280,686 | 3% | 62% |
| [2570, 2579] | 13,588 | 294,274 | 3% | 65% |
| [2580, 2589] | 13,104 | 307,378 | 3% | 68% |
| [2590, 2599] | 12,576 | 319,954 | 3% | 71% |
| [2600, 2609] | 12,022 | 331,976 | 3% | 73% |
| [2610, 2619] | 11,497 | 343,473 | 3% | 76% |
| [2620, 2629] | 11,055 | 354,528 | 2% | 78% |
| [2630, 2639] | 10,422 | 364,950 | 2% | 81% |
| [2640, 2649] | 9,879 | 374,829 | 2% | 83% |
| [2650, 2659] | 9,236 | 384,065 | 2% | 85% |
| [2660, 2669] | 8,471 | 392,536 | 2% | 87% |
| [2670, 2679] | 7,715 | 400,251 | 2% | 89% |
| [2680, 2689] | 6,996 | 407,247 | 2% | 90% |
| [2690, 2699] | 6,456 | 413,703 | 1% | 92% |
| [2700, 2709] | 5,697 | 419,400 | 1% | 93% |
| [2710, 2719] | 5,187 | 424,587 | 1% | 94% |
| [2720, 2729] | 4,552 | 429,139 | 1% | 95% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2730, 2739] | 3,805 | 432,944 | 1% | 96% |
| [2740, 2749] | 3,224 | 436,168 | 1% | 97% |
| [2750, 2759] | 2,843 | 439,011 | 1% | 97% |
| [2760, 2769] | 2,370 | 441,381 | 1% | 98% |
| [2770, 2779] | 2,026 | 443,407 | 0% | 98% |
| [2780, 2789] | 1,653 | 445,060 | 0% | 98% |
| [2790, 2799] | 1,303 | 446,363 | 0% | 99% |
| [2800, 2802] | 5,602 | 451,965 | 1% | 100% |

**Table 7.C.16 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Eleven**

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2280, 2289] | 6,218 | 6,218 | 1% | 1% |
| [2290, 2299] | 1,205 | 7,423 | 0% | 2% |
| [2300, 2309] | 1,423 | 8,846 | 0% | 2% |
| [2310, 2319] | 1,650 | 10,496 | 0% | 3% |
| [2320, 2329] | 2,045 | 12,541 | 0% | 3% |
| [2330, 2339] | 2,439 | 14,980 | 1% | 4% |
| [2340, 2349] | 2,955 | 17,935 | 1% | 4% |
| [2350, 2359] | 3,448 | 21,383 | 1% | 5% |
| [2360, 2369] | 4,103 | 25,486 | 1% | 6% |
| [2370, 2379] | 4,637 | 30,123 | 1% | 7% |
| [2380, 2389] | 5,470 | 35,593 | 1% | 8% |
| [2390, 2399] | 6,192 | 41,785 | 1% | 10% |
| [2400, 2409] | 6,889 | 48,674 | 2% | 12% |
| [2410, 2419] | 7,609 | 56,283 | 2% | 13% |
| [2420, 2429] | 8,395 | 64,678 | 2% | 15% |
| [2430, 2439] | 8,964 | 73,642 | 2% | 18% |
| [2440, 2449] | 9,514 | 83,156 | 2% | 20% |
| [2450, 2459] | 10,214 | 93,370 | 2% | 22% |
| [2460, 2469] | 10,858 | 104,228 | 3% | 25% |
| [2470, 2479] | 11,347 | 115,575 | 3% | 28% |
| [2480, 2489] | 11,386 | 126,961 | 3% | 30% |
| [2490, 2499] | 11,697 | 138,658 | 3% | 33% |
| [2500, 2509] | 11,777 | 150,435 | 3% | 36% |
| [2510, 2519] | 12,132 | 162,567 | 3% | 39% |
| [2520, 2529] | 12,131 | 174,698 | 3% | 42% |
| [2530, 2539] | 12,250 | 186,948 | 3% | 45% |
| [2540, 2549] | 12,680 | 199,628 | 3% | 48% |
| [2550, 2559] | 12,678 | 212,306 | 3% | 51% |
| [2560, 2569] | 12,532 | 224,838 | 3% | 54% |
| [2570, 2579] | 12,469 | 237,307 | 3% | 57% |
| [2580, 2589] | 12,597 | 249,904 | 3% | 60% |
| [2590, 2599] | 12,219 | 262,123 | 3% | 62% |
| [2600, 2609] | 12,164 | 274,287 | 3% | 65% |
| [2610, 2619] | 11,626 | 285,913 | 3% | 68% |
| [2620, 2629] | 11,351 | 297,264 | 3% | 71% |
| [2630, 2639] | 10,442 | 307,706 | 2% | 73% |
| [2640, 2649] | 10,141 | 317,847 | 2% | 76% |
| [2650, 2659] | 9,493 | 327,340 | 2% | 78% |
| [2660, 2669] | 8,968 | 336,308 | 2% | 80% |
| [2670, 2679] | 8,448 | 344,756 | 2% | 82% |
| [2680, 2689] | 7,932 | 352,688 | 2% | 84% |
| [2690, 2699] | 7,431 | 360,119 | 2% | 86% |
| [2700, 2709] | 6,875 | 366,994 | 2% | 87% |
| [2710, 2719] | 6,253 | 373,247 | 1% | 89% |
| [2720, 2729] | 5,644 | 378,891 | 1% | 90% |
| [2730, 2739] | 5,215 | 384,106 | 1% | 92% |
| [2740, 2749] | 4,828 | 388,934 | 1% | 93% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2750, 2759] | 4,212 | 393,146 | 1% | 94% |
| [2760, 2769] | 3,668 | 396,814 | 1% | 95% |
| [2770, 2779] | 3,566 | 400,380 | 1% | 95% |
| [2780, 2789] | 2,961 | 403,341 | 1% | 96% |
| [2790, 2799] | 2,737 | 406,078 | 1% | 97% |
| [2800, 2809] | 2,388 | 408,466 | 1% | 97% |
| [2810, 2819] | 1,971 | 410,437 | 0% | 98% |
| [2820, 2829] | 1,751 | 412,188 | 0% | 98% |
| [2830, 2839] | 1,468 | 413,656 | 0% | 99% |
| [2840, 2849] | 1,182 | 414,838 | 0% | 99% |
| [2850, 2859] | 953 | 415,791 | 0% | 99% |
| [2860, 2862] | 3,717 | 419,508 | 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 | 472,674 | 2,398 | 100 | –1.29 | 1.17 |
| | 4 | 14–16 | 462,679 | 2,437 | 109 | –0.83 | 1.27 |
| | 5 | 14–16 | 460,190 | 2,473 | 106 | –0.41 | 1.24 |
| | 6 | 13–17 | 456,321 | 2,485 | 115 | –0.27 | 1.34 |
| | 7 | 13–17 | 449,714 | 2,518 | 111 | 0.11 | 1.29 |
| | 8 | 13–17 | 451,185 | 2,545 | 108 | 0.43 | 1.26 |
| | 11 | 15–16 | 422,098 | 2,592 | 114 | 0.97 | 1.33 |
| Mathematics | 3 | 17–20 | 474,261 | 2,418 | 84 | –1.23 | 1.06 |
| | 4 | 17–20 | 464,355 | 2,455 | 85 | –0.75 | 1.07 |
| | 5 | 17–20 | 461,617 | 2,483 | 94 | –0.40 | 1.19 |
| | 6 | 16–20 | 457,550 | 2,508 | 109 | –0.09 | 1.38 |
| | 7 | 16–20 | 450,395 | 2,521 | 115 | 0.08 | 1.45 |
| | 8 | 16–20 | 451,965 | 2,535 | 123 | 0.25 | 1.55 |
| | 11 | 19–22 | 419,508 | 2,563 | 132 | 0.60 | 1.67 |

**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 | 472,674 | 2,395 | 102 | –1.32 | 1.19 |
| | 4 | 12 | 462,679 | 2,446 | 104 | –0.72 | 1.21 |
| | 5 | 12 | 460,190 | 2,488 | 107 | –0.23 | 1.25 |
| | 6 | 12 | 456,321 | 2,515 | 101 | 0.07 | 1.18 |
| | 7 | 12 | 449,714 | 2,540 | 107 | 0.36 | 1.25 |
| | 8 | 12 | 451,185 | 2,557 | 105 | 0.57 | 1.22 |
| | 11 | 12 | 422,098 | 2,592 | 124 | 0.96 | 1.45 |
| Mathematics | 3 | 8–10 | 474,261 | 2,405 | 94 | –1.39 | 1.18 |
| | 4 | 8–10 | 464,355 | 2,441 | 102 | –0.93 | 1.29 |
| | 5 | 8–10 | 461,617 | 2,459 | 122 | –0.71 | 1.53 |
| | 6 | 8–10 | 457,550 | 2,484 | 125 | –0.38 | 1.58 |
| | 7 | 8–10 | 450,395 | 2,490 | 141 | –0.31 | 1.78 |
| | 8 | 8–10 | 451,965 | 2,510 | 145 | –0.07 | 1.83 |
| | 11 | 8–10 | 419,508 | 2,528 | 157 | 0.16 | 1.99 |

**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 | 472,674 | 2,408 | 117 | –1.17 | 1.37 |
| | 4 | 8–9 | 462,679 | 2,445 | 121 | –0.73 | 1.41 |
| | 5 | 8–9 | 460,190 | 2,469 | 130 | –0.46 | 1.52 |
| | 6 | 8–9 | 456,321 | 2,520 | 127 | 0.14 | 1.48 |
| | 7 | 8–9 | 449,714 | 2,529 | 123 | 0.24 | 1.44 |
| | 8 | 8–9 | 451,185 | 2,548 | 122 | 0.46 | 1.42 |
| | 11 | 8–9 | 422,098 | 2,575 | 135 | 0.77 | 1.58 |
| Mathematics | 3 | 8–10 | 474,261 | 2,408 | 95 | –1.34 | 1.20 |
| | 4 | 8–10 | 464,355 | 2,447 | 93 | –0.85 | 1.17 |
| | 5 | 8–10 | 461,617 | 2,468 | 108 | –0.59 | 1.37 |
| | 6 | 8–10 | 457,550 | 2,498 | 115 | –0.22 | 1.45 |
| | 7 | 8–10 | 450,395 | 2,505 | 132 | –0.12 | 1.67 |
| | 8 | 8–10 | 451,965 | 2,529 | 129 | 0.18 | 1.62 |
| | 11 | 8–10 | 419,508 | 2,556 | 141 | 0.51 | 1.78 |

**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 | 472,674 | 2,392 | 118 | –1.36 | 1.38 |
| | 4 | 8–9 | 462,679 | 2,432 | 123 | –0.89 | 1.44 |
| | 5 | 8–9 | 460,190 | 2,502 | 114 | –0.07 | 1.33 |
| | 6 | 8–9 | 456,321 | 2,516 | 113 | 0.09 | 1.32 |
| | 7 | 8–9 | 449,714 | 2,525 | 120 | 0.19 | 1.41 |
| | 8 | 8–9 | 451,185 | 2,545 | 120 | 0.42 | 1.40 |
| | 11 | 8–9 | 422,098 | 2,593 | 133 | 0.99 | 1.56 |

**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 | 192,845 | 192,276 | 86,686 | 41% | 41% | 18% |
| | 4 | 178,588 | 198,041 | 85,337 | 39% | 43% | 18% |
| | 5 | 177,210 | 191,661 | 90,689 | 39% | 42% | 20% |
| | 6 | 171,273 | 211,009 | 72,425 | 38% | 46% | 16% |
| | 7 | 165,649 | 200,943 | 81,048 | 37% | 45% | 18% |
| | 8 | 143,524 | 207,663 | 98,195 | 32% | 46% | 22% |
| | 11 | 86,461 | 206,455 | 126,798 | 21% | 49% | 30% |
| Mathematics | 3 | 188,858 | 167,476 | 117,491 | 40% | 35% | 25% |
| | 4 | 217,922 | 148,714 | 97,379 | 47% | 32% | 21% |
| | 5 | 235,903 | 136,608 | 88,673 | 51% | 30% | 19% |
| | 6 | 216,489 | 148,996 | 91,115 | 47% | 33% | 20% |
| | 7 | 205,494 | 146,658 | 96,801 | 46% | 33% | 22% |
| | 8 | 209,358 | 144,552 | 96,608 | 46% | 32% | 21% |
| | 11 | 202,434 | 136,214 | 79,207 | 48% | 33% | 19% |

**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 | 180,246 | 209,362 | 81,075 | 38% | 44% | 17% |
| | 4 | 162,388 | 214,658 | 84,038 | 35% | 47% | 18% |
| | 5 | 153,803 | 197,622 | 107,590 | 34% | 43% | 23% |
| | 6 | 147,064 | 214,679 | 91,978 | 32% | 47% | 20% |
| | 7 | 134,611 | 206,220 | 105,989 | 30% | 46% | 24% |
| | 8 | 127,399 | 224,358 | 95,561 | 28% | 50% | 21% |
| | 11 | 94,765 | 191,272 | 130,194 | 23% | 46% | 31% |
| Mathematics | 3 | 179,119 | 199,290 | 95,501 | 38% | 42% | 20% |
| | 4 | 180,415 | 208,030 | 75,607 | 39% | 45% | 16% |
| | 5 | 214,450 | 174,990 | 71,843 | 46% | 38% | 16% |
| | 6 | 178,330 | 210,679 | 68,321 | 39% | 46% | 15% |
| | 7 | 155,387 | 216,438 | 78,178 | 35% | 48% | 17% |
| | 8 | 142,403 | 229,342 | 79,453 | 32% | 51% | 18% |
| | 11 | 146,078 | 209,406 | 61,682 | 35% | 50% | 15% |

**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 | 112,792 | 291,684 | 67,606 | 24% | 62% | 14% |
| | 4 | 107,648 | 285,801 | 68,746 | 23% | 62% | 15% |
| | 5 | 110,537 | 281,568 | 67,575 | 24% | 61% | 15% |
| | 6 | 86,269 | 307,368 | 61,270 | 19% | 68% | 13% |
| | 7 | 106,652 | 286,227 | 55,048 | 24% | 64% | 12% |
| | 8 | 101,243 | 293,117 | 55,261 | 23% | 65% | 12% |
| | 11 | 86,537 | 259,024 | 73,098 | 21% | 62% | 17% |
| Mathematics | 3 | 130,873 | 246,353 | 96,483 | 28% | 52% | 20% |
| | 4 | 179,961 | 199,495 | 84,447 | 39% | 43% | 18% |
| | 5 | 189,599 | 207,003 | 64,495 | 41% | 45% | 14% |
| | 6 | 156,634 | 227,275 | 73,221 | 34% | 50% | 16% |
| | 7 | 84,529 | 288,536 | 76,475 | 19% | 64% | 17% |
| | 8 | 151,210 | 223,445 | 76,278 | 34% | 50% | 17% |
| | 11 | 124,678 | 231,215 | 62,272 | 30% | 55% | 15% |

**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 | 150,750 | 236,543 | 84,281 | 32% | 50% | 18% |
| | 4 | 135,243 | 223,225 | 78,875 | 31% | 51% | 18% |
| | 5 | 96,168 | 240,881 | 123,023 | 21% | 52% | 27% |
| | 6 | 85,669 | 266,945 | 102,690 | 19% | 59% | 23% |
| | 7 | 112,065 | 238,957 | 96,619 | 25% | 53% | 22% |
| | 8 | 103,519 | 248,733 | 96,694 | 23% | 55% | 22% |
| | 11 | 66,877 | 214,256 | 136,932 | 16% | 51% | 33% |

# Appendix 7.E: Demographic Summaries

**Table 7.E.1 Demographic Summary for ELA, Grade Three**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 472,674 | 2,403 | 88 | 36% | 26% | 20% | 18% | 38% |
| Male | 241,579 | 2,393 | 87 | 41% | 26% | 18% | 15% | 34% |
| Female | 231,095 | 2,413 | 87 | 31% | 27% | 21% | 20% | 42% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,539 | 2,379 | 82 | 47% | 26% | 18% | 9% | 27% |
| Asian American | 40,783 | 2,460 | 87 | 16% | 20% | 25% | 40% | 65% |
| Pacific Islander | 2,220 | 2,395 | 79 | 37% | 30% | 21% | 12% | 33% |
| Filipino | 10,743 | 2,446 | 79 | 16% | 24% | 28% | 31% | 59% |
| Hispanic | 261,805 | 2,379 | 79 | 46% | 29% | 17% | 9% | 25% |
| African American | 26,422 | 2,369 | 81 | 52% | 25% | 15% | 8% | 23% |
| White | 109,827 | 2,438 | 85 | 21% | 24% | 26% | 30% | 55% |
| Two or more races | 18,335 | 2,433 | 88 | 24% | 24% | 24% | 29% | 52% |
| English only | 270,859 | 2,417 | 88 | 30% | 26% | 22% | 22% | 44% |
| Initially Fluent English Proficient | 18,156 | 2,466 | 82 | 13% | 20% | 25% | 42% | 67% |
| English Learner | 151,300 | 2,361 | 74 | 55% | 28% | 12% | 5% | 17% |
| Reclassified Fluent English Proficient | 31,105 | 2,447 | 66 | 11% | 30% | 33% | 26% | 59% |
| To be determined | 246 | 2,374 | 102 | 49% | 22% | 16% | 13% | 29% |
| English proficiency unknown | 1,008 | 2,399 | 93 | 37% | 24% | 21% | 18% | 39% |
| No special education services | 427,704 | 2,409 | 85 | 33% | 27% | 21% | 19% | 40% |
| Special education services | 44,970 | 2,339 | 83 | 68% | 18% | 9% | 6% | 15% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 178,053 | 2,447 | 84 | 18% | 23% | 26% | 33% | 59% |
| Economically disadvantaged | 294,621 | 2,376 | 78 | 47% | 29% | 16% | 8% | 24% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4,649 | 2,352 | 73 | 60% | 26% | 11% | 4% | 14% |
| Not migrant | 468,025 | 2,403 | 88 | 36% | 26% | 20% | 18% | 38% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 787 | 2,413 | 83 | 31% | 26% | 24% | 19% | 43% |
| Asian American | 26,413 | 2,484 | 79 | 9% | 16% | 25% | 51% | 76% |
| Pacific Islander | 745 | 2,426 | 80 | 23% | 29% | 26% | 21% | 48% |
| Filipino | 6,966 | 2,458 | 77 | 13% | 22% | 30% | 36% | 65% |
| Hispanic | 48,493 | 2,416 | 82 | 28% | 28% | 24% | 19% | 44% |
| African American | 6,425 | 2,402 | 85 | 36% | 26% | 22% | 16% | 38% |
| White | 77,099 | 2,457 | 80 | 14% | 22% | 28% | 37% | 64% |
| Two or more races | 11,125 | 2,460 | 82 | 14% | 21% | 26% | 39% | 65% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,752 | 2,363 | 76 | 54% | 26% | 15% | 5% | 20% |
| Asian American | 14,370 | 2,417 | 83 | 28% | 27% | 24% | 20% | 45% |
| Pacific Islander | 1,475 | 2,380 | 75 | 44% | 31% | 19% | 7% | 25% |
| Filipino | 3,777 | 2,425 | 79 | 23% | 30% | 26% | 22% | 47% |
| Hispanic | 213,312 | 2,370 | 75 | 50% | 29% | 15% | 6% | 21% |
| African American | 19,997 | 2,359 | 77 | 57% | 25% | 13% | 6% | 18% |
| White | 32,728 | 2,395 | 82 | 37% | 29% | 21% | 13% | 34% |
| Two or More Races | 7,210 | 2,391 | 81 | 39% | 29% | 19% | 13% | 32% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.2 Demographic Summary for ELA, Grade Four**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 462,679 | 2,446 | 93 | 39% | 21% | 21% | 19% | 40% |
| Male | 235,607 | 2,435 | 93 | 44% | 21% | 19% | 16% | 35% |
| Female | 227,072 | 2,457 | 92 | 34% | 22% | 22% | 22% | 44% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,453 | 2,423 | 89 | 49% | 22% | 18% | 12% | 30% |
| Asian American | 41,102 | 2,510 | 91 | 16% | 16% | 24% | 44% | 68% |
| Pacific Islander | 2,288 | 2,435 | 84 | 41% | 26% | 20% | 13% | 33% |
| Filipino | 11,154 | 2,490 | 84 | 19% | 20% | 28% | 33% | 61% |
| Hispanic | 252,924 | 2,419 | 84 | 50% | 23% | 17% | 10% | 27% |
| African American | 25,989 | 2,407 | 86 | 56% | 20% | 15% | 8% | 23% |
| White | 109,959 | 2,483 | 89 | 23% | 20% | 26% | 31% | 57% |
| Two or more races | 16,810 | 2,478 | 93 | 26% | 19% | 24% | 30% | 54% |
| English only | 261,576 | 2,460 | 93 | 33% | 21% | 23% | 24% | 47% |
| Initially Fluent English Proficient | 18,135 | 2,512 | 86 | 14% | 17% | 26% | 43% | 69% |
| English Learner | 119,955 | 2,384 | 72 | 68% | 20% | 9% | 3% | 11% |
| Reclassified Fluent English Proficient | 61,924 | 2,484 | 71 | 17% | 27% | 32% | 24% | 56% |
| To be determined | 219 | 2,405 | 113 | 54% | 13% | 19% | 14% | 33% |
| English proficiency unknown | 870 | 2,439 | 102 | 43% | 17% | 19% | 20% | 40% |
| No special education services | 413,847 | 2,455 | 90 | 35% | 22% | 22% | 21% | 43% |
| Special education services | 48,832 | 2,370 | 87 | 74% | 13% | 8% | 5% | 14% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 176,935 | 2,493 | 88 | 20% | 19% | 26% | 35% | 62% |
| Economically disadvantaged | 285,744 | 2,416 | 83 | 51% | 23% | 17% | 9% | 26% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4,496 | 2,392 | 78 | 62% | 22% | 12% | 4% | 16% |
| Not migrant | 458,183 | 2,446 | 93 | 39% | 21% | 21% | 19% | 40% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 799 | 2,465 | 90 | 31% | 20% | 24% | 24% | 48% |
| Asian American | 26,343 | 2,535 | 82 | 9% | 12% | 24% | 56% | 79% |
| Pacific Islander | 749 | 2,462 | 86 | 29% | 24% | 24% | 23% | 47% |
| Filipino | 7,247 | 2,504 | 81 | 14% | 17% | 29% | 39% | 68% |
| Hispanic | 47,243 | 2,458 | 87 | 32% | 23% | 25% | 21% | 46% |
| African American | 6,435 | 2,443 | 89 | 38% | 23% | 22% | 17% | 39% |
| White | 77,824 | 2,502 | 83 | 15% | 18% | 28% | 38% | 66% |
| Two or more races | 10,295 | 2,507 | 85 | 15% | 17% | 27% | 41% | 68% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,654 | 2,402 | 80 | 57% | 22% | 15% | 6% | 21% |
| Asian American | 14,759 | 2,465 | 89 | 30% | 22% | 25% | 24% | 48% |
| Pacific Islander | 1,539 | 2,421 | 80 | 47% | 27% | 18% | 8% | 26% |
| Filipino | 3,907 | 2,465 | 83 | 28% | 24% | 27% | 21% | 48% |
| Hispanic | 205,681 | 2,410 | 80 | 54% | 23% | 16% | 7% | 23% |
| African American | 19,554 | 2,395 | 81 | 62% | 20% | 13% | 6% | 18% |
| White | 32,135 | 2,436 | 86 | 41% | 24% | 22% | 14% | 35% |
| Two or more races | 6,515 | 2,431 | 87 | 44% | 23% | 20% | 13% | 33% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.3 Demographic Summary for ELA, Grade Five**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 460,190 | 2,487 | 95 | 34% | 21% | 27% | 17% | 45% |
| Male | 234,937 | 2,474 | 95 | 39% | 21% | 25% | 14% | 39% |
| Female | 225,253 | 2,501 | 92 | 28% | 22% | 30% | 21% | 50% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,520 | 2,452 | 89 | 48% | 23% | 21% | 8% | 29% |
| Asian American | 42,200 | 2,551 | 93 | 14% | 14% | 31% | 42% | 72% |
| Pacific Islander | 2,393 | 2,473 | 87 | 37% | 25% | 26% | 12% | 38% |
| Filipino | 11,783 | 2,530 | 85 | 16% | 19% | 36% | 29% | 65% |
| Hispanic | 247,031 | 2,461 | 85 | 43% | 24% | 24% | 8% | 32% |
| African American | 26,397 | 2,447 | 89 | 50% | 22% | 21% | 7% | 28% |
| White | 112,354 | 2,523 | 91 | 20% | 19% | 34% | 28% | 62% |
| Two or more races | 15,512 | 2,519 | 94 | 22% | 19% | 31% | 28% | 59% |
| English only | 257,606 | 2,501 | 95 | 28% | 20% | 30% | 21% | 52% |
| Initially Fluent English Proficient | 20,247 | 2,547 | 88 | 13% | 16% | 33% | 37% | 71% |
| English Learner | 100,271 | 2,414 | 70 | 67% | 21% | 10% | 1% | 11% |
| Reclassified Fluent English Proficient | 81,074 | 2,518 | 73 | 15% | 26% | 39% | 20% | 58% |
| To be determined | 210 | 2,453 | 110 | 46% | 20% | 20% | 15% | 35% |
| English proficiency unknown | 782 | 2,476 | 107 | 40% | 17% | 24% | 19% | 43% |
| No special education services | 409,614 | 2,498 | 90 | 29% | 22% | 30% | 19% | 49% |
| Special education services | 50,576 | 2,401 | 86 | 73% | 14% | 9% | 4% | 13% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,361 | 2,533 | 90 | 16% | 17% | 34% | 32% | 66% |
| Economically disadvantaged | 279,829 | 2,457 | 85 | 45% | 24% | 23% | 8% | 31% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4,465 | 2,433 | 81 | 56% | 23% | 17% | 4% | 21% |
| Not migrant | 455,725 | 2,487 | 95 | 34% | 21% | 28% | 18% | 45% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 792 | 2,489 | 90 | 32% | 23% | 29% | 16% | 46% |
| Asian American | 26,997 | 2,576 | 83 | 7% | 10% | 30% | 52% | 82% |
| Pacific Islander | 824 | 2,503 | 84 | 23% | 26% | 32% | 19% | 51% |
| Filipino | 7,547 | 2,542 | 82 | 12% | 17% | 37% | 34% | 71% |
| Hispanic | 46,736 | 2,500 | 88 | 27% | 22% | 33% | 18% | 51% |
| African American | 7,007 | 2,482 | 93 | 33% | 23% | 29% | 14% | 44% |
| White | 80,888 | 2,542 | 84 | 13% | 17% | 36% | 34% | 70% |
| Two or more races | 9,570 | 2,548 | 86 | 12% | 16% | 34% | 38% | 72% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,728 | 2,435 | 84 | 55% | 23% | 17% | 5% | 22% |
| Asian American | 15,203 | 2,506 | 92 | 25% | 20% | 32% | 23% | 54% |
| Pacific Islander | 1,569 | 2,457 | 84 | 44% | 25% | 23% | 8% | 31% |
| Filipino | 4,236 | 2,507 | 86 | 22% | 23% | 34% | 21% | 55% |
| Hispanic | 200,295 | 2,451 | 82 | 47% | 25% | 22% | 6% | 28% |
| African American | 19,390 | 2,434 | 84 | 56% | 22% | 18% | 5% | 22% |
| White | 31,466 | 2,475 | 89 | 37% | 23% | 28% | 12% | 40% |
| Two or more races | 5,942 | 2,472 | 88 | 39% | 23% | 27% | 11% | 38% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.4 Demographic Summary for ELA, Grade Six**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 456,321 | 2,512 | 92 | 28% | 29% | 29% | 13% | 43% |
| Male | 232,916 | 2,498 | 93 | 34% | 29% | 26% | 11% | 37% |
| Female | 223,405 | 2,525 | 89 | 23% | 29% | 33% | 16% | 49% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,503 | 2,483 | 89 | 39% | 30% | 24% | 7% | 31% |
| Asian American | 41,789 | 2,576 | 89 | 10% | 17% | 36% | 36% | 72% |
| Pacific Islander | 2,302 | 2,502 | 86 | 29% | 33% | 29% | 9% | 38% |
| Filipino | 12,432 | 2,554 | 83 | 12% | 24% | 40% | 24% | 64% |
| Hispanic | 243,545 | 2,486 | 84 | 36% | 33% | 24% | 6% | 30% |
| African American | 26,412 | 2,474 | 88 | 43% | 30% | 21% | 5% | 27% |
| White | 112,650 | 2,544 | 87 | 16% | 25% | 38% | 21% | 59% |
| Two or more races | 14,688 | 2,538 | 92 | 20% | 25% | 35% | 20% | 56% |
| English only | 253,400 | 2,525 | 91 | 23% | 28% | 33% | 16% | 49% |
| Initially Fluent English Proficient | 21,514 | 2,566 | 87 | 11% | 22% | 36% | 30% | 67% |
| English Learner | 76,222 | 2,430 | 70 | 66% | 27% | 7% | 1% | 7% |
| Reclassified Fluent English Proficient | 104,197 | 2,529 | 74 | 16% | 36% | 36% | 12% | 48% |
| To be determined | 255 | 2,473 | 110 | 44% | 26% | 18% | 12% | 30% |
| English proficiency unknown | 733 | 2,486 | 106 | 39% | 22% | 29% | 11% | 39% |
| No special education services | 408,809 | 2,522 | 87 | 23% | 30% | 32% | 15% | 47% |
| Special education services | 47,512 | 2,419 | 82 | 71% | 19% | 8% | 2% | 10% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,506 | 2,555 | 86 | 13% | 23% | 38% | 25% | 63% |
| Economically disadvantaged | 275,815 | 2,483 | 84 | 38% | 33% | 24% | 6% | 29% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,929 | 2,461 | 82 | 48% | 31% | 18% | 3% | 21% |
| Not migrant | 452,392 | 2,512 | 92 | 28% | 29% | 30% | 13% | 43% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 839 | 2,516 | 89 | 25% | 31% | 31% | 13% | 44% |
| Asian American | 26,431 | 2,600 | 80 | 5% | 12% | 37% | 46% | 82% |
| Pacific Islander | 800 | 2,529 | 87 | 21% | 27% | 37% | 15% | 52% |
| Filipino | 8,023 | 2,568 | 80 | 9% | 21% | 42% | 29% | 70% |
| Hispanic | 47,036 | 2,523 | 85 | 21% | 31% | 35% | 13% | 48% |
| African American | 7,222 | 2,509 | 90 | 29% | 29% | 31% | 12% | 42% |
| White | 81,189 | 2,562 | 81 | 10% | 22% | 41% | 26% | 67% |
| Two or more races | 8,966 | 2,565 | 84 | 11% | 20% | 40% | 28% | 69% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,664 | 2,466 | 84 | 47% | 30% | 20% | 4% | 24% |
| Asian American | 15,358 | 2,536 | 90 | 19% | 26% | 36% | 19% | 55% |
| Pacific Islander | 1,502 | 2,488 | 82 | 34% | 36% | 25% | 5% | 30% |
| Filipino | 4,409 | 2,529 | 84 | 19% | 30% | 37% | 15% | 51% |
| Hispanic | 196,509 | 2,477 | 81 | 40% | 34% | 22% | 4% | 26% |
| African American | 19,190 | 2,461 | 84 | 49% | 30% | 18% | 3% | 21% |
| White | 31,461 | 2,500 | 85 | 31% | 32% | 29% | 8% | 37% |
| Two or more races | 5,722 | 2,495 | 87 | 33% | 32% | 27% | 8% | 35% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.5 Demographic Summary for ELA, Grade Seven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 449,714 | 2,531 | 97 | 31% | 25% | 32% | 12% | 44% |
| Male | 229,040 | 2,518 | 97 | 37% | 25% | 28% | 10% | 38% |
| Female | 220,674 | 2,545 | 93 | 25% | 26% | 35% | 14% | 49% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,677 | 2,502 | 92 | 42% | 27% | 26% | 5% | 31% |
| Asian American | 40,461 | 2,601 | 92 | 11% | 15% | 39% | 35% | 73% |
| Pacific Islander | 2,334 | 2,521 | 87 | 32% | 31% | 31% | 7% | 37% |
| Filipino | 12,457 | 2,576 | 86 | 14% | 21% | 45% | 20% | 65% |
| Hispanic | 240,370 | 2,504 | 88 | 40% | 29% | 26% | 5% | 31% |
| African American | 26,880 | 2,490 | 91 | 47% | 26% | 22% | 4% | 27% |
| White | 111,022 | 2,567 | 91 | 17% | 22% | 41% | 19% | 61% |
| Two or more races | 13,513 | 2,562 | 95 | 20% | 22% | 38% | 19% | 57% |
| English only | 247,158 | 2,546 | 96 | 25% | 24% | 36% | 15% | 50% |
| Initially Fluent English Proficient | 20,546 | 2,586 | 91 | 13% | 20% | 40% | 27% | 67% |
| English Learner | 65,610 | 2,438 | 68 | 74% | 20% | 5% | 0% | 6% |
| Reclassified Fluent English Proficient | 115,338 | 2,544 | 80 | 21% | 32% | 37% | 10% | 46% |
| To be determined | 223 | 2,478 | 110 | 52% | 20% | 22% | 7% | 28% |
| English proficiency unknown | 839 | 2,493 | 108 | 47% | 19% | 26% | 8% | 34% |
| No special education services | 404,545 | 2,542 | 92 | 26% | 26% | 34% | 13% | 47% |
| Special education services | 45,169 | 2,436 | 81 | 74% | 16% | 8% | 2% | 9% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 179,378 | 2,577 | 90 | 15% | 21% | 42% | 23% | 64% |
| Economically disadvantaged | 270,336 | 2,501 | 88 | 42% | 29% | 25% | 5% | 30% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,749 | 2,477 | 85 | 52% | 27% | 19% | 2% | 21% |
| Not migrant | 445,965 | 2,532 | 96 | 31% | 25% | 32% | 12% | 44% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 943 | 2,538 | 93 | 29% | 24% | 37% | 11% | 47% |
| Asian American | 25,468 | 2,626 | 82 | 6% | 11% | 39% | 44% | 83% |
| Pacific Islander | 841 | 2,548 | 86 | 21% | 28% | 41% | 11% | 51% |
| Filipino | 8,033 | 2,590 | 82 | 10% | 18% | 47% | 24% | 72% |
| Hispanic | 47,709 | 2,542 | 89 | 24% | 27% | 38% | 11% | 49% |
| African American | 7,624 | 2,523 | 93 | 33% | 27% | 32% | 8% | 41% |
| White | 80,307 | 2,585 | 84 | 11% | 20% | 45% | 24% | 69% |
| Two or More Races | 8,453 | 2,588 | 88 | 12% | 19% | 43% | 26% | 69% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,734 | 2,483 | 85 | 49% | 28% | 20% | 3% | 22% |
| Asian American | 14,993 | 2,560 | 94 | 20% | 23% | 39% | 18% | 57% |
| Pacific Islander | 1,493 | 2,505 | 84 | 38% | 33% | 25% | 4% | 29% |
| Filipino | 4,424 | 2,550 | 86 | 21% | 27% | 40% | 12% | 52% |
| Hispanic | 192,661 | 2,494 | 85 | 44% | 29% | 23% | 3% | 27% |
| African American | 19,256 | 2,478 | 87 | 53% | 26% | 19% | 3% | 21% |
| White | 30,715 | 2,520 | 90 | 33% | 28% | 32% | 7% | 39% |
| Two or more races | 5,060 | 2,518 | 90 | 35% | 27% | 31% | 7% | 38% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.6 Demographic Summary for ELA, Grade Eight**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 451,185 | 2,552 | 95 | 26% | 29% | 33% | 12% | 45% |
| Male | 230,130 | 2,537 | 96 | 32% | 29% | 30% | 9% | 39% |
| Female | 221,055 | 2,568 | 91 | 20% | 29% | 37% | 14% | 52% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,599 | 2,525 | 90 | 34% | 33% | 27% | 6% | 33% |
| Asian American | 40,680 | 2,619 | 91 | 9% | 17% | 41% | 33% | 74% |
| Pacific Islander | 2,307 | 2,539 | 88 | 29% | 33% | 31% | 7% | 38% |
| Filipino | 12,955 | 2,595 | 83 | 11% | 23% | 48% | 19% | 66% |
| Hispanic | 239,613 | 2,526 | 86 | 33% | 34% | 28% | 5% | 33% |
| African American | 27,826 | 2,512 | 91 | 40% | 31% | 24% | 5% | 28% |
| White | 112,317 | 2,586 | 90 | 14% | 24% | 42% | 19% | 61% |
| Two or more races | 12,888 | 2,581 | 95 | 17% | 24% | 39% | 19% | 58% |
| English only | 246,538 | 2,566 | 94 | 21% | 27% | 37% | 15% | 52% |
| Initially Fluent English Proficient | 21,005 | 2,603 | 90 | 11% | 22% | 41% | 26% | 67% |
| English Learner | 58,124 | 2,457 | 67 | 68% | 26% | 5% | 0% | 6% |
| Reclassified Fluent English Proficient | 124,566 | 2,562 | 79 | 17% | 36% | 38% | 9% | 47% |
| To be determined | 170 | 2,485 | 109 | 52% | 25% | 18% | 5% | 24% |
| English prof. unknown | 782 | 2,511 | 107 | 44% | 22% | 27% | 8% | 35% |
| No special education services | 406,809 | 2,563 | 90 | 21% | 30% | 36% | 13% | 49% |
| Special education services | 44,376 | 2,457 | 80 | 69% | 21% | 8% | 1% | 10% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 183,537 | 2,594 | 90 | 13% | 23% | 42% | 22% | 64% |
| Economically disadvantaged | 267,648 | 2,524 | 87 | 34% | 33% | 27% | 5% | 32% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,896 | 2,502 | 85 | 44% | 32% | 20% | 3% | 23% |
| Not migrant | 447,289 | 2,553 | 95 | 26% | 29% | 33% | 12% | 45% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 975 | 2,555 | 90 | 22% | 32% | 36% | 10% | 46% |
| Asian American | 25,290 | 2,643 | 82 | 5% | 12% | 41% | 42% | 83% |
| Pacific Islander | 844 | 2,568 | 87 | 18% | 32% | 38% | 13% | 50% |
| Filipino | 8,445 | 2,608 | 80 | 8% | 19% | 50% | 23% | 73% |
| Hispanic | 49,294 | 2,559 | 88 | 21% | 30% | 38% | 11% | 49% |
| African American | 8,241 | 2,544 | 94 | 27% | 30% | 33% | 9% | 42% |
| White | 82,320 | 2,603 | 84 | 10% | 22% | 46% | 23% | 69% |
| Two or more races | 8,128 | 2,606 | 88 | 10% | 20% | 43% | 26% | 69% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,624 | 2,507 | 85 | 42% | 34% | 22% | 3% | 25% |
| Asian American | 15,390 | 2,581 | 92 | 16% | 25% | 41% | 18% | 59% |
| Pacific Islander | 1,463 | 2,522 | 83 | 35% | 34% | 27% | 4% | 31% |
| Filipino | 4,510 | 2,570 | 83 | 17% | 29% | 43% | 11% | 54% |
| Hispanic | 190,319 | 2,518 | 84 | 36% | 35% | 25% | 4% | 29% |
| African American | 19,585 | 2,499 | 86 | 46% | 32% | 20% | 3% | 23% |
| White | 29,997 | 2,541 | 89 | 28% | 31% | 33% | 7% | 41% |
| Two or more races | 4,760 | 2,538 | 91 | 29% | 31% | 32% | 7% | 40% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.7 Demographic Summary for ELA, Grade Eleven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 422,098 | 2,591 | 110 | 20% | 24% | 33% | 23% | 56% |
| Male | 214,145 | 2,576 | 113 | 25% | 25% | 31% | 20% | 50% |
| Female | 207,953 | 2,607 | 104 | 15% | 24% | 36% | 26% | 61% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,616 | 2,570 | 108 | 25% | 27% | 31% | 17% | 48% |
| Asian American | 38,752 | 2,657 | 105 | 9% | 13% | 30% | 48% | 78% |
| Pacific Islander | 2,384 | 2,573 | 105 | 24% | 28% | 33% | 16% | 48% |
| Filipino | 13,834 | 2,634 | 94 | 8% | 18% | 40% | 34% | 74% |
| Hispanic | 218,563 | 2,565 | 103 | 25% | 29% | 33% | 13% | 46% |
| African American | 25,437 | 2,545 | 108 | 33% | 28% | 28% | 11% | 39% |
| White | 109,078 | 2,624 | 106 | 13% | 19% | 35% | 33% | 68% |
| Two or more races | 11,434 | 2,618 | 109 | 14% | 20% | 34% | 32% | 66% |
| English only | 232,541 | 2,604 | 109 | 17% | 22% | 34% | 27% | 61% |
| Initially Fluent English Proficient | 36,086 | 2,633 | 101 | 10% | 19% | 36% | 35% | 71% |
| English Learner | 39,506 | 2,469 | 78 | 63% | 29% | 7% | 1% | 8% |
| Reclassified Fluent English Proficient | 113,058 | 2,595 | 93 | 14% | 29% | 39% | 18% | 57% |
| To be determined | 182 | 2,536 | 126 | 42% | 19% | 25% | 14% | 39% |
| English prof. unknown | 725 | 2,533 | 123 | 42% | 21% | 25% | 13% | 38% |
| No special education services | 387,756 | 2,601 | 105 | 16% | 24% | 35% | 24% | 59% |
| Special education services | 34,342 | 2,479 | 94 | 60% | 26% | 11% | 3% | 14% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 190,559 | 2,626 | 106 | 12% | 19% | 35% | 34% | 69% |
| Economically disadvantaged | 231,539 | 2,563 | 104 | 26% | 29% | 32% | 13% | 45% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,375 | 2,535 | 99 | 34% | 33% | 26% | 7% | 33% |
| Not migrant | 418,723 | 2,592 | 110 | 20% | 24% | 33% | 23% | 56% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,230 | 2,598 | 106 | 18% | 22% | 36% | 24% | 60% |
| Asian American | 23,267 | 2,682 | 96 | 5% | 10% | 28% | 58% | 85% |
| Pacific Islander | 1,102 | 2,595 | 106 | 18% | 25% | 34% | 23% | 56% |
| Filipino | 9,503 | 2,646 | 90 | 7% | 15% | 40% | 38% | 78% |
| Hispanic | 55,430 | 2,589 | 104 | 19% | 25% | 36% | 20% | 56% |
| African American | 9,658 | 2,572 | 110 | 25% | 26% | 33% | 17% | 49% |
| White | 82,820 | 2,638 | 101 | 9% | 17% | 36% | 38% | 74% |
| Two or more races | 7,549 | 2,641 | 103 | 10% | 15% | 35% | 39% | 75% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,386 | 2,545 | 104 | 32% | 30% | 28% | 10% | 38% |
| Asian American | 15,485 | 2,619 | 108 | 14% | 19% | 35% | 32% | 67% |
| Pacific Islander | 1,282 | 2,553 | 100 | 28% | 31% | 32% | 10% | 41% |
| Filipino | 4,331 | 2,609 | 97 | 13% | 23% | 40% | 24% | 64% |
| Hispanic | 163,133 | 2,557 | 101 | 27% | 30% | 32% | 11% | 43% |
| African American | 15,779 | 2,529 | 104 | 38% | 29% | 25% | 7% | 32% |
| White | 26,258 | 2,578 | 108 | 23% | 26% | 33% | 18% | 51% |
| Two or more races | 3,885 | 2,574 | 107 | 23% | 28% | 33% | 17% | 49% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.8 Demographic Summary for Mathematics, Grade Three**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 474,261 | 2,415 | 80 | 33% | 27% | 26% | 14% | 40% |
| Male | 242,453 | 2,415 | 83 | 33% | 26% | 26% | 15% | 41% |
| Female | 231,808 | 2,415 | 77 | 33% | 28% | 26% | 13% | 39% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,534 | 2,390 | 77 | 44% | 27% | 22% | 7% | 29% |
| Asian American | 41,359 | 2,478 | 78 | 11% | 17% | 32% | 41% | 72% |
| Pacific Islander | 2,226 | 2,409 | 73 | 34% | 30% | 26% | 10% | 36% |
| Filipino | 10,857 | 2,452 | 70 | 15% | 23% | 38% | 24% | 62% |
| Hispanic | 262,614 | 2,393 | 71 | 42% | 30% | 22% | 6% | 28% |
| African American | 26,412 | 2,378 | 76 | 51% | 27% | 18% | 5% | 22% |
| White | 109,930 | 2,445 | 76 | 19% | 23% | 35% | 23% | 58% |
| Two or more races | 18,329 | 2,440 | 81 | 22% | 24% | 32% | 23% | 54% |
| English only | 270,479 | 2,425 | 80 | 28% | 26% | 29% | 17% | 46% |
| Initially Fluent English Proficient | 18,145 | 2,473 | 76 | 11% | 20% | 33% | 36% | 69% |
| English Learner | 152,869 | 2,383 | 71 | 49% | 29% | 17% | 5% | 22% |
| Reclassified Fluent English Proficient | 31,071 | 2,455 | 62 | 11% | 27% | 40% | 22% | 62% |
| To be determined | 377 | 2,389 | 91 | 47% | 22% | 19% | 12% | 31% |
| English prof. unknown | 1,320 | 2,399 | 89 | 42% | 23% | 23% | 12% | 35% |
| No special education services | 429,419 | 2,421 | 76 | 30% | 27% | 28% | 15% | 43% |
| Special education services | 44,842 | 2,353 | 89 | 64% | 18% | 12% | 6% | 18% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 178,749 | 2,454 | 77 | 16% | 22% | 35% | 27% | 62% |
| Economically disadvantaged | 295,512 | 2,391 | 72 | 43% | 30% | 21% | 6% | 27% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4,717 | 2,376 | 68 | 52% | 29% | 16% | 3% | 19% |
| Not migrant | 469,544 | 2,415 | 80 | 33% | 27% | 26% | 14% | 40% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 781 | 2,419 | 77 | 30% | 26% | 30% | 14% | 44% |
| Asian American | 26,794 | 2,500 | 71 | 6% | 11% | 31% | 52% | 83% |
| Pacific Islander | 746 | 2,434 | 73 | 23% | 28% | 31% | 18% | 49% |
| Filipino | 7,036 | 2,463 | 68 | 11% | 20% | 40% | 29% | 69% |
| Hispanic | 48,715 | 2,422 | 73 | 27% | 29% | 31% | 13% | 45% |
| African American | 6,431 | 2,407 | 76 | 35% | 28% | 27% | 10% | 37% |
| White | 77,118 | 2,461 | 71 | 12% | 21% | 38% | 29% | 67% |
| Two or more races | 11,128 | 2,465 | 75 | 13% | 20% | 36% | 32% | 68% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,753 | 2,377 | 73 | 50% | 28% | 19% | 3% | 22% |
| Asian American | 14,565 | 2,439 | 75 | 21% | 26% | 32% | 20% | 53% |
| Pacific Islander | 1,480 | 2,396 | 70 | 39% | 32% | 23% | 6% | 29% |
| Filipino | 3,821 | 2,433 | 70 | 21% | 28% | 35% | 16% | 50% |
| Hispanic | 213,899 | 2,386 | 69 | 46% | 30% | 20% | 5% | 24% |
| African American | 19,981 | 2,368 | 73 | 56% | 27% | 15% | 3% | 18% |
| White | 32,812 | 2,407 | 74 | 34% | 30% | 27% | 9% | 37% |
| Two or more races | 7,201 | 2,402 | 74 | 37% | 29% | 25% | 8% | 33% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.9 Demographic Summary for Mathematics, Grade Four**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 464,355 | 2,454 | 81 | 31% | 35% | 22% | 13% | 35% |
| Male | 236,459 | 2,454 | 84 | 31% | 33% | 22% | 14% | 36% |
| Female | 227,896 | 2,453 | 77 | 30% | 36% | 22% | 12% | 34% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,445 | 2,433 | 77 | 38% | 37% | 18% | 7% | 25% |
| Asian American | 41,644 | 2,522 | 80 | 9% | 22% | 29% | 40% | 69% |
| Pacific Islander | 2,282 | 2,443 | 71 | 33% | 41% | 19% | 7% | 27% |
| Filipino | 11,281 | 2,490 | 73 | 13% | 33% | 32% | 22% | 54% |
| Hispanic | 253,901 | 2,430 | 71 | 40% | 38% | 17% | 5% | 22% |
| African American | 25,961 | 2,416 | 74 | 48% | 35% | 14% | 4% | 17% |
| White | 110,018 | 2,485 | 77 | 16% | 32% | 31% | 21% | 52% |
| Two or more races | 16,823 | 2,480 | 82 | 19% | 32% | 28% | 21% | 49% |
| English only | 261,276 | 2,464 | 81 | 26% | 34% | 25% | 15% | 40% |
| Initially Fluent English Proficient | 18,138 | 2,511 | 79 | 11% | 27% | 29% | 33% | 63% |
| English Learner | 121,552 | 2,407 | 66 | 54% | 34% | 9% | 2% | 11% |
| Reclassified Fluent English Proficient | 61,906 | 2,486 | 65 | 11% | 40% | 32% | 17% | 49% |
| To be determined | 318 | 2,421 | 102 | 51% | 23% | 13% | 13% | 26% |
| English prof. unknown | 1,165 | 2,433 | 94 | 42% | 29% | 17% | 12% | 29% |
| No special education services | 415,621 | 2,461 | 77 | 27% | 36% | 23% | 14% | 37% |
| Special education services | 48,734 | 2,389 | 84 | 64% | 23% | 9% | 4% | 13% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 177,633 | 2,495 | 78 | 14% | 30% | 31% | 25% | 56% |
| Economically disadvantaged | 286,722 | 2,428 | 71 | 41% | 38% | 16% | 5% | 21% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4,532 | 2,413 | 66 | 50% | 35% | 12% | 2% | 14% |
| Not migrant | 459,823 | 2,454 | 81 | 30% | 35% | 22% | 13% | 35% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 798 | 2,468 | 77 | 22% | 37% | 26% | 15% | 41% |
| Asian American | 26,689 | 2,545 | 72 | 4% | 15% | 29% | 51% | 81% |
| Pacific Islander | 751 | 2,464 | 74 | 22% | 40% | 24% | 14% | 38% |
| Filipino | 7,319 | 2,502 | 71 | 10% | 28% | 35% | 27% | 62% |
| Hispanic | 47,475 | 2,460 | 73 | 25% | 38% | 26% | 11% | 37% |
| African American | 6,436 | 2,446 | 76 | 31% | 38% | 22% | 8% | 31% |
| White | 77,853 | 2,501 | 72 | 10% | 29% | 35% | 26% | 61% |
| Two or more races | 10,312 | 2,506 | 75 | 10% | 28% | 33% | 30% | 62% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,647 | 2,416 | 72 | 46% | 38% | 14% | 3% | 17% |
| Asian American | 14,955 | 2,480 | 77 | 18% | 33% | 29% | 20% | 48% |
| Pacific Islander | 1,531 | 2,432 | 67 | 38% | 41% | 17% | 4% | 21% |
| Filipino | 3,962 | 2,467 | 71 | 20% | 41% | 26% | 13% | 39% |
| Hispanic | 206,426 | 2,423 | 68 | 44% | 38% | 15% | 4% | 18% |
| African American | 19,525 | 2,406 | 70 | 53% | 34% | 11% | 2% | 13% |
| White | 32,165 | 2,445 | 73 | 31% | 39% | 22% | 8% | 30% |
| Two or more races | 6,511 | 2,439 | 74 | 34% | 39% | 20% | 7% | 27% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.10 Demographic Summary for Mathematics, Grade Five**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 461,617 | 2,480 | 90 | 41% | 29% | 15% | 15% | 30% |
| Male | 235,661 | 2,480 | 93 | 42% | 27% | 16% | 16% | 31% |
| Female | 225,956 | 2,481 | 85 | 40% | 30% | 15% | 14% | 29% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,512 | 2,450 | 82 | 54% | 29% | 10% | 7% | 17% |
| Asian American | 42,721 | 2,555 | 89 | 14% | 21% | 21% | 44% | 65% |
| Pacific Islander | 2,395 | 2,467 | 82 | 45% | 32% | 14% | 9% | 23% |
| Filipino | 11,863 | 2,520 | 81 | 22% | 30% | 23% | 25% | 48% |
| Hispanic | 247,961 | 2,453 | 78 | 53% | 30% | 11% | 6% | 17% |
| African American | 26,313 | 2,436 | 81 | 60% | 26% | 9% | 5% | 14% |
| White | 112,328 | 2,515 | 84 | 23% | 30% | 22% | 24% | 46% |
| Two or more races | 15,524 | 2,510 | 90 | 28% | 28% | 20% | 24% | 44% |
| English only | 257,186 | 2,492 | 90 | 35% | 29% | 18% | 18% | 36% |
| Initially Fluent English Proficient | 20,240 | 2,537 | 88 | 19% | 27% | 20% | 34% | 54% |
| English Learner | 101,743 | 2,419 | 69 | 73% | 21% | 5% | 2% | 7% |
| Reclassified Fluent English Proficient | 81,073 | 2,506 | 75 | 26% | 37% | 20% | 17% | 38% |
| To be determined | 310 | 2,441 | 107 | 62% | 12% | 14% | 12% | 25% |
| English prof. unknown | 1,065 | 2,457 | 97 | 52% | 23% | 13% | 12% | 26% |
| No special education services | 411,190 | 2,489 | 86 | 37% | 30% | 17% | 16% | 33% |
| Special education services | 50,427 | 2,406 | 85 | 76% | 15% | 5% | 4% | 9% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,891 | 2,525 | 87 | 21% | 28% | 22% | 29% | 51% |
| Economically disadvantaged | 280,726 | 2,451 | 79 | 54% | 29% | 11% | 6% | 17% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4,513 | 2,433 | 73 | 63% | 27% | 7% | 3% | 10% |
| Not migrant | 457,104 | 2,481 | 90 | 41% | 29% | 16% | 15% | 31% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 791 | 2,486 | 84 | 36% | 34% | 15% | 15% | 30% |
| Asian American | 27,282 | 2,581 | 79 | 7% | 16% | 21% | 56% | 77% |
| Pacific Islander | 824 | 2,495 | 81 | 32% | 33% | 19% | 16% | 35% |
| Filipino | 7,593 | 2,533 | 78 | 17% | 28% | 26% | 30% | 55% |
| Hispanic | 46,968 | 2,486 | 81 | 36% | 33% | 18% | 13% | 32% |
| African American | 6,996 | 2,468 | 86 | 44% | 31% | 15% | 10% | 25% |
| White | 80,857 | 2,533 | 79 | 16% | 29% | 25% | 30% | 55% |
| Two or more races | 9,580 | 2,538 | 84 | 16% | 26% | 24% | 33% | 58% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,721 | 2,434 | 76 | 63% | 26% | 8% | 3% | 11% |
| Asian American | 15,439 | 2,510 | 86 | 27% | 29% | 21% | 22% | 44% |
| Pacific Islander | 1,571 | 2,453 | 78 | 52% | 31% | 11% | 6% | 17% |
| Filipino | 4,270 | 2,498 | 80 | 30% | 33% | 19% | 17% | 36% |
| Hispanic | 200,993 | 2,445 | 75 | 57% | 29% | 10% | 4% | 14% |
| African American | 19,317 | 2,425 | 76 | 66% | 24% | 7% | 3% | 10% |
| White | 31,471 | 2,470 | 81 | 42% | 33% | 15% | 9% | 25% |
| Two or more races | 5,944 | 2,464 | 81 | 46% | 31% | 14% | 8% | 22% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.11 Demographic Summary for Mathematics, Grade Six**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 457,550 | 2,504 | 102 | 36% | 31% | 18% | 15% | 33% |
| Male | 233,513 | 2,500 | 106 | 38% | 30% | 17% | 15% | 32% |
| Female | 224,037 | 2,509 | 97 | 34% | 32% | 19% | 15% | 34% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,499 | 2,475 | 96 | 47% | 32% | 14% | 7% | 22% |
| Asian American | 42,238 | 2,590 | 96 | 12% | 20% | 23% | 45% | 68% |
| Pacific Islander | 2,303 | 2,495 | 92 | 38% | 35% | 17% | 10% | 27% |
| Filipino | 12,522 | 2,548 | 90 | 18% | 31% | 26% | 25% | 51% |
| Hispanic | 244,197 | 2,474 | 92 | 47% | 33% | 14% | 6% | 20% |
| African American | 26,403 | 2,456 | 97 | 55% | 29% | 11% | 5% | 16% |
| White | 112,760 | 2,541 | 94 | 21% | 31% | 25% | 23% | 48% |
| Two or more races | 14,628 | 2,532 | 101 | 25% | 30% | 22% | 22% | 45% |
| English only | 253,077 | 2,517 | 101 | 31% | 31% | 21% | 18% | 38% |
| Initially Fluent English Proficient | 21,525 | 2,566 | 98 | 17% | 27% | 23% | 34% | 56% |
| English Learner | 77,512 | 2,421 | 85 | 73% | 21% | 4% | 2% | 6% |
| Reclassified Fluent English Proficient | 104,131 | 2,524 | 82 | 25% | 39% | 21% | 14% | 35% |
| To be determined | 340 | 2,459 | 120 | 56% | 21% | 11% | 12% | 22% |
| English prof. unknown | 965 | 2,462 | 117 | 50% | 27% | 13% | 10% | 23% |
| No special education services | 410,182 | 2,516 | 96 | 31% | 33% | 19% | 16% | 36% |
| Special education services | 47,368 | 2,400 | 99 | 78% | 15% | 5% | 3% | 8% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,948 | 2,553 | 96 | 18% | 28% | 25% | 29% | 53% |
| Economically disadvantaged | 276,602 | 2,472 | 93 | 48% | 33% | 13% | 6% | 20% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,979 | 2,455 | 89 | 56% | 30% | 11% | 3% | 14% |
| Not migrant | 453,571 | 2,505 | 102 | 36% | 31% | 18% | 15% | 33% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 840 | 2,509 | 95 | 32% | 32% | 22% | 14% | 35% |
| Asian American | 26,698 | 2,618 | 86 | 6% | 15% | 22% | 57% | 80% |
| Pacific Islander | 797 | 2,523 | 94 | 27% | 34% | 20% | 18% | 38% |
| Filipino | 8,072 | 2,564 | 86 | 14% | 28% | 28% | 31% | 58% |
| Hispanic | 47,186 | 2,512 | 92 | 30% | 35% | 21% | 13% | 35% |
| African American | 7,206 | 2,494 | 97 | 38% | 34% | 17% | 11% | 28% |
| White | 81,247 | 2,560 | 87 | 14% | 29% | 28% | 29% | 57% |
| Two or more races | 8,902 | 2,563 | 93 | 15% | 27% | 26% | 31% | 58% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,659 | 2,458 | 92 | 54% | 32% | 11% | 4% | 15% |
| Asian American | 15,540 | 2,543 | 95 | 22% | 30% | 24% | 25% | 49% |
| Pacific Islander | 1,506 | 2,480 | 87 | 43% | 36% | 15% | 6% | 21% |
| Filipino | 4,450 | 2,520 | 90 | 27% | 35% | 23% | 15% | 38% |
| Hispanic | 197,011 | 2,465 | 90 | 51% | 33% | 12% | 4% | 16% |
| African American | 19,197 | 2,442 | 93 | 61% | 28% | 9% | 3% | 12% |
| White | 31,513 | 2,492 | 93 | 38% | 35% | 18% | 9% | 27% |
| Two or more races | 5,726 | 2,485 | 94 | 42% | 34% | 16% | 8% | 24% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.12 Demographic Summary for Mathematics, Grade Seven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 450,395 | 2,518 | 109 | 37% | 29% | 19% | 15% | 34% |
| Male | 229,411 | 2,515 | 113 | 39% | 28% | 18% | 15% | 34% |
| Female | 220,984 | 2,522 | 105 | 35% | 31% | 19% | 15% | 34% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,677 | 2,489 | 101 | 47% | 32% | 14% | 7% | 22% |
| Asian American | 40,909 | 2,616 | 103 | 11% | 18% | 24% | 47% | 71% |
| Pacific Islander | 2,336 | 2,508 | 99 | 38% | 33% | 19% | 9% | 28% |
| Filipino | 12,553 | 2,566 | 96 | 18% | 28% | 28% | 25% | 53% |
| Hispanic | 240,803 | 2,485 | 97 | 48% | 31% | 15% | 6% | 20% |
| African American | 26,779 | 2,465 | 101 | 56% | 28% | 12% | 4% | 16% |
| White | 110,818 | 2,559 | 101 | 21% | 29% | 27% | 23% | 50% |
| Two or more races | 13,520 | 2,551 | 107 | 25% | 28% | 24% | 23% | 47% |
| English only | 246,482 | 2,532 | 108 | 32% | 29% | 22% | 17% | 39% |
| Initially Fluent English Proficient | 20,494 | 2,582 | 107 | 18% | 25% | 24% | 33% | 57% |
| English Learner | 66,871 | 2,424 | 89 | 76% | 18% | 4% | 2% | 6% |
| Reclassified Fluent English Proficient | 115,108 | 2,533 | 92 | 29% | 36% | 21% | 14% | 35% |
| To be determined | 321 | 2,459 | 128 | 61% | 17% | 11% | 12% | 22% |
| English prof. unknown | 1,119 | 2,472 | 121 | 54% | 23% | 12% | 10% | 22% |
| No special education services | 405,401 | 2,530 | 104 | 32% | 31% | 21% | 16% | 37% |
| Special education services | 44,994 | 2,411 | 100 | 78% | 14% | 5% | 3% | 7% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 179,604 | 2,570 | 104 | 20% | 27% | 26% | 28% | 54% |
| Economically disadvantaged | 270,791 | 2,484 | 99 | 49% | 31% | 14% | 6% | 20% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,813 | 2,466 | 94 | 55% | 31% | 11% | 3% | 14% |
| Not migrant | 446,582 | 2,519 | 109 | 37% | 29% | 19% | 15% | 34% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 942 | 2,527 | 102 | 32% | 32% | 22% | 15% | 36% |
| Asian American | 25,711 | 2,646 | 92 | 5% | 13% | 23% | 59% | 82% |
| Pacific Islander | 838 | 2,540 | 95 | 26% | 33% | 25% | 16% | 41% |
| Filipino | 8,083 | 2,582 | 92 | 13% | 26% | 30% | 30% | 60% |
| Hispanic | 47,829 | 2,523 | 99 | 32% | 33% | 22% | 13% | 35% |
| African American | 7,597 | 2,499 | 103 | 42% | 31% | 18% | 9% | 27% |
| White | 80,165 | 2,579 | 94 | 15% | 27% | 29% | 29% | 58% |
| Two or more races | 8,439 | 2,582 | 100 | 16% | 25% | 27% | 31% | 59% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,735 | 2,468 | 94 | 54% | 31% | 11% | 3% | 14% |
| Asian American | 15,198 | 2,566 | 103 | 20% | 27% | 26% | 27% | 52% |
| Pacific Islander | 1,498 | 2,489 | 96 | 45% | 34% | 16% | 6% | 21% |
| Filipino | 4,470 | 2,537 | 95 | 27% | 32% | 25% | 15% | 40% |
| Hispanic | 192,974 | 2,476 | 94 | 52% | 31% | 13% | 4% | 17% |
| African American | 19,182 | 2,452 | 96 | 62% | 27% | 9% | 3% | 12% |
| White | 30,653 | 2,507 | 98 | 38% | 34% | 19% | 9% | 28% |
| Two or more races | 5,081 | 2,501 | 101 | 41% | 32% | 19% | 8% | 27% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.13 Demographic Summary for Mathematics, Grade Eight**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 451,965 | 2,534 | 116 | 41% | 26% | 17% | 16% | 33% |
| Male | 230,528 | 2,528 | 121 | 43% | 25% | 16% | 16% | 32% |
| Female | 221,437 | 2,539 | 111 | 38% | 28% | 18% | 16% | 34% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,587 | 2,499 | 108 | 52% | 27% | 13% | 8% | 21% |
| Asian American | 41,144 | 2,639 | 113 | 13% | 17% | 20% | 50% | 70% |
| Pacific Islander | 2,314 | 2,519 | 106 | 44% | 30% | 16% | 11% | 26% |
| Filipino | 13,056 | 2,586 | 104 | 21% | 27% | 26% | 27% | 53% |
| Hispanic | 240,142 | 2,499 | 102 | 52% | 28% | 13% | 7% | 20% |
| African American | 27,679 | 2,477 | 104 | 61% | 23% | 10% | 5% | 16% |
| White | 112,176 | 2,574 | 110 | 26% | 26% | 23% | 25% | 48% |
| Two or more races | 12,867 | 2,567 | 116 | 30% | 25% | 20% | 25% | 45% |
| English only | 245,902 | 2,546 | 116 | 36% | 26% | 19% | 19% | 38% |
| Initially Fluent English Proficient | 20,999 | 2,597 | 117 | 22% | 24% | 20% | 34% | 54% |
| English Learner | 59,383 | 2,434 | 92 | 80% | 15% | 4% | 2% | 6% |
| Reclassified Fluent English Proficient | 124,423 | 2,546 | 102 | 35% | 32% | 18% | 15% | 33% |
| To be determined | 241 | 2,461 | 122 | 70% | 13% | 9% | 8% | 17% |
| English prof. unknown | 1,017 | 2,485 | 123 | 58% | 21% | 11% | 10% | 21% |
| No special education services | 407,729 | 2,546 | 112 | 36% | 28% | 18% | 18% | 36% |
| Special education services | 44,236 | 2,422 | 98 | 81% | 12% | 4% | 3% | 7% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 183,747 | 2,585 | 114 | 24% | 25% | 22% | 29% | 52% |
| Economically disadvantaged | 268,218 | 2,499 | 105 | 52% | 27% | 13% | 8% | 21% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,951 | 2,480 | 100 | 60% | 25% | 11% | 5% | 15% |
| Not migrant | 448,014 | 2,534 | 117 | 40% | 26% | 17% | 17% | 33% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 966 | 2,531 | 111 | 40% | 28% | 17% | 14% | 31% |
| Asian American | 25,540 | 2,670 | 101 | 7% | 12% | 19% | 62% | 81% |
| Pacific Islander | 843 | 2,551 | 107 | 32% | 30% | 20% | 17% | 38% |
| Filipino | 8,503 | 2,603 | 101 | 16% | 25% | 27% | 33% | 60% |
| Hispanic | 49,394 | 2,534 | 106 | 38% | 30% | 18% | 14% | 32% |
| African American | 8,204 | 2,512 | 109 | 47% | 28% | 15% | 10% | 26% |
| White | 82,183 | 2,594 | 104 | 19% | 25% | 25% | 30% | 56% |
| Two or more races | 8,114 | 2,598 | 110 | 20% | 24% | 23% | 34% | 57% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,621 | 2,480 | 101 | 59% | 26% | 11% | 5% | 15% |
| Asian American | 15,604 | 2,589 | 114 | 23% | 24% | 22% | 31% | 53% |
| Pacific Islander | 1,471 | 2,500 | 101 | 51% | 29% | 13% | 7% | 20% |
| Filipino | 4,553 | 2,556 | 102 | 29% | 30% | 23% | 18% | 40% |
| Hispanic | 190,748 | 2,490 | 99 | 55% | 28% | 12% | 5% | 17% |
| African American | 19,475 | 2,462 | 98 | 67% | 22% | 8% | 3% | 11% |
| White | 29,993 | 2,518 | 106 | 44% | 29% | 17% | 10% | 27% |
| Two or more races | 4,753 | 2,514 | 108 | 47% | 27% | 16% | 11% | 26% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.14 Demographic Summary for Mathematics, Grade Eleven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 419,508 | 2,560 | 125 | 45% | 25% | 18% | 11% | 30% |
| Male | 213,078 | 2,555 | 132 | 48% | 23% | 17% | 12% | 29% |
| Female | 206,430 | 2,565 | 118 | 43% | 27% | 20% | 10% | 30% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 2,564 | 2,531 | 115 | 56% | 24% | 15% | 6% | 21% |
| Asian American | 38,858 | 2,672 | 124 | 16% | 18% | 27% | 40% | 67% |
| Pacific Islander | 2,353 | 2,540 | 114 | 50% | 29% | 14% | 7% | 21% |
| Filipino | 13,759 | 2,609 | 110 | 26% | 28% | 30% | 16% | 46% |
| Hispanic | 217,296 | 2,525 | 109 | 56% | 26% | 14% | 4% | 18% |
| African American | 25,221 | 2,502 | 110 | 65% | 22% | 11% | 3% | 14% |
| White | 108,155 | 2,595 | 123 | 33% | 26% | 25% | 17% | 41% |
| Two or more races | 11,302 | 2,588 | 127 | 36% | 25% | 23% | 16% | 39% |
| English only | 230,317 | 2,570 | 125 | 42% | 25% | 20% | 13% | 33% |
| Initially Fluent English Proficient | 35,882 | 2,608 | 128 | 31% | 25% | 23% | 21% | 44% |
| English Learner | 39,778 | 2,454 | 98 | 85% | 10% | 4% | 2% | 5% |
| Reclassified Fluent English Proficient | 112,487 | 2,563 | 111 | 44% | 29% | 18% | 9% | 27% |
| To be determined | 192 | 2,521 | 130 | 54% | 25% | 14% | 7% | 21% |
| English prof. unknown | 852 | 2,510 | 123 | 62% | 20% | 13% | 5% | 18% |
| No special education services | 385,593 | 2,570 | 122 | 42% | 26% | 20% | 12% | 32% |
| Special education services | 33,915 | 2,444 | 98 | 86% | 10% | 3% | 1% | 5% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 189,172 | 2,601 | 127 | 32% | 25% | 24% | 19% | 43% |
| Economically disadvantaged | 230,336 | 2,526 | 112 | 56% | 25% | 14% | 5% | 19% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3,376 | 2,509 | 104 | 63% | 24% | 11% | 2% | 13% |
| Not migrant | 416,132 | 2,560 | 125 | 45% | 25% | 18% | 11% | 30% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,213 | 2,563 | 116 | 44% | 27% | 20% | 9% | 29% |
| Asian American | 23,283 | 2,703 | 116 | 10% | 14% | 26% | 50% | 77% |
| Pacific Islander | 1,083 | 2,562 | 118 | 42% | 30% | 18% | 10% | 28% |
| Filipino | 9,438 | 2,622 | 108 | 22% | 27% | 32% | 19% | 51% |
| Hispanic | 55,059 | 2,548 | 114 | 48% | 27% | 18% | 7% | 25% |
| African American | 9,560 | 2,528 | 115 | 55% | 25% | 15% | 5% | 20% |
| White | 82,076 | 2,613 | 120 | 27% | 26% | 27% | 20% | 47% |
| Two or more races | 7,460 | 2,617 | 124 | 26% | 25% | 27% | 22% | 49% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 1,351 | 2,502 | 107 | 66% | 21% | 10% | 3% | 13% |
| Asian American | 15,575 | 2,625 | 122 | 25% | 23% | 28% | 24% | 52% |
| Pacific Islander | 1,270 | 2,522 | 107 | 56% | 29% | 10% | 4% | 15% |
| Filipino | 4,321 | 2,582 | 109 | 35% | 29% | 26% | 10% | 36% |
| Hispanic | 162,237 | 2,517 | 106 | 59% | 25% | 12% | 3% | 15% |
| African American | 15,661 | 2,486 | 105 | 70% | 20% | 8% | 2% | 10% |
| White | 26,079 | 2,539 | 115 | 51% | 26% | 16% | 7% | 23% |
| Two or more races | 3,842 | 2,532 | 113 | 54% | 26% | 15% | 5% | 20% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 7.E.15 Ethnicity Summary by Economic Status for Claims—ELA, Grade Three**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 472,674 | 2,403 | 88 | 41% | 41% | 18% | 38% | 44% | 17% | 24% | 62% | 14% | 32% | 50% | 18% |
| Male | 241,579 | 2,393 | 87 | 45% | 39% | 16% | 43% | 43% | 14% | 26% | 60% | 13% | 35% | 49% | 16% |
| Female | 231,095 | 2,413 | 87 | 36% | 43% | 21% | 34% | 46% | 20% | 21% | 63% | 15% | 28% | 52% | 20% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,539 | 2,379 | 82 | 50% | 38% | 12% | 49% | 41% | 10% | 31% | 60% | 9% | 41% | 48% | 11% |
| Asian American | 40,783 | 2,460 | 87 | 20% | 43% | 37% | 18% | 44% | 39% | 10% | 61% | 28% | 15% | 48% | 37% |
| Pacific Islander | 2,220 | 2,395 | 79 | 43% | 44% | 13% | 38% | 47% | 15% | 25% | 66% | 10% | 35% | 52% | 13% |
| Filipino | 10,743 | 2,446 | 79 | 22% | 48% | 30% | 19% | 50% | 32% | 11% | 69% | 20% | 16% | 54% | 30% |
| Hispanic | 261,805 | 2,379 | 79 | 51% | 39% | 10% | 48% | 43% | 9% | 30% | 62% | 8% | 39% | 50% | 11% |
| African American | 26,422 | 2,369 | 81 | 56% | 35% | 9% | 52% | 39% | 9% | 35% | 58% | 7% | 45% | 45% | 9% |
| White | 109,827 | 2,438 | 85 | 26% | 44% | 30% | 24% | 49% | 27% | 13% | 63% | 24% | 20% | 52% | 28% |
| Two or more races | 18,335 | 2,433 | 88 | 29% | 43% | 28% | 26% | 47% | 26% | 15% | 62% | 23% | 23% | 51% | 27% |
| English only | 270,859 | 2,417 | 88 | 35% | 43% | 23% | 32% | 47% | 21% | 19% | 63% | 18% | 27% | 51% | 21% |
| Initially Fluent English Proficient | 18,156 | 2,466 | 82 | 17% | 43% | 40% | 16% | 45% | 39% | 8% | 61% | 31% | 13% | 48% | 39% |
| English Learner | 151,300 | 2,361 | 74 | 59% | 35% | 6% | 56% | 38% | 6% | 37% | 58% | 5% | 46% | 47% | 7% |
| Reclassified Fluent English Proficient | 31,105 | 2,447 | 66 | 19% | 55% | 27% | 15% | 59% | 26% | 8% | 73% | 19% | 13% | 60% | 27% |
| To be determined | 246 | 2,374 | 102 | 50% | 35% | 15% | 51% | 34% | 15% | 37% | 51% | 12% | 48% | 39% | 13% |
| English prof. unknown | 1,008 | 2,399 | 93 | 40% | 39% | 21% | 40% | 42% | 18% | 27% | 58% | 14% | 33% | 50% | 17% |
| No special education services | 427,704 | 2,409 | 85 | 38% | 42% | 20% | 35% | 46% | 18% | 21% | 64% | 15% | 29% | 52% | 19% |
| Special education services | 44,970 | 2,339 | 83 | 68% | 25% | 7% | 69% | 26% | 6% | 51% | 43% | 6% | 57% | 36% | 7% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 178,053 | 2,447 | 84 | 23% | 45% | 33% | 21% | 48% | 31% | 11% | 63% | 26% | 17% | 52% | 31% |
| Economically disadvantaged | 294,621 | 2,376 | 78 | 52% | 38% | 10% | 49% | 42% | 9% | 32% | 61% | 7% | 41% | 49% | 10% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 4,649 | 2,352 | 73 | 63% | 32% | 5% | 60% | 35% | 4% | 43% | 53% | 4% | 50% | 44% | 6% |
| Not migrant | 468,025 | 2,403 | 88 | 41% | 41% | 19% | 38% | 45% | 17% | 24% | 62% | 14% | 32% | 50% | 18% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 787 | 2,413 | 83 | 35% | 46% | 20% | 34% | 48% | 18% | 18% | 66% | 16% | 29% | 52% | 19% |
| Asian American | 26,413 | 2,484 | 79 | 12% | 41% | 47% | 10% | 41% | 48% | 6% | 58% | 36% | 9% | 45% | 46% |
| Pacific Islander | 745 | 2,426 | 80 | 30% | 48% | 21% | 26% | 51% | 23% | 16% | 67% | 17% | 23% | 55% | 22% |
| Filipino | 6,966 | 2,458 | 77 | 18% | 47% | 34% | 15% | 49% | 36% | 9% | 68% | 23% | 13% | 53% | 34% |
| Hispanic | 48,493 | 2,416 | 82 | 34% | 46% | 21% | 31% | 50% | 19% | 18% | 67% | 16% | 26% | 54% | 20% |
| African American | 6,425 | 2,402 | 85 | 41% | 42% | 17% | 37% | 46% | 17% | 23% | 63% | 14% | 33% | 51% | 17% |
| White | 77,099 | 2,457 | 80 | 18% | 45% | 37% | 17% | 49% | 33% | 9% | 62% | 29% | 14% | 52% | 33% |
| Two or more races | 11,125 | 2,460 | 82 | 19% | 43% | 38% | 17% | 48% | 35% | 9% | 61% | 30% | 14% | 51% | 35% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1,752 | 2,363 | 76 | 58% | 34% | 8% | 56% | 38% | 7% | 36% | 58% | 6% | 47% | 46% | 7% |
| Asian American | 14,370 | 2,417 | 83 | 34% | 46% | 20% | 31% | 48% | 21% | 19% | 66% | 15% | 26% | 53% | 21% |
| Pacific Islander | 1,475 | 2,380 | 75 | 50% | 42% | 8% | 44% | 45% | 10% | 29% | 65% | 6% | 40% | 51% | 9% |
| Filipino | 3,777 | 2,425 | 79 | 30% | 49% | 22% | 25% | 51% | 23% | 15% | 71% | 14% | 22% | 55% | 23% |
| Hispanic | 213,312 | 2,370 | 75 | 54% | 38% | 8% | 51% | 41% | 7% | 33% | 61% | 6% | 43% | 49% | 9% |
| African American | 19,997 | 2,359 | 77 | 61% | 33% | 7% | 56% | 37% | 7% | 39% | 56% | 5% | 49% | 44% | 7% |
| White | 32,728 | 2,395 | 82 | 43% | 42% | 15% | 40% | 47% | 13% | 24% | 64% | 12% | 34% | 53% | 14% |
| Two or more races | 7,210 | 2,391 | 81 | 44% | 42% | 13% | 41% | 46% | 12% | 26% | 63% | 11% | 36% | 51% | 13% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.16 Ethnicity Summary by Economic Status for Claims—ELA, Grade Four**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 462,679 | 2,446 | 93 | 39% | 43% | 18% | 35% | 47% | 18% | 23% | 62% | 15% | 31% | 51% | 18% |
| Male | 235,607 | 2,435 | 93 | 43% | 41% | 16% | 41% | 45% | 15% | 25% | 61% | 14% | 34% | 50% | 16% |
| Female | 227,072 | 2,457 | 92 | 34% | 44% | 21% | 30% | 48% | 22% | 21% | 63% | 15% | 28% | 52% | 20% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,453 | 2,423 | 89 | 47% | 42% | 12% | 44% | 44% | 12% | 28% | 61% | 10% | 40% | 48% | 12% |
| Asian American | 41,102 | 2,510 | 91 | 18% | 43% | 39% | 15% | 43% | 42% | 10% | 58% | 31% | 13% | 48% | 39% |
| Pacific Islander | 2,288 | 2,435 | 84 | 42% | 45% | 13% | 34% | 51% | 15% | 27% | 64% | 9% | 35% | 51% | 15% |
| Filipino | 11,154 | 2,490 | 84 | 21% | 49% | 29% | 17% | 50% | 33% | 13% | 66% | 22% | 16% | 53% | 31% |
| Hispanic | 252,924 | 2,419 | 84 | 49% | 41% | 10% | 45% | 46% | 10% | 30% | 62% | 8% | 39% | 50% | 11% |
| African American | 25,989 | 2,407 | 86 | 54% | 37% | 9% | 50% | 41% | 9% | 35% | 58% | 7% | 45% | 46% | 9% |
| White | 109,959 | 2,483 | 89 | 23% | 46% | 30% | 21% | 50% | 28% | 13% | 63% | 24% | 19% | 55% | 27% |
| Two or more races | 16,810 | 2,478 | 93 | 27% | 44% | 29% | 23% | 48% | 28% | 15% | 62% | 23% | 21% | 52% | 27% |
| English only | 261,576 | 2,460 | 93 | 32% | 45% | 23% | 29% | 48% | 22% | 19% | 63% | 18% | 26% | 53% | 21% |
| Initially Fluent English Proficient | 18,135 | 2,512 | 86 | 16% | 45% | 39% | 14% | 47% | 39% | 8% | 60% | 32% | 12% | 50% | 39% |
| English Learner | 119,955 | 2,384 | 72 | 65% | 31% | 3% | 61% | 36% | 3% | 41% | 56% | 3% | 53% | 43% | 4% |
| Reclassified Fluent English Proficient | 61,924 | 2,484 | 71 | 19% | 57% | 23% | 16% | 60% | 24% | 10% | 71% | 19% | 14% | 61% | 25% |
| To be determined | 219 | 2,405 | 113 | 55% | 30% | 15% | 50% | 36% | 14% | 39% | 47% | 13% | 48% | 39% | 13% |
| English prof. unknown | 870 | 2,439 | 102 | 41% | 39% | 21% | 38% | 43% | 19% | 25% | 57% | 18% | 34% | 45% | 21% |
| No special education services | 413,847 | 2,455 | 90 | 35% | 45% | 20% | 31% | 49% | 20% | 20% | 64% | 16% | 28% | 53% | 19% |
| Special education services | 48,832 | 2,370 | 87 | 70% | 24% | 6% | 70% | 25% | 5% | 50% | 45% | 5% | 60% | 34% | 6% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 176,935 | 2,493 | 88 | 21% | 46% | 33% | 18% | 49% | 33% | 11% | 62% | 26% | 16% | 53% | 31% |
| Economically disadvantaged | 285,744 | 2,416 | 83 | 50% | 41% | 9% | 46% | 45% | 9% | 31% | 62% | 8% | 40% | 50% | 10% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 4,496 | 2,392 | 78 | 61% | 35% | 4% | 57% | 39% | 4% | 40% | 56% | 4% | 49% | 45% | 6% |
| Not migrant | 458,183 | 2,446 | 93 | 38% | 43% | 19% | 35% | 47% | 18% | 23% | 62% | 15% | 31% | 51% | 18% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 799 | 2,465 | 90 | 31% | 46% | 23% | 27% | 51% | 22% | 18% | 63% | 19% | 25% | 52% | 23% |
| Asian American | 26,343 | 2,535 | 82 | 10% | 41% | 49% | 8% | 40% | 52% | 6% | 55% | 40% | 7% | 45% | 48% |
| Pacific Islander | 749 | 2,462 | 86 | 31% | 49% | 20% | 24% | 53% | 23% | 18% | 68% | 14% | 25% | 53% | 22% |
| Filipino | 7,247 | 2,504 | 81 | 16% | 49% | 35% | 13% | 48% | 39% | 10% | 64% | 26% | 12% | 52% | 36% |
| Hispanic | 47,243 | 2,458 | 87 | 32% | 48% | 20% | 29% | 52% | 20% | 18% | 66% | 16% | 25% | 55% | 20% |
| African American | 6,435 | 2,443 | 89 | 38% | 45% | 17% | 35% | 49% | 17% | 23% | 64% | 13% | 31% | 54% | 15% |
| White | 77,824 | 2,502 | 83 | 17% | 47% | 37% | 15% | 51% | 35% | 9% | 62% | 29% | 13% | 55% | 32% |
| Two or more races | 10,295 | 2,507 | 85 | 16% | 45% | 38% | 14% | 49% | 38% | 9% | 61% | 31% | 13% | 52% | 36% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1,654 | 2,402 | 80 | 55% | 39% | 6% | 52% | 41% | 7% | 33% | 60% | 6% | 47% | 46% | 7% |
| Asian American | 14,759 | 2,465 | 89 | 31% | 48% | 21% | 26% | 50% | 24% | 18% | 64% | 17% | 24% | 53% | 23% |
| Pacific Islander | 1,539 | 2,421 | 80 | 47% | 44% | 9% | 39% | 50% | 11% | 31% | 62% | 7% | 40% | 49% | 11% |
| Filipino | 3,907 | 2,465 | 83 | 30% | 50% | 20% | 24% | 53% | 23% | 18% | 68% | 14% | 22% | 55% | 23% |
| Hispanic | 205,681 | 2,410 | 80 | 52% | 40% | 8% | 48% | 44% | 7% | 32% | 61% | 6% | 42% | 49% | 9% |
| African American | 19,554 | 2,395 | 81 | 59% | 35% | 6% | 55% | 39% | 6% | 39% | 56% | 5% | 50% | 44% | 6% |
| White | 32,135 | 2,436 | 86 | 40% | 45% | 15% | 37% | 49% | 13% | 23% | 64% | 12% | 33% | 54% | 13% |
| Two or more races | 6,515 | 2,431 | 87 | 44% | 43% | 14% | 39% | 48% | 13% | 26% | 63% | 11% | 35% | 53% | 13% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.17 Ethnicity Summary by Economic Status for Claims—ELA, Grade Five**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 460,190 | 2,487 | 95 | 39% | 42% | 20% | 34% | 43% | 23% | 24% | 61% | 15% | 21% | 52% | 27% |
| Male | 234,937 | 2,474 | 95 | 44% | 40% | 16% | 40% | 42% | 19% | 26% | 60% | 14% | 24% | 52% | 23% |
| Female | 225,253 | 2,501 | 92 | 33% | 44% | 23% | 27% | 45% | 29% | 22% | 62% | 16% | 17% | 52% | 30% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,520 | 2,452 | 89 | 51% | 38% | 11% | 48% | 40% | 13% | 33% | 59% | 8% | 30% | 54% | 16% |
| Asian American | 42,200 | 2,551 | 93 | 18% | 42% | 40% | 14% | 37% | 49% | 11% | 57% | 31% | 8% | 41% | 51% |
| Pacific Islander | 2,393 | 2,473 | 87 | 45% | 42% | 13% | 36% | 46% | 19% | 29% | 62% | 9% | 22% | 56% | 22% |
| Filipino | 11,783 | 2,530 | 85 | 22% | 49% | 29% | 17% | 44% | 39% | 13% | 65% | 21% | 9% | 49% | 42% |
| Hispanic | 247,031 | 2,461 | 85 | 48% | 40% | 11% | 42% | 44% | 14% | 30% | 61% | 8% | 27% | 55% | 18% |
| African American | 26,397 | 2,447 | 89 | 54% | 36% | 10% | 49% | 39% | 12% | 37% | 56% | 7% | 32% | 53% | 15% |
| White | 112,354 | 2,523 | 91 | 24% | 45% | 31% | 21% | 44% | 35% | 14% | 63% | 23% | 12% | 50% | 38% |
| Two or more races | 15,512 | 2,519 | 94 | 26% | 44% | 30% | 23% | 42% | 35% | 16% | 62% | 22% | 13% | 49% | 37% |
| English only | 257,606 | 2,501 | 95 | 33% | 43% | 24% | 29% | 43% | 28% | 20% | 62% | 18% | 17% | 52% | 31% |
| Initially Fluent English Proficient | 20,247 | 2,547 | 88 | 18% | 44% | 38% | 15% | 41% | 44% | 10% | 60% | 30% | 7% | 45% | 48% |
| English Learner | 100,271 | 2,414 | 70 | 71% | 27% | 2% | 63% | 34% | 3% | 46% | 52% | 2% | 43% | 51% | 6% |
| Reclassified Fluent English Proficient | 81,074 | 2,518 | 73 | 23% | 55% | 22% | 17% | 54% | 28% | 13% | 71% | 17% | 8% | 58% | 34% |
| To be determined | 210 | 2,453 | 110 | 51% | 35% | 14% | 51% | 32% | 17% | 36% | 54% | 10% | 34% | 41% | 25% |
| English prof. unknown | 782 | 2,476 | 107 | 42% | 38% | 21% | 41% | 38% | 21% | 28% | 55% | 17% | 27% | 47% | 26% |
| No special education services | 409,614 | 2,498 | 90 | 34% | 44% | 22% | 29% | 46% | 26% | 21% | 63% | 16% | 17% | 54% | 29% |
| Special education services | 50,576 | 2,401 | 86 | 73% | 22% | 5% | 72% | 23% | 6% | 52% | 44% | 4% | 52% | 41% | 7% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,361 | 2,533 | 90 | 21% | 45% | 34% | 18% | 42% | 40% | 12% | 62% | 25% | 10% | 48% | 42% |
| Economically disadvantaged | 279,829 | 2,457 | 85 | 50% | 40% | 10% | 44% | 43% | 13% | 32% | 61% | 8% | 28% | 55% | 17% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 4,465 | 2,433 | 81 | 59% | 35% | 6% | 53% | 39% | 8% | 39% | 56% | 4% | 36% | 52% | 11% |
| Not migrant | 455,725 | 2,487 | 95 | 38% | 42% | 20% | 33% | 43% | 24% | 24% | 61% | 15% | 21% | 52% | 27% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 792 | 2,489 | 90 | 37% | 44% | 19% | 33% | 46% | 22% | 21% | 65% | 14% | 19% | 55% | 27% |
| Asian American | 26,997 | 2,576 | 83 | 11% | 39% | 50% | 8% | 32% | 60% | 7% | 55% | 39% | 4% | 35% | 60% |
| Pacific Islander | 824 | 2,503 | 84 | 31% | 48% | 21% | 24% | 49% | 27% | 20% | 67% | 14% | 14% | 54% | 32% |
| Filipino | 7,547 | 2,542 | 82 | 18% | 48% | 34% | 13% | 42% | 45% | 11% | 64% | 25% | 7% | 46% | 47% |
| Hispanic | 46,736 | 2,500 | 88 | 32% | 46% | 22% | 27% | 47% | 26% | 19% | 65% | 16% | 16% | 54% | 30% |
| African American | 7,007 | 2,482 | 93 | 39% | 43% | 18% | 34% | 45% | 22% | 25% | 61% | 13% | 21% | 54% | 25% |
| White | 80,888 | 2,542 | 84 | 17% | 46% | 37% | 15% | 43% | 42% | 10% | 63% | 27% | 8% | 48% | 44% |
| Two or more races | 9,570 | 2,548 | 86 | 16% | 44% | 40% | 14% | 40% | 46% | 9% | 62% | 29% | 7% | 45% | 48% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1,728 | 2,435 | 84 | 57% | 36% | 7% | 55% | 37% | 8% | 38% | 56% | 5% | 35% | 54% | 11% |
| Asian American | 15,203 | 2,506 | 92 | 31% | 46% | 24% | 25% | 44% | 30% | 20% | 62% | 18% | 15% | 51% | 34% |
| Pacific Islander | 1,569 | 2,457 | 84 | 52% | 39% | 9% | 42% | 44% | 15% | 33% | 60% | 7% | 27% | 57% | 17% |
| Filipino | 4,236 | 2,507 | 86 | 30% | 49% | 21% | 22% | 48% | 30% | 18% | 66% | 16% | 14% | 52% | 34% |
| Hispanic | 200,295 | 2,451 | 82 | 52% | 39% | 9% | 45% | 44% | 11% | 33% | 60% | 7% | 29% | 56% | 15% |
| African American | 19,390 | 2,434 | 84 | 60% | 34% | 7% | 54% | 37% | 9% | 41% | 54% | 5% | 36% | 53% | 11% |
| White | 31,466 | 2,475 | 89 | 41% | 43% | 16% | 38% | 45% | 18% | 25% | 64% | 11% | 23% | 56% | 21% |
| Two or more races | 5,942 | 2,472 | 88 | 43% | 43% | 15% | 39% | 44% | 17% | 27% | 63% | 11% | 23% | 56% | 20% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.18 Ethnicity Summary by Economic Status for Claims—ELA, Grade Six**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 456,321 | 2,512 | 92 | 38% | 46% | 16% | 32% | 47% | 20% | 19% | 68% | 13% | 19% | 59% | 23% |
| Male | 232,916 | 2,498 | 93 | 42% | 44% | 14% | 39% | 46% | 16% | 22% | 66% | 12% | 22% | 59% | 19% |
| Female | 223,405 | 2,525 | 89 | 33% | 49% | 18% | 26% | 49% | 25% | 16% | 69% | 15% | 15% | 58% | 26% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,503 | 2,483 | 89 | 46% | 44% | 9% | 45% | 44% | 11% | 26% | 65% | 9% | 26% | 60% | 14% |
| Asian American | 41,789 | 2,576 | 89 | 17% | 47% | 36% | 13% | 41% | 47% | 8% | 65% | 27% | 7% | 46% | 47% |
| Pacific Islander | 2,302 | 2,502 | 86 | 43% | 47% | 11% | 32% | 51% | 17% | 20% | 70% | 10% | 21% | 62% | 18% |
| Filipino | 12,432 | 2,554 | 83 | 22% | 53% | 25% | 15% | 48% | 36% | 10% | 71% | 19% | 9% | 54% | 37% |
| Hispanic | 243,545 | 2,486 | 84 | 47% | 44% | 8% | 41% | 48% | 11% | 24% | 67% | 8% | 24% | 61% | 14% |
| African American | 26,412 | 2,474 | 88 | 52% | 40% | 8% | 47% | 42% | 11% | 29% | 64% | 7% | 28% | 59% | 12% |
| White | 112,650 | 2,544 | 87 | 24% | 51% | 25% | 21% | 50% | 30% | 11% | 69% | 20% | 11% | 58% | 31% |
| Two or more races | 14,688 | 2,538 | 92 | 27% | 49% | 24% | 23% | 47% | 30% | 13% | 68% | 19% | 13% | 57% | 30% |
| English only | 253,400 | 2,525 | 91 | 32% | 48% | 19% | 28% | 48% | 24% | 15% | 68% | 16% | 16% | 59% | 26% |
| Initially Fluent English Proficient | 21,514 | 2,566 | 87 | 20% | 48% | 32% | 15% | 46% | 39% | 8% | 67% | 25% | 8% | 51% | 41% |
| English Learner | 76,222 | 2,430 | 70 | 73% | 26% | 1% | 67% | 31% | 2% | 44% | 54% | 2% | 43% | 53% | 4% |
| Reclassified Fluent English Proficient | 104,197 | 2,529 | 74 | 29% | 56% | 15% | 22% | 58% | 20% | 11% | 76% | 13% | 11% | 64% | 25% |
| To be determined | 255 | 2,473 | 110 | 50% | 35% | 14% | 50% | 34% | 16% | 35% | 59% | 7% | 35% | 43% | 22% |
| English prof. unknown | 733 | 2,486 | 106 | 45% | 42% | 14% | 42% | 42% | 16% | 29% | 59% | 12% | 27% | 55% | 18% |
| No special education services | 408,809 | 2,522 | 87 | 34% | 49% | 17% | 28% | 50% | 22% | 15% | 70% | 15% | 15% | 60% | 25% |
| Special education services | 47,512 | 2,419 | 82 | 72% | 25% | 3% | 73% | 23% | 3% | 52% | 45% | 3% | 48% | 47% | 5% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,506 | 2,555 | 86 | 21% | 51% | 28% | 17% | 48% | 35% | 9% | 68% | 22% | 9% | 55% | 36% |
| Economically disadvantaged | 275,815 | 2,483 | 84 | 48% | 44% | 8% | 42% | 47% | 11% | 25% | 67% | 8% | 25% | 61% | 14% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,929 | 2,461 | 82 | 58% | 37% | 5% | 53% | 41% | 6% | 33% | 61% | 6% | 32% | 59% | 10% |
| Not migrant | 452,392 | 2,512 | 92 | 37% | 46% | 16% | 32% | 47% | 20% | 19% | 68% | 14% | 19% | 59% | 23% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 839 | 2,516 | 89 | 34% | 49% | 17% | 31% | 49% | 20% | 17% | 69% | 14% | 17% | 61% | 22% |
| Asian American | 26,431 | 2,600 | 80 | 11% | 45% | 45% | 7% | 36% | 57% | 5% | 63% | 33% | 4% | 40% | 56% |
| Pacific Islander | 800 | 2,529 | 87 | 31% | 50% | 18% | 24% | 50% | 26% | 13% | 71% | 15% | 14% | 62% | 24% |
| Filipino | 8,023 | 2,568 | 80 | 18% | 53% | 29% | 11% | 47% | 42% | 8% | 70% | 22% | 7% | 51% | 42% |
| Hispanic | 47,036 | 2,523 | 85 | 32% | 51% | 17% | 26% | 52% | 21% | 15% | 71% | 15% | 14% | 61% | 24% |
| African American | 7,222 | 2,509 | 90 | 38% | 47% | 14% | 33% | 47% | 19% | 19% | 69% | 12% | 19% | 61% | 21% |
| White | 81,189 | 2,562 | 81 | 18% | 52% | 30% | 14% | 50% | 36% | 7% | 69% | 24% | 7% | 56% | 37% |
| Two or more races | 8,966 | 2,565 | 84 | 18% | 51% | 31% | 14% | 46% | 39% | 8% | 68% | 24% | 7% | 53% | 40% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1,664 | 2,466 | 84 | 52% | 42% | 6% | 52% | 41% | 7% | 31% | 62% | 7% | 30% | 59% | 10% |
| Asian American | 15,358 | 2,536 | 90 | 29% | 51% | 20% | 23% | 49% | 29% | 14% | 69% | 16% | 13% | 56% | 31% |
| Pacific Islander | 1,502 | 2,488 | 82 | 49% | 45% | 7% | 36% | 52% | 12% | 23% | 69% | 8% | 24% | 62% | 14% |
| Filipino | 4,409 | 2,529 | 84 | 31% | 53% | 17% | 23% | 52% | 26% | 13% | 73% | 13% | 14% | 59% | 27% |
| Hispanic | 196,509 | 2,477 | 81 | 51% | 43% | 6% | 45% | 47% | 9% | 27% | 67% | 7% | 26% | 62% | 12% |
| African American | 19,190 | 2,461 | 84 | 58% | 37% | 5% | 53% | 40% | 7% | 32% | 62% | 5% | 32% | 59% | 9% |
| White | 31,461 | 2,500 | 85 | 40% | 48% | 12% | 36% | 49% | 15% | 19% | 70% | 11% | 20% | 63% | 16% |
| Two or more races | 5,722 | 2,495 | 87 | 42% | 46% | 12% | 38% | 48% | 14% | 22% | 68% | 10% | 22% | 62% | 16% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.19 Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 449,714 | 2,531 | 97 | 37% | 45% | 18% | 30% | 46% | 24% | 24% | 64% | 12% | 25% | 53% | 22% |
| Male | 229,040 | 2,518 | 97 | 42% | 42% | 16% | 36% | 45% | 19% | 26% | 63% | 11% | 30% | 52% | 18% |
| Female | 220,674 | 2,545 | 93 | 32% | 47% | 20% | 24% | 47% | 29% | 22% | 65% | 13% | 20% | 55% | 25% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,677 | 2,502 | 92 | 46% | 42% | 12% | 42% | 43% | 14% | 30% | 62% | 8% | 33% | 55% | 12% |
| Asian American | 40,461 | 2,601 | 92 | 16% | 43% | 40% | 11% | 36% | 53% | 10% | 65% | 24% | 9% | 44% | 47% |
| Pacific Islander | 2,334 | 2,521 | 87 | 41% | 46% | 12% | 28% | 53% | 19% | 27% | 65% | 8% | 26% | 58% | 16% |
| Filipino | 12,457 | 2,576 | 86 | 21% | 51% | 28% | 13% | 45% | 42% | 14% | 70% | 16% | 11% | 53% | 35% |
| Hispanic | 240,370 | 2,504 | 88 | 47% | 43% | 10% | 38% | 48% | 13% | 31% | 62% | 7% | 32% | 55% | 13% |
| African American | 26,880 | 2,490 | 91 | 51% | 40% | 9% | 45% | 43% | 12% | 35% | 59% | 6% | 38% | 51% | 11% |
| White | 111,022 | 2,567 | 91 | 22% | 49% | 28% | 19% | 46% | 35% | 13% | 67% | 20% | 15% | 54% | 30% |
| Two or more races | 13,513 | 2,562 | 95 | 25% | 48% | 27% | 21% | 45% | 35% | 16% | 66% | 18% | 18% | 52% | 30% |
| English only | 247,158 | 2,546 | 96 | 31% | 47% | 22% | 26% | 46% | 28% | 20% | 65% | 15% | 21% | 54% | 25% |
| Initially Fluent English Proficient | 20,546 | 2,586 | 91 | 19% | 47% | 34% | 14% | 43% | 43% | 11% | 67% | 22% | 12% | 49% | 40% |
| English Learner | 65,610 | 2,438 | 68 | 78% | 21% | 1% | 68% | 30% | 2% | 54% | 45% | 1% | 56% | 41% | 2% |
| Reclassified Fluent English Proficient | 115,338 | 2,544 | 80 | 30% | 53% | 16% | 21% | 56% | 23% | 18% | 71% | 11% | 17% | 60% | 22% |
| To be determined | 223 | 2,478 | 110 | 55% | 32% | 13% | 52% | 35% | 13% | 40% | 51% | 9% | 37% | 48% | 15% |
| English prof. unknown | 839 | 2,493 | 108 | 49% | 37% | 14% | 46% | 38% | 16% | 37% | 54% | 10% | 36% | 49% | 15% |
| No special education services | 404,545 | 2,542 | 92 | 33% | 47% | 20% | 26% | 49% | 26% | 20% | 66% | 13% | 21% | 55% | 24% |
| Special education services | 45,169 | 2,436 | 81 | 74% | 22% | 3% | 72% | 25% | 4% | 54% | 43% | 3% | 58% | 38% | 4% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 179,378 | 2,577 | 90 | 20% | 49% | 31% | 16% | 45% | 40% | 13% | 67% | 21% | 13% | 52% | 35% |
| Economically disadvantaged | 270,336 | 2,501 | 88 | 48% | 42% | 9% | 40% | 47% | 13% | 31% | 62% | 7% | 33% | 54% | 13% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,749 | 2,477 | 85 | 59% | 35% | 5% | 48% | 45% | 7% | 40% | 55% | 4% | 40% | 51% | 9% |
| Not migrant | 445,965 | 2,532 | 96 | 37% | 45% | 18% | 30% | 46% | 24% | 24% | 64% | 12% | 25% | 53% | 22% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 943 | 2,538 | 93 | 33% | 47% | 20% | 29% | 46% | 25% | 21% | 67% | 11% | 23% | 57% | 20% |
| Asian American | 25,468 | 2,626 | 82 | 9% | 41% | 50% | 6% | 30% | 64% | 6% | 64% | 30% | 5% | 38% | 56% |
| Pacific Islander | 841 | 2,548 | 86 | 31% | 50% | 19% | 18% | 54% | 28% | 20% | 69% | 12% | 18% | 61% | 22% |
| Filipino | 8,033 | 2,590 | 82 | 16% | 51% | 32% | 10% | 43% | 48% | 11% | 70% | 19% | 9% | 51% | 40% |
| Hispanic | 47,709 | 2,542 | 89 | 31% | 50% | 19% | 24% | 51% | 25% | 20% | 67% | 13% | 20% | 57% | 23% |
| African American | 7,624 | 2,523 | 93 | 39% | 46% | 15% | 32% | 47% | 21% | 25% | 65% | 10% | 28% | 54% | 19% |
| White | 80,307 | 2,585 | 84 | 16% | 50% | 34% | 13% | 46% | 42% | 9% | 67% | 23% | 11% | 54% | 36% |
| Two or more races | 8,453 | 2,588 | 88 | 17% | 49% | 35% | 13% | 43% | 45% | 10% | 66% | 23% | 11% | 51% | 39% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1,734 | 2,483 | 85 | 53% | 40% | 7% | 49% | 42% | 9% | 35% | 60% | 5% | 39% | 53% | 8% |
| Asian American | 14,993 | 2,560 | 94 | 28% | 48% | 24% | 19% | 46% | 35% | 18% | 68% | 14% | 16% | 52% | 31% |
| Pacific Islander | 1,493 | 2,505 | 84 | 48% | 44% | 9% | 34% | 52% | 14% | 31% | 63% | 6% | 30% | 57% | 12% |
| Filipino | 4,424 | 2,550 | 86 | 31% | 51% | 19% | 20% | 50% | 30% | 18% | 70% | 11% | 17% | 57% | 26% |
| Hispanic | 192,661 | 2,494 | 85 | 51% | 41% | 8% | 42% | 47% | 11% | 33% | 61% | 6% | 35% | 54% | 11% |
| African American | 19,256 | 2,478 | 87 | 57% | 37% | 6% | 50% | 42% | 8% | 39% | 56% | 5% | 42% | 50% | 8% |
| White | 30,715 | 2,520 | 90 | 38% | 48% | 14% | 33% | 49% | 18% | 24% | 66% | 10% | 28% | 56% | 16% |
| Two or more races | 5,060 | 2,518 | 90 | 40% | 47% | 13% | 34% | 48% | 18% | 26% | 65% | 10% | 29% | 55% | 17% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.20 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 451,185 | 2,552 | 95 | 32% | 46% | 22% | 28% | 50% | 21% | 23% | 65% | 12% | 23% | 55% | 22% |
| Male | 230,130 | 2,537 | 96 | 37% | 44% | 19% | 35% | 49% | 16% | 26% | 63% | 11% | 28% | 54% | 18% |
| Female | 221,055 | 2,568 | 91 | 27% | 48% | 25% | 22% | 52% | 27% | 19% | 68% | 14% | 18% | 56% | 26% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,599 | 2,525 | 90 | 40% | 46% | 14% | 38% | 50% | 12% | 30% | 62% | 8% | 31% | 56% | 13% |
| Asian American | 40,680 | 2,619 | 91 | 13% | 42% | 45% | 11% | 41% | 48% | 9% | 65% | 26% | 9% | 45% | 46% |
| Pacific Islander | 2,307 | 2,539 | 88 | 36% | 48% | 16% | 30% | 53% | 17% | 26% | 65% | 9% | 26% | 57% | 17% |
| Filipino | 12,955 | 2,595 | 83 | 17% | 50% | 33% | 13% | 53% | 34% | 12% | 71% | 17% | 11% | 55% | 34% |
| Hispanic | 239,613 | 2,526 | 86 | 41% | 47% | 13% | 36% | 52% | 12% | 29% | 65% | 7% | 29% | 57% | 14% |
| African American | 27,826 | 2,512 | 91 | 46% | 42% | 12% | 43% | 46% | 11% | 34% | 60% | 7% | 35% | 54% | 11% |
| White | 112,317 | 2,586 | 90 | 19% | 48% | 33% | 17% | 50% | 32% | 14% | 68% | 19% | 15% | 56% | 30% |
| Two or more races | 12,888 | 2,581 | 95 | 23% | 46% | 32% | 20% | 49% | 32% | 16% | 66% | 18% | 17% | 54% | 30% |
| English only | 246,538 | 2,566 | 94 | 27% | 47% | 26% | 24% | 50% | 26% | 19% | 66% | 15% | 20% | 55% | 24% |
| Initially Fluent English Proficient | 21,005 | 2,603 | 90 | 16% | 46% | 38% | 14% | 48% | 38% | 10% | 67% | 23% | 11% | 51% | 38% |
| English Learner | 58,124 | 2,457 | 67 | 73% | 26% | 1% | 68% | 31% | 1% | 56% | 43% | 1% | 54% | 44% | 2% |
| Reclassified Fluent English Proficient | 124,566 | 2,562 | 79 | 26% | 55% | 20% | 21% | 60% | 19% | 16% | 73% | 11% | 17% | 61% | 22% |
| To be determined | 170 | 2,485 | 109 | 55% | 34% | 12% | 53% | 38% | 9% | 47% | 46% | 7% | 40% | 50% | 10% |
| English prof. unknown | 782 | 2,511 | 107 | 43% | 40% | 17% | 46% | 41% | 13% | 35% | 57% | 9% | 33% | 52% | 16% |
| No special education services | 406,809 | 2,563 | 90 | 28% | 48% | 24% | 24% | 53% | 23% | 19% | 68% | 13% | 20% | 57% | 23% |
| Special education services | 44,376 | 2,457 | 80 | 70% | 26% | 4% | 70% | 26% | 3% | 57% | 41% | 2% | 55% | 41% | 4% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 183,537 | 2,594 | 90 | 18% | 47% | 35% | 15% | 49% | 36% | 12% | 67% | 20% | 13% | 54% | 33% |
| Economically disadvantaged | 267,648 | 2,524 | 87 | 41% | 46% | 13% | 38% | 51% | 12% | 30% | 64% | 7% | 30% | 57% | 13% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,896 | 2,502 | 85 | 51% | 42% | 8% | 48% | 45% | 8% | 38% | 58% | 4% | 36% | 54% | 9% |
| Not migrant | 447,289 | 2,553 | 95 | 32% | 46% | 22% | 28% | 50% | 21% | 22% | 65% | 12% | 23% | 55% | 22% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 975 | 2,555 | 90 | 28% | 51% | 21% | 25% | 54% | 21% | 21% | 68% | 11% | 21% | 59% | 19% |
| Asian American | 25,290 | 2,643 | 82 | 8% | 38% | 54% | 6% | 35% | 59% | 5% | 62% | 32% | 5% | 41% | 54% |
| Pacific Islander | 844 | 2,568 | 87 | 25% | 50% | 25% | 21% | 52% | 27% | 19% | 69% | 13% | 18% | 56% | 26% |
| Filipino | 8,445 | 2,608 | 80 | 13% | 49% | 38% | 9% | 51% | 40% | 9% | 71% | 20% | 8% | 53% | 39% |
| Hispanic | 49,294 | 2,559 | 88 | 28% | 50% | 22% | 24% | 54% | 21% | 19% | 69% | 12% | 20% | 58% | 22% |
| African American | 8,241 | 2,544 | 94 | 34% | 47% | 19% | 30% | 51% | 19% | 24% | 65% | 11% | 25% | 57% | 18% |
| White | 82,320 | 2,603 | 84 | 14% | 47% | 39% | 12% | 50% | 38% | 10% | 68% | 22% | 11% | 55% | 35% |
| Two or more races | 8,128 | 2,606 | 88 | 15% | 45% | 40% | 12% | 46% | 41% | 10% | 66% | 24% | 11% | 52% | 37% |
| Primary Ethnicity—Economically Disadvantaged | | | | | | | | | | | | | | | |
| American Indian | 1,624 | 2,507 | 85 | 47% | 43% | 10% | 45% | 48% | 7% | 36% | 58% | 6% | 37% | 54% | 9% |
| Asian American | 15,390 | 2,581 | 92 | 22% | 48% | 30% | 19% | 51% | 30% | 16% | 69% | 16% | 15% | 53% | 32% |
| Pacific Islander | 1,463 | 2,522 | 83 | 43% | 46% | 11% | 35% | 53% | 12% | 31% | 63% | 7% | 31% | 58% | 11% |
| Filipino | 4,510 | 2,570 | 83 | 24% | 54% | 22% | 19% | 57% | 23% | 17% | 72% | 12% | 16% | 57% | 26% |
| Hispanic | 190,319 | 2,518 | 84 | 44% | 46% | 10% | 39% | 51% | 9% | 31% | 63% | 6% | 31% | 57% | 12% |
| African American | 19,585 | 2,499 | 86 | 51% | 40% | 9% | 48% | 44% | 8% | 38% | 57% | 5% | 39% | 53% | 8% |
| White | 29,997 | 2,541 | 89 | 34% | 48% | 18% | 32% | 52% | 16% | 24% | 66% | 10% | 26% | 58% | 16% |
| Two or more races | 4,760 | 2,538 | 91 | 36% | 46% | 18% | 32% | 52% | 16% | 26% | 65% | 10% | 27% | 57% | 16% |
| Primary Ethnicity—Unknown Economic Status | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.21 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 422,098 | 2,591 | 110 | 21% | 49% | 30% | 23% | 46% | 31% | 21% | 62% | 17% | 16% | 51% | 33% |
| Male | 214,145 | 2,576 | 113 | 23% | 49% | 28% | 29% | 45% | 26% | 24% | 59% | 17% | 20% | 52% | 29% |
| Female | 207,953 | 2,607 | 104 | 18% | 50% | 33% | 17% | 47% | 37% | 17% | 65% | 18% | 12% | 51% | 37% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,616 | 2,570 | 108 | 24% | 50% | 26% | 30% | 47% | 23% | 25% | 60% | 15% | 21% | 53% | 26% |
| Asian American | 38,752 | 2,657 | 105 | 11% | 39% | 50% | 9% | 32% | 59% | 11% | 58% | 31% | 7% | 37% | 56% |
| Pacific Islander | 2,384 | 2,573 | 105 | 25% | 51% | 24% | 25% | 49% | 26% | 24% | 63% | 13% | 19% | 56% | 26% |
| Filipino | 13,834 | 2,634 | 94 | 11% | 50% | 39% | 9% | 41% | 50% | 12% | 65% | 23% | 7% | 46% | 47% |
| Hispanic | 218,563 | 2,565 | 103 | 26% | 53% | 21% | 28% | 50% | 21% | 25% | 63% | 12% | 20% | 56% | 25% |
| African American | 25,437 | 2,545 | 108 | 32% | 50% | 19% | 37% | 46% | 17% | 31% | 59% | 10% | 26% | 55% | 19% |
| White | 109,078 | 2,624 | 106 | 13% | 44% | 43% | 15% | 43% | 42% | 14% | 61% | 24% | 11% | 47% | 41% |
| Two or more races | 11,434 | 2,618 | 109 | 14% | 45% | 41% | 17% | 42% | 40% | 16% | 60% | 24% | 12% | 47% | 41% |
| English only | 232,541 | 2,604 | 109 | 17% | 47% | 36% | 20% | 45% | 35% | 18% | 62% | 20% | 14% | 50% | 36% |
| Initially Fluent English Proficient | 36,086 | 2,633 | 101 | 11% | 47% | 42% | 12% | 43% | 45% | 12% | 63% | 25% | 9% | 45% | 46% |
| English Learner | 39,506 | 2,469 | 78 | 60% | 38% | 2% | 64% | 34% | 2% | 56% | 43% | 1% | 43% | 53% | 4% |
| Reclassified Fluent English Proficient | 113,058 | 2,595 | 93 | 17% | 58% | 25% | 17% | 54% | 28% | 17% | 69% | 15% | 12% | 56% | 32% |
| To be determined | 182 | 2,536 | 126 | 33% | 46% | 21% | 41% | 38% | 21% | 32% | 56% | 12% | 30% | 47% | 23% |
| English prof. unknown | 725 | 2,533 | 123 | 38% | 41% | 21% | 44% | 36% | 20% | 37% | 52% | 11% | 26% | 54% | 20% |
| No special education services | 387,756 | 2,601 | 105 | 18% | 50% | 32% | 19% | 47% | 34% | 18% | 63% | 19% | 14% | 51% | 35% |
| Special education services | 34,342 | 2,479 | 94 | 54% | 39% | 7% | 63% | 32% | 5% | 52% | 45% | 4% | 42% | 51% | 7% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 190,559 | 2,626 | 106 | 13% | 45% | 42% | 15% | 42% | 44% | 14% | 61% | 25% | 11% | 46% | 43% |
| Economically disadvantaged | 231,539 | 2,563 | 104 | 27% | 53% | 20% | 30% | 49% | 21% | 26% | 62% | 11% | 20% | 55% | 24% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,375 | 2,535 | 99 | 35% | 52% | 13% | 38% | 50% | 13% | 33% | 61% | 7% | 25% | 58% | 17% |
| Not migrant | 418,723 | 2,592 | 110 | 20% | 49% | 30% | 23% | 46% | 31% | 21% | 62% | 18% | 16% | 51% | 33% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | | Percent in Performance Level Claim 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 1,230 | 2,598 | 106 | 18% | 50% | 33% | 21% | 47% | 32% | 19% | 61% | 20% | 16% | 49% | 35% |
| Asian American | 23,267 | 2,682 | 96 | 7% | 33% | 60% | 5% | 26% | 69% | 7% | 55% | 38% | 4% | 32% | 64% |
| Pacific Islander | 1,102 | 2,595 | 106 | 20% | 49% | 31% | 20% | 46% | 34% | 20% | 63% | 17% | 15% | 51% | 34% |
| Filipino | 9,503 | 2,646 | 90 | 9% | 48% | 43% | 7% | 38% | 55% | 10% | 65% | 26% | 6% | 44% | 51% |
| Hispanic | 55,430 | 2,589 | 104 | 19% | 52% | 29% | 22% | 49% | 29% | 20% | 64% | 16% | 15% | 54% | 31% |
| African American | 9,658 | 2,572 | 110 | 24% | 50% | 26% | 28% | 47% | 25% | 24% | 61% | 15% | 20% | 54% | 26% |
| White | 82,820 | 2,638 | 101 | 10% | 43% | 47% | 12% | 41% | 47% | 11% | 61% | 27% | 9% | 45% | 46% |
| Two or more races | 7,549 | 2,641 | 103 | 10% | 42% | 48% | 12% | 39% | 49% | 12% | 60% | 29% | 8% | 43% | 49% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1,386 | 2,545 | 104 | 29% | 51% | 20% | 37% | 47% | 16% | 31% | 59% | 10% | 26% | 57% | 17% |
| Asian American | 15,485 | 2,619 | 108 | 17% | 47% | 36% | 15% | 41% | 44% | 16% | 62% | 21% | 10% | 45% | 44% |
| Pacific Islander | 1,282 | 2,553 | 100 | 30% | 52% | 18% | 29% | 52% | 19% | 28% | 63% | 9% | 22% | 59% | 19% |
| Filipino | 4,331 | 2,609 | 97 | 16% | 55% | 29% | 14% | 46% | 40% | 16% | 67% | 17% | 10% | 50% | 39% |
| Hispanic | 163,133 | 2,557 | 101 | 28% | 54% | 18% | 31% | 51% | 18% | 27% | 63% | 10% | 21% | 57% | 22% |
| African American | 15,779 | 2,529 | 104 | 36% | 49% | 15% | 42% | 45% | 13% | 34% | 58% | 8% | 30% | 55% | 15% |
| White | 26,258 | 2,578 | 108 | 22% | 50% | 28% | 26% | 48% | 26% | 23% | 62% | 15% | 19% | 54% | 27% |
| Two or more races | 3,885 | 2,574 | 107 | 22% | 52% | 26% | 28% | 49% | 24% | 24% | 62% | 14% | 19% | 54% | 27% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.22 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard |
| All valid scores | 474,261 | 2,415 | 80 | 40% | 35% | 25% | 38% | 42% | 20% | 28% | 52% | 20% |
| Male | 242,453 | 2,415 | 83 | 39% | 34% | 26% | 37% | 42% | 21% | 29% | 51% | 20% |
| Female | 231,808 | 2,415 | 77 | 40% | 36% | 23% | 39% | 42% | 19% | 26% | 54% | 20% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,534 | 2,390 | 77 | 52% | 33% | 15% | 47% | 41% | 12% | 37% | 51% | 12% |
| Asian American | 41,359 | 2,478 | 78 | 14% | 30% | 56% | 15% | 38% | 47% | 10% | 42% | 48% |
| Pacific Islander | 2,226 | 2,409 | 73 | 40% | 39% | 21% | 41% | 43% | 16% | 30% | 54% | 16% |
| Filipino | 10,857 | 2,452 | 70 | 20% | 39% | 41% | 20% | 48% | 33% | 14% | 52% | 34% |
| Hispanic | 262,614 | 2,393 | 71 | 50% | 35% | 15% | 48% | 42% | 11% | 34% | 54% | 11% |
| African American | 26,412 | 2,378 | 76 | 57% | 32% | 11% | 55% | 36% | 8% | 43% | 48% | 9% |
| White | 109,930 | 2,445 | 76 | 25% | 38% | 38% | 22% | 46% | 33% | 17% | 51% | 32% |
| Two or more races | 18,329 | 2,440 | 81 | 28% | 36% | 36% | 26% | 43% | 31% | 19% | 50% | 30% |
| English only | 270,479 | 2,425 | 80 | 35% | 36% | 29% | 32% | 44% | 24% | 25% | 52% | 24% |
| Initially Fluent English Proficient | 18,145 | 2,473 | 76 | 16% | 33% | 51% | 15% | 41% | 44% | 11% | 45% | 45% |
| English Learner | 152,869 | 2,383 | 71 | 56% | 32% | 12% | 55% | 37% | 8% | 39% | 53% | 9% |
| Reclassified Fluent English Proficient | 31,071 | 2,455 | 62 | 17% | 43% | 39% | 16% | 53% | 30% | 10% | 57% | 32% |
| To be determined | 377 | 2,389 | 91 | 54% | 23% | 23% | 52% | 33% | 14% | 39% | 45% | 15% |
| English prof. unknown | 1,320 | 2,399 | 89 | 47% | 30% | 23% | 44% | 37% | 19% | 35% | 47% | 18% |
| No special education services | 429,419 | 2,421 | 76 | 37% | 37% | 26% | 35% | 44% | 21% | 25% | 53% | 22% |
| Special education services | 44,842 | 2,353 | 89 | 68% | 21% | 10% | 65% | 26% | 9% | 52% | 39% | 9% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 178,749 | 2,454 | 77 | 22% | 36% | 42% | 20% | 44% | 36% | 15% | 49% | 36% |
| Economically disadvantaged | 295,512 | 2,391 | 72 | 51% | 35% | 14% | 49% | 41% | 10% | 35% | 54% | 11% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 4,717 | 2,376 | 68 | 59% | 32% | 8% | 57% | 36% | 6% | 41% | 53% | 7% |
| Not migrant | 469,544 | 2,415 | 80 | 40% | 35% | 25% | 38% | 42% | 20% | 28% | 52% | 21% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 781 | 2,419 | 77 | 37% | 37% | 27% | 34% | 45% | 22% | 26% | 54% | 20% |
| Asian American | 26,794 | 2,500 | 71 | 8% | 25% | 67% | 8% | 34% | 58% | 6% | 36% | 59% |
| Pacific Islander | 746 | 2,434 | 73 | 28% | 39% | 33% | 29% | 45% | 26% | 21% | 54% | 25% |
| Filipino | 7,036 | 2,463 | 68 | 16% | 38% | 46% | 15% | 47% | 38% | 11% | 49% | 40% |
| Hispanic | 48,715 | 2,422 | 73 | 34% | 40% | 26% | 32% | 48% | 21% | 23% | 56% | 21% |
| African American | 6,431 | 2,407 | 76 | 41% | 39% | 20% | 41% | 43% | 16% | 30% | 53% | 17% |
| White | 77,118 | 2,461 | 71 | 18% | 37% | 45% | 15% | 45% | 40% | 12% | 50% | 38% |
| Two or more races | 11,128 | 2,465 | 75 | 17% | 35% | 48% | 16% | 43% | 42% | 12% | 48% | 41% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1,753 | 2,377 | 73 | 58% | 32% | 10% | 53% | 39% | 8% | 42% | 50% | 8% |
| Asian American | 14,565 | 2,439 | 75 | 27% | 38% | 35% | 28% | 45% | 27% | 19% | 53% | 29% |
| Pacific Islander | 1,480 | 2,396 | 70 | 46% | 39% | 15% | 47% | 42% | 11% | 35% | 54% | 11% |
| Filipino | 3,821 | 2,433 | 70 | 28% | 42% | 30% | 28% | 50% | 23% | 19% | 56% | 25% |
| Hispanic | 213,899 | 2,386 | 69 | 54% | 34% | 12% | 51% | 40% | 9% | 37% | 54% | 9% |
| African American | 19,981 | 2,368 | 73 | 62% | 30% | 8% | 60% | 34% | 6% | 47% | 47% | 7% |
| White | 32,812 | 2,407 | 74 | 42% | 38% | 20% | 38% | 46% | 16% | 29% | 55% | 16% |
| Two or more races | 7,201 | 2,402 | 74 | 45% | 37% | 18% | 42% | 44% | 14% | 31% | 54% | 15% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.23 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard |
| All valid scores | 464,355 | 2,454 | 81 | 47% | 32% | 21% | 39% | 45% | 16% | 39% | 43% | 18% |
| Male | 236,459 | 2,454 | 84 | 46% | 31% | 23% | 39% | 44% | 17% | 39% | 42% | 19% |
| Female | 227,896 | 2,453 | 77 | 48% | 33% | 19% | 39% | 46% | 15% | 38% | 44% | 18% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,445 | 2,433 | 77 | 56% | 31% | 12% | 47% | 42% | 11% | 48% | 40% | 12% |
| Asian American | 41,644 | 2,522 | 80 | 18% | 29% | 53% | 16% | 42% | 43% | 15% | 38% | 47% |
| Pacific Islander | 2,282 | 2,443 | 71 | 51% | 34% | 15% | 44% | 46% | 11% | 43% | 44% | 12% |
| Filipino | 11,281 | 2,490 | 73 | 26% | 39% | 35% | 22% | 52% | 25% | 21% | 49% | 30% |
| Hispanic | 253,901 | 2,430 | 71 | 59% | 30% | 11% | 49% | 43% | 8% | 48% | 42% | 9% |
| African American | 25,961 | 2,416 | 74 | 65% | 27% | 8% | 57% | 37% | 6% | 56% | 37% | 7% |
| White | 110,018 | 2,485 | 77 | 30% | 37% | 33% | 23% | 50% | 27% | 25% | 47% | 29% |
| Two or more races | 16,823 | 2,480 | 82 | 33% | 35% | 32% | 27% | 48% | 26% | 28% | 44% | 28% |
| English only | 261,276 | 2,464 | 81 | 41% | 34% | 25% | 33% | 47% | 20% | 34% | 44% | 21% |
| Initially Fluent English Proficient | 18,138 | 2,511 | 79 | 22% | 33% | 45% | 17% | 46% | 37% | 17% | 42% | 41% |
| English Learner | 121,552 | 2,407 | 66 | 72% | 22% | 6% | 63% | 34% | 3% | 61% | 35% | 4% |
| Reclassified Fluent English Proficient | 61,906 | 2,486 | 65 | 28% | 43% | 29% | 20% | 58% | 22% | 22% | 53% | 25% |
| To be determined | 318 | 2,421 | 102 | 63% | 18% | 19% | 57% | 29% | 14% | 51% | 32% | 17% |
| English prof. unknown | 1,165 | 2,433 | 94 | 55% | 26% | 19% | 49% | 35% | 16% | 47% | 37% | 16% |
| No special education services | 415,621 | 2,461 | 77 | 44% | 34% | 23% | 35% | 47% | 18% | 36% | 45% | 20% |
| Special education services | 48,734 | 2,389 | 84 | 76% | 16% | 8% | 68% | 26% | 6% | 66% | 27% | 6% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 177,633 | 2,495 | 78 | 27% | 36% | 38% | 21% | 49% | 31% | 22% | 45% | 33% |
| Economically disadvantaged | 286,722 | 2,428 | 71 | 60% | 30% | 11% | 50% | 43% | 7% | 49% | 42% | 9% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 4,532 | 2,413 | 66 | 69% | 25% | 6% | 59% | 38% | 4% | 56% | 39% | 5% |
| Not migrant | 459,823 | 2,454 | 81 | 47% | 32% | 21% | 39% | 45% | 16% | 39% | 43% | 18% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 798 | 2,468 | 77 | 39% | 36% | 25% | 31% | 48% | 21% | 32% | 46% | 22% |
| Asian American | 26,689 | 2,545 | 72 | 9% | 25% | 66% | 8% | 38% | 54% | 8% | 34% | 58% |
| Pacific Islander | 751 | 2,464 | 74 | 40% | 37% | 23% | 34% | 47% | 18% | 35% | 44% | 21% |
| Filipino | 7,319 | 2,502 | 71 | 20% | 38% | 41% | 17% | 52% | 31% | 16% | 48% | 36% |
| Hispanic | 47,475 | 2,460 | 73 | 42% | 37% | 21% | 34% | 50% | 16% | 34% | 48% | 18% |
| African American | 6,436 | 2,446 | 76 | 48% | 36% | 16% | 42% | 46% | 12% | 42% | 44% | 14% |
| White | 77,853 | 2,501 | 72 | 22% | 38% | 40% | 16% | 51% | 33% | 18% | 47% | 35% |
| Two or more races | 10,312 | 2,506 | 75 | 21% | 36% | 43% | 16% | 48% | 36% | 17% | 45% | 38% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1,647 | 2,416 | 72 | 65% | 29% | 6% | 55% | 39% | 6% | 56% | 37% | 7% |
| Asian American | 14,955 | 2,480 | 77 | 32% | 36% | 32% | 28% | 49% | 23% | 26% | 47% | 27% |
| Pacific Islander | 1,531 | 2,432 | 67 | 56% | 33% | 11% | 48% | 45% | 7% | 47% | 44% | 8% |
| Filipino | 3,962 | 2,467 | 71 | 37% | 40% | 23% | 31% | 53% | 16% | 31% | 50% | 19% |
| Hispanic | 206,426 | 2,423 | 68 | 63% | 29% | 8% | 53% | 42% | 6% | 52% | 41% | 7% |
| African American | 19,525 | 2,406 | 70 | 70% | 24% | 6% | 62% | 34% | 4% | 61% | 34% | 5% |
| White | 32,165 | 2,445 | 73 | 49% | 35% | 15% | 39% | 49% | 12% | 41% | 46% | 13% |
| Two or more races | 6,511 | 2,439 | 74 | 53% | 33% | 14% | 43% | 47% | 10% | 45% | 43% | 12% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.24 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard |
| All valid scores | 461,617 | 2,480 | 90 | 51% | 30% | 19% | 46% | 38% | 16% | 41% | 45% | 14% |
| Male | 235,661 | 2,480 | 93 | 51% | 29% | 21% | 47% | 37% | 16% | 42% | 44% | 14% |
| Female | 225,956 | 2,481 | 85 | 52% | 30% | 18% | 46% | 39% | 15% | 40% | 46% | 14% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,512 | 2,450 | 82 | 65% | 25% | 10% | 58% | 35% | 7% | 53% | 40% | 7% |
| Asian American | 42,721 | 2,555 | 89 | 20% | 29% | 50% | 20% | 38% | 42% | 16% | 45% | 39% |
| Pacific Islander | 2,395 | 2,467 | 82 | 56% | 31% | 13% | 53% | 37% | 10% | 46% | 46% | 8% |
| Filipino | 11,863 | 2,520 | 81 | 31% | 38% | 32% | 28% | 46% | 26% | 24% | 52% | 23% |
| Hispanic | 247,961 | 2,453 | 78 | 64% | 27% | 9% | 59% | 34% | 7% | 52% | 42% | 6% |
| African American | 26,313 | 2,436 | 81 | 70% | 23% | 7% | 66% | 29% | 5% | 57% | 38% | 5% |
| White | 112,328 | 2,515 | 84 | 34% | 36% | 30% | 29% | 46% | 25% | 26% | 51% | 23% |
| Two or more races | 15,524 | 2,510 | 90 | 38% | 33% | 29% | 33% | 43% | 24% | 29% | 48% | 22% |
| English only | 257,186 | 2,492 | 90 | 46% | 32% | 23% | 40% | 41% | 19% | 36% | 47% | 17% |
| Initially Fluent English Proficient | 20,240 | 2,537 | 88 | 29% | 32% | 39% | 24% | 42% | 34% | 21% | 47% | 31% |
| English Learner | 101,743 | 2,419 | 69 | 79% | 17% | 4% | 77% | 21% | 2% | 68% | 30% | 2% |
| Reclassified Fluent English Proficient | 81,073 | 2,506 | 75 | 39% | 38% | 23% | 33% | 49% | 18% | 29% | 55% | 16% |
| To be determined | 310 | 2,441 | 107 | 65% | 18% | 17% | 62% | 27% | 11% | 56% | 32% | 12% |
| English prof. unknown | 1,065 | 2,457 | 97 | 58% | 27% | 16% | 55% | 33% | 13% | 50% | 39% | 11% |
| No special education services | 411,190 | 2,489 | 86 | 47% | 32% | 21% | 43% | 40% | 17% | 38% | 47% | 15% |
| Special education services | 50,427 | 2,406 | 85 | 81% | 13% | 6% | 77% | 18% | 4% | 70% | 26% | 4% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,891 | 2,525 | 87 | 31% | 34% | 35% | 26% | 45% | 29% | 24% | 50% | 26% |
| Economically disadvantaged | 280,726 | 2,451 | 79 | 64% | 27% | 9% | 60% | 34% | 7% | 52% | 42% | 6% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 4,513 | 2,433 | 73 | 72% | 23% | 5% | 69% | 27% | 4% | 60% | 37% | 3% |
| Not migrant | 457,104 | 2,481 | 90 | 51% | 30% | 19% | 46% | 38% | 16% | 41% | 45% | 14% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 791 | 2,486 | 84 | 48% | 33% | 19% | 41% | 44% | 15% | 39% | 47% | 14% |
| Asian American | 27,282 | 2,581 | 79 | 12% | 26% | 62% | 11% | 36% | 53% | 9% | 41% | 49% |
| Pacific Islander | 824 | 2,495 | 81 | 42% | 36% | 22% | 38% | 46% | 16% | 33% | 53% | 13% |
| Filipino | 7,593 | 2,533 | 78 | 25% | 39% | 37% | 23% | 47% | 30% | 20% | 53% | 27% |
| Hispanic | 46,968 | 2,486 | 81 | 48% | 34% | 18% | 41% | 44% | 15% | 37% | 50% | 13% |
| African American | 6,996 | 2,468 | 86 | 55% | 30% | 14% | 51% | 39% | 11% | 43% | 47% | 10% |
| White | 80,857 | 2,533 | 79 | 26% | 37% | 37% | 21% | 48% | 31% | 19% | 53% | 28% |
| Two or more races | 9,580 | 2,538 | 84 | 25% | 35% | 40% | 21% | 46% | 33% | 19% | 50% | 31% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1,721 | 2,434 | 76 | 73% | 21% | 6% | 66% | 31% | 3% | 59% | 37% | 3% |
| Asian American | 15,439 | 2,510 | 86 | 35% | 35% | 29% | 35% | 43% | 22% | 29% | 51% | 20% |
| Pacific Islander | 1,571 | 2,453 | 78 | 63% | 28% | 9% | 61% | 33% | 7% | 53% | 42% | 6% |
| Filipino | 4,270 | 2,498 | 80 | 41% | 36% | 23% | 38% | 45% | 17% | 33% | 51% | 16% |
| Hispanic | 200,993 | 2,445 | 75 | 67% | 26% | 7% | 63% | 32% | 5% | 55% | 40% | 4% |
| African American | 19,317 | 2,425 | 76 | 75% | 20% | 5% | 71% | 26% | 3% | 62% | 35% | 3% |
| White | 31,471 | 2,470 | 81 | 55% | 32% | 13% | 48% | 41% | 11% | 44% | 47% | 9% |
| Two or more races | 5,944 | 2,464 | 81 | 58% | 29% | 12% | 52% | 39% | 9% | 46% | 45% | 8% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.25 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard |
| All valid scores | 457,550 | 2,504 | 102 | 47% | 33% | 20% | 39% | 46% | 15% | 34% | 50% | 16% |
| Male | 233,513 | 2,500 | 106 | 49% | 31% | 20% | 40% | 45% | 15% | 36% | 48% | 16% |
| Female | 224,037 | 2,509 | 97 | 45% | 34% | 20% | 38% | 48% | 14% | 32% | 52% | 16% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,499 | 2,475 | 96 | 60% | 28% | 12% | 49% | 43% | 8% | 43% | 49% | 9% |
| Asian American | 42,238 | 2,590 | 96 | 17% | 30% | 52% | 15% | 42% | 43% | 13% | 43% | 44% |
| Pacific Islander | 2,303 | 2,495 | 92 | 50% | 36% | 15% | 43% | 47% | 10% | 38% | 51% | 12% |
| Filipino | 12,522 | 2,548 | 90 | 28% | 39% | 33% | 22% | 54% | 24% | 20% | 54% | 26% |
| Hispanic | 244,197 | 2,474 | 92 | 60% | 30% | 10% | 49% | 44% | 6% | 43% | 49% | 7% |
| African American | 26,403 | 2,456 | 97 | 65% | 26% | 8% | 57% | 37% | 5% | 50% | 44% | 6% |
| White | 112,760 | 2,541 | 94 | 31% | 39% | 30% | 24% | 52% | 24% | 22% | 53% | 25% |
| Two or more races | 14,628 | 2,532 | 101 | 36% | 36% | 28% | 29% | 49% | 23% | 25% | 51% | 24% |
| English only | 253,077 | 2,517 | 101 | 42% | 35% | 23% | 34% | 48% | 18% | 30% | 51% | 19% |
| Initially Fluent English Proficient | 21,525 | 2,566 | 98 | 26% | 34% | 40% | 20% | 48% | 33% | 18% | 48% | 34% |
| English Learner | 77,512 | 2,421 | 85 | 82% | 15% | 3% | 72% | 27% | 2% | 63% | 35% | 2% |
| Reclassified Fluent English Proficient | 104,131 | 2,524 | 82 | 40% | 40% | 21% | 31% | 55% | 14% | 27% | 58% | 16% |
| To be determined | 340 | 2,459 | 120 | 64% | 20% | 15% | 55% | 34% | 11% | 50% | 39% | 11% |
| English prof. unknown | 965 | 2,462 | 117 | 60% | 26% | 14% | 50% | 40% | 11% | 47% | 43% | 11% |
| No special education services | 410,182 | 2,516 | 96 | 43% | 35% | 22% | 35% | 49% | 16% | 30% | 52% | 18% |
| Special education services | 47,368 | 2,400 | 99 | 84% | 12% | 4% | 76% | 21% | 3% | 68% | 28% | 3% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 180,948 | 2,553 | 96 | 28% | 37% | 35% | 22% | 50% | 28% | 19% | 51% | 29% |
| Economically disadvantaged | 276,602 | 2,472 | 93 | 60% | 30% | 10% | 50% | 43% | 6% | 44% | 49% | 7% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,979 | 2,455 | 89 | 68% | 26% | 6% | 57% | 40% | 4% | 51% | 45% | 4% |
| Not migrant | 453,571 | 2,505 | 102 | 47% | 33% | 20% | 39% | 46% | 15% | 34% | 50% | 16% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 840 | 2,509 | 95 | 45% | 33% | 21% | 36% | 50% | 14% | 32% | 53% | 15% |
| Asian American | 26,698 | 2,618 | 86 | 10% | 26% | 64% | 8% | 38% | 54% | 7% | 38% | 55% |
| Pacific Islander | 797 | 2,523 | 94 | 38% | 38% | 23% | 32% | 51% | 18% | 29% | 52% | 19% |
| Filipino | 8,072 | 2,564 | 86 | 22% | 40% | 38% | 18% | 53% | 29% | 15% | 53% | 31% |
| Hispanic | 47,186 | 2,512 | 92 | 43% | 38% | 19% | 34% | 52% | 14% | 30% | 55% | 15% |
| African American | 7,206 | 2,494 | 97 | 50% | 35% | 16% | 43% | 46% | 11% | 36% | 51% | 12% |
| White | 81,247 | 2,560 | 87 | 24% | 40% | 36% | 18% | 53% | 29% | 16% | 54% | 30% |
| Two or more races | 8,902 | 2,563 | 93 | 24% | 38% | 38% | 19% | 50% | 31% | 16% | 51% | 33% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1,659 | 2,458 | 92 | 67% | 26% | 7% | 56% | 39% | 5% | 49% | 46% | 5% |
| Asian American | 15,540 | 2,543 | 95 | 31% | 37% | 32% | 27% | 50% | 23% | 23% | 52% | 25% |
| Pacific Islander | 1,506 | 2,480 | 87 | 56% | 34% | 10% | 49% | 45% | 6% | 42% | 50% | 8% |
| Filipino | 4,450 | 2,520 | 90 | 39% | 38% | 23% | 31% | 55% | 15% | 27% | 56% | 16% |
| Hispanic | 197,011 | 2,465 | 90 | 64% | 29% | 8% | 53% | 43% | 5% | 46% | 48% | 5% |
| African American | 19,197 | 2,442 | 93 | 71% | 23% | 5% | 63% | 34% | 3% | 55% | 41% | 4% |
| White | 31,513 | 2,492 | 93 | 51% | 35% | 14% | 41% | 50% | 10% | 37% | 53% | 11% |
| Two or more races | 5,726 | 2,485 | 94 | 55% | 33% | 13% | 44% | 47% | 9% | 40% | 51% | 9% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.26 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard |
| All valid scores | 450,395 | 2,518 | 109 | 46% | 33% | 22% | 35% | 48% | 17% | 19% | 64% | 17% |
| Male | 229,411 | 2,515 | 113 | 47% | 31% | 22% | 35% | 47% | 18% | 21% | 62% | 17% |
| Female | 220,984 | 2,522 | 105 | 45% | 34% | 21% | 34% | 49% | 17% | 17% | 66% | 17% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,677 | 2,489 | 101 | 56% | 32% | 12% | 42% | 49% | 9% | 25% | 65% | 9% |
| Asian American | 40,909 | 2,616 | 103 | 16% | 27% | 58% | 12% | 39% | 49% | 6% | 46% | 48% |
| Pacific Islander | 2,336 | 2,508 | 99 | 48% | 36% | 15% | 37% | 52% | 11% | 20% | 68% | 12% |
| Filipino | 12,553 | 2,566 | 96 | 26% | 38% | 36% | 20% | 52% | 28% | 10% | 63% | 27% |
| Hispanic | 240,803 | 2,485 | 97 | 58% | 31% | 11% | 44% | 48% | 8% | 24% | 68% | 8% |
| African American | 26,779 | 2,465 | 101 | 65% | 27% | 8% | 51% | 44% | 6% | 28% | 66% | 6% |
| White | 110,818 | 2,559 | 101 | 29% | 38% | 33% | 21% | 52% | 27% | 12% | 62% | 26% |
| Two or more races | 13,520 | 2,551 | 107 | 33% | 35% | 32% | 24% | 50% | 26% | 14% | 61% | 25% |
| English only | 246,482 | 2,532 | 108 | 40% | 35% | 25% | 30% | 50% | 21% | 17% | 63% | 20% |
| Initially Fluent English Proficient | 20,494 | 2,582 | 107 | 25% | 33% | 42% | 19% | 45% | 36% | 9% | 56% | 35% |
| English Learner | 66,871 | 2,424 | 89 | 83% | 14% | 3% | 67% | 31% | 2% | 37% | 61% | 2% |
| Reclassified Fluent English Proficient | 115,108 | 2,533 | 92 | 40% | 39% | 21% | 29% | 55% | 16% | 15% | 69% | 16% |
| To be determined | 321 | 2,459 | 128 | 65% | 18% | 17% | 52% | 37% | 11% | 32% | 58% | 10% |
| English prof. unknown | 1,119 | 2,472 | 121 | 61% | 25% | 14% | 47% | 41% | 12% | 26% | 63% | 11% |
| No special education services | 405,401 | 2,530 | 104 | 42% | 35% | 23% | 31% | 50% | 19% | 16% | 65% | 19% |
| Special education services | 44,994 | 2,411 | 100 | 83% | 13% | 4% | 68% | 28% | 3% | 41% | 56% | 3% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 179,604 | 2,570 | 104 | 27% | 36% | 37% | 19% | 49% | 32% | 11% | 59% | 30% |
| Economically disadvantaged | 270,791 | 2,484 | 99 | 58% | 31% | 11% | 45% | 48% | 8% | 24% | 68% | 8% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,813 | 2,466 | 94 | 65% | 28% | 7% | 49% | 47% | 4% | 26% | 69% | 5% |
| Not migrant | 446,582 | 2,519 | 109 | 46% | 33% | 22% | 34% | 48% | 17% | 19% | 64% | 17% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 942 | 2,527 | 102 | 42% | 36% | 22% | 31% | 53% | 17% | 18% | 65% | 17% |
| Asian American | 25,711 | 2,646 | 92 | 8% | 22% | 69% | 7% | 33% | 61% | 4% | 37% | 59% |
| Pacific Islander | 838 | 2,540 | 95 | 35% | 41% | 24% | 25% | 56% | 19% | 13% | 68% | 19% |
| Filipino | 8,083 | 2,582 | 92 | 20% | 38% | 42% | 15% | 51% | 34% | 8% | 60% | 32% |
| Hispanic | 47,829 | 2,523 | 99 | 42% | 38% | 20% | 31% | 53% | 16% | 17% | 68% | 16% |
| African American | 7,597 | 2,499 | 103 | 51% | 34% | 15% | 39% | 50% | 11% | 21% | 67% | 11% |
| White | 80,165 | 2,579 | 94 | 22% | 39% | 39% | 15% | 51% | 33% | 9% | 59% | 32% |
| Two or more races | 8,439 | 2,582 | 100 | 23% | 35% | 42% | 16% | 49% | 35% | 9% | 57% | 34% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1,735 | 2,468 | 94 | 64% | 29% | 7% | 48% | 48% | 5% | 29% | 66% | 5% |
| Asian American | 15,198 | 2,566 | 103 | 28% | 34% | 38% | 21% | 50% | 29% | 11% | 61% | 28% |
| Pacific Islander | 1,498 | 2,489 | 96 | 56% | 34% | 10% | 43% | 50% | 7% | 23% | 69% | 8% |
| Filipino | 4,470 | 2,537 | 95 | 37% | 38% | 25% | 29% | 53% | 18% | 13% | 69% | 18% |
| Hispanic | 192,974 | 2,476 | 94 | 62% | 30% | 8% | 47% | 47% | 6% | 25% | 69% | 6% |
| African American | 19,182 | 2,452 | 96 | 70% | 24% | 6% | 55% | 41% | 4% | 31% | 65% | 4% |
| White | 30,653 | 2,507 | 98 | 48% | 36% | 15% | 35% | 53% | 12% | 21% | 68% | 11% |
| Two or more races | 5,081 | 2,501 | 101 | 51% | 34% | 15% | 38% | 51% | 11% | 21% | 68% | 10% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.27 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard |
| All valid scores | 451,965 | 2,534 | 116 | 46% | 32% | 21% | 32% | 51% | 18% | 34% | 50% | 17% |
| Male | 230,528 | 2,528 | 121 | 49% | 30% | 21% | 33% | 49% | 18% | 36% | 47% | 16% |
| Female | 221,437 | 2,539 | 111 | 44% | 34% | 22% | 30% | 52% | 17% | 30% | 52% | 18% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,587 | 2,499 | 108 | 59% | 30% | 12% | 39% | 51% | 10% | 43% | 48% | 9% |
| Asian American | 41,144 | 2,639 | 113 | 16% | 27% | 57% | 12% | 39% | 49% | 11% | 40% | 49% |
| Pacific Islander | 2,314 | 2,519 | 106 | 51% | 33% | 16% | 35% | 54% | 11% | 36% | 52% | 12% |
| Filipino | 13,056 | 2,586 | 104 | 26% | 38% | 36% | 18% | 54% | 28% | 17% | 55% | 28% |
| Hispanic | 240,142 | 2,499 | 102 | 58% | 31% | 11% | 40% | 52% | 8% | 42% | 50% | 8% |
| African American | 27,679 | 2,477 | 104 | 67% | 25% | 8% | 46% | 48% | 6% | 50% | 44% | 6% |
| White | 112,176 | 2,574 | 110 | 32% | 37% | 31% | 20% | 53% | 28% | 23% | 52% | 25% |
| Two or more races | 12,867 | 2,567 | 116 | 35% | 34% | 31% | 23% | 51% | 27% | 25% | 50% | 25% |
| English only | 245,902 | 2,546 | 116 | 42% | 34% | 25% | 27% | 52% | 21% | 30% | 50% | 19% |
| Initially Fluent English Proficient | 20,999 | 2,597 | 117 | 28% | 33% | 39% | 17% | 48% | 35% | 19% | 48% | 34% |
| English Learner | 59,383 | 2,434 | 92 | 82% | 14% | 4% | 63% | 35% | 2% | 63% | 35% | 3% |
| Reclassified Fluent English Proficient | 124,423 | 2,546 | 102 | 42% | 37% | 21% | 27% | 57% | 16% | 28% | 56% | 16% |
| To be determined | 241 | 2,461 | 122 | 72% | 19% | 9% | 53% | 38% | 10% | 51% | 39% | 10% |
| English prof. unknown | 1,017 | 2,485 | 123 | 63% | 24% | 13% | 46% | 42% | 12% | 45% | 44% | 11% |
| No special education services | 407,729 | 2,546 | 112 | 42% | 34% | 23% | 28% | 53% | 19% | 30% | 52% | 18% |
| Special education services | 44,236 | 2,422 | 98 | 84% | 12% | 4% | 64% | 33% | 3% | 69% | 28% | 3% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 183,747 | 2,585 | 114 | 29% | 35% | 36% | 19% | 50% | 31% | 21% | 50% | 29% |
| Economically disadvantaged | 268,218 | 2,499 | 105 | 58% | 30% | 12% | 40% | 51% | 8% | 42% | 49% | 8% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,951 | 2,480 | 100 | 64% | 28% | 8% | 46% | 49% | 5% | 48% | 46% | 6% |
| Not migrant | 448,014 | 2,534 | 117 | 46% | 32% | 22% | 31% | 51% | 18% | 33% | 50% | 17% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 966 | 2,531 | 111 | 47% | 35% | 18% | 31% | 52% | 16% | 33% | 52% | 15% |
| Asian American | 25,540 | 2,670 | 101 | 9% | 23% | 68% | 7% | 34% | 60% | 6% | 34% | 59% |
| Pacific Islander | 843 | 2,551 | 107 | 39% | 36% | 24% | 26% | 56% | 19% | 29% | 52% | 19% |
| Filipino | 8,503 | 2,603 | 101 | 21% | 38% | 42% | 14% | 53% | 33% | 14% | 54% | 32% |
| Hispanic | 49,394 | 2,534 | 106 | 45% | 36% | 19% | 29% | 55% | 15% | 32% | 54% | 14% |
| African American | 8,204 | 2,512 | 109 | 53% | 32% | 15% | 37% | 52% | 11% | 39% | 50% | 12% |
| White | 82,183 | 2,594 | 104 | 25% | 38% | 38% | 15% | 52% | 33% | 17% | 53% | 30% |
| Two or more races | 8,114 | 2,598 | 110 | 25% | 35% | 40% | 15% | 49% | 35% | 17% | 50% | 33% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1,621 | 2,480 | 101 | 65% | 27% | 8% | 44% | 50% | 6% | 49% | 46% | 5% |
| Asian American | 15,604 | 2,589 | 114 | 27% | 34% | 39% | 21% | 49% | 31% | 19% | 50% | 31% |
| Pacific Islander | 1,471 | 2,500 | 101 | 57% | 32% | 11% | 41% | 53% | 7% | 40% | 52% | 8% |
| Filipino | 4,553 | 2,556 | 102 | 36% | 39% | 25% | 25% | 57% | 18% | 24% | 57% | 19% |
| Hispanic | 190,748 | 2,490 | 99 | 61% | 30% | 9% | 43% | 51% | 6% | 44% | 49% | 6% |
| African American | 19,475 | 2,462 | 98 | 72% | 22% | 6% | 50% | 46% | 4% | 55% | 41% | 4% |
| White | 29,993 | 2,518 | 106 | 51% | 34% | 15% | 33% | 55% | 13% | 38% | 51% | 11% |
| Two or more races | 4,753 | 2,514 | 108 | 53% | 31% | 15% | 35% | 53% | 12% | 37% | 51% | 11% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 7.E.28 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard | Below Standard | At/Near Standard | Above Standard |
| All valid scores | 419,508 | 2,560 | 125 | 48% | 33% | 19% | 35% | 50% | 15% | 30% | 55% | 15% |
| Male | 213,078 | 2,555 | 132 | 51% | 30% | 19% | 36% | 48% | 16% | 32% | 53% | 16% |
| Female | 206,430 | 2,565 | 118 | 46% | 35% | 19% | 34% | 52% | 14% | 28% | 58% | 14% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 2,564 | 2,531 | 115 | 58% | 30% | 11% | 40% | 51% | 9% | 37% | 54% | 8% |
| Asian American | 38,858 | 2,672 | 124 | 17% | 29% | 54% | 14% | 44% | 42% | 10% | 46% | 44% |
| Pacific Islander | 2,353 | 2,540 | 114 | 53% | 34% | 13% | 42% | 48% | 10% | 33% | 57% | 10% |
| Filipino | 13,759 | 2,609 | 110 | 29% | 42% | 29% | 22% | 56% | 21% | 17% | 60% | 23% |
| Hispanic | 217,296 | 2,525 | 109 | 59% | 32% | 9% | 43% | 50% | 7% | 36% | 57% | 7% |
| African American | 25,221 | 2,502 | 110 | 66% | 26% | 7% | 51% | 45% | 5% | 43% | 52% | 5% |
| White | 108,155 | 2,595 | 123 | 37% | 36% | 27% | 25% | 53% | 22% | 22% | 56% | 22% |
| Two or more races | 11,302 | 2,588 | 127 | 40% | 35% | 26% | 27% | 52% | 21% | 24% | 55% | 20% |
| English only | 230,317 | 2,570 | 125 | 45% | 34% | 21% | 32% | 51% | 17% | 28% | 55% | 17% |
| Initially Fluent English Proficient | 35,882 | 2,608 | 128 | 34% | 35% | 31% | 24% | 51% | 25% | 21% | 54% | 25% |
| English Learner | 39,778 | 2,454 | 98 | 84% | 13% | 3% | 66% | 32% | 2% | 52% | 46% | 2% |
| Reclassified Fluent English Proficient | 112,487 | 2,563 | 111 | 47% | 37% | 16% | 34% | 54% | 12% | 28% | 59% | 13% |
| To be determined | 192 | 2,521 | 130 | 58% | 29% | 13% | 41% | 47% | 12% | 38% | 51% | 11% |
| English prof. unknown | 852 | 2,510 | 123 | 64% | 27% | 10% | 46% | 46% | 8% | 38% | 53% | 8% |
| No special education services | 385,593 | 2,570 | 122 | 45% | 34% | 20% | 32% | 52% | 16% | 27% | 57% | 16% |
| Special education services | 33,915 | 2,444 | 98 | 86% | 11% | 2% | 66% | 32% | 2% | 56% | 42% | 2% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 189,172 | 2,601 | 127 | 36% | 35% | 30% | 25% | 51% | 23% | 22% | 55% | 24% |
| Economically disadvantaged | 230,336 | 2,526 | 112 | 59% | 31% | 10% | 43% | 49% | 8% | 36% | 56% | 8% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Migrant | 3,376 | 2,509 | 104 | 65% | 29% | 6% | 49% | 47% | 4% | 40% | 55% | 5% |
| Not migrant | 416,132 | 2,560 | 125 | 48% | 33% | 19% | 35% | 50% | 15% | 30% | 55% | 15% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | 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 | 1,213 | 2,563 | 116 | 47% | 36% | 17% | 31% | 55% | 14% | 31% | 57% | 12% |
| Asian American | 23,283 | 2,703 | 116 | 11% | 24% | 65% | 9% | 39% | 52% | 6% | 39% | 54% |
| Pacific Islander | 1,083 | 2,562 | 118 | 45% | 36% | 19% | 35% | 51% | 14% | 29% | 58% | 13% |
| Filipino | 9,438 | 2,622 | 108 | 25% | 42% | 33% | 19% | 57% | 24% | 15% | 59% | 26% |
| Hispanic | 55,059 | 2,548 | 114 | 51% | 35% | 14% | 37% | 53% | 11% | 31% | 58% | 11% |
| African American | 9,560 | 2,528 | 115 | 57% | 31% | 12% | 44% | 49% | 7% | 36% | 56% | 8% |
| White | 82,076 | 2,613 | 120 | 31% | 37% | 32% | 21% | 54% | 26% | 19% | 56% | 25% |
| Two or more races | 7,460 | 2,617 | 124 | 30% | 36% | 33% | 21% | 52% | 27% | 19% | 55% | 27% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1,351 | 2,502 | 107 | 68% | 25% | 6% | 48% | 47% | 5% | 43% | 52% | 5% |
| Asian American | 15,575 | 2,625 | 122 | 27% | 35% | 38% | 21% | 51% | 28% | 16% | 55% | 29% |
| Pacific Islander | 1,270 | 2,522 | 107 | 59% | 33% | 8% | 48% | 45% | 7% | 37% | 56% | 7% |
| Filipino | 4,321 | 2,582 | 109 | 38% | 41% | 21% | 29% | 56% | 15% | 23% | 61% | 16% |
| Hispanic | 162,237 | 2,517 | 106 | 62% | 31% | 8% | 45% | 49% | 6% | 38% | 56% | 6% |
| African American | 15,661 | 2,486 | 105 | 72% | 24% | 5% | 55% | 42% | 3% | 47% | 50% | 3% |
| White | 26,079 | 2,539 | 115 | 56% | 32% | 12% | 37% | 52% | 10% | 34% | 56% | 10% |
| Two or more races | 3,842 | 2,532 | 113 | 58% | 32% | 11% | 40% | 51% | 8% | 36% | 56% | 9% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

# 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 (ELA) | 1. Logged on to both computer adaptive test (CAT) and PT, but answered no items | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| | 2. Logged on to both CAT and PT and answered at least one item for only CAT or PT | 14 | 13 | 12 | 32 | 50 | 33 | 73 |
| | 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 165 | 122 | 107 | 268 | 399 | 205 | 851 |
| | 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 | 1,140 | 664 | 501 | 1,564 | 1,756 | 1,749 | 5,347 |
| | 5. Completed both CAT and PT | 471,263 | 461,818 | 459,491 | 454,374 | 447,418 | 449,091 | 415,094 |
| | 6. Did not log on to both CAT and PT—not tested medical emergency (NTE) | 7 | 5 | 3 | 5 | 4 | 7 | 9 |
| | 7. Did not log on to both CAT and PT—parent guardian exemption (PGE) | 258 | 215 | 217 | 210 | 254 | 303 | 1,640 |
| | 8. Did not log on to both CAT and PT—other reasons | 1,918 | 2,046 | 1,781 | 2,855 | 3,644 | 4,010 | 11,485 |
| Mathematics | 1. Logged on to both CAT and PT, but answered no items | 0 | 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 | 11 | 10 | 19 | 20 | 29 | 34 | 76 |
| | 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 143 | 94 | 175 | 191 | 209 | 265 | 595 |
| | 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 | 323 | 283 | 261 | 636 | 989 | 812 | 1,347 |
| | 5. Completed both CAT and PT | 473,742 | 463,933 | 461,117 | 456,666 | 449,118 | 450,774 | 417,200 |
| | 6. Did not log on to both CAT and PT—NTE (medical reasons) | 1 | 5 | 7 | 1 | 5 | 3 | 10 |
| | 7. Did not log on to both CAT and PT—PGE | 147 | 118 | 122 | 120 | 150 | 220 | 957 |
| | 8. Did not log on to both CAT and PT—other reasons | 2,105 | 1,921 | 1,938 | 2,856 | 4,054 | 4,446 | 10,989 |

**Table 7.F.2 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Three**

| | | Gender | | English Language Fluency | | | | | | Economic Status | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All | 1. Male | 2. Female | 1. English Learner (EL) | 2. English only (EO) | 3. Reclassified Fluent English Proficient (RFEP) | 4. Initially Fluent English Proficient (IFEP) | 5. To Be Determined (TBD) | 6. No Response | 1. Economically Disadvantaged | 2. Not Economically Disadvantaged |
| **If the Student:** | **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 | 14 | 7 | 7 | 3 | 11 | 0 | 0 | 0 | 0 | 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 | 165 | 90 | 75 | 61 | 96 | 3 | 1 | 3 | 1 | 106 | 59 |
| 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 | 1,140 | 548 | 592 | 332 | 724 | 47 | 30 | 1 | 6 | 747 | 393 |
| 5. Completed both CAT and PT | 471,263 | 240,875 | 230,388 | 150,895 | 269,949 | 31,052 | 18,123 | 242 | 1,002 | 293,726 | 177,537 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 7 | 5 | 2 | 1 | 5 | 1 | 0 | 0 | 0 | 5 | 2 |
| 7. Did not log on to both CAT and PT—PGE | 258 | 143 | 115 | 31 | 220 | 2 | 4 | 0 | 1 | 90 | 168 |
| 8. Did not log on to both CAT and PT—other reasons | 1,918 | 1,068 | 850 | 605 | 1,161 | 38 | 25 | 27 | 62 | 1,259 | 659 |

**Table 7.F.3 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Three**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 5 | 2 | 5 | 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 | 2 | 85 | 12 | 52 | 6 | 0 |
| 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 | 44 | 3 | 19 | 604 | 93 | 297 | 56 | 11 |
| 5. Completed both CAT and PT | 2,524 | 40,730 | 2,216 | 10,721 | 261,084 | 26,311 | 109,421 | 15,377 | 2,879 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 1 | 1 |
| 7. Did not log on to both CAT and PT—PGE | 3 | 10 | 1 | 2 | 71 | 6 | 150 | 14 | 1 |
| 8. Did not log on to both CAT and PT—other reasons | 25 | 126 | 11 | 50 | 897 | 247 | 491 | 57 | 14 |

**Table 7.F.4 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four**

| | | 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 |
| **If the Student:** | **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 | 13 | 8 | 5 | 6 | 6 | 0 | 0 | 0 | 1 | 10 | 3 |
| 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 | 86 | 36 | 45 | 70 | 2 | 2 | 1 | 2 | 76 | 46 |
| 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 | 664 | 351 | 313 | 182 | 420 | 42 | 15 | 0 | 5 | 405 | 259 |
| 5. Completed both CAT and PT | 461,818 | 235,130 | 226,688 | 119,723 | 261,017 | 61,880 | 18,117 | 218 | 863 | 285,237 | 176,581 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 5 | 3 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 3 | 2 |
| 7. Did not log on to both CAT and PT—PGE | 215 | 133 | 82 | 15 | 191 | 5 | 3 | 0 | 1 | 70 | 145 |
| 8. Did not log on to both CAT and PT—other reasons | 2,046 | 1,154 | 892 | 633 | 1,211 | 93 | 41 | 18 | 50 | 1,345 | 701 |

**Table 7.F.5 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 8 | 1 | 2 | 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 | 3 | 0 | 3 | 68 | 5 | 32 | 7 | 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 | 38 | 6 | 20 | 321 | 55 | 185 | 28 | 7 |
| 5. Completed both CAT and PT | 2,446 | 41,059 | 2,281 | 11,131 | 252,517 | 25,925 | 109,698 | 14,314 | 2,447 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 2 | 7 | 1 | 1 | 53 | 11 | 124 | 12 | 4 |
| 8. Did not log on to both CAT and PT—other reasons | 18 | 126 | 10 | 46 | 1,036 | 247 | 492 | 57 | 14 |

**Table 7.F.6 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five**

| | | Gender | | English Language Fluency | | | | | | Economic Status | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| If the Student: | 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 | 12 | 8 | 4 | 3 | 9 | 0 | 0 | 0 | 0 | 8 | 4 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 107 | 58 | 49 | 31 | 61 | 10 | 3 | 2 | 0 | 81 | 26 |
| 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 | 501 | 280 | 221 | 118 | 317 | 49 | 15 | 0 | 2 | 341 | 160 |
| 5. Completed both CAT and PT | 459,491 | 234,540 | 224,951 | 100,117 | 257,145 | 81,012 | 20,229 | 208 | 780 | 279,369 | 180,122 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 3 | 2 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 2 |
| 7. Did not log on to both CAT and PT—PGE | 217 | 111 | 106 | 19 | 190 | 5 | 2 | 0 | 1 | 80 | 137 |
| 8. Did not log on to both CAT and PT—other reasons | 1,781 | 1,027 | 754 | 509 | 1,061 | 122 | 35 | 14 | 40 | 1,193 | 588 |

**Table 7.F.7 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 3 | 2 | 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 | 1 | 7 | 1 | 2 | 69 | 4 | 22 | 1 | 0 |
| 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 | 8 | 29 | 4 | 7 | 247 | 58 | 126 | 18 | 4 |
| 5. Completed both CAT and PT | 2,511 | 42,163 | 2,388 | 11,774 | 246,687 | 26,327 | 112,157 | 13,070 | 2,414 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 1 | 5 | 0 | 2 | 52 | 13 | 134 | 9 | 1 |
| 8. Did not log on to both CAT and PT—other reasons | 19 | 119 | 5 | 40 | 876 | 248 | 400 | 54 | 20 |

**Table 7.F.8 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six**

| | | 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 |
| **If the Student:** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| 1. Logged on to both CAT and PT, but answered no items | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| 2. Logged on to both CAT and PT and answered at least one item for only CAT or PT | 32 | 19 | 13 | 6 | 19 | 3 | 4 | 0 | 0 | 26 | 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 | 268 | 157 | 111 | 82 | 136 | 42 | 4 | 2 | 2 | 196 | 72 |
| 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 | 1,564 | 836 | 728 | 304 | 806 | 369 | 81 | 2 | 2 | 1,105 | 459 |
| 5. Completed both CAT and PT | 454,374 | 231,861 | 222,513 | 75,825 | 252,365 | 103,779 | 21,424 | 252 | 729 | 274,460 | 179,914 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 5 | 4 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 4 |
| 7. Did not log on to both CAT and PT—PGE | 210 | 112 | 98 | 17 | 181 | 7 | 3 | 1 | 1 | 78 | 132 |
| 8. Did not log on to both CAT and PT—other reasons | 2,855 | 1,626 | 1,229 | 675 | 1,641 | 365 | 103 | 24 | 47 | 1,973 | 882 |

**Table 7.F.9 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 1 | 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 | 0 | 0 | 0 | 1 | 18 | 5 | 8 | 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 | 4 | 13 | 2 | 7 | 161 | 31 | 41 | 7 | 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 | 10 | 104 | 9 | 44 | 914 | 169 | 266 | 39 | 9 |
| 5. Completed both CAT and PT | 2,489 | 41,670 | 2,291 | 12,380 | 242,433 | 26,205 | 112,283 | 11,701 | 2,922 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 0 | 9 | 1 | 0 | 59 | 8 | 121 | 9 | 3 |
| 8. Did not log on to both CAT and PT—other reasons | 34 | 137 | 11 | 50 | 1,467 | 396 | 652 | 87 | 21 |

**Table 7.F.10 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven**

| | | 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 |
| **If the Student:** | **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 | 50 | 29 | 21 | 9 | 36 | 3 | 2 | 0 | 0 | 31 | 19 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 399 | 236 | 163 | 82 | 223 | 66 | 21 | 3 | 4 | 291 | 108 |
| 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 | 1,756 | 901 | 855 | 319 | 861 | 487 | 80 | 3 | 6 | 1,291 | 465 |
| 5. Completed both CAT and PT | 447,418 | 227,831 | 219,587 | 65,188 | 245,971 | 114,775 | 20,439 | 217 | 828 | 268,683 | 178,735 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 4 | 2 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 2 | 2 |
| 7. Did not log on to both CAT and PT—PGE | 254 | 128 | 126 | 18 | 210 | 17 | 6 | 0 | 3 | 87 | 167 |
| 8. Did not log on to both CAT and PT—other reasons | 3,644 | 2,113 | 1,531 | 821 | 2,134 | 497 | 98 | 24 | 70 | 2,532 | 1,112 |

**Table 7.F.11 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 18 | 14 | 16 | 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 | 4 | 11 | 0 | 6 | 226 | 61 | 75 | 12 | 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 | 9 | 77 | 13 | 42 | 1,109 | 190 | 277 | 30 | 9 |
| 5. Completed both CAT and PT | 2,662 | 40,365 | 2,321 | 12,408 | 238,991 | 26,610 | 110,608 | 11,044 | 2,409 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 2 | 15 | 0 | 0 | 62 | 13 | 149 | 12 | 1 |
| 8. Did not log on to both CAT and PT—other reasons | 48 | 176 | 18 | 88 | 1,968 | 483 | 726 | 113 | 24 |

**Table 7.F.12 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight**

| | | 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 |
| **If the Student:** | **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 | 33 | 25 | 8 | 3 | 19 | 9 | 1 | 1 | 0 | 26 | 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 | 205 | 118 | 87 | 53 | 94 | 44 | 6 | 1 | 7 | 139 | 66 |
| 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 | 1,749 | 899 | 850 | 298 | 851 | 512 | 73 | 3 | 12 | 1,198 | 551 |
| 5. Completed both CAT and PT | 449,091 | 229,041 | 220,050 | 57,765 | 245,481 | 123,992 | 20,925 | 165 | 763 | 266,259 | 182,832 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 7 | 4 | 3 | 1 | 5 | 1 | 0 | 0 | 0 | 4 | 3 |
| 7. Did not log on to both CAT and PT—PGE | 303 | 138 | 165 | 14 | 264 | 18 | 6 | 1 | 0 | 78 | 225 |
| 8. Did not log on to both CAT and PT—other reasons | 4,010 | 2,271 | 1,739 | 875 | 2,320 | 638 | 106 | 17 | 54 | 2,726 | 1,284 |

**Table 7.F.13 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 1 | 0 | 21 | 5 | 5 | 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 | 6 | 1 | 2 | 131 | 27 | 31 | 5 | 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 | 9 | 87 | 8 | 49 | 1,087 | 181 | 287 | 34 | 7 |
| 5. Completed both CAT and PT | 2,584 | 40,584 | 2,297 | 12,903 | 238,351 | 27,609 | 111,928 | 10,427 | 2,408 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 7 | 18 | 0 | 3 | 64 | 14 | 184 | 11 | 2 |
| 8. Did not log on to both CAT and PT—other reasons | 56 | 152 | 30 | 68 | 2,224 | 465 | 911 | 85 | 19 |

**Table 7.F.14 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven**

| | | 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 |
| **If the Student:** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| 1. Logged on to both CAT and PT, but answered no items | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| 2. Logged on to both CAT and PT and answered at least one item for only CAT or PT | 73 | 46 | 27 | 13 | 37 | 17 | 4 | 0 | 2 | 43 | 30 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 851 | 458 | 393 | 158 | 442 | 195 | 50 | 3 | 3 | 524 | 327 |
| 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 | 5,347 | 2,731 | 2,616 | 741 | 2,529 | 1,646 | 406 | 4 | 21 | 3,418 | 1,929 |
| 5. Completed both CAT and PT | 415,094 | 210,614 | 204,480 | 38,594 | 228,979 | 111,100 | 35,547 | 175 | 699 | 227,427 | 187,667 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 9 | 4 | 5 | 1 | 4 | 4 | 0 | 0 | 0 | 7 | 2 |
| 7. Did not log on to both CAT and PT—PGE | 1,640 | 717 | 923 | 33 | 1,255 | 204 | 144 | 3 | 1 | 380 | 1,260 |
| 8. Did not log on to both CAT and PT—other reasons | 11,485 | 6,278 | 5,207 | 1,995 | 6,339 | 2,387 | 684 | 17 | 63 | 7,332 | 4,153 |

**Table 7.F.15 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 2 | 0 | 0 | 0 | 0 |
| 2. Logged on to both CAT and PT and answered at least one item for only CAT or PT | 1 | 3 | 0 | 1 | 47 | 8 | 12 | 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 | 6 | 36 | 5 | 21 | 474 | 92 | 194 | 17 | 6 |
| 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 | 34 | 295 | 47 | 149 | 3,315 | 448 | 918 | 127 | 14 |
| 5. Completed both CAT and PT | 2,574 | 38,299 | 2,325 | 13,588 | 214,590 | 24,868 | 107,605 | 9,754 | 1,491 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 1 | 6 | 1 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 9 | 190 | 11 | 108 | 369 | 60 | 825 | 60 | 8 |
| 8. Did not log on to both CAT and PT—other reasons | 110 | 539 | 63 | 204 | 6,543 | 1,322 | 2,395 | 265 | 44 |

**Table 7.F.16 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three**

| | | 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 |
| **If the Student:** | **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 | 9 | 2 | 2 | 9 | 0 | 0 | 0 | 0 | 9 | 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 | 143 | 84 | 59 | 42 | 91 | 1 | 2 | 2 | 5 | 72 | 71 |
| 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 | 323 | 168 | 155 | 83 | 212 | 12 | 14 | 0 | 2 | 204 | 119 |
| 5. Completed both CAT and PT | 473,742 | 242,158 | 231,584 | 152,737 | 270,132 | 31,057 | 18,128 | 375 | 1,313 | 295,212 | 178,530 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7. Did not log on to both CAT and PT—PGE | 147 | 86 | 61 | 18 | 124 | 1 | 2 | 1 | 1 | 47 | 100 |
| 8. Did not log on to both CAT and PT—other reasons | 2,105 | 1,136 | 969 | 593 | 1,345 | 72 | 39 | 13 | 43 | 1,341 | 764 |

**Table 7.F.17 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 6 | 2 | 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 | 1 | 8 | 0 | 2 | 59 | 10 | 55 | 7 | 1 |
| 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 | 2 | 14 | 2 | 8 | 163 | 26 | 92 | 13 | 3 |
| 5. Completed both CAT and PT | 2,530 | 41,337 | 2,224 | 10,846 | 262,372 | 26,373 | 109,758 | 15,408 | 2,894 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7. Did not log on to both CAT and PT—PGE | 2 | 4 | 0 | 3 | 39 | 5 | 84 | 8 | 2 |
| 8. Did not log on to both CAT and PT—other reasons | 27 | 103 | 11 | 37 | 1,053 | 244 | 536 | 75 | 19 |

**Table 7.F.18 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four**

| | | 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 |
| **If the Student:** | 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 | 10 | 6 | 4 | 3 | 6 | 0 | 0 | 0 | 1 | 6 | 4 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 94 | 49 | 45 | 29 | 56 | 1 | 0 | 2 | 6 | 54 | 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 | 283 | 143 | 140 | 73 | 182 | 17 | 4 | 0 | 7 | 160 | 123 |
| 5. Completed both CAT and PT | 463,933 | 236,236 | 227,697 | 121,441 | 261,000 | 61,888 | 18,132 | 317 | 1,155 | 286,492 | 177,441 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 5 | 4 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 4 | 1 |
| 7. Did not log on to both CAT and PT—PGE | 118 | 66 | 52 | 11 | 99 | 2 | 3 | 0 | 3 | 30 | 88 |
| 8. Did not log on to both CAT and PT—other reasons | 1,921 | 1,127 | 794 | 469 | 1,285 | 97 | 26 | 12 | 32 | 1,265 | 656 |

**Table 7.F.19 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 3 | 5 | 0 | 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 | 5 | 1 | 3 | 40 | 9 | 34 | 2 | 0 |
| 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 | 14 | 4 | 10 | 131 | 22 | 85 | 13 | 2 |
| 5. Completed both CAT and PT | 2,442 | 41,625 | 2,276 | 11,269 | 253,720 | 25,922 | 109,877 | 14,328 | 2,474 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 2 | 6 | 1 | 2 | 24 | 4 | 73 | 5 | 1 |
| 8. Did not log on to both CAT and PT—other reasons | 28 | 95 | 16 | 25 | 917 | 246 | 501 | 77 | 16 |

**Table 7.F.20 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five**

| | | 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 |
| **If the Student:** | **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 | 19 | 10 | 9 | 6 | 10 | 3 | 0 | 0 | 0 | 15 | 4 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 175 | 111 | 64 | 36 | 111 | 21 | 2 | 1 | 4 | 109 | 66 |
| 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 | 261 | 155 | 106 | 57 | 158 | 35 | 9 | 0 | 2 | 167 | 94 |
| 5. Completed both CAT and PT | 461,117 | 235,360 | 225,757 | 101,641 | 256,867 | 81,012 | 20,229 | 309 | 1,059 | 280,417 | 180,700 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 7 | 4 | 3 | 0 | 6 | 1 | 0 | 0 | 0 | 4 | 3 |
| 7. Did not log on to both CAT and PT—PGE | 122 | 61 | 61 | 11 | 104 | 5 | 1 | 0 | 1 | 50 | 72 |
| 8. Did not log on to both CAT and PT—other reasons | 1,938 | 1,110 | 828 | 436 | 1,266 | 152 | 48 | 9 | 27 | 1,259 | 679 |

**Table 7.F.21 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 1 | 2 | 0 | 0 | 14 | 0 | 2 | 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 | 1 | 9 | 1 | 5 | 100 | 8 | 45 | 5 | 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 | 2 | 8 | 3 | 6 | 141 | 14 | 79 | 6 | 2 |
| 5. Completed both CAT and PT | 2,508 | 42,699 | 2,391 | 11,851 | 247,696 | 26,289 | 112,177 | 13,079 | 2,427 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 3 | 2 | 2 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 1 | 4 | 0 | 2 | 33 | 6 | 71 | 4 | 1 |
| 8. Did not log on to both CAT and PT—other reasons | 29 | 88 | 10 | 30 | 907 | 293 | 502 | 65 | 14 |

**Table 7.F.22 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six**

| | | 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 |
| **If the Student:** | **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 | 20 | 14 | 6 | 6 | 9 | 5 | 0 | 0 | 0 | 18 | 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 | 191 | 109 | 82 | 43 | 107 | 28 | 4 | 2 | 7 | 124 | 67 |
| 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 | 636 | 364 | 272 | 142 | 321 | 146 | 21 | 2 | 4 | 428 | 208 |
| 5. Completed both CAT and PT | 456,666 | 233,014 | 223,652 | 77,319 | 252,601 | 103,952 | 21,500 | 336 | 958 | 276,026 | 180,640 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7. Did not log on to both CAT and PT—PGE | 120 | 65 | 55 | 12 | 105 | 1 | 0 | 1 | 1 | 36 | 84 |
| 8. Did not log on to both CAT and PT—other reasons | 2,856 | 1,654 | 1,202 | 617 | 1,711 | 394 | 87 | 11 | 36 | 1,907 | 949 |

**Table 7.F.23 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 12 | 3 | 5 | 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 | 11 | 3 | 2 | 98 | 20 | 44 | 10 | 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 | 36 | 3 | 15 | 365 | 66 | 126 | 17 | 4 |
| 5. Completed both CAT and PT | 2,494 | 42,194 | 2,297 | 12,505 | 243,717 | 26,312 | 112,554 | 11,737 | 2,856 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 1 | 4 | 0 | 1 | 28 | 5 | 75 | 5 | 1 |
| 8. Did not log on to both CAT and PT—other reasons | 28 | 98 | 17 | 49 | 1,478 | 377 | 637 | 65 | 107 |

**Table 7.F.24 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven**

| | | Gender | | English Language Fluency | | | | | | Economic Status | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| If the Student: | 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 | 29 | 17 | 12 | 5 | 16 | 5 | 1 | 1 | 1 | 21 | 8 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 209 | 120 | 89 | 45 | 113 | 35 | 9 | 2 | 5 | 157 | 52 |
| 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 | 989 | 513 | 476 | 205 | 477 | 262 | 33 | 3 | 9 | 715 | 274 |
| 5. Completed both CAT and PT | 449,118 | 228,742 | 220,376 | 66,613 | 245,837 | 114,801 | 20,449 | 314 | 1,104 | 269,876 | 179,242 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 5 | 3 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 3 | 2 |
| 7. Did not log on to both CAT and PT—PGE | 150 | 72 | 78 | 3 | 133 | 8 | 4 | 1 | 1 | 54 | 96 |
| 8. Did not log on to both CAT and PT—other reasons | 4,054 | 2,307 | 1,747 | 786 | 2,392 | 667 | 142 | 28 | 39 | 2,752 | 1,302 |

**Table 7.F.25 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 1 | 0 | 17 | 5 | 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 | 3 | 2 | 2 | 3 | 120 | 30 | 38 | 9 | 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 | 5 | 26 | 2 | 22 | 643 | 96 | 164 | 28 | 3 |
| 5. Completed both CAT and PT | 2,667 | 40,878 | 2,331 | 12,528 | 240,006 | 26,645 | 110,587 | 11,045 | 2,431 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 2 | 7 | 0 | 1 | 43 | 7 | 79 | 11 | 0 |
| 8. Did not log on to both CAT and PT—other reasons | 49 | 136 | 17 | 69 | 2,232 | 510 | 903 | 109 | 29 |

**Table 7.F.26 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight**

| | | 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 |
| **If the Student** | **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 | 34 | 19 | 15 | 8 | 13 | 10 | 2 | 0 | 1 | 30 | 4 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 265 | 161 | 104 | 58 | 131 | 54 | 12 | 2 | 8 | 205 | 60 |
| 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 | 812 | 390 | 422 | 126 | 413 | 225 | 45 | 2 | 1 | 545 | 267 |
| 5. Completed both CAT and PT | 450,774 | 229,924 | 220,850 | 59,193 | 245,268 | 124,127 | 20,940 | 236 | 1,010 | 267,421 | 183,353 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 3 | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 2 | 1 |
| 7. Did not log on to both CAT and PT—PGE | 220 | 98 | 122 | 12 | 191 | 13 | 1 | 1 | 2 | 56 | 164 |
| 8. Did not log on to both CAT and PT—other reasons | 4,446 | 2,489 | 1,957 | 795 | 2,652 | 810 | 136 | 14 | 39 | 2,957 | 1,489 |

**Table 7.F.27 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 23 | 4 | 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 | 3 | 1 | 0 | 4 | 171 | 29 | 49 | 7 | 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 | 33 | 6 | 21 | 508 | 62 | 153 | 23 | 2 |
| 5. Completed both CAT and PT | 2,576 | 41,102 | 2,308 | 13,029 | 239,428 | 27,583 | 111,920 | 10,399 | 2,429 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 7 | 15 | 0 | 2 | 50 | 10 | 123 | 12 | 1 |
| 8. Did not log on to both CAT and PT—other reasons | 64 | 129 | 28 | 72 | 2,464 | 531 | 1,005 | 120 | 33 |

**Table 7.F.28 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven**

| | | 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 |
| **If the Student:** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| 1. Logged on to both CAT and PT, but answered no items | 1 | 0 | 1 | 0 | 1 | 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 | 76 | 45 | 31 | 8 | 36 | 20 | 12 | 0 | 0 | 47 | 29 |
| 3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items | 595 | 312 | 283 | 95 | 343 | 113 | 35 | 1 | 8 | 347 | 248 |
| 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 | 1,347 | 681 | 666 | 166 | 666 | 404 | 105 | 0 | 6 | 818 | 529 |
| 5. Completed both CAT and PT | 417,200 | 211,924 | 205,276 | 39,518 | 229,032 | 111,921 | 35,700 | 189 | 840 | 229,098 | 188,102 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 10 | 5 | 5 | 0 | 6 | 4 | 0 | 0 | 0 | 8 | 2 |
| 7. Did not log on to both CAT and PT—PGE | 957 | 418 | 539 | 32 | 745 | 100 | 75 | 5 | 0 | 225 | 732 |
| 8. Did not log on to both CAT and PT—other reasons | 10,989 | 5,956 | 5,033 | 1,763 | 6,295 | 2,230 | 620 | 15 | 66 | 6,874 | 4,115 |

**Table 7.F.29 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven**

| | Ethnicity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1. American Indian/ Alaskan Native | 2. Asian | 3. Pacific Islander | 4. Filipino | 5. Hispanic or Latino | 6. 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 | 1 | 0 | 0 | 0 |
| 2. Logged on to both CAT and PT and answered at least one item for only CAT or PT | 0 | 12 | 0 | 1 | 35 | 8 | 18 | 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 | 5 | 15 | 8 | 7 | 320 | 59 | 159 | 19 | 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 | 108 | 13 | 48 | 787 | 113 | 225 | 34 | 6 |
| 5. Completed both CAT and PT | 2,545 | 38,673 | 2,337 | 13,692 | 216,125 | 25,036 | 107,559 | 9,729 | 1,504 |
| 6. Did not log on to both CAT and PT—NTE (medical reasons) | 0 | 1 | 0 | 0 | 8 | 0 | 1 | 0 | 0 |
| 7. Did not log on to both CAT and PT—PGE | 6 | 108 | 4 | 16 | 200 | 39 | 548 | 34 | 2 |
| 8. Did not log on to both CAT and PT—other reasons | 126 | 424 | 70 | 187 | 6,204 | 1,205 | 2,446 | 286 | 41 |

# 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 2014–15 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, 2015a).

1. **Item Response Theory (IRT) Parameters.** Appendix 8.A on page 301 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 360 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 366 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.** Appendixes 8.D, beginning on page 383, present 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 412, present CSEM distributions for the total test scores. Figure 8.E.1 through Figure 8.E.14, which start on page 426,

present plots of CSEMs conditional on scale scores. Table 8.4 presents the mean CSEM for each performance level. Tables in Appendix 8.F, starting on page 433, 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 440, 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 section 8.6 on page 287. Appendix 8.H, on page 479, 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 295, and the tables in Appendix 8.I, beginning on page 491, present correlations between English language arts/literacy (ELA) and mathematics scores calculated 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, 2015, which comprised the full CAASPP online summative assessments' data for the majority of tests. Unless student records were flagged as "not scored" or the students were enrolled in a different grade than the one in which they were tested, the test records were considered as valid and included in the technical report analyses.

## 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, 2015a).

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 113.

Chapter 9 of the 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, 2015a).

### 8.2.1 Summary Information

Parameter estimates for the 2014–15 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 301 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 2015a).

#### 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. The omit rates for the PT items are slightly higher than the CAT items. Only one item in the grade four ELA assessment and one item in the grade seven mathematics assessment had 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 section 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 section *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 section *7.4.1.2 Scale Scores for the Total Assessment* on page 117 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

$$\rho_{\theta\theta'} = 1 - \frac{M_{SEM_\theta^2}}{s_\theta^2} \tag{8.1}$$

where,

$s_\theta^2$ is the measure of variance in ability estimates,

$\theta$ 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:

$$SEM_{Scaled} = a \times s_\theta \sqrt{1 - \rho_{\theta\theta'}} \tag{8.2}$$

where,

$\rho_{\theta\theta'}$ is the reliability estimated in Equation 8.1, and

$s_\theta$ is the standard deviation of the total test $\theta$ score.

$a$ is the slope of the scaling constants that transform $\theta$ 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 $\pm$ 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 students upon which those analyses are performed. 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**

| | | | | Scale Score | | | Theta Score | | |
|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | Number of Students | Reliability | Mean | SD | SEM | Mean | SD | SEM |
| ELA | 3 | 470,347 | 0.91 | 2402 | 86 | 26 | –1.24 | 1.01 | 0.31 |
| | 4 | 458,836 | 0.91 | 2444 | 91 | 27 | –0.75 | 1.06 | 0.32 |
| | 5 | 455,946 | 0.92 | 2485 | 93 | 26 | –0.27 | 1.08 | 0.30 |
| | 6 | 452,937 | 0.91 | 2510 | 91 | 28 | 0.02 | 1.05 | 0.32 |
| | 7 | 444,984 | 0.91 | 2530 | 94 | 28 | 0.25 | 1.10 | 0.32 |
| | 8 | 447,455 | 0.91 | 2551 | 93 | 28 | 0.50 | 1.08 | 0.32 |
| | 11 | 411,581 | 0.91 | 2588 | 105 | 31 | 0.93 | 1.23 | 0.36 |
| Mathematics | 3 | 469,155 | 0.93 | 2415 | 77 | 21 | –1.26 | 0.97 | 0.26 |
| | 4 | 460,274 | 0.94 | 2452 | 79 | 20 | –0.79 | 0.99 | 0.25 |
| | 5 | 457,384 | 0.92 | 2479 | 87 | 24 | –0.45 | 1.10 | 0.30 |
| | 6 | 450,287 | 0.92 | 2505 | 98 | 27 | –0.13 | 1.23 | 0.34 |
| | 7 | 442,039 | 0.91 | 2519 | 104 | 31 | 0.06 | 1.31 | 0.40 |
| | 8 | 442,302 | 0.91 | 2533 | 111 | 33 | 0.23 | 1.40 | 0.41 |
| | 11 | 410,907 | 0.89 | 2561 | 119 | 39 | 0.58 | 1.50 | 0.49 |

### 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 119 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 383. 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 19.

### 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, eligibility for special services, English-language fluency, primary ethnicity, and 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.23 present the overall test reliabilities for subgroups defined by student gender, economic status, provision of special services, English-language fluency, primary ethnicity, and migrant status. Table 8.D.24 through Table 8.D.29 present the reliabilities for the subgroups based on primary ethnicity within economic status.

The next set of tables, Table 8.D.30 through Table 8.D.99, present the claim-level reliabilities for the subgroups. Table 8.D.30 through Table 8.D.43 present the claim-level reliabilities for the subgroups based on gender, economic status, and migrant status. Table 8.D.44 through Table 8.D.57 show the same analyses for the subgroups based on provision of special services and English-language fluency. Table 8.D.58 through Table 8.D.71 present results for the subgroups based on primary ethnicity of the students. The last set of tables, Table 8.D.72 through Table 8.D.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. 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, whereas CSEMs 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):

$$\mathrm{CSEM}(\theta) = a \times \frac{1}{\sqrt{\mathrm{I}(\theta)}} \tag{8.3}$$

where,

$\mathrm{CSEM}(\theta)$ is the conditional standard error of measurement, and

$\mathrm{I}(\theta)$ is the test information function at ability level $\theta$, as is shown in equations 7.8 to 7.11, which start on page 121.

The statistic is multiplied by $a$, where $a$ is the scaling factor needed to transform theta to the scale score metric. The value of $a$ varies by content area and is shown in equations 7.5 and 7.6 for ELA and mathematics, respectively.

CSEMs vary across the $\theta$ 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**

| | | Standard Nearly Met | | Standard Met | | Standard Exceeded | |
|---|---|---|---|---|---|---|---|
| **Content Area** | **Grade** | **Min SS** | **CSEM** | **Min SS** | **CSEM** | **Min SS** | **CSEM** |
| | 3 | 2367 | 24 | 2432 | 22 | 2490 | 22 |
| | 4 | 2416 | 25 | 2473 | 25 | 2533 | 25 |
| | 5 | 2442 | 24 | 2502 | 25 | 2582 | 25 |
| **ELA** | 6 | 2457 | 27 | 2531 | 26 | 2618 | 26 |
| | 7 | 2479 | 27 | 2552 | 26 | 2649 | 26 |
| | 8 | 2487 | 27 | 2567 | 26 | 2668 | 27 |
| | 11 | 2493 | 32 | 2583 | 28 | 2682 | 28 |

| Content Area | Grade | Standard Nearly Met | | Standard Met | | Standard Exceeded | |
|---|---|---|---|---|---|---|---|
| | | Min SS | CSEM | Min SS | CSEM | Min SS | CSEM |
| Mathematics | 3 | 2381 | 19 | 2436 | 17 | 2501 | 17 |
| | 4 | 2411 | 19 | 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 | 33 | 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 | 28 | 23 | 22 | 23 |
| | 4 | 28 | 25 | 25 | 26 |
| | 5 | 27 | 24 | 25 | 26 |
| | 6 | 31 | 26 | 26 | 27 |
| | 7 | 31 | 26 | 26 | 28 |
| | 8 | 30 | 26 | 26 | 28 |
| | 11 | 36 | 30 | 28 | 30 |
| Mathematics | 3 | 22 | 18 | 17 | 18 |
| | 4 | 23 | 18 | 17 | 17 |
| | 5 | 29 | 21 | 18 | 18 |
| | 6 | 33 | 23 | 21 | 21 |
| | 7 | 40 | 26 | 21 | 20 |
| | 8 | 40 | 29 | 24 | 22 |
| | 11 | 48 | 31 | 25 | 22 |

Scale score CSEM distributions are shown in Table 8.E.1 through Table 8.E.14. The plots of the CSEMs conditional for scale scores are also presented in Figure 8.E.1 through Figure 8.E.14. 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–shape 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 performance 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 Educational Testing Service (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 non-overlapping, 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 a form actually taken | |
|---|---|---|---|
| | | 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 the alternate form taken | |
|---|---|---|---|
| | | 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.

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:

$$ICC = r_I = (ms_{between} - ms_{within})/(ms_{between} + [k - 1]ms_{within}) \quad (8.5)$$

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 differed 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* x *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:

$$\kappa_{ij} = \frac{\left(\sum_{i=0}^{m}\sum_{j=0}^{m} w_{ij}\frac{n_{ij}}{n_{++}}\right) - \left(\sum_{i=0}^{m}\sum_{j=0}^{m} w_{ij}\frac{n_{i+}n_{+j}}{n_{++}^2}\right)}{1 - \left(\sum_{i=0}^{m}\sum_{j=0}^{m} w_{ij}\frac{n_{i+}n_{+j}}{n_{++}^2}\right)}, \tag{8.6}$$

For quadratic weighted kappa, the weights are

$$w_{ij} = 1 - \frac{(i-j)^2}{m^2}. \tag{8.7}$$

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 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

Table 8.G.15 through Table 8.G.21 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* (Smarter Balanced, 2014a) 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 section *7.2.2. Quality Control of Artificial Intelligence Scoring*. 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.22 through Table 8.G.27 present the agreement statistics between AI and human scoring. Both short answer items and WER items are included. 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 section, the evidence gathered is presented to support the intended uses and interpretations of scores for the CAASPP online summative assessment. 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 2 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015a). The validity evidence presented in Chapter 2 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 Assessment.

## 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 19. 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, 2015b and 2015c).

### 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 performance 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 101. The CDE also publishes *The Guide to Your CAASPP Student Score Report* for parents/guardians of students in grades three, four, six, seven, and eleven (CDE, 2015a); and grades five and eight (CDE, 2015b). 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://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=60001-61000&file=60600-60603 (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* (Human Resource Research Organization [HumRRO], 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, 2015d).

#### 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, 2015b) and mathematics (2015c).

#### 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 76) 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 19 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 80, and in Table 5.B.4.

#### 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, 2015a).

#### 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 (HumRRO, 2014).

#### 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 76, 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 unpublished 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, 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, and
- 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 479, 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 126 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 50$^{th}$ percentile within each ability quartile spent 111 to 211 minutes on ELA assessments across grades and 64 to 138 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. 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 50$^{th}$ percentile within each ability quartile spent 62 to 107 minutes on the CAT portion of ELA tests across grades and 44 to 96 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 81.) Table 8.H.1 and Table 8.H.6 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 50$^{th}$ percentile within each ability quartile spent 40 to 107 minutes on the PT portion of ELA tests across PTs and grades and 14 to 58 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, 2015a).

#### 8.6.4.2 Differential Item Functioning (DIF)

In addition, analysis of item functioning using IRT and differential item functioning (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, 2015a, Chapter 6; and Smarter Balanced, 2015a, 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 0.89 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. 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 are also examined for various subgroups of the student population that differ in their demographic characteristics. The characteristics considered are gender, ethnicity, economic status, provision of special services, migrant status, English-language fluency, and ethnicity-by-economic status (refer to Table 7.12 on page 125 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.29 present the reliabilities and SEMs on the overall test theta scores for the various subgroups. Table 8.D.30 through Table 8.D.99 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 283. 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 0.98 across all tests. Similarly, the proportion of students who are classified consistently ranges from 0.87 to 0.92 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 show at least moderate levels of agreement between raters who scored students' responses for 69 percent of the human-scored short-answer items in ELA and 28 percent of the human-scored items in mathematics. The rater agreement is at least high, with Kappa over 0.60 for 20 percent of ELA human-scored items and 66 percent of mathematics human-scored items. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 41 percent of the ELA and 73 percent of the mathematics human-scored items.

The results in Table 8.G.15 through Table 8.G.21 show at least moderate levels of agreement between raters that scored students' responses for 20 percent of the human-scored WER items and high levels of agreement for 29 percent of the human-scored WER items in grades three through five and grade eleven ELA tests. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 38 percent of the WER items.

Table 8.G.22 through Table 8.G.27 present the results for AI machine-scored items for ELA in grades three through five and mathematics in grades six through eight. The results show at least moderate levels of agreement between human raters and AI engines that scored students' responses for 51 percent of the human-scored short-answer items in ELA and 14 percent of the human-scored items in mathematics. The agreement is high, with Kappa over 0.6 for 15 percent of ELA human-scored items and 86 percent of mathematics human-scored items. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 17 percent of the ELA and 97 percent of the mathematics AI machine-scored 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 51.2 to 100 percent for ELA tests and 52.4 to 100 percent for mathematics tests. The percentage of students for whom the raters are in exact or adjacent agreement ranges from 95.4 to 100 percent for ELA tests and 84 to 100 percent for mathematics tests.

As is reported in Table 8.G.15 through Table 8.G.18, 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 46.3 percent to 99.5 percent; the percentage of students for whom the raters are in exact or adjacent agreement ranges from 91.7 percent to 100 percent in ELA tests for grades three through eight and grade eleven.

As presented in Table 8.G.22 through Table 8.G.27, 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 42.9 to 92.5 percent for ELA across the grades and from 71.7 to 96.2 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 85.4 percent for the ELA tests and over 96.1 percent for the mathematics tests.

#### 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 0.56 to 0.72 for ELA and from 0.64 to 0.79 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 CAASPP ELA and mathematics tests and the numbers of students on which these correlations are based. Sample sizes for individual tests are shown in bold font on the diagonals of the correlation matrices; the numbers of students on which the correlations are based are shown on the lower left. 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 | All Students | |
|---|---|---|---|
| 3 | ELA | **472,674** | 0.80 |
| | Mathematics | 470,922 | **474,261** |
| 4 | ELA | **462,679** | 0.81 |
| | Mathematics | 461,094 | **464,355** |
| 5 | ELA | **460,190** | 0.81 |
| | Mathematics | 458,568 | **461,617** |
| 6 | ELA | **456,321** | 0.82 |
| | Mathematics | 454,148 | **457,550** |
| 7 | ELA | **449,714** | 0.81 |
| | Mathematics | 446,393 | **450,395** |
| 8 | ELA | **451,185** | 0.79 |
| | Mathematics | 447,587 | **451,965** |
| 11 | ELA | **422,098** | 0.76 |
| | Mathematics | 412,104 | **419,508** |

***Note*:** Sample sizes in tests are in **bold** font.

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 provide the content area test score correlations by gender, ethnicity, English-language fluency, economic status, migrant status, and special service utilization. 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, 2015a). 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, 2015). 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 *a*-values for ELA, Grade Three**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 217 | 0.72 | 0.25 | 0.20 | 1.52 |
| Claim 2 | 203 | 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 | 669 | 0.67 | 0.22 | 0.19 | 1.52 |

**Table 8.A.2 IRT *a*-values for ELA, Grade Four**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 177 | 0.64 | 0.22 | 0.15 | 1.17 |
| Claim 2 | 232 | 0.61 | 0.21 | 0.17 | 1.16 |
| Claim 3 | 127 | 0.55 | 0.18 | 0.18 | 1.01 |
| Claim 4 | 169 | 0.59 | 0.20 | 0.15 | 1.29 |
| All items | 705 | 0.60 | 0.21 | 0.15 | 1.29 |

**Table 8.A.3 IRT *a*-values for ELA, Grade Five**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 194 | 0.65 | 0.20 | 0.18 | 1.22 |
| Claim 2 | 225 | 0.63 | 0.21 | 0.19 | 1.25 |
| Claim 3 | 108 | 0.52 | 0.17 | 0.16 | 1.02 |
| Claim 4 | 148 | 0.64 | 0.17 | 0.23 | 1.10 |
| All items | 675 | 0.62 | 0.19 | 0.16 | 1.25 |

**Table 8.A.4 IRT *a*-values for ELA, Grade Six**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 175 | 0.59 | 0.19 | 0.17 | 1.18 |
| Claim 2 | 220 | 0.58 | 0.23 | 0.19 | 1.35 |
| Claim 3 | 116 | 0.50 | 0.18 | 0.11 | 0.95 |
| Claim 4 | 139 | 0.61 | 0.22 | 0.17 | 1.22 |
| All items | 650 | 0.57 | 0.21 | 0.11 | 1.35 |

**Table 8.A.5 IRT *a*-values for ELA, Grade Seven**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 183 | 0.58 | 0.19 | 0.18 | 1.11 |
| Claim 2 | 221 | 0.59 | 0.24 | 0.17 | 1.65 |
| Claim 3 | 117 | 0.49 | 0.15 | 0.18 | 0.99 |
| Claim 4 | 110 | 0.60 | 0.20 | 0.14 | 1.00 |
| All items | 631 | 0.57 | 0.21 | 0.14 | 1.65 |

**Table 8.A.6 IRT *a*-values for ELA, Grade Eight**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 161 | 0.59 | 0.20 | 0.15 | 1.11 |
| Claim 2 | 219 | 0.57 | 0.20 | 0.15 | 1.07 |
| Claim 3 | 131 | 0.47 | 0.17 | 0.13 | 0.91 |
| Claim 4 | 118 | 0.58 | 0.19 | 0.20 | 1.19 |
| All items | 629 | 0.56 | 0.20 | 0.13 | 1.19 |

**Table 8.A.7 IRT *a*-values for ELA, Grade Eleven**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 499 | 0.57 | 0.19 | 0.13 | 1.16 |
| Claim 2 | 437 | 0.47 | 0.13 | 0.15 | 1.02 |
| Claim 3 | 334 | 0.45 | 0.16 | 0.10 | 0.93 |
| Claim 4 | 311 | 0.51 | 0.19 | 0.12 | 1.19 |
| All items | 1581 | 0.50 | 0.18 | 0.10 | 1.19 |

**Table 8.A.8 IRT *a*-values for Mathematics, Grade Three**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 554 | 0.85 | 0.29 | 0.16 | 1.59 |
| Claim 2 | 246 | 0.92 | 0.26 | 0.20 | 1.48 |
| Claim 3 | 160 | 0.79 | 0.31 | 0.13 | 1.42 |
| All items | 960 | 0.86 | 0.28 | 0.13 | 1.59 |

**Table 8.A.9 IRT *a*-values for Mathematics, Grade Four**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 551 | 0.84 | 0.29 | 0.17 | 1.80 |
| Claim 2 | 256 | 0.79 | 0.30 | 0.20 | 1.63 |
| Claim 3 | 149 | 0.79 | 0.29 | 0.25 | 1.51 |
| All items | 956 | 0.82 | 0.29 | 0.17 | 1.80 |

**Table 8.A.10 IRT *a*-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 | 270 | 0.82 | 0.30 | 0.16 | 1.56 |
| Claim 3 | 182 | 0.71 | 0.31 | 0.18 | 1.77 |
| All items | 969 | 0.77 | 0.30 | 0.14 | 1.77 |

**Table 8.A.11 IRT *a*-values for Mathematics, Grade Six**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 538 | 0.68 | 0.25 | 0.15 | 1.35 |
| Claim 2 | 198 | 0.80 | 0.25 | 0.17 | 1.42 |
| Claim 3 | 137 | 0.63 | 0.23 | 0.18 | 1.41 |
| All items | 873 | 0.70 | 0.26 | 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 | 462 | 0.71 | 0.28 | 0.10 | 1.43 |
| Claim 2 | 190 | 0.83 | 0.28 | 0.11 | 1.43 |
| Claim 3 | 125 | 0.67 | 0.33 | 0.12 | 1.68 |
| All items | 777 | 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 | 439 | 0.62 | 0.25 | 0.09 | 1.29 |
| Claim 2 | 171 | 0.74 | 0.29 | 0.16 | 1.33 |
| Claim 3 | 143 | 0.57 | 0.23 | 0.14 | 1.36 |
| All items | 753 | 0.64 | 0.26 | 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 | 1028 | 0.55 | 0.26 | 0.09 | 1.44 |
| Claim 2 | 390 | 0.58 | 0.28 | 0.10 | 1.49 |
| Claim 3 | 460 | 0.47 | 0.25 | 0.09 | 1.39 |
| All items | 1878 | 0.54 | 0.26 | 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 | 217 | –0.44 | 1.06 | –2.72 | 2.74 |
| Claim 2 | 203 | –0.65 | 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 | 669 | –0.35 | 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 | 177 | 0.30 | 1.24 | –2.10 | 3.13 |
| Claim 2 | 232 | –0.22 | 1.12 | –3.25 | 2.94 |
| Claim 3 | 127 | 0.14 | 1.41 | –2.82 | 4.25 |
| Claim 4 | 169 | 0.48 | 1.13 | –1.76 | 3.73 |
| All items | 705 | 0.14 | 1.24 | –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 | 194 | 0.67 | 1.21 | –1.60 | 4.81 |
| Claim 2 | 225 | 0.21 | 1.14 | –2.75 | 4.95 |
| Claim 3 | 108 | 0.68 | 1.17 | –2.40 | 3.48 |
| Claim 4 | 148 | 0.72 | 1.05 | –1.74 | 3.83 |
| All items | 675 | 0.53 | 1.17 | –2.75 | 4.95 |

**Table 8.A.18 IRT *b*-values for ELA, Grade Six**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 175 | 1.05 | 1.22 | –1.20 | 4.78 |
| Claim 2 | 220 | 0.81 | 1.33 | –2.72 | 4.61 |
| Claim 3 | 116 | 1.03 | 1.51 | –1.45 | 4.92 |
| Claim 4 | 139 | 1.09 | 1.04 | –1.24 | 3.61 |
| All items | 650 | 0.97 | 1.28 | –2.72 | 4.92 |

**Table 8.A.19 IRT *b*-values for ELA, Grade Seven**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 183 | 1.16 | 1.24 | –1.88 | 3.91 |
| Claim 2 | 221 | 0.95 | 1.24 | –1.98 | 5.12 |
| Claim 3 | 117 | 0.87 | 1.26 | –1.71 | 4.78 |
| Claim 4 | 110 | 1.62 | 1.29 | –0.67 | 5.52 |
| All items | 631 | 1.12 | 1.27 | –1.98 | 5.52 |

**Table 8.A.20 IRT *b*-values for ELA, Grade Eight**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 161 | 1.49 | 1.25 | –1.17 | 5.57 |
| Claim 2 | 219 | 1.02 | 1.29 | –3.01 | 4.56 |
| Claim 3 | 131 | 0.97 | 1.28 | –1.54 | 4.27 |
| Claim 4 | 118 | 1.89 | 1.06 | –0.67 | 5.19 |
| All items | 629 | 1.29 | 1.28 | –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 | 499 | 1.84 | 1.27 | –1.34 | 5.57 |
| Claim 2 | 437 | 1.62 | 1.34 | –1.88 | 5.93 |
| Claim 3 | 334 | 1.30 | 1.39 | –1.25 | 5.62 |
| Claim 4 | 311 | 2.03 | 1.18 | –0.27 | 5.12 |
| All items | 1581 | 1.70 | 1.32 | –1.88 | 5.93 |

**Table 8.A.22 IRT *b*-values for Mathematics, Grade Three**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 554 | –1.15 | 1.01 | –3.38 | 2.40 |
| Claim 2 | 246 | –0.33 | 0.86 | –2.68 | 1.97 |
| Claim 3 | 160 | –0.20 | 0.84 | –2.32 | 3.46 |
| All items | 960 | –0.78 | 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 | 551 | –0.39 | 1.12 | –3.26 | 4.11 |
| Claim 2 | 256 | 0.14 | 0.98 | –2.68 | 2.57 |
| Claim 3 | 149 | 0.38 | 0.92 | –1.95 | 3.16 |
| All items | 956 | –0.13 | 1.10 | –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 | 0.08 | 1.24 | –3.26 | 3.61 |
| Claim 2 | 270 | 1.10 | 0.92 | –2.68 | 4.45 |
| Claim 3 | 182 | 1.00 | 1.01 | –1.22 | 5.28 |
| All items | 969 | 0.53 | 1.22 | –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 | 538 | 0.75 | 1.34 | –3.93 | 4.35 |
| Claim 2 | 198 | 1.19 | 1.10 | –2.98 | 5.10 |
| Claim 3 | 137 | 1.46 | 1.02 | –1.73 | 4.71 |
| All items | 873 | 0.96 | 1.27 | –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 | 462 | 1.60 | 1.24 | –1.79 | 5.64 |
| Claim 2 | 190 | 1.78 | 1.09 | –1.09 | 5.07 |
| Claim 3 | 125 | 2.11 | 1.24 | –1.34 | 6.17 |
| All items | 777 | 1.72 | 1.22 | –1.79 | 6.17 |

**Table 8.A.27 IRT *b*-values for Mathematics, Grade Eight**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 439 | 1.97 | 1.56 | –1.79 | 6.32 |
| Claim 2 | 171 | 2.32 | 1.24 | –1.48 | 5.75 |
| Claim 3 | 143 | 2.57 | 1.42 | –1.73 | 6.70 |
| All items | 753 | 2.16 | 1.48 | –1.79 | 6.70 |

**Table 8.A.28 IRT *b*-values for Mathematics, Grade Eleven**

| | Number of Items | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Claim 1 | 1028 | 2.45 | 1.60 | –3.36 | 7.30 |
| Claim 2 | 390 | 3.03 | 1.35 | –1.10 | 6.68 |
| Claim 3 | 460 | 2.93 | 1.51 | –1.79 | 7.19 |
| All items | 1878 | 2.69 | 1.55 | –3.36 | 7.30 |

**Table 8.A.29 Distribution of IRT *a*-values Conditional on Ability for ELA Non-PT Items, Grade Three**

| IRT *a*-value | 2100–2199 | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 |
|---|---|---|---|---|---|---|
| 0 –< 0.2 | 1 | 2 | 2 | 2 | 2 | 2 |
| 0.2 –< 0.4 | 59 | 61 | 61 | 67 | 65 | 65 |
| 0.4 –< 0.6 | 156 | 159 | 163 | 167 | 164 | 161 |
| 0.6 –< 0.8 | **180** | **180** | **186** | **190** | **188** | **183** |
| 0.8 –< 1.0 | 96 | 98 | 99 | 103 | 101 | 101 |
| 1.0 –< 1.2 | 39 | 40 | 40 | 40 | 40 | 40 |
| 1.2 –< 1.4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1.4 –< 1.6 | 1 | 1 | 1 | 1 | 1 | – |
| 1.6 –< 1.8 | – | – | – | – | – | – |
| 1.8 –< 2.0 | – | – | – | – | – | – |

**Table 8.A.30 Distribution of IRT *a*-values Conditional on Ability for ELA Non-PT Items, Grade Four**

| IRT *a*-value | 2100–2199 | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 |
|---|---|---|---|---|---|---|
| 0 –< 0.2 | 7 | 8 | 8 | 8 | 8 | 8 |
| 0.2 –< 0.4 | 78 | 86 | 88 | 90 | 98 | 99 |
| 0.4 –< 0.6 | 146 | **164** | **167** | **182** | **192** | **186** |
| 0.6 –< 0.8 | **149** | 158 | 164 | 169 | 175 | 170 |
| 0.8 –< 1.0 | 55 | 59 | 64 | 65 | 65 | 59 |
| 1.0 –< 1.2 | 18 | 19 | 20 | 20 | 20 | 18 |
| 1.2 –< 1.4 | – | – | – | 1 | 1 | – |
| 1.4 –< 1.6 | – | – | – | – | – | – |
| 1.6 –< 1.8 | – | – | – | – | – | – |
| 1.8 –< 2.0 | – | – | – | – | – | – |

**Table 8.A.31 Distribution of IRT *a*-values Conditional on Ability for ELA Non-PT Items, Grade Five**

| 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 | 76 | 77 | 79 | 80 | 79 | 79 |
| 0.4 –< 0.6 | **181** | **184** | **190** | **194** | **196** | **193** |
| 0.6 –< 0.8 | 163 | 163 | 164 | 167 | 168 | 164 |
| 0.8 –< 1.0 | 72 | 73 | 75 | 76 | 73 | 67 |
| 1.0 –< 1.2 | 12 | 12 | 12 | 12 | 11 | 11 |
| 1.2 –< 1.4 | 2 | 2 | 2 | 2 | 2 | 2 |
| 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 | 8 | 8 | 8 | 8 | 8 | 8 |
| 0.2 –< 0.4 | 123 | 123 | 124 | 126 | 126 | 125 |
| 0.4 –< 0.6 | **200** | **201** | **205** | **207** | **208** | **206** |
| 0.6 –< 0.8 | 131 | 131 | 136 | 138 | 138 | 130 |
| 0.8 –< 1.0 | 43 | 46 | 45 | 45 | 46 | 43 |
| 1.0 –< 1.2 | – | – | – | – | – | – |
| 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.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 | 10 | 10 | 10 | 10 | 10 | 10 |
| 0.2 –< 0.4 | 115 | 114 | 116 | 119 | 121 | 118 |
| 0.4 –< 0.6 | **187** | **192** | **193** | **201** | **201** | **198** |
| 0.6 –< 0.8 | 130 | 130 | 134 | 136 | 136 | 129 |
| 0.8 –< 1.0 | 31 | 32 | 33 | 34 | 34 | 32 |
| 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.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 | 14 | 15 | 15 | 15 | 15 | 15 |
| 0.2 –< 0.4 | 110 | 109 | 111 | 112 | 112 | 111 |
| 0.4 –< 0.6 | **194** | **196** | **199** | **202** | **205** | **202** |
| 0.6 –< 0.8 | 118 | 117 | 118 | 120 | 120 | 119 |
| 0.8 –< 1.0 | 32 | 32 | 33 | 33 | 33 | 32 |
| 1.0 –< 1.2 | 4 | 4 | 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 | 46 | 49 | 49 | 49 | 49 | 49 |
| 0.2 –< 0.4 | 332 | 374 | 377 | 378 | 379 | 379 |
| 0.4 –< 0.6 | **526** | **582** | **583** | **588** | **597** | **597** |
| 0.6 –< 0.8 | 236 | 266 | 268 | 274 | 275 | 271 |
| 0.8 –< 1.0 | 48 | 57 | 57 | 58 | 58 | 58 |
| 1.0 –< 1.2 | 7 | 8 | 8 | 8 | 8 | 8 |
| 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 | 2114–2199 | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 |
|---|---|---|---|---|---|---|
| 0 –< 0.2 | 10 | 10 | 10 | 10 | 10 | 10 |
| 0.2 –< 0.4 | 49 | 49 | 49 | 49 | 49 | 49 |
| 0.4 –< 0.6 | 108 | 109 | 109 | 109 | 109 | 109 |
| 0.6 –< 0.8 | 178 | 180 | 180 | 180 | 180 | 180 |
| 0.8 –< 1.0 | **206** | **207** | **207** | **207** | **207** | **207** |
| 1.0 –< 1.2 | 182 | 182 | 182 | 182 | 182 | 182 |
| 1.2 –< 1.4 | 83 | 83 | 83 | 83 | 83 | 83 |
| 1.4 –< 1.6 | 8 | 8 | 8 | 8 | 8 | 8 |
| 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 | 3 | 3 | 3 | 3 | 3 |
| 0.2 –< 0.4 | 54 | 55 | 55 | 55 | 54 |
| 0.4 –< 0.6 | 156 | 156 | 156 | 154 | 154 |
| 0.6 –< 0.8 | **217** | **217** | **218** | **214** | **212** |
| 0.8 –< 1.0 | 183 | 183 | 184 | 182 | 180 |
| 1.0 –< 1.2 | 118 | 119 | 119 | 118 | 117 |
| 1.2 –< 1.4 | 67 | 67 | 67 | 67 | 66 |
| 1.4 –< 1.6 | 26 | 26 | 26 | 26 | 26 |
| 1.6 –< 1.8 | 4 | 4 | 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 | 8 | 8 | 8 | 8 | 8 | 8 |
| 0.2 –< 0.4 | 84 | 84 | 84 | 84 | 84 | 84 |
| 0.4 –< 0.6 | 166 | 168 | 165 | 163 | 162 | 161 |
| 0.6 –< 0.8 | **219** | **222** | **217** | **204** | **199** | **199** |
| 0.8 –< 1.0 | 168 | 171 | 169 | 160 | 157 | 155 |
| 1.0 –< 1.2 | 109 | 109 | 109 | 109 | 108 | 108 |
| 1.2 –< 1.4 | 71 | 71 | 71 | 70 | 70 | 70 |
| 1.4 –< 1.6 | 18 | 18 | 18 | 18 | 18 | 18 |
| 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 | 14 | 14 | 14 | 14 | 14 | 14 |
| 0.2 –< 0.4 | 99 | 99 | 99 | 99 | 99 | 99 |
| 0.4 –< 0.6 | 169 | 169 | 169 | 169 | 161 | 161 |
| 0.6 –< 0.8 | **196** | **196** | **196** | **195** | **190** | **190** |
| 0.8 –< 1.0 | 177 | 177 | 177 | 177 | 174 | 174 |
| 1.0 –< 1.2 | 85 | 85 | 85 | 85 | 83 | 83 |
| 1.2 –< 1.4 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1.4 –< 1.6 | 3 | 3 | 3 | 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 | 20 | 20 | 20 | 20 | 20 | 20 |
| 0.2 –< 0.4 | 99 | 99 | 99 | 99 | 99 | 99 |
| 0.4 –< 0.6 | 117 | 117 | 117 | 117 | 117 | 116 |
| 0.6 –< 0.8 | **169** | **169** | **169** | **169** | **167** | **164** |
| 0.8 –< 1.0 | 156 | 156 | 156 | 156 | 155 | 152 |
| 1.0 –< 1.2 | 99 | 99 | 99 | 99 | 99 | 99 |
| 1.2 –< 1.4 | 18 | 18 | 18 | 18 | 18 | 18 |
| 1.4 –< 1.6 | 2 | 2 | 2 | 2 | 2 | 2 |
| 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 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 0.2 –< 0.4 | 124 | 124 | 124 | 124 | 124 | 124 | 124 |
| 0.4 –< 0.6 | **170** | **170** | **170** | **170** | **170** | **167** | **167** |
| 0.6 –< 0.8 | 150 | 150 | 150 | 150 | 150 | 143 | 143 |
| 0.8 –< 1.0 | 109 | 109 | 109 | 109 | 109 | 105 | 104 |
| 1.0 –< 1.2 | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| 1.2 –< 1.4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 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 | 171 | 172 | 172 | 172 | 172 | 172 | 172 |
| 0.2 –< 0.4 | 447 | 451 | 451 | 451 | 451 | 451 | 450 |
| 0.4 –< 0.6 | **458** | **459** | **459** | **459** | **459** | **458** | **458** |
| 0.6 –< 0.8 | 334 | 337 | 337 | 337 | 337 | 335 | 335 |
| 0.8 –< 1.0 | 224 | 226 | 226 | 226 | 226 | 223 | 223 |
| 1.0 –< 1.2 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| 1.2 –< 1.4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1.4 –< 1.6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1.6 –< 1.8 | – | – | – | – | – | – | – |
| 1.8 –< 2.0 | – | – | – | – | – | – | – |

**Table 8.A.43 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Three**

| IRT *b*-value | 2114–2199 | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 |
|---|---|---|---|---|---|---|
| < –3.5 | – | – | – | – | – | – |
| –3.5 –< –3.0 | – | – | – | – | – | – |
| –3.0 –< –2.5 | 6 | 6 | 6 | 6 | 5 | 5 |
| –2.5 –< –2.0 | 26 | 26 | 26 | 26 | 26 | 26 |
| –2.0 –< –1.5 | 81 | 82 | 82 | 82 | 82 | 80 |
| –1.5 –< –1.0 | **94** | **94** | **94** | **96** | **93** | **92** |
| –1.0 –< –0.5 | 80 | 80 | 85 | 86 | 83 | 81 |
| –0.5 –< 0 | 82 | 85 | 85 | 88 | 87 | 85 |
| 0 –< 0.5 | 64 | 66 | 69 | 74 | 73 | 73 |
| 0.5 –< 1.0 | 51 | 52 | 54 | 57 | 57 | 55 |
| 1.0 –< 1.5 | 34 | 34 | 34 | 38 | 38 | 38 |
| 1.5 –< 2.0 | 11 | 11 | 12 | 12 | 12 | 12 |
| 2.0 –< 2.5 | 4 | 6 | 6 | 6 | 6 | 6 |
| 2.5 –< 3.0 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3.0 –< 3.5 | – | – | – | – | – | – |
| >= 3.5 | – | – | – | – | – | – |

**Table 8.A.44 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Four**

| IRT *b*-value | 2114–2199 | 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 | 2 | 2 | 2 | 2 | 2 | 2 |
| –2.5 –< –2.0 | 12 | 12 | 13 | 12 | 12 | 12 |
| –2.0 –< –1.5 | 34 | 35 | 37 | 35 | 34 | 32 |
| –1.5 –< –1.0 | 70 | 77 | 78 | 78 | 77 | 73 |
| –1.0 –< –0.5 | **75** | **80** | **83** | **84** | **84** | **81** |
| –0.5 –< 0 | 74 | 77 | 77 | 82 | 83 | 76 |
| 0 –< 0.5 | 61 | 67 | 69 | 72 | 74 | 72 |
| 0.5 –< 1.0 | 54 | 58 | 58 | 63 | 64 | 62 |
| 1.0 –< 1.5 | 31 | 36 | 40 | 47 | 54 | 54 |
| 1.5 –< 2.0 | 18 | 25 | 28 | 31 | 39 | 37 |
| 2.0 –< 2.5 | 12 | 14 | 14 | 14 | 19 | 19 |
| 2.5 –< 3.0 | 8 | 8 | 9 | 10 | 11 | 12 |
| 3.0 –< 3.5 | 1 | 1 | 1 | 2 | 3 | 4 |
| >= 3.5 | – | 1 | 1 | 2 | 2 | 3 |

**Table 8.A.45 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Five**

| 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 | 2 | 2 | 1 | 1 | 1 |
| –2.5 –< –2.0 | 4 | 4 | 4 | 4 | 4 | 4 |
| –2.0 –< –1.5 | 13 | 13 | 13 | 13 | 13 | 12 |
| –1.5 –< –1.0 | 36 | 38 | 38 | 36 | 33 | 32 |
| –1.0 –< –0.5 | 75 | 77 | 77 | 77 | 75 | 74 |
| –0.5 –< 0 | 60 | 60 | 60 | 60 | 60 | 58 |
| 0 –< 0.5 | 74 | 74 | 76 | 77 | 77 | 75 |
| 0.5 –< 1.0 | **93** | **93** | **95** | **96** | **96** | **93** |
| 1.0 –< 1.5 | 60 | 60 | 64 | 68 | 70 | 69 |
| 1.5 –< 2.0 | 37 | 38 | 41 | 45 | 45 | 43 |
| 2.0 –< 2.5 | 34 | 34 | 34 | 35 | 34 | 34 |
| 2.5 –< 3.0 | 13 | 13 | 13 | 13 | 14 | 14 |
| 3.0 –< 3.5 | 4 | 4 | 4 | 4 | 5 | 5 |
| >= 3.5 | 4 | 4 | 4 | 5 | 5 | 5 |

**Table 8.A.46 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Six**

| 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 | 1 | 1 | 1 | 1 | 1 | 1 |
| –2.5 –< –2.0 | – | – | – | – | – | – |
| –2.0 –< –1.5 | 4 | 4 | 4 | 4 | 4 | 4 |
| –1.5 –< –1.0 | 23 | 23 | 23 | 23 | 23 | 19 |
| –1.0 –< –0.5 | 49 | 50 | 49 | 49 | 50 | 48 |
| –0.5 –< 0 | 59 | 59 | 59 | 59 | 58 | 57 |
| 0 –< 0.5 | 63 | 65 | 66 | 66 | 66 | 65 |
| 0.5 –< 1.0 | 66 | 66 | 70 | **74** | **74** | 68 |
| 1.0 –< 1.5 | **70** | **70** | **71** | 71 | 71 | **71** |
| 1.5 –< 2.0 | 62 | 62 | 64 | 65 | 65 | 65 |
| 2.0 –< 2.5 | 42 | 42 | 44 | 44 | 45 | 45 |
| 2.5 –< 3.0 | 24 | 25 | 25 | 26 | 27 | 27 |
| 3.0 –< 3.5 | 19 | 19 | 19 | 19 | 19 | 19 |
| >= 3.5 | 24 | 24 | 24 | 24 | 24 | 24 |

**Table 8.A.47 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Seven**

| 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 | 6 | 6 | 6 | 6 | 6 | 6 |
| –1.5 –< –1.0 | 18 | 18 | 18 | 18 | 17 | 16 |
| –1.0 –< –0.5 | 23 | 24 | 24 | 24 | 24 | 20 |
| –0.5 –< 0 | 65 | 66 | 65 | 66 | 66 | 60 |
| 0 –< 0.5 | 57 | 57 | 57 | 58 | 58 | 58 |
| 0.5 –< 1.0 | 64 | 65 | 66 | 66 | 66 | 64 |
| 1.0 –< 1.5 | **78** | **78** | **83** | **84** | **82** | **80** |
| 1.5 –< 2.0 | 69 | 70 | 74 | 76 | 78 | 78 |
| 2.0 –< 2.5 | 38 | 38 | 38 | 43 | 43 | 43 |
| 2.5 –< 3.0 | 15 | 15 | 15 | 15 | 15 | 15 |
| 3.0 –< 3.5 | 17 | 17 | 17 | 20 | 22 | 22 |
| >= 3.5 | 26 | 27 | 26 | 27 | 28 | 28 |

**Table 8.A.48 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Eight**

| IRT *b*-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 | – | – | – | – | – | – |
| –2.5 –< –2.0 | – | – | – | – | – | – |
| –2.0 –< –1.5 | 3 | 3 | 3 | 3 | 3 | 3 |
| –1.5 –< –1.0 | 8 | 8 | 8 | 8 | 7 | 7 |
| –1.0 –< –0.5 | 24 | 24 | 24 | 24 | 24 | 23 |
| –0.5 –< 0 | 64 | 64 | 64 | 64 | 63 | 63 |
| 0 –< 0.5 | 55 | 55 | 55 | 55 | 55 | 55 |
| 0.5 –< 1.0 | 54 | 52 | 54 | 54 | 54 | 52 |
| 1.0 –< 1.5 | 59 | 60 | 61 | 64 | 65 | 62 |
| 1.5 –< 2.0 | **70** | **69** | **71** | **73** | **75** | **74** |
| 2.0 –< 2.5 | 52 | 52 | 53 | 53 | 53 | 53 |
| 2.5 –< 3.0 | 36 | 38 | 39 | 40 | 41 | 41 |
| 3.0 –< 3.5 | 23 | 23 | 23 | 23 | 23 | 23 |
| >= 3.5 | 23 | 24 | 24 | 24 | 25 | 26 |

**Table 8.A.49 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, 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 | 3 | 3 | 3 | 3 | 3 | 3 |
| –1.5 –< –1.0 | 11 | 12 | 12 | 12 | 12 | 12 |
| –1.0 –< –0.5 | 45 | 48 | 48 | 48 | 48 | 48 |
| –0.5 –< 0 | 86 | 97 | 97 | 97 | 96 | 96 |
| 0 –< 0.5 | 131 | 142 | 143 | 143 | 144 | 143 |
| 0.5 –< 1.0 | 151 | 171 | 172 | 174 | 174 | 171 |
| 1.0 –< 1.5 | 147 | 163 | 164 | 165 | 167 | 165 |
| 1.5 –< 2.0 | **176** | **199** | **200** | **203** | **204** | **204** |
| 2.0 –< 2.5 | 134 | 151 | 151 | 152 | 154 | 155 |
| 2.5 –< 3.0 | 109 | 127 | 127 | 129 | 133 | 133 |
| 3.0 –< 3.5 | 89 | 93 | 93 | 94 | 95 | 95 |
| >= 3.5 | 113 | 130 | 132 | 135 | 136 | 137 |

**Table 8.A.50 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Three**

| IRT *b*-value | 2114–2199 | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 |
|---|---|---|---|---|---|---|
| < –3.5 | – | – | – | – | – | – |
| –3.5 –< –3.0 | 9 | 9 | 9 | 9 | 9 | 9 |
| –3.0 –< –2.5 | 34 | 34 | 34 | 34 | 34 | 34 |
| –2.5 –< –2.0 | 67 | 67 | 67 | 67 | 67 | 67 |
| –2.0 –< –1.5 | **150** | **151** | **151** | **151** | **151** | **151** |
| –1.5 –< –1.0 | 116 | 116 | 116 | 116 | 116 | 116 |
| –1.0 –< –0.5 | 128 | 130 | 130 | 130 | 130 | 130 |
| –0.5 –< 0 | 135 | 135 | 135 | 135 | 135 | 135 |
| 0 –< 0.5 | 95 | 96 | 96 | 96 | 96 | 96 |
| 0.5 –< 1.0 | 59 | 59 | 59 | 59 | 59 | 59 |
| 1.0 –< 1.5 | 20 | 20 | 20 | 20 | 20 | 20 |
| 1.5 –< 2.0 | 7 | 7 | 7 | 7 | 7 | 7 |
| 2.0 –< 2.5 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2.5 –< 3.0 | – | – | – | – | – | – |
| 3.0 –< 3.5 | 2 | 2 | 2 | 2 | 2 | 2 |
| >= 3.5 | – | – | – | – | – | – |

**Table 8.A.51 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Four**

| IRT *b*-value | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 |
|---|---|---|---|---|---|
| < –3.5 | – | – | – | – | – |
| –3.5 –< –3.0 | 3 | 3 | 5 | 3 | 3 |
| –3.0 –< –2.5 | 11 | 12 | 12 | 7 | 4 |
| –2.5 –< –2.0 | 25 | 25 | 25 | 23 | 20 |
| –2.0 –< –1.5 | 45 | 45 | 45 | 45 | 45 |
| –1.5 –< –1.0 | 76 | 76 | 76 | 76 | 76 |
| –1.0 –< –0.5 | 112 | 112 | 112 | 112 | 112 |
| –0.5 –< 0 | **171** | **172** | **172** | **172** | **171** |
| 0 –< 0.5 | 145 | 145 | 145 | 145 | 145 |
| 0.5 –< 1.0 | 123 | 123 | 123 | 123 | 123 |
| 1.0 –< 1.5 | 71 | 71 | 71 | 71 | 71 |
| 1.5 –< 2.0 | 29 | 29 | 29 | 29 | 29 |
| 2.0 –< 2.5 | 13 | 13 | 13 | 13 | 13 |
| 2.5 –< 3.0 | 2 | 2 | 2 | 2 | 2 |
| 3.0 –< 3.5 | 1 | 1 | 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 *b*-value | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 | 2700–2799 |
|---|---|---|---|---|---|---|
| < –3.5 | – | – | – | – | – | – |
| –3.5 –< –3.0 | 2 | 2 | 2 | – | – | – |
| –3.0 –< –2.5 | 10 | 13 | 9 | 3 | 2 | 2 |
| –2.5 –< –2.0 | 18 | 20 | 17 | 7 | 2 | 2 |
| –2.0 –< –1.5 | 18 | 21 | 18 | 11 | 7 | 7 |
| –1.5 –< –1.0 | 18 | 18 | 18 | 18 | 18 | 18 |
| –1.0 –< –0.5 | 65 | 65 | 65 | 65 | 65 | 65 |
| –0.5 –< 0 | 103 | 103 | 103 | 103 | 103 | 103 |
| 0 –< 0.5 | **174** | **174** | **174** | **174** | **174** | **172** |
| 0.5 –< 1.0 | 145 | 145 | 145 | 145 | 145 | 145 |
| 1.0 –< 1.5 | 117 | 117 | 117 | 117 | 117 | 116 |
| 1.5 –< 2.0 | 103 | 103 | 103 | 103 | 103 | 103 |
| 2.0 –< 2.5 | 42 | 42 | 42 | 42 | 42 | 42 |
| 2.5 –< 3.0 | 19 | 19 | 19 | 19 | 19 | 19 |
| 3.0 –< 3.5 | 6 | 6 | 6 | 6 | 6 | 6 |
| >= 3.5 | 4 | 4 | 4 | 4 | 4 | 4 |

**Table 8.A.53 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Six**

| IRT *b*-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 | 1 | 1 | 1 | – | – | – |
| –3.0 –< –2.5 | 6 | 6 | 6 | 6 | 4 | 4 |
| –2.5 –< –2.0 | 12 | 12 | 12 | 12 | 2 | 2 |
| –2.0 –< –1.5 | 20 | 20 | 20 | 20 | 15 | 15 |
| –1.5 –< –1.0 | 18 | 18 | 18 | 18 | 17 | 17 |
| –1.0 –< –0.5 | 35 | 35 | 35 | 35 | 35 | 35 |
| –0.5 –< 0 | 53 | 53 | 53 | 53 | 53 | 53 |
| 0 –< 0.5 | 90 | 90 | 90 | 90 | 90 | 90 |
| 0.5 –< 1.0 | 119 | 119 | 119 | 119 | 119 | 119 |
| 1.0 –< 1.5 | **130** | **130** | **130** | **130** | **130** | **130** |
| 1.5 –< 2.0 | 110 | 110 | 110 | 110 | 110 | 110 |
| 2.0 –< 2.5 | 91 | 91 | 91 | 91 | 91 | 91 |
| 2.5 –< 3.0 | 37 | 37 | 37 | 37 | 37 | 37 |
| 3.0 –< 3.5 | 17 | 17 | 17 | 17 | 17 | 17 |
| >= 3.5 | 17 | 17 | 17 | 17 | 17 | 17 |

**Table 8.A.54 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Seven**

| 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 | 8 | 8 | 8 | 8 | 8 | 4 |
| –1.5 –< –1.0 | 11 | 11 | 11 | 11 | 8 | 7 |
| –1.0 –< –0.5 | 9 | 9 | 9 | 9 | 9 | 8 |
| –0.5 –< 0 | 21 | 21 | 21 | 21 | 21 | 21 |
| 0 –< 0.5 | 39 | 39 | 39 | 39 | 39 | 39 |
| 0.5 –< 1.0 | 70 | 70 | 70 | 70 | 70 | 70 |
| 1.0 –< 1.5 | 106 | 106 | 106 | 106 | 106 | 106 |
| 1.5 –< 2.0 | **132** | **132** | **132** | **132** | **132** | **132** |
| 2.0 –< 2.5 | 124 | 124 | 124 | 124 | 124 | 123 |
| 2.5 –< 3.0 | 84 | 84 | 84 | 84 | 84 | 84 |
| 3.0 –< 3.5 | 31 | 31 | 31 | 31 | 31 | 31 |
| >= 3.5 | 45 | 45 | 45 | 45 | 45 | 45 |

**Table 8.A.55 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eight**

| IRT *b*-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 | 7 | 7 | 7 | 7 | 7 | 2 | 2 |
| –1.5 –< –1.0 | 10 | 10 | 10 | 10 | 10 | 4 | 3 |
| –1.0 –< –0.5 | 23 | 23 | 23 | 23 | 23 | 20 | 20 |
| –0.5 –< 0 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| 0 –< 0.5 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 0.5 –< 1.0 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
| 1.0 –< 1.5 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| 1.5 –< 2.0 | 81 | 81 | 81 | 81 | 81 | 81 | 81 |
| 2.0 –< 2.5 | 104 | 104 | 104 | 104 | 104 | 104 | 104 |
| 2.5 –< 3.0 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| 3.0 –< 3.5 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| >= 3.5 | **120** | **120** | **120** | **120** | **120** | **120** | **120** |

**Table 8.A.56 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven**

| IRT *b*-value | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 | 2700–2799 | 2800–2899 |
|---|---|---|---|---|---|---|---|
| < –3.5 | – | – | – | – | – | – | – |
| –3.5 –< –3.0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| –3.0 –< –2.5 | – | – | – | – | – | – | – |
| –2.5 –< –2.0 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| –2.0 –< –1.5 | 11 | 11 | 11 | 11 | 11 | 10 | 10 |
| –1.5 –< –1.0 | 21 | 21 | 21 | 21 | 21 | 18 | 18 |
| –1.0 –< –0.5 | 21 | 21 | 21 | 21 | 21 | 19 | 19 |
| –0.5 –< 0 | 31 | 31 | 31 | 31 | 31 | 31 | 31 |
| 0 –< 0.5 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| 0.5 –< 1.0 | 83 | 83 | 83 | 83 | 83 | 83 | 83 |
| 1.0 –< 1.5 | 116 | 116 | 116 | 116 | 116 | 116 | 116 |
| 1.5 –< 2.0 | 162 | 163 | 163 | 163 | 163 | 163 | 163 |
| 2.0 –< 2.5 | 206 | 207 | 207 | 207 | 207 | 207 | 207 |
| 2.5 –< 3.0 | 256 | 259 | 259 | 259 | 259 | 259 | 259 |
| 3.0 –< 3.5 | 232 | 232 | 232 | 232 | 232 | 232 | 232 |
| >= 3.5 | **499** | **505** | **505** | **505** | **505** | **505** | **504** |

**Table 8.A.57 Distribution of IRT *a*-values Conditional for PT for ELA, Grade Three**

| IRT *a*-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 *a*-values Conditional for PT for ELA, Grade Four**

| IRT *a*-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 | 30 | 30 | 30 | 30 | 30 | 30 |
| 0.6 –< 0.8 | **32** | **32** | **32** | **32** | **32** | **32** |
| 0.8 –< 1.0 | 17 | 17 | 17 | 17 | 17 | 17 |
| 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 *a*-values Conditional for PT for ELA, Grade Five**

| IRT *a*-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 *a*-values Conditional for PT for ELA, 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 | 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 *a*-values Conditional for PT for ELA, Grade Seven**

| IRT *a*-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 *a*-values Conditional for PT for ELA, Grade Eight**

| IRT *a*-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 | 13 | 13 | 13 | 13 | 13 | 13 |
| 0.6 –< 0.8 | **41** | **41** | **41** | **41** | **41** | **41** |
| 0.8 –< 1.0 | 31 | 31 | 31 | 31 | 31 | 31 |
| 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 *a*-values Conditional for PT for ELA, Grade Eleven**

| IRT *a*-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 *a*-values Conditional for PT for Mathematics, Grade Three**

| IRT *a*-value | 2114–2199 | 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 | 27 | 27 | 27 | 27 | 27 | 27 |
| 0.8 –< 1.0 | 20 | 20 | 20 | 20 | 20 | 20 |
| 1.0 –< 1.2 | **30** | **30** | **30** | **30** | **30** | **30** |
| 1.2 –< 1.4 | 11 | 11 | 11 | 11 | 11 | 11 |
| 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 *a*-values Conditional for PT for Mathematics, Grade Four**

| IRT *a*-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 | 2 | 2 | 2 | 2 | 2 | 2 |
| 0.4 –< 0.6 | 27 | 27 | 27 | 27 | 27 | 27 |
| 0.6 –< 0.8 | **42** | **42** | **42** | **42** | **42** | **42** |
| 0.8 –< 1.0 | 21 | 21 | 21 | 21 | 21 | 21 |
| 1.0 –< 1.2 | 12 | 12 | 12 | 12 | 12 | 12 |
| 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 *a*-values Conditional for PT for Mathematics, Grade Eight**

| IRT *a*-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 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 0.6 –< 0.8 | **26** | **26** | **26** | **26** | **26** | **26** | **26** |
| 0.8 –< 1.0 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 1.0 –< 1.2 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 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 *a*-values Conditional for PT for Mathematics, Grade Eleven**

| IRT *a*-value | 2200–2299 | 2300–2399 | 2400–2499 | 2500–2599 | 2600–2699 | 2700–2799 | 2800–2899 |
|---|---|---|---|---|---|---|---|
| 0 –< 0.2 | – | – | – | – | – | – | – |
| 0.2 –< 0.4 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 0.4 –< 0.6 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 0.6 –< 0.8 | **28** | **28** | **28** | **28** | **28** | **28** | **28** |
| 0.8 –< 1.0 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1.0 –< 1.2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1.2 –< 1.4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1.4 –< 1.6 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1.6 –< 1.8 | – | – | – | – | – | – | – |
| 1.8 –< 2.0 | – | – | – | – | – | – | – |

**Table 8.A.71 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Three**

| IRT *b*-value | 2114–2199 | 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 *b*-value | 2114–2199 | 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 | **26** | **26** | **26** | **26** | **26** | **26** |
| 0 –< 0.5 | 19 | 19 | 19 | 19 | 19 | 19 |
| 0.5 –< 1.0 | 20 | 20 | 20 | 20 | 20 | 20 |
| 1.0 –< 1.5 | 8 | 8 | 8 | 8 | 8 | 8 |
| 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 *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 | 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 -values Conditional for PT for ELA, Grade Six**

| 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 | 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 *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 | 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 *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 | 17 | 17 | 17 | 17 | 17 | 17 |
| 0 –< 0.5 | 6 | 6 | 6 | 6 | 6 | 6 |
| 0.5 –< 1.0 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1.0 –< 1.5 | **26** | **26** | **26** | **26** | **26** | **26** |
| 1.5 –< 2.0 | 15 | 15 | 15 | 15 | 15 | 15 |
| 2.0 –< 2.5 | 11 | 11 | 11 | 11 | 11 | 11 |
| 2.5 –< 3.0 | 5 | 5 | 5 | 5 | 5 | 5 |
| 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 | 2114–2199 | 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 | **23** | **23** | **23** | **23** | **23** | **23** |
| –1.0 –< –0.5 | **23** | **23** | **23** | **23** | **23** | **23** |
| –0.5 –< 0 | **23** | **23** | **23** | **23** | **23** | **23** |
| 0 –< 0.5 | 17 | 17 | 17 | 17 | 17 | 17 |
| 0.5 –< 1.0 | 7 | 7 | 7 | 7 | 7 | 7 |
| 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 *b*-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 *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 | 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 *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 | 12 | 12 | 12 | 12 | 12 | 12 |
| –0.5 –< 0 | 10 | 10 | 10 | 10 | 10 | 10 |
| 0 –< 0.5 | 18 | 18 | 18 | 18 | 18 | 18 |
| 0.5 –< 1.0 | **19** | **19** | **19** | **19** | **19** | **19** |
| 1.0 –< 1.5 | 18 | 18 | 18 | 18 | 18 | 18 |
| 1.5 –< 2.0 | 17 | 17 | 17 | 17 | 17 | 17 |
| 2.0 –< 2.5 | 11 | 11 | 11 | 11 | 11 | 11 |
| 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 *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 | 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 *b*-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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 0.5 –< 1.0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1.0 –< 1.5 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1.5 –< 2.0 | **22** | **22** | **22** | **22** | **22** | **22** | **22** |
| 2.0 –< 2.5 | **22** | **22** | **22** | **22** | **22** | **22** | **22** |
| 2.5 –< 3.0 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 3.0 –< 3.5 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| >= 3.5 | – | – | – | – | – | – | – |

**Table 8.A.84 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Eleven**

| IRT *b*-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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0.5 –< 1.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1.0 –< 1.5 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 1.5 –< 2.0 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2.0 –< 2.5 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2.5 –< 3.0 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 3.0 –< 3.5 | **20** | **20** | **20** | **20** | **20** | **20** | **20** |
| >= 3.5 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |

**Table 8.A.85 PT Item Statistics—ELA, Grade Three**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295913 | 3 | 0.71 | –0.36 | 1.4, –0.01, –1.39 |
| VH295686 | 2 | 0.80 | –0.65 | 0.1, –0.1 |
| VH295879 | 1 | 0.40 | 3.03 | – |
| VH295342 | 2 | 0.63 | 0.37 | 0.72, –0.72 |
| VH295658 | 2 | 1.02 | 0.24 | 0.42, –0.42 |
| VH295223 | 3 | 1.00 | –0.07 | 1.25, 0.03, –1.28 |
| VH295671 | 3 | 0.55 | 0.06 | 1.54, 0.19, –1.73 |
| VH295562 | 4 | 0.60 | –0.00 | 0.39, 1.47, –0.13, –1.73 |
| VH295688 | 2 | 0.91 | 1.18 | 0.5, –0.5 |
| VH295881 | 4 | 0.64 | 0.03 | 0.76, 1.07, –0.24, –1.59 |
| VH295345 | 3 | 0.67 | –0.78 | 1.95, 0.04, –1.99 |
| VH295660 | 3 | 0.86 | –0.82 | 1.76, –0.02, –1.74 |
| VH295420 | 2 | 0.67 | –1.28 | 0.47, –0.47 |
| VH295715 | 2 | 0.75 | –0.62 | 0.35, –0.35 |
| VH296069 | 4 | 0.49 | 0.62 | 0.12, 1.42, 0.17, –1.71 |
| VH295225 | 2 | 0.90 | 0.80 | 0.08, –0.08 |
| VH295674 | 2 | 0.55 | –0.19 | 0.13, –0.13 |
| VH295685 | 4 | 0.54 | 0.13 | 0.74, 1.33, –0.18, –1.89 |
| VH295675 | 2 | 0.84 | –0.28 | –0.12, 0.12 |
| VH295878 | 2 | 0.37 | 0.04 | 0.75, –0.75 |
| VH295417 | 1 | 0.62 | 1.59 | – |
| VH295996 | 2 | 0.57 | 1.52 | –0.85, 0.85 |
| VH295657 | 2 | 0.78 | 0.40 | 0.41, –0.41 |
| VH295961 | 2 | 0.73 | 0.56 | 0.1, –0.1 |
| VH296065 | 2 | 0.69 | 0.56 | 0.22, –0.22 |
| VH295947 | 2 | 0.38 | –0.57 | 0.57, –0.57 |
| VH295346 | 2 | 0.73 | –1.41 | 0.82, –0.82 |
| VH295952 | 2 | 0.60 | 0.19 | –0.28, 0.28 |
| VH295911 | 2 | 0.92 | 0.84 | 0.35, –0.35 |
| VH295963 | 3 | 0.67 | 0.07 | 0.76, 0.41, –1.18 |
| VH296066 | 1 | 0.86 | 0.01 | – |
| VH295948 | 1 | 0.45 | 2.95 | – |
| VH295711 | 2 | 0.47 | –0.73 | –0.7, 0.7 |
| VH295995 | 2 | 0.98 | 1.02 | 0.4, –0.4 |
| VH295687 | 1 | 0.30 | 2.31 | – |
| VH295343 | 2 | 0.99 | 0.66 | 0.43, –0.43 |
| VH295714 | 3 | 0.66 | –0.03 | 1.02, 0.4, –1.42 |
| VH295998 | 3 | 0.58 | –0.44 | 1.64, –0.11, –1.53 |
| VH296067 | 2 | 0.79 | 0.28 | 0.1, –0.1 |
| VH295916 | 1 | 0.61 | 0.04 | – |
| VH295882 | 2 | 1.03 | –0.66 | 0.16, –0.16 |
| VH295421 | 2 | 0.59 | –0.32 | –1.34, 1.34 |
| VH296000 | 1 | 0.33 | –0.39 | – |
| VH295965 | 1 | 0.71 | 1.81 | – |
| VH295224 | 2 | 1.09 | –0.69 | 0.45, –0.45 |
| VH295672 | 2 | 0.60 | –0.72 | 0.53, –0.53 |
| VH295563 | 2 | 0.95 | –0.56 | 0.22, –0.22 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295656 | 1 | 0.63 | 1.35 | – |
| VH296070 | 2 | 0.76 | –0.11 | –0.03, 0.03 |
| VH295226 | 2 | 0.83 | 1.47 | 0.88, –0.88 |
| VH295951 | 4 | 0.38 | 0.85 | –0.74, 1.91, 0.08, –1.25 |
| VH295565 | 2 | 0.98 | 0.48 | 0.63, –0.63 |
| VH295877 | 2 | 0.69 | 0.61 | 0.42, –0.42 |
| VH295999 | 2 | 0.63 | –1.10 | 0.36, –0.36 |
| VH295964 | 2 | 0.75 | –0.57 | –0.1, 0.1 |
| VH295915 | 2 | 1.15 | 0.74 | 0.17, –0.17 |
| VH295419 | 3 | 0.62 | –0.66 | 1.85, –0.16, –1.69 |
| VH295914 | 2 | 0.86 | –0.93 | 0.38, –0.38 |
| VH295712 | 2 | 0.75 | 0.77 | 0.27, –0.27 |
| VH295661 | 2 | 0.86 | –1.26 | 0.75, –0.75 |
| VH295966 | 2 | 0.60 | 1.28 | –0.25, 0.25 |
| VH295564 | 2 | 0.64 | 0.36 | 0.91, –0.91 |

**Table 8.A.86 PT Item Statistics—ELA, Grade Four**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295494 | 4 | 0.61 | 0.44 | 2.26, 1.03, –0.8, –2.48 |
| VH295496 | 2 | 0.82 | 0.49 | 0.21, –0.21 |
| VH295423 | 2 | 0.80 | 0.51 | 0.62, –0.62 |
| VH295790 | 2 | 0.63 | 1.55 | 0.27, –0.27 |
| VH295894 | 2 | 0.65 | –0.44 | 0.28, –0.28 |
| VH295642 | 1 | 0.40 | –1.52 | – |
| VH295646 | 2 | 0.90 | –0.02 | 0.26, –0.26 |
| 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 |
| VH295730 | 2 | 0.53 | 0.03 | –0.89, 0.89 |
| VH295957 | 3 | 0.44 | –0.15 | 1.28, 0.63, –1.9 |
| VH295959 | 2 | 0.68 | 0.83 | 0.5, –0.5 |
| VH295588 | 4 | 0.49 | 0.10 | –0.25, 1.17, –0.04, –0.88 |
| VH295856 | 2 | 0.39 | 0.37 | 0.73, –0.73 |
| VH295860 | 2 | 0.90 | –0.19 | 0.15, –0.15 |
| VH295349 | 2 | 0.60 | –0.16 | 0.14, –0.14 |
| VH295350 | 2 | 0.77 | 1.20 | 0.4, –0.4 |
| VH295352 | 4 | 0.52 | –0.06 | 0.63, 1.05, –0.43, –1.25 |
| VH295353 | 2 | 0.87 | –0.14 | 0.42, –0.42 |
| VH295458 | 2 | 0.42 | 0.66 | –0.66, 0.66 |
| VH295456 | 2 | 0.64 | 0.65 | –0.05, 0.05 |
| VH295457 | 1 | 0.48 | –1.15 | – |
| VH295460 | 3 | 0.74 | –0.49 | 0.96, 0.31, –1.28 |
| VH295461 | 2 | 0.98 | –0.38 | 0.45, –0.45 |
| VH295863 | 2 | 0.93 | 1.00 | 0.33, –0.33 |
| VH295867 | 2 | 0.91 | 0.05 | 0.31, –0.31 |
| 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 | – |
| 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 |
| VH295704 | 2 | 0.78 | 0.59 | 0.21, –0.21 |
| VH295705 | 2 | 0.89 | 0.77 | 0.27, –0.27 |
| VH295706 | 1 | 0.28 | 2.82 | – |
| VH295708 | 3 | 0.65 | –0.26 | 0.74, 0.41, –1.15 |
| VH295709 | 2 | 0.90 | –0.30 | 0.4, –0.4 |
| VH295443 | 2 | 0.82 | 1.44 | 0.32, –0.32 |
| VH295445 | 4 | 0.49 | 0.57 | 2.09, 1.34, –0.69, –2.74 |
| VH295446 | 2 | 0.68 | –0.35 | 0.37, –0.37 |
| VH295492 | 2 | 1.03 | 0.78 | 0.97, –0.97 |
| VH295495 | 2 | 0.87 | –0.36 | 0.43, –0.43 |
| VH295427 | 4 | 0.39 | 0.97 | 2.1, 1.67, –0.61, –3.16 |
| VH295788 | 3 | 0.63 | –0.46 | 0.83, 0.37, –1.2 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295791 | 1 | 0.41 | 0.13 | – |
| VH295893 | 4 | 0.47 | 0.61 | 1.95, 1.55, –0.83, –2.67 |
| VH295896 | 2 | 0.80 | 1.16 | 0.37, –0.37 |
| VH295520 | 2 | 0.48 | 0.10 | 0.55, –0.55 |
| VH295524 | 2 | 0.85 | –0.39 | 0.27, –0.27 |
| VH295779 | 2 | 0.51 | 0.97 | 0.68, –0.68 |
| VH295783 | 2 | 0.77 | –0.04 | 0.33, –0.33 |
| VH295732 | 4 | 0.45 | 0.59 | 1.54, 1.38, –0.23, –2.68 |
| VH295734 | 2 | 0.68 | 0.61 | 0.26, –0.26 |
| VH295590 | 2 | 0.72 | 0.03 | –0.15, 0.15 |
| VH295592 | 1 | 0.62 | 2.36 | |
| 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 | – |
| 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 |
| 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 |
| VH295773 | 2 | 0.71 | 1.99 | 0.88, –0.88 |
| VH295777 | 2 | 0.85 | –0.27 | 0.44, –0.44 |
| VH295425 | 1 | 0.47 | 1.92 | – |
| VH295428 | 2 | 0.53 | –0.25 | –0.04, 0.04 |
| VH295786 | 2 | 0.56 | 0.85 | –0.23, 0.23 |
| VH295789 | 2 | 0.94 | –0.31 | 0.52, –0.52 |
| VH295895 | 2 | 0.67 | –0.48 | 0.23, –0.23 |
| VH295521 | 2 | 0.64 | 0.31 | 0.12, –0.12 |
| VH295523 | 4 | 0.60 | 0.36 | 1.49, 1.33, –0.47, –2.34 |
| 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 |
| VH295733 | 2 | 0.67 | –0.36 | 0.01, –0.01 |
| VH295954 | 2 | 0.58 | 0.62 | –0.05, 0.05 |
| VH295958 | 2 | 0.66 | –0.34 | 0.16, –0.16 |
| VH295589 | 2 | 0.85 | 0.04 | 0.18, –0.18 |
| VH295591 | 2 | 0.65 | 1.05 | 0.21, –0.21 |

**Table 8.A.87 PT Item Statistics—ELA, Grade Five**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH296034 | 4 | 0.70 | 0.37 | 1.79, 0.95, –0.53, –2.2 |
| VH295808 | 2 | 0.79 | 0.98 | 0.52, –0.52 |
| VH295812 | 2 | 1.14 | –0.04 | 0.9, –0.9 |
| VH296087 | 2 | 0.67 | 1.35 | 0.29, –0.29 |
| VH296089 | 1 | 0.52 | 2.06 | – |
| VH296091 | 4 | 0.62 | 0.24 | 0.82, 1.69, –0.35, –2.16 |
| VH295449 | 2 | 0.76 | 1.11 | 0, 0 |
| VH295451 | 1 | 0.36 | 2.13 | – |
| VH295453 | 4 | 0.57 | 0.05 | 2.34, 0.75, –0.66, –2.42 |
| VH295969 | 2 | 0.48 | 1.18 | –0.14, 0.14 |
| VH295973 | 2 | 0.91 | –0.22 | 0.85, –0.85 |
| VH295213 | 1 | 0.65 | 0.21 | – |
| VH295216 | 4 | 0.54 | 0.30 | 0.63, 1.85, –0.21, –2.27 |
| VH295919 | 2 | 0.71 | 0.99 | 0.72, –0.72 |
| VH295921 | 4 | 0.57 | 0.29 | 0.49, 1.43, –0.06, –1.86 |
| VH295924 | 1 | 0.40 | –0.66 | – |
| VH295403 | 2 | 0.89 | 1.14 | –0.12, 0.12 |
| VH295405 | 1 | 0.76 | 1.87 | – |
| VH295407 | 4 | 0.59 | –0.10 | 2.19, 0.67, –0.72, –2.14 |
| VH296083 | 2 | 0.80 | –0.34 | 1.13, –1.13 |
| VH296085 | 1 | 0.73 | 2.94 | – |
| VH296075 | 2 | 0.91 | –0.28 | 0.91, –0.91 |
| VH296077 | 2 | 0.94 | 0.95 | 0.29, –0.29 |
| VH295479 | 2 | 0.75 | 1.53 | 0.81, –0.81 |
| VH295481 | 4 | 0.54 | 0.04 | 0.55, 1.37, –0.22, –1.7 |
| VH295738 | 2 | 0.83 | 1.07 | 0.76, –0.76 |
| VH295742 | 2 | 1.25 | 0.07 | 0.79, –0.79 |
| VH295235 | 1 | 0.59 | 1.58 | – |
| VH295237 | 2 | 0.66 | 1.33 | –0.1, 0.1 |
| VH295239 | 4 | 0.73 | 0.14 | 1.42, 0.84, –0.44, –1.82 |
| VH295901 | 4 | 0.41 | 1.00 | –0.73, 2.33, 0.26, –1.86 |
| VH295903 | 1 | 0.63 | 1.66 | – |
| VH296044 | 2 | 0.72 | 0.74 | 0.55, –0.55 |
| VH296048 | 4 | 0.56 | –0.04 | 0.04, 1.56, –0.11, –1.49 |
| VH295541 | 2 | 0.87 | 0.82 | 0.47, –0.47 |
| VH296030 | 2 | 0.61 | 1.87 | 0.36, –0.36 |
| VH296032 | 2 | 0.78 | 0.87 | 0.48, –0.48 |
| VH296035 | 2 | 1.08 | 0.03 | 0.64, –0.64 |
| VH295837 | 2 | 1.12 | 0.03 | 0.77, –0.77 |
| VH295839 | 2 | 0.57 | 1.22 | 0.41, –0.41 |
| VH296088 | 2 | 0.68 | 0.44 | –0.03, 0.03 |
| VH296092 | 2 | 0.96 | –0.12 | 0.68, –0.68 |
| VH295970 | 1 | 0.63 | 2.05 | – |
| VH295972 | 4 | 0.59 | 0.21 | 2.39, 0.67, –0.69, –2.37 |
| VH295217 | 2 | 1.03 | 0.05 | 0.63, –0.63 |
| VH295219 | 2 | 0.61 | 1.16 | 0.64, –0.64 |
| VH295228 | 2 | 0.38 | 0.31 | 0.89, –0.89 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295232 | 2 | 0.81 | –0.29 | 0.95, –0.95 |
| VH295408 | 2 | 0.77 | –0.43 | 1.02, –1.02 |
| VH296080 | 2 | 0.50 | –0.34 | 0.3, –0.3 |
| VH296082 | 4 | 0.58 | 0.11 | 2.42, 0.83, –0.7, –2.55 |
| VH296084 | 2 | 0.59 | 0.97 | 0.86, –0.86 |
| VH296073 | 4 | 0.66 | 0.14 | 2.09, 0.72, –0.44, –2.38 |
| VH296076 | 2 | 0.71 | 0.77 | –0.12, 0.12 |
| VH295430 | 2 | 0.67 | –0.00 | 0.59, –0.59 |
| VH295432 | 4 | 0.66 | 0.09 | 1.89, 0.89, –0.62, –2.16 |
| VH295434 | 1 | 0.62 | 3.11 | – |
| VH295478 | 1 | 0.48 | 1.42 | – |
| VH295482 | 2 | 1.06 | –0.04 | 0.74, –0.74 |
| VH295739 | 2 | 0.81 | 1.52 | 0.82, –0.82 |
| VH295741 | 4 | 0.74 | 0.21 | 0.75, 1.3, –0.32, –1.72 |
| VH295236 | 2 | 0.86 | 1.59 | 0.13, –0.13 |
| VH295240 | 2 | 1.00 | 0.07 | 0.7, –0.7 |
| VH295898 | 2 | 0.47 | 1.14 | 1.15, –1.15 |
| VH295902 | 2 | 0.75 | 0.40 | 0.09, –0.09 |
| VH296045 | 2 | 0.63 | 1.18 | 0.12, –0.12 |
| VH295545 | 2 | 0.87 | –0.22 | 0.94, –0.94 |
| VH295795 | 2 | 0.91 | –0.22 | 0.75, –0.75 |
| VH295797 | 2 | 0.44 | 1.51 | –1.46, 1.46 |
| VH296031 | 1 | 0.40 | 1.92 | – |
| VH295836 | 4 | 0.61 | 0.28 | 0.58, 1.49, –0.27, –1.8 |
| VH295838 | 1 | 0.50 | 0.45 | – |
| VH295840 | 2 | 0.53 | 0.88 | 0.07, –0.07 |
| VH295807 | 2 | 0.75 | 0.38 | 0.5, –0.5 |
| VH295809 | 1 | 0.59 | 2.90 | – |
| VH295811 | 4 | 0.64 | 0.24 | 1.07, 1.2, –0.1, –2.17 |
| VH295450 | 2 | 0.79 | 0.76 | 0.37, –0.37 |
| VH295454 | 2 | 0.82 | –0.42 | 1.06, –1.06 |
| VH295968 | 2 | 0.87 | 0.90 | 0.45, –0.45 |
| VH295218 | 2 | 0.51 | 1.51 | 0.43, –0.43 |
| VH295229 | 2 | 0.58 | 1.57 | 0.89, –0.89 |
| VH295231 | 4 | 0.65 | 0.07 | 1.86, 0.83, –0.65, –2.03 |
| VH295233 | 1 | 0.79 | 2.83 | – |
| VH295918 | 2 | 0.65 | 1.06 | 0.08, –0.08 |
| VH295922 | 2 | 1.07 | –0.04 | 0.71, –0.71 |
| VH295404 | 2 | 0.80 | 0.88 | 0.29, –0.29 |
| VH295433 | 2 | 0.98 | –0.40 | 0.89, –0.89 |
| VH295435 | 2 | 0.75 | 0.77 | 0.59, –0.59 |
| VH295477 | 2 | 0.71 | 1.19 | –0.16, 0.16 |
| VH296049 | 2 | 0.98 | –0.07 | 0.52, –0.52 |
| VH295540 | 1 | 0.57 | 2.75 | – |
| VH295544 | 4 | 0.56 | 0.24 | 2.05, 0.8, –0.55, –2.3 |
| VH295794 | 4 | 0.64 | 0.29 | 2.21, 0.77, –0.4, –2.58 |
| VH295796 | 1 | 0.60 | 1.40 | – |
| VH295798 | 2 | 0.63 | 1.01 | 0.46, –0.46 |

**Table 8.A.88 PT Item Statistics—ELA, Grade Six**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295682 | 2 | 1.14 | –0.14 | 0.25, –0.25 |
| VH295582 | 1 | 1.05 | 1.71 | – |
| VH295695 | 2 | 0.88 | –0.05 | 0.32, –0.32 |
| VH295821 | 2 | 0.78 | 1.10 | 0.34, –0.34 |
| VH295753 | 1 | 0.67 | 3.07 | – |
| VH295440 | 4 | 0.69 | 0.37 | 0.95, 0.97, –0.35, –1.57 |
| VH295318 | 2 | 1.30 | –0.06 | 0.35, –0.35 |
| VH295678 | 2 | 0.86 | 2.03 | 0.19, –0.19 |
| VH295871 | 2 | 0.91 | 1.75 | –0.33, 0.33 |
| VH295874 | 4 | 0.69 | 0.60 | 0.13, 1.24, –0.19, –1.17 |
| VH295934 | 2 | 0.85 | 0.57 | 0.21, –0.21 |
| VH296039 | 2 | 0.94 | 1.57 | 0.49, –0.49 |
| VH295826 | 2 | 0.95 | –0.44 | 0.38, –0.38 |
| VH295938 | 2 | 1.09 | –0.00 | 0.29, –0.29 |
| VH296037 | 2 | 1.22 | 1.22 | 0.32, –0.32 |
| VH295555 | 2 | 0.76 | 1.23 | 0.48, –0.48 |
| VH295559 | 2 | 1.03 | 0.12 | 0.26, –0.26 |
| VH295664 | 4 | 0.74 | 0.42 | 0.5, 1.14, –0.19, –1.45 |
| VH296009 | 1 | 0.92 | 1.66 | – |
| VH295580 | 2 | 0.75 | 1.19 | 0.28, –0.28 |
| VH295585 | 2 | 1.01 | –0.03 | 0.22, –0.22 |
| VH295437 | 2 | 0.73 | 1.49 | –0.02, 0.02 |
| VH295317 | 4 | 1.05 | 0.66 | 1.94, 0.74, –0.71, –1.97 |
| VH295677 | 2 | 0.87 | 1.63 | 0.73, –0.73 |
| VH295314 | 2 | 0.60 | 1.69 | –0.51, 0.51 |
| VH295933 | 1 | 0.64 | –0.11 | – |
| VH295690 | 2 | 0.68 | 1.88 | 0.66, –0.66 |
| VH295556 | 1 | 0.85 | 3.09 | – |
| VH295985 | 4 | 0.94 | 0.53 | 2.16, 1.1, –0.9, –2.37 |
| VH296042 | 2 | 1.35 | –0.06 | 0.32, –0.32 |
| VH295441 | 2 | 1.11 | –0.03 | 0.32, –0.32 |
| VH295558 | 4 | 0.58 | 0.39 | 0.31, 1.34, –0.17, –1.48 |
| VH295315 | 2 | 0.96 | 1.62 | 0.3, –0.3 |
| VH295822 | 2 | 0.76 | 2.28 | –1.04, 1.04 |
| VH295666 | 2 | 0.72 | 1.04 | 0.73, –0.73 |
| VH295692 | 1 | 0.89 | 2.31 | – |
| VH295825 | 4 | 0.77 | 0.58 | 2.19, 1.31, –0.76, –2.74 |
| VH295752 | 2 | 0.89 | 1.32 | 0.44, –0.44 |
| VH295755 | 4 | 0.79 | 0.46 | 2.02, 0.63, –0.84, –1.8 |
| VH295665 | 2 | 1.34 | –0.09 | 0.21, –0.21 |
| VH296013 | 4 | 0.93 | 0.77 | 1.61, 0.79, –0.71, –1.69 |
| VH295581 | 2 | 0.51 | 2.10 | –0.89, 0.89 |
| VH295691 | 2 | 0.90 | 1.48 | 0.68, –0.68 |
| VH295438 | 2 | 0.45 | 2.77 | –0.28, 0.28 |
| VH295667 | 2 | 0.54 | 1.36 | 0.5, –0.5 |
| VH295983 | 2 | 0.67 | 0.61 | 0.52, –0.52 |
| VH295986 | 2 | 1.07 | –0.30 | 0.41, –0.41 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295681 | 4 | 0.83 | 0.67 | 1.3, 1.07, –0.57, –1.81 |
| VH295751 | 2 | 0.48 | 0.85 | –0.19, 0.19 |
| VH296011 | 2 | 0.88 | 1.23 | 0.4, –0.4 |
| VH295584 | 4 | 0.88 | 0.74 | 1.51, 1.04, –0.69, –1.86 |
| VH295756 | 2 | 0.91 | –0.21 | 0.3, –0.3 |
| VH295935 | 2 | 0.75 | 1.11 | 0.37, –0.37 |
| VH295937 | 4 | 0.96 | 0.65 | 1.59, 0.67, –0.64, –1.62 |
| VH296041 | 3 | 1.03 | 0.08 | 1.24, 0.21, –1.45 |
| VH295872 | 2 | 0.74 | 0.79 | 0.32, –0.32 |
| VH295875 | 2 | 1.10 | 0.13 | –0.08, 0.08 |
| VH295982 | 2 | 0.90 | 0.88 | 0.37, –0.37 |
| VH296010 | 2 | 0.85 | 1.40 | 0.29, –0.29 |
| VH296014 | 2 | 1.15 | –0.04 | 0.31, –0.31 |
| VH295694 | 4 | 0.63 | 0.72 | 1.91, 0.76, –0.74, –1.93 |

**Table 8.A.89 PT Item Statistics—ELA, Grade Seven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295267 | 3 | 0.73 | 0.51 | 1.74, –0.04, –1.7 |
| VH295397 | 2 | 0.74 | 1.42 | 0.58, –0.58 |
| VH295762 | 4 | 0.66 | 1.08 | 0.75, 0.72, 0, –1.47 |
| VH295613 | 2 | 0.76 | 1.10 | 0.66, –0.66 |
| VH295909 | 2 | 0.72 | 1.08 | 0.17, –0.17 |
| VH295506 | 2 | 0.67 | 1.80 | 0.77, –0.77 |
| VH295374 | 2 | 1.20 | 0.59 | 0.37, –0.37 |
| VH295758 | 2 | 0.87 | 1.30 | 0.2, –0.2 |
| VH296119 | 2 | 0.87 | –0.06 | 0.56, –0.56 |
| VH295268 | 2 | 0.87 | –0.03 | 0.64, –0.64 |
| VH295322 | 4 | 1.14 | 1.22 | 2.17, 0.59, –0.6, –2.16 |
| VH295400 | 2 | 1.65 | 0.52 | 0.41, –0.41 |
| VH295763 | 2 | 1.02 | 0.52 | 0.14, –0.14 |
| VH295414 | 2 | 0.61 | 1.97 | 0.46, –0.46 |
| VH295578 | 2 | 0.98 | 0.42 | 0.48, –0.48 |
| VH296118 | 3 | 0.68 | 0.55 | 1.66, 0.14, –1.8 |
| VH295905 | 1 | 0.29 | 2.05 | – |
| VH295335 | 3 | 1.25 | 0.63 | 1.33, –0.05, –1.28 |
| VH295264 | 2 | 0.72 | 1.29 | 0.02, –0.02 |
| 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 |
| VH295907 | 3 | 0.71 | 0.84 | 1.51, –0.1, –1.41 |
| VH296102 | 2 | 1.00 | 1.40 | 0.35, –0.35 |
| VH295336 | 2 | 1.50 | 0.34 | 0.54, –0.54 |
| VH295310 | 3 | 0.82 | 0.49 | 1.35, 0.15, –1.5 |
| VH295527 | 2 | 0.31 | 3.20 | –0.1, 0.1 |
| VH295718 | 2 | 0.40 | 2.59 | 0.43, –0.43 |
| VH295720 | 3 | 0.94 | 0.63 | 1.53, –0.11, –1.42 |
| VH295270 | 2 | 0.78 | 1.50 | 0.22, –0.22 |
| VH295759 | 2 | 0.76 | 1.28 | 0.18, –0.18 |
| VH295574 | 2 | 0.72 | 1.15 | –0.05, 0.05 |
| VH295577 | 4 | 0.66 | 0.78 | 1.47, 0.65, –0.32, –1.79 |
| VH295401 | 2 | 0.81 | 1.28 | 0.29, –0.29 |
| VH295639 | 2 | 0.97 | 1.22 | 0.44, –0.44 |
| VH295575 | 2 | 0.36 | 2.52 | 0.39, –0.39 |
| VH295611 | 4 | 0.61 | 0.89 | 1.58, 1.04, –0.36, –2.26 |
| VH296115 | 2 | 0.63 | 1.29 | 0.2, –0.2 |
| VH295337 | 1 | 0.27 | 4.54 | – |
| VH295339 | 2 | 0.81 | 0.96 | 0.43, –0.43 |
| VH295371 | 2 | 0.75 | 2.38 | 0.92, –0.92 |
| VH295325 | 2 | 0.91 | 1.43 | 0.39, –0.39 |
| VH295612 | 2 | 0.95 | 0.17 | 0.38, –0.38 |
| VH295411 | 4 | 0.88 | 1.24 | 2.21, 0.7, –0.68, –2.23 |
| VH295415 | 2 | 0.66 | 2.11 | 0.47, –0.47 |
| VH295274 | 2 | 0.65 | 1.43 | –0.3, 0.3 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295338 | 2 | 0.67 | 2.25 | –0.16, 0.16 |
| VH295305 | 2 | 0.87 | 0.98 | 0.21, –0.21 |
| VH295307 | 1 | 0.96 | 2.95 | – |
| VH295529 | 4 | 0.66 | 1.27 | 1.47, 0.62, –0.37, –1.72 |
| VH295373 | 3 | 0.99 | 1.00 | 0.97, 0.02, –0.99 |
| VH295638 | 2 | 0.88 | –0.00 | 0.4, –0.4 |
| VH296106 | 2 | 1.24 | 0.27 | 0.56, –0.56 |
| VH295505 | 2 | 0.54 | 1.19 | 0, 0 |
| VH295941 | 2 | 0.92 | 1.41 | 0.36, –0.36 |
| VH295399 | 3 | 1.28 | 0.93 | 1.03, 0.02, –1.05 |
| VH295637 | 3 | 0.70 | 0.56 | 1.31, 0.22, –1.53 |
| VH295908 | 2 | 0.92 | 0.37 | 0.58, –0.58 |
| VH295510 | 2 | 0.97 | 0.12 | 0.48, –0.48 |
| VH295940 | 2 | 0.67 | 1.45 | 0.19, –0.19 |
| VH295944 | 3 | 0.83 | 0.76 | 1.68, –0.07, –1.61 |
| VH295370 | 2 | 0.57 | 2.23 | 0.33, –0.33 |
| VH295323 | 2 | 1.33 | 0.16 | 0.59, –0.59 |
| VH295272 | 4 | 0.67 | 1.25 | 2.31, 0.66, –0.83, –2.15 |
| VH295509 | 3 | 0.80 | 0.73 | 1.48, 0.29, –1.76 |
| VH295263 | 2 | 0.82 | 0.82 | 0.24, –0.24 |
| VH295717 | 2 | 0.75 | 2.05 | 0.27, –0.27 |
| VH295608 | 2 | 0.78 | 1.57 | 0.41, –0.41 |
| VH296101 | 2 | 0.37 | 3.24 | –0.61, 0.61 |
| VH295324 | 2 | 0.79 | 1.28 | 0.67, –0.67 |
| VH295721 | 2 | 0.99 | 0.15 | 0.52, –0.52 |
| VH295412 | 2 | 1.00 | –0.13 | 0.3, –0.3 |
| VH295635 | 2 | 0.66 | 2.02 | 0.17, –0.17 |
| VH295609 | 1 | 0.59 | 0.54 | – |
| VH295273 | 2 | 0.83 | 0.05 | 0.49, –0.49 |
| VH296116 | 2 | 0.61 | 1.70 | 0.42, –0.42 |
| VH296105 | 3 | 1.00 | 0.59 | 1.27, 0.04, –1.31 |
| VH295945 | 2 | 0.82 | 0.17 | 0.55, –0.55 |

**Table 8.A.90 PT Item Statistics—ELA, Grade Eight**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295622 | 2 | 0.79 | 2.39 | 0.35, –0.35 |
| VH295842 | 1 | 0.74 | 2.81 | – |
| VH295570 | 2 | 0.69 | –0.12 | 0.1, –0.1 |
| VH295388 | 2 | 1.01 | –0.05 | 0.4, –0.4 |
| VH295828 | 2 | 0.91 | 1.00 | 0.32, –0.32 |
| VH295331 | 4 | 0.80 | 1.01 | 1.95, 0.83, –0.94, –1.84 |
| VH295770 | 2 | 0.70 | –0.49 | 0.42, –0.42 |
| VH296099 | 2 | 0.99 | –0.08 | 0.22, –0.22 |
| VH295626 | 2 | 0.93 | –0.27 | 0.45, –0.45 |
| VH295484 | 2 | 0.80 | 2.41 | –0.2, 0.2 |
| VH295598 | 2 | 0.82 | 0.62 | –0.28, 0.28 |
| VH296098 | 4 | 0.68 | 0.61 | 1.29, 0.66, –0.55, –1.4 |
| VH296019 | 2 | 0.88 | –0.34 | 0.4, –0.4 |
| VH296021 | 2 | 0.53 | 1.44 | 0.07, –0.07 |
| VH295844 | 2 | 0.63 | 1.93 | –0.22, 0.22 |
| VH295846 | 4 | 0.91 | 1.06 | 2.31, 0.96, –1, –2.27 |
| VH295569 | 3 | 0.70 | 0.61 | 1.57, 0.36, –1.93 |
| VH295329 | 1 | 0.33 | 2.54 | – |
| VH295766 | 2 | 0.32 | 3.32 | –2.91, 2.91 |
| VH295602 | 2 | 0.64 | 1.81 | 0.8, –0.8 |
| VH295623 | 2 | 0.76 | 2.37 | 0.8, –0.8 |
| VH295383 | 2 | 0.48 | 1.85 | –0.26, 0.26 |
| VH295387 | 4 | 0.93 | 0.96 | 1.94, 0.77, –0.9, –1.81 |
| VH295327 | 2 | 0.84 | 1.80 | 0.77, –0.77 |
| VH295463 | 2 | 0.89 | 1.53 | 0.19, –0.19 |
| VH295769 | 4 | 0.70 | 0.78 | 2.19, 1.06, –1.12, –2.13 |
| VH295298 | 2 | 0.45 | 1.59 | 1.28, –1.28 |
| VH295302 | 4 | 0.57 | 1.03 | –0.11, 1.27, –0.1, –1.06 |
| VH295296 | 2 | 0.78 | –0.16 | 0.37, –0.37 |
| VH296063 | 2 | 0.62 | 1.55 | 0.26, –0.26 |
| VH295843 | 2 | 0.82 | 1.54 | 0.04, –0.04 |
| VH295980 | 2 | 0.77 | –0.26 | 0.3, –0.3 |
| VH295489 | 2 | 0.72 | 2.17 | 0.69, –0.69 |
| VH295594 | 1 | 0.57 | 2.37 | – |
| VH295833 | 2 | 1.05 | –0.14 | 0.47, –0.47 |
| VH295328 | 2 | 0.94 | 2.18 | 0.51, –0.51 |
| VH295515 | 2 | 0.71 | –0.30 | 0.59, –0.59 |
| VH296058 | 1 | 0.65 | 2.96 | – |
| VH295356 | 2 | 0.68 | 1.49 | –0.01, 0.01 |
| VH295332 | 2 | 0.86 | –0.06 | 0.31, –0.31 |
| VH295291 | 2 | 0.61 | 1.28 | 0.33, –0.33 |
| VH295625 | 4 | 0.87 | 1.01 | 2.21, 0.81, –0.68, –2.34 |
| VH295277 | 2 | 0.69 | 1.30 | 0.22, –0.22 |
| VH295282 | 1 | 0.43 | 3.64 | – |
| VH295765 | 2 | 0.88 | 1.36 | 0.46, –0.46 |
| VH296028 | 2 | 0.83 | 1.10 | 0.17, –0.17 |
| VH295597 | 4 | 0.57 | 1.06 | –0.21, 1.02, 0.05, –0.85 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295599 | 2 | 0.61 | 1.41 | 0.45, –0.45 |
| VH295516 | 1 | 0.38 | 0.25 | – |
| VH295299 | 2 | 0.60 | 2.00 | 0.23, –0.23 |
| VH295303 | 2 | 0.90 | 0.44 | –0.29, 0.29 |
| VH296023 | 2 | 0.74 | 1.32 | 0.46, –0.46 |
| VH296027 | 2 | 0.72 | –0.09 | 0.29, –0.29 |
| VH295606 | 2 | 1.05 | –0.08 | 0.45, –0.45 |
| VH295977 | 2 | 0.62 | 1.77 | 0.35, –0.35 |
| VH295485 | 1 | 0.22 | 1.46 | – |
| VH295487 | 4 | 0.75 | 0.96 | 2.39, 1.07, –1.02, –2.43 |
| VH295355 | 2 | 0.72 | 2.04 | 0.64, –0.64 |
| VH295359 | 2 | 0.82 | –0.11 | 0.42, –0.42 |
| VH295280 | 4 | 0.87 | 1.08 | 1.95, 0.99, –0.81, –2.13 |
| VH295464 | 2 | 0.92 | 1.15 | 0.14, –0.14 |
| VH295466 | 3 | 0.86 | 0.53 | 1.42, 0.24, –1.66 |
| VH296094 | 2 | 0.40 | 1.97 | 0.14, –0.14 |
| VH295517 | 2 | 0.68 | 2.17 | 1.05, –1.05 |
| VH295293 | 1 | 0.50 | 3.18 | – |
| VH296060 | 4 | 0.59 | 0.78 | 1.74, 0.56, –0.59, –1.71 |
| VH295605 | 4 | 0.98 | 0.77 | 1.9, 0.74, –0.83, –1.81 |
| VH295847 | 2 | 0.85 | –0.16 | 0.51, –0.51 |
| VH295975 | 2 | 0.84 | 2.14 | 0.78, –0.78 |
| VH295358 | 4 | 0.82 | 1.09 | 2.63, 0.8, –1.27, –2.16 |
| VH295360 | 1 | 0.49 | 2.35 | – |
| VH295829 | 2 | 0.83 | 1.49 | 0.39, –0.39 |
| VH295278 | 2 | 0.37 | 2.80 | –0.72, 0.72 |
| VH295488 | 2 | 0.86 | –0.23 | 0.5, –0.5 |
| VH295832 | 4 | 0.96 | 1.10 | 2.24, 1.04, –0.75, –2.54 |
| VH295467 | 2 | 0.79 | 0.00 | 0.33, –0.33 |
| VH296095 | 2 | 0.78 | 1.35 | 0.11, –0.11 |
| VH295512 | 2 | 0.61 | 1.79 | 0.56, –0.56 |
| VH295514 | 3 | 0.64 | 0.39 | 1.77, 0.32, –2.09 |
| VH296016 | 2 | 0.53 | 2.31 | 0.89, –0.89 |
| VH295295 | 4 | 0.74 | 1.15 | 2.11, 1.06, –0.83, –2.33 |
| VH296062 | 2 | 0.62 | 1.73 | 0.57, –0.57 |
| VH296026 | 4 | 0.85 | 1.28 | 2.5, 0.83, –1.17, –2.16 |
| VH295601 | 2 | 0.85 | 1.44 | 0.41, –0.41 |
| VH295603 | 1 | 0.64 | 3.61 | – |
| VH295976 | 1 | 0.51 | 3.42 | – |
| VH295979 | 3 | 0.70 | 0.42 | 1.42, 0.42, –1.83 |
| VH295595 | 2 | 0.51 | 2.62 | 0.07, –0.07 |
| VH295567 | 2 | 0.70 | 1.89 | 0.65, –0.65 |
| VH295571 | 2 | 0.70 | 1.49 | 0.33, –0.33 |
| VH295384 | 2 | 0.79 | 1.85 | 0.33, –0.33 |
| VH295281 | 2 | 0.99 | –0.01 | 0.3, –0.3 |
| VH296018 | 4 | 0.74 | 1.04 | 2.41, 1.23, –0.79, –2.85 |
| VH296061 | 2 | 0.73 | 0.07 | 0.27, –0.27 |

**Table 8.A.91 PT Item Statistics—ELA, Grade Eleven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295850 | 2 | 0.58 | 1.95 | 0.54, –0.54 |
| VH296006 | 2 | 0.57 | 1.15 | 0.04, –0.04 |
| VH295285 | 2 | 0.71 | 2.43 | 0.47, –0.47 |
| VH295725 | 2 | 0.51 | 3.62 | –0.55, 0.55 |
| VH296054 | 4 | 0.64 | 1.53 | 2.05, 0.83, –0.87, –2.01 |
| VH295887 | 2 | 0.68 | 2.15 | 1.09, –1.09 |
| VH295854 | 2 | 0.69 | 1.06 | 0.25, –0.25 |
| VH295499 | 2 | 0.57 | 1.95 | 0.1, –0.1 |
| VH295470 | 2 | 0.62 | 1.10 | 0.37, –0.37 |
| VH295547 | 2 | 0.46 | 2.71 | 0.69, –0.69 |
| VH296002 | 2 | 0.53 | 1.38 | –0.15, 0.15 |
| VH296109 | 2 | 0.64 | 1.57 | 0.66, –0.66 |
| VH295928 | 4 | 0.52 | 1.67 | 2.9, 0.89, –0.84, –2.95 |
| VH295615 | 2 | 0.64 | 2.12 | 0.27, –0.27 |
| VH296052 | 2 | 0.64 | 2.01 | 0.21, –0.21 |
| VH295853 | 4 | 0.61 | 1.70 | 2.67, 0.91, –0.85, –2.73 |
| VH295471 | 2 | 0.71 | 1.48 | 0.36, –0.36 |
| VH295242 | 2 | 0.69 | 1.77 | 0.29, –0.29 |
| VH295534 | 4 | 0.53 | 1.53 | 2.74, 0.92, –0.83, –2.83 |
| VH295800 | 2 | 0.45 | 2.70 | 0.79, –0.79 |
| VH295926 | 1 | 0.41 | 1.70 | – |
| VH295931 | 2 | 0.66 | 2.16 | 0.17, –0.17 |
| VH295723 | 1 | 0.59 | 1.98 | – |
| VH295728 | 2 | 0.62 | 1.09 | 0.13, –0.13 |
| VH295253 | 4 | 0.44 | 1.73 | 2.61, 1.03, –0.85, –2.78 |
| VH295243 | 2 | 0.87 | 1.51 | 0.68, –0.68 |
| VH295989 | 2 | 0.73 | 1.69 | 0.47, –0.47 |
| VH295649 | 2 | 0.57 | 1.71 | 0.03, –0.03 |
| VH295724 | 2 | 0.46 | 2.27 | –0.03, 0.03 |
| VH295251 | 1 | 0.34 | 0.69 | – |
| VH295535 | 2 | 0.58 | 0.91 | 0.09, –0.09 |
| VH295819 | 2 | 0.67 | 1.91 | 0.4, –0.4 |
| VH295287 | 4 | 0.55 | 1.81 | 2.16, 1, –0.98, –2.17 |
| VH295653 | 4 | 0.50 | 1.76 | 2.51, 0.67, –1.05, –2.13 |
| VH296055 | 2 | 0.70 | 0.84 | 0.25, –0.25 |
| VH295888 | 2 | 0.59 | 2.05 | 0.23, –0.23 |
| VH295250 | 2 | 0.54 | 1.83 | 0.18, –0.18 |
| VH295378 | 2 | 0.71 | 2.01 | 0.67, –0.67 |
| VH295247 | 2 | 0.75 | 1.02 | 0.26, –0.26 |
| VH295538 | 2 | 0.60 | 1.25 | –0.4, 0.4 |
| VH295367 | 2 | 0.64 | 1.22 | 0.38, –0.38 |
| VH295552 | 2 | 0.50 | 1.20 | –0.25, 0.25 |
| VH296108 | 1 | 0.63 | 4.31 | – |
| VH296113 | 2 | 0.55 | 0.90 | 0.01, –0.01 |
| VH295618 | 4 | 0.56 | 1.72 | 2.2, 0.84, –0.99, –2.04 |
| VH295381 | 2 | 0.58 | 0.83 | 0.04, –0.04 |
| VH295503 | 2 | 0.60 | 1.30 | –0.12, 0.12 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295362 | 2 | 0.54 | 3.10 | 0.44, –0.44 |
| VH295548 | 2 | 0.26 | 3.29 | –1.71, 1.71 |
| VH295988 | 2 | 0.63 | 1.97 | 0.63, –0.63 |
| VH295698 | 2 | 0.49 | 3.23 | 0.33, –0.33 |
| VH295284 | 2 | 0.63 | 0.74 | 0.27, –0.27 |
| VH295650 | 2 | 0.62 | 1.22 | 0.19, –0.19 |
| VH295851 | 2 | 0.71 | 1.61 | 1.19, –1.19 |
| VH295249 | 2 | 0.45 | 1.88 | 0.42, –0.42 |
| VH295475 | 2 | 0.63 | 1.08 | 0.03, –0.03 |
| VH295366 | 4 | 0.49 | 1.90 | 2.49, 0.74, –0.62, –2.61 |
| VH295551 | 4 | 0.43 | 1.94 | 2.81, 0.71, –1.1, –2.41 |
| VH295814 | 2 | 0.75 | 2.07 | 0.63, –0.63 |
| VH295744 | 2 | 0.73 | 1.82 | 0.28, –0.28 |
| VH295749 | 2 | 0.71 | 1.14 | 0.21, –0.21 |
| VH295727 | 4 | 0.53 | 2.01 | 2.46, 1.06, –0.72, –2.8 |
| VH296056 | 2 | 0.70 | 1.54 | –0.03, 0.03 |
| VH295380 | 4 | 0.51 | 1.31 | 2.6, 1.03, –0.91, –2.72 |
| VH295474 | 4 | 0.51 | 1.84 | 2.35, 1.17, –0.79, –2.72 |
| VH295804 | 4 | 0.62 | 1.55 | 2.5, 0.64, –0.85, –2.29 |
| VH296007 | 1 | 0.42 | 3.65 | – |
| VH295701 | 4 | 0.51 | 1.72 | 2.34, 1.09, –0.57, –2.86 |
| VH295745 | 2 | 0.71 | 2.18 | 0.2, –0.2 |
| VH295390 | 2 | 0.62 | 1.66 | 0.03, –0.03 |
| VH295363 | 2 | 0.39 | 2.91 | 0.45, –0.45 |
| VH296003 | 2 | 0.63 | 1.38 | 0.45, –0.45 |
| VH295376 | 1 | 0.48 | 4.02 | – |
| VH295498 | 2 | 0.38 | 4.05 | –0.12, 0.12 |
| VH296005 | 4 | 0.48 | 1.73 | 2.52, 0.71, –0.96, –2.28 |
| VH295992 | 2 | 0.63 | 1.07 | 0.09, –0.09 |
| VH295849 | 1 | 0.60 | 4.03 | – |
| VH295393 | 2 | 0.56 | 1.09 | –0.01, 0.01 |
| VH295805 | 2 | 0.75 | 1.10 | 0.56, –0.56 |
| VH296112 | 4 | 0.50 | 1.63 | 2.67, 1.09, –1.1, –2.66 |
| VH295993 | 1 | 0.57 | 4.43 | – |
| VH295702 | 2 | 0.66 | 1.01 | 0.01, –0.01 |
| VH295620 | 2 | 0.41 | 1.40 | 0.04, –0.04 |
| VH295748 | 4 | 0.56 | 1.67 | 2.05, 0.61, –0.83, –1.84 |
| VH295654 | 2 | 0.63 | 1.47 | 0.23, –0.23 |
| VH295886 | 2 | 0.69 | 1.07 | 0.12, –0.12 |
| VH295377 | 2 | 0.66 | 1.79 | 0.46, –0.46 |
| VH295392 | 4 | 0.51 | 1.83 | 2.68, 0.93, –0.7, –2.91 |
| VH295502 | 4 | 0.55 | 2.17 | 2.3, 0.71, –0.75, –2.25 |
| VH295246 | 4 | 0.59 | 1.50 | 2.42, 0.67, –1, –2.09 |
| VH295537 | 2 | 0.61 | 2.32 | 0.91, –0.91 |
| VH295801 | 1 | 0.61 | 4.04 | – |
| VH296110 | 2 | 0.74 | 1.99 | 0.12, –0.12 |
| VH295991 | 4 | 0.58 | 1.73 | 2.48, 0.81, –0.82, –2.47 |
| VH295929 | 2 | 0.59 | 0.83 | 0.16, –0.16 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295817 | 4 | 0.63 | 1.64 | 2.1, 0.6, –0.86, –1.84 |
| VH295288 | 2 | 0.80 | 1.26 | 0.41, –0.41 |
| VH295885 | 4 | 0.56 | 1.54 | 2.02, 1.04, –0.81, –2.25 |
| VH295254 | 2 | 0.52 | 0.95 | –0.21, 0.21 |
| VH295395 | 2 | 0.78 | 2.31 | 0.44, –0.44 |
| VH295802 | 2 | 0.71 | 1.92 | 0.62, –0.62 |
| VH295697 | 2 | 0.64 | 1.50 | 0.31, –0.31 |
| VH295930 | 2 | 0.67 | 2.19 | 0.43, –0.43 |
| VH295619 | 2 | 0.61 | 1.13 | 0.09, –0.09 |
| VH295818 | 2 | 0.65 | 1.08 | 0.23, –0.23 |

**Table 8.A.92 PT Item Statistics—Mathematics, Grade Three**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300139 | 1 | 1.29 | 0.11 | – |
| VH300140 | 2 | 0.84 | 0.70 | 0.16, –0.16 |
| VH300476 | 1 | 1.12 | –1.23 | – |
| VH300477 | 1 | 1.13 | –1.14 | – |
| VH300478 | 2 | 0.76 | –0.72 | 0.07, –0.07 |
| VH300480 | 2 | 0.73 | –0.71 | –1.13, 1.13 |
| VH300482 | 1 | 1.40 | 0.05 | – |
| VH300485 | 2 | 1.04 | 0.67 | 0.33, –0.33 |
| VH299779 | 1 | 1.14 | –1.07 | – |
| VH299780 | 1 | 0.91 | –0.13 | – |
| VH299781 | 2 | 0.86 | 0.19 | 0.57, –0.57 |
| VH299782 | 2 | 0.71 | –0.34 | –0.35, 0.35 |
| VH299783 | 2 | 1.07 | –0.59 | –0.34, 0.34 |
| VH299784 | 2 | 1.30 | 0.22 | 0.51, –0.51 |
| VH299624 | 1 | 1.06 | –1.03 | – |
| VH299631 | 1 | 0.88 | –0.20 | – |
| VH299632 | 2 | 0.67 | 0.17 | 0.83, –0.83 |
| VH299637 | 2 | 0.59 | –0.18 | –0.34, 0.34 |
| VH299646 | 2 | 0.94 | –0.61 | –0.5, 0.5 |
| VH299647 | 2 | 1.10 | 0.27 | 0.47, –0.47 |
| VH299557 | 1 | 1.08 | –1.07 | – |
| VH299558 | 1 | 1.44 | –0.68 | – |
| VH299559 | 1 | 1.44 | –0.50 | – |
| VH299560 | 2 | 0.57 | –0.30 | –1.51, 1.51 |
| VH299561 | 2 | 0.84 | 0.82 | –0.63, 0.63 |
| VH299565 | 1 | 0.26 | 2.20 | – |
| VH299376 | 1 | 1.42 | –1.74 | – |
| VH299377 | 1 | 1.30 | –1.38 | – |
| VH299378 | 2 | 0.89 | –0.30 | –0.44, 0.44 |
| VH299379 | 3 | 0.64 | –1.55 | –0.22, 0.68, –0.46 |
| VH299380 | 1 | 1.28 | –1.08 | – |
| VH299381 | 2 | 0.93 | 0.09 | 0.1, –0.1 |
| VH299090 | 1 | 0.93 | –1.20 | – |
| VH299092 | 1 | 1.35 | –1.23 | – |
| VH299093 | 2 | 0.71 | –0.49 | –0.02, 0.02 |
| 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 |
| VH300263 | 1 | 0.75 | 0.52 | – |
| VH300265 | 1 | 0.63 | 0.23 | – |
| VH300358 | 1 | 0.98 | –1.22 | – |
| VH300362 | 3 | 0.59 | –1.55 | –0.17, 0.69, –0.52 |
| VH300365 | 2 | 0.97 | 0.01 | 0.26, –0.26 |
| VH299534 | 1 | 1.01 | –1.09 | – |
| VH299544 | 1 | 1.13 | –0.81 | |
| VH299549 | 1 | 1.35 | –0.12 | – |
| VH299171 | 1 | 0.86 | –1.27 | – |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299173 | 2 | 0.70 | –0.80 | 0.02, –0.02 |
| VH300059 | 1 | 1.22 | –0.58 | – |
| VH300062 | 1 | 0.67 | –0.37 | – |
| VH300064 | 2 | 1.07 | 0.03 | –0.08, 0.08 |
| VH299060 | 1 | 0.90 | –1.05 | – |
| VH299345 | 1 | 0.61 | –1.77 | – |
| VH299350 | 1 | 1.13 | –0.81 | – |
| VH299360 | 1 | 0.13 | 0.29 | – |
| 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 |
| VH299997 | 1 | 0.76 | –0.71 | – |
| VH299999 | 3 | 0.54 | –1.44 | –0.39, 0.74, –0.35 |
| VH300001 | 1 | 1.15 | –0.16 | – |
| 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 |
| VH300135 | 1 | 1.09 | –1.20 | – |
| VH300137 | 2 | 0.91 | –0.81 | 0.13, –0.13 |
| VH299094 | 2 | 0.72 | –0.75 | –1.25, 1.25 |
| VH299097 | 2 | 1.02 | 0.69 | 0.02, –0.02 |
| VH299292 | 1 | 1.07 | –0.74 | – |
| VH299295 | 1 | 0.68 | –0.38 | – |
| VH299298 | 2 | 1.18 | 0.01 | 0.02, –0.02 |
| VH300262 | 1 | 0.91 | –1.04 | – |
| VH300264 | 1 | 1.11 | –0.50 | – |
| VH300267 | 1 | 1.22 | 0.06 | – |
| VH300355 | 1 | 1.19 | –1.26 | – |
| VH300360 | 2 | 0.82 | –0.45 | –0.34, 0.34 |
| VH300364 | 1 | 1.13 | –1.03 | – |
| VH299538 | 1 | 0.86 | 0.23 | – |
| VH299548 | 2 | 0.61 | 0.10 | –0.19, 0.19 |
| VH299172 | 1 | 1.24 | –1.49 | – |
| VH299174 | 2 | 0.70 | –0.75 | –1.25, 1.25 |
| VH299176 | 2 | 1.06 | 0.57 | 0, 0 |
| 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 |
| VH299057 | 1 | 0.64 | –0.97 | – |
| VH299058 | 1 | 1.04 | –0.03 | – |
| VH299059 | 3 | 0.52 | –1.67 | –0.73, 0.75, –0.02 |
| VH299061 | 1 | 1.04 | –0.10 | – |
| VH299347 | 1 | 1.03 | –1.19 | – |
| VH299352 | 2 | 0.51 | –0.52 | –1.21, 1.21 |
| VH299365 | 1 | 0.67 | 0.61 | – |
| 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 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299998 | 1 | 1.21 | –0.21 | – |
| VH300000 | 1 | 0.91 | –0.88 | – |
| 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 |
| VH300136 | 1 | 1.01 | –0.84 | – |
| VH300138 | 2 | 0.72 | –0.72 | –1.4, 1.4 |

**Table 8.A.93 PT Item Statistics—Mathematics, Grade Four**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299111 | 1 | 0.98 | –0.71 | – |
| VH299114 | 3 | 0.65 | –1.16 | 0.83, –0.95, 0.12 |
| VH299337 | 1 | 0.85 | –1.47 | – |
| VH299340 | 2 | 0.74 | 0.62 | –0.66, 0.66 |
| VH300210 | 2 | 0.79 | 1.14 | 0.1, –0.1 |
| VH300213 | 3 | 0.82 | 0.61 | 0.64, 0.38, –1.02 |
| VH299775 | 2 | 1.15 | –0.38 | 0.08, –0.08 |
| VH299100 | 1 | 1.18 | –1.21 | – |
| VH299105 | 2 | 0.69 | 1.98 | –0.52, 0.52 |
| VH300217 | 1 | 0.87 | 0.93 | – |
| VH300185 | 2 | 0.99 | –0.23 | 0.04, –0.04 |
| VH299178 | 1 | 0.79 | –1.02 | – |
| VH299181 | 2 | 0.57 | 0.37 | –0.13, 0.13 |
| VH299498 | 1 | 0.65 | –0.75 | – |
| VH299506 | 2 | 0.80 | 0.16 | –0.18, 0.18 |
| VH299445 | 2 | 0.94 | 0.38 | 0.23, –0.23 |
| VH299448 | 3 | 0.85 | –0.01 | 0.44, 0.49, –0.92 |
| VH300287 | 1 | 1.15 | –0.57 | – |
| VH300291 | 3 | 0.64 | –1.19 | 1.01, –0.62, –0.4 |
| VH299933 | 1 | 0.88 | –1.49 | – |
| VH300026 | 1 | 0.86 | –1.33 | – |
| VH300047 | 2 | 0.71 | 0.69 | –1.88, 1.88 |
| VH299396 | 2 | 0.63 | 0.55 | –1.81, 1.81 |
| VH299403 | 2 | 0.69 | 0.35 | –0.67, 0.67 |
| VH299823 | 2 | 1.22 | 1.05 | 0.09, –0.09 |
| VH300006 | 1 | 0.94 | 0.44 | – |
| VH300009 | 2 | 0.69 | –0.09 | –1.36, 1.36 |
| VH299473 | 1 | 1.09 | –1.53 | – |
| VH299477 | 2 | 0.68 | 0.01 | 0.27, –0.27 |
| VH300095 | 1 | 1.43 | –1.90 | – |
| VH300099 | 2 | 0.73 | –0.07 | 0.42, –0.42 |
| VH300181 | 1 | 1.24 | –1.07 | – |
| VH299180 | 1 | 0.53 | 0.05 | – |
| VH299504 | 1 | 0.87 | 0.84 | – |
| VH299512 | 2 | 0.69 | 0.43 | –0.49, 0.49 |
| VH299444 | 1 | 1.27 | –0.98 | – |
| VH299447 | 1 | 1.13 | 0.53 | – |
| VH300286 | 1 | 0.72 | –0.69 | – |
| VH300290 | 2 | 0.78 | 0.49 | 0.18, –0.18 |
| VH299932 | 1 | 1.09 | –1.18 | – |
| VH299937 | 1 | 1.01 | 0.19 | – |
| VH300038 | 2 | 0.63 | 0.33 | 0.02, –0.02 |
| VH299391 | 1 | 0.79 | –1.26 | – |
| VH299402 | 2 | 0.44 | 1.57 | –3.52, 3.52 |
| VH299820 | 1 | 0.73 | –1.67 | – |
| VH300005 | 2 | 0.66 | 0.45 | –1.77, 1.77 |
| VH300008 | 2 | 0.57 | 0.33 | –0.86, 0.86 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299472 | 1 | 0.66 | –0.72 | – |
| VH299476 | 1 | 0.76 | 0.22 | – |
| VH300094 | 1 | 0.67 | –0.76 | – |
| VH300098 | 1 | 0.97 | 0.20 | – |
| VH299110 | 1 | 0.57 | –0.63 | – |
| VH299113 | 2 | 0.71 | 0.65 | 0.26, –0.26 |
| VH299339 | 2 | 1.06 | 0.73 | –0.05, 0.05 |
| VH299342 | 3 | 0.70 | 0.12 | 0.77, 0.26, –1.03 |
| VH300209 | 1 | 0.67 | –1.66 | – |
| VH300212 | 1 | 1.02 | 0.42 | – |
| VH300410 | 1 | 1.08 | 0.74 | – |
| VH300414 | 1 | 0.60 | 0.35 | – |
| VH299774 | 1 | 1.30 | –1.05 | – |
| VH299103 | 2 | 0.91 | 0.80 | 0.19, –0.19 |
| VH299107 | 3 | 0.77 | 0.24 | 0.56, 0.55, –1.1 |
| VH300216 | 1 | 0.70 | –0.42 | – |
| VH300180 | 1 | 1.37 | –1.04 | – |
| VH300188 | 2 | 0.74 | 0.94 | 0.17, –0.17 |
| VH299179 | 1 | 0.48 | 2.21 | – |
| VH299182 | 2 | 0.60 | 0.95 | –1.77, 1.77 |
| VH299501 | 1 | 0.63 | 0.02 | – |
| VH299508 | 1 | 1.07 | –0.33 | – |
| VH299443 | 1 | 1.08 | –1.58 | – |
| VH299446 | 2 | 0.74 | 0.68 | –0.97, 0.97 |
| VH300288 | 2 | 0.93 | 0.78 | 0.26, –0.26 |
| VH299934 | 2 | 1.23 | 0.65 | –0.06, 0.06 |
| VH300031 | 1 | 0.44 | 2.15 | – |
| VH299400 | 1 | 0.98 | 0.27 | – |
| VH299405 | 2 | 0.82 | 0.04 | –1.44, 1.44 |
| VH299817 | 1 | 1.05 | –0.21 | – |
| VH299825 | 1 | 0.95 | 0.31 | – |
| VH300004 | 1 | 0.68 | –1.41 | – |
| VH300007 | 2 | 0.50 | 1.25 | –1.53, 1.53 |
| VH299474 | 1 | 0.88 | 0.18 | – |
| VH300096 | 1 | 0.82 | 0.13 | – |
| VH299112 | 2 | 0.88 | 0.86 | 0.32, –0.32 |
| VH299115 | 2 | 0.87 | 1.20 | 0.09, –0.09 |
| VH299338 | 1 | 1.11 | –0.83 | – |
| VH299341 | 1 | 0.90 | 0.45 | – |
| VH300208 | 1 | 0.89 | –1.05 | – |
| VH300211 | 1 | 0.88 | 1.58 | – |
| VH300412 | 2 | 0.92 | –0.53 | 0.78, –0.78 |
| VH299773 | 1 | 1.42 | –1.21 | – |
| VH299776 | 2 | 0.95 | 0.08 | 0.24, –0.24 |
| VH299101 | 1 | 0.75 | –1.68 | – |
| VH299106 | 1 | 1.00 | 0.57 | – |
| VH300215 | 1 | 0.66 | –0.79 | – |
| 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 |
|---|---|---|---|---|
| VH300074 | 1 | 0.78 | –0.48 | – |
| VH300077 | 3 | 0.58 | 0.83 | –0.5, –0.33, 0.83 |
| VH299692 | 1 | 1.10 | 0.91 | – |
| VH299696 | 2 | 0.91 | 1.86 | –0.12, 0.12 |
| VH300306 | 2 | 0.63 | 1.34 | –0.17, 0.17 |
| VH300309 | 2 | 0.42 | 0.63 | –3.01, 3.01 |
| VH299141 | 1 | 1.11 | 0.82 | – |
| VH299164 | 2 | 0.82 | 1.14 | –0.24, 0.24 |
| VH299876 | 1 | 0.69 | 1.23 | – |
| VH299884 | 2 | 0.64 | 0.76 | –0.54, 0.54 |
| VH299078 | 2 | 0.68 | 1.08 | –0.66, 0.66 |
| VH299082 | 2 | 0.30 | 3.94 | 1.92, –1.92 |
| VH299186 | 1 | 0.94 | –0.22 | – |
| VH299190 | 1 | 0.54 | 0.70 | – |
| VH299852 | 2 | 0.69 | 0.51 | –1.94, 1.94 |
| VH299860 | 1 | 0.53 | 2.20 | – |
| VH299433 | 1 | 1.24 | 1.19 | – |
| VH299992 | 2 | 0.54 | 0.82 | –3.35, 3.35 |
| VH299995 | 2 | 0.65 | 0.55 | 1.17, –1.17 |
| VH299408 | 1 | 0.60 | 0.23 | – |
| VH299411 | 2 | 0.82 | 1.60 | –0.07, 0.07 |
| VH299676 | 1 | 0.96 | 0.51 | – |
| VH299683 | 2 | 0.57 | 0.13 | 0.24, –0.24 |
| VH299985 | 2 | 0.58 | 0.02 | 0.14, –0.14 |
| VH299989 | 3 | 0.33 | 2.40 | –1.35, 0.49, 0.86 |
| VH299042 | 1 | 1.26 | 0.83 | – |
| VH299045 | 2 | 0.81 | 1.11 | –0.16, 0.16 |
| VH299591 | 1 | 0.73 | 1.24 | – |
| VH299595 | 2 | 0.69 | 0.87 | –0.33, 0.33 |
| VH300073 | 1 | 0.93 | 0.54 | – |
| VH300076 | 2 | 0.71 | 1.60 | 0.43, –0.43 |
| VH299695 | 2 | 0.82 | 1.06 | 0.05, –0.05 |
| VH299699 | 2 | 0.39 | 0.83 | –3.11, 3.11 |
| VH300305 | 1 | 1.21 | 0.75 | – |
| VH300308 | 2 | 0.79 | 1.49 | 0, 0 |
| VH299129 | 1 | 1.09 | 0.92 | – |
| VH299151 | 2 | 0.88 | 1.73 | –0.29, 0.29 |
| VH299881 | 2 | 0.45 | –0.19 | –2.39, 2.39 |
| VH299891 | 3 | 0.74 | 1.32 | 0.19, –0.21, 0.02 |
| VH299077 | 1 | 1.20 | 0.97 | – |
| VH299081 | 3 | 0.54 | 0.90 | –0.57, –0.1, 0.67 |
| VH299188 | 3 | 0.82 | 1.36 | 1, –1.29, 0.29 |
| VH299850 | 1 | 0.56 | –1.14 | – |
| VH299857 | 2 | 0.39 | 0.95 | –0.53, 0.53 |
| VH299432 | 1 | 0.52 | 2.12 | – |
| VH299438 | 2 | 0.77 | 1.49 | 0.45, –0.45 |
| VH299991 | 1 | 0.70 | –0.73 | – |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299994 | 2 | 0.57 | 0.99 | –0.86, 0.86 |
| VH299407 | 1 | 0.75 | –1.15 | – |
| VH299410 | 1 | 0.72 | 2.98 | – |
| VH299680 | 1 | 1.22 | 0.67 | – |
| VH299687 | 2 | 1.20 | 2.18 | 0.2, –0.2 |
| VH299984 | 1 | 0.71 | 1.39 | – |
| VH299987 | 2 | 0.77 | 1.52 | –0.12, 0.12 |
| VH299041 | 1 | 0.90 | 0.73 | – |
| VH299044 | 2 | 1.14 | 1.73 | 0.11, –0.11 |
| VH299594 | 2 | 0.59 | –0.49 | –1.83, 1.83 |
| VH299601 | 3 | 0.55 | 0.91 | –0.58, –0.54, 1.13 |
| VH300075 | 2 | 0.61 | 1.00 | –1.15, 1.15 |
| VH300078 | 2 | 0.31 | 3.81 | 1.9, –1.9 |
| VH299693 | 1 | 1.13 | 0.68 | – |
| VH299697 | 2 | 0.84 | 1.30 | 0.04, –0.04 |
| VH300303 | 1 | 1.30 | 0.43 | – |
| VH300307 | 2 | 1.01 | 1.84 | 0.13, –0.13 |
| VH299143 | 2 | 0.73 | 1.03 | –0.2, 0.2 |
| VH299169 | 2 | 0.37 | 0.74 | –3.58, 3.58 |
| VH299877 | 1 | 1.14 | 1.17 | – |
| VH299887 | 2 | 0.99 | 1.67 | –0.1, 0.1 |
| VH299076 | 1 | 0.79 | 0.19 | – |
| VH299080 | 2 | 0.67 | 1.60 | 0.2, –0.2 |
| VH299187 | 1 | 0.90 | 1.12 | – |
| VH299855 | 2 | 0.87 | 2.02 | –0.3, 0.3 |
| VH299861 | 2 | 0.68 | 0.57 | –0.34, 0.34 |
| VH299430 | 1 | 0.98 | –0.39 | – |
| VH299434 | 2 | 0.55 | 0.10 | 0.23, –0.23 |
| VH299993 | 2 | 0.34 | 1.47 | –0.91, 0.91 |
| VH299409 | 2 | 0.58 | 0.46 | 0.45, –0.45 |
| VH299412 | 3 | 0.39 | 2.13 | –0.93, 0.67, 0.26 |
| VH299678 | 1 | 0.46 | 2.05 | – |
| VH299685 | 2 | 0.83 | 1.37 | 0.42, –0.42 |
| VH299983 | 1 | 0.82 | –0.94 | – |
| VH299043 | 2 | 0.88 | 0.90 | –0.06, 0.06 |
| VH299046 | 2 | 0.48 | 0.86 | –2.87, 2.87 |
| VH299593 | 1 | 1.16 | 0.98 | – |
| VH299597 | 2 | 0.83 | 1.69 | –0.15, 0.15 |

**Table 8.A.95 PT Item Statistics—Mathematics, Grade Six**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300103 | 1 | 0.76 | 0.26 | – |
| VH299651 | 2 | 0.68 | 1.49 | –0.38, 0.38 |
| VH299733 | 1 | 1.10 | 1.28 | – |
| VH300406 | 4 | 0.45 | 0.61 | 0.39, 0.18, 0.02, –0.59 |
| VH299456 | 2 | 0.60 | 1.62 | –0.08, 0.08 |
| VH300301 | 4 | 0.42 | 0.81 | –0.14, 0.48, 0.49, –0.83 |
| VH300378 | 1 | 0.77 | –0.19 | – |
| VH299585 | 1 | 1.19 | 0.89 | – |
| VH299787 | 1 | 0.71 | 0.46 | – |
| VH300155 | 2 | 0.73 | 1.36 | –0.25, 0.25 |
| VH300403 | 2 | 0.42 | –0.52 | 1.02, –1.02 |
| VH299451 | 1 | 0.65 | –0.54 | – |
| VH300295 | 1 | 1.16 | 0.61 | – |
| VH300397 | 2 | 0.60 | 1.62 | 0.95, –0.95 |
| VH299788 | 1 | 0.82 | 0.45 | – |
| VH299281 | 1 | 1.13 | 2.08 | – |
| VH300144 | 1 | 0.81 | 0.13 | – |
| VH300158 | 1 | 0.91 | –0.21 | – |
| VH299652 | 2 | 0.65 | 1.39 | –0.26, 0.26 |
| VH299521 | 1 | 1.12 | 1.63 | – |
| VH300230 | 2 | 0.77 | 1.19 | 0.35, –0.35 |
| VH300205 | 2 | 0.52 | 1.47 | 1.14, –1.14 |
| VH299734 | 1 | 0.80 | 0.44 | – |
| VH299453 | 2 | 0.57 | 2.03 | –0.81, 0.81 |
| VH300195 | 2 | 0.51 | 2.33 | –1.15, 1.15 |
| VH299283 | 2 | 0.40 | –0.27 | –0.39, 0.39 |
| VH300105 | 1 | 0.67 | –0.87 | – |
| VH300114 | 2 | 0.70 | 1.41 | –0.24, 0.24 |
| VH299649 | 1 | 0.80 | –0.12 | – |
| VH300229 | 1 | 0.91 | 0.34 | – |
| VH300201 | 1 | 0.69 | 0.24 | – |
| VH300206 | 2 | 0.55 | 1.93 | 0.35, –0.35 |
| VH299580 | 1 | 0.74 | 0.37 | – |
| VH299481 | 1 | 0.92 | 2.24 | – |
| VH299002 | 2 | 0.44 | 1.31 | 0.15, –0.15 |
| VH300405 | 2 | 0.45 | 0.23 | –0.89, 0.89 |
| VH299583 | 1 | 0.69 | –0.79 | – |
| VH299486 | 2 | 0.96 | 1.73 | –0.18, 0.18 |
| VH300109 | 2 | 0.62 | 1.72 | –0.59, 0.59 |
| VH300163 | 2 | 0.71 | 1.47 | –0.74, 0.74 |
| VH299009 | 2 | 0.50 | 0.97 | –0.87, 0.87 |
| VH299454 | 2 | 0.63 | 1.56 | –0.32, 0.32 |
| VH300299 | 2 | 0.53 | 0.21 | –0.86, 0.86 |
| VH299482 | 1 | 0.83 | 1.19 | – |
| VH299280 | 1 | 0.74 | 1.43 | – |
| VH299282 | 1 | 0.86 | 0.90 | – |
| VH300431 | 2 | 0.66 | 0.94 | –0.24, 0.24 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300196 | 2 | 0.66 | 1.56 | –0.32, 0.32 |
| VH299285 | 2 | 0.61 | 0.72 | 0.28, –0.28 |
| VH300125 | 1 | 1.08 | 1.46 | – |
| VH299727 | 2 | 0.86 | 1.21 | 0.25, –0.25 |
| VH300428 | 2 | 0.73 | 0.74 | 0.17, –0.17 |
| VH300298 | 2 | 0.72 | 2.22 | 0.91, –0.91 |
| VH300380 | 1 | 0.70 | 0.22 | – |
| VH299579 | 1 | 0.75 | –0.38 | – |
| VH299786 | 1 | 0.67 | –0.23 | – |
| VH299516 | 1 | 0.79 | –0.14 | – |
| VH300232 | 2 | 0.98 | 1.84 | –0.67, 0.67 |
| VH300204 | 1 | 0.55 | –0.79 | – |
| VH300407 | 1 | 0.79 | 0.66 | – |
| VH300385 | 1 | 0.75 | –0.61 | – |
| VH299484 | 2 | 0.40 | –0.60 | –0.34, 0.34 |
| VH300193 | 1 | 0.71 | –0.65 | – |
| VH300198 | 2 | 0.56 | 1.88 | –0.09, 0.09 |
| VH299790 | 2 | 0.58 | 1.27 | 1.13, –1.13 |
| VH299287 | 2 | 0.67 | 2.01 | –0.5, 0.5 |
| VH299650 | 1 | 0.82 | –0.81 | – |
| VH299518 | 2 | 0.69 | 1.68 | –0.19, 0.19 |
| VH300235 | 1 | 1.08 | 0.81 | – |
| VH299730 | 2 | 0.65 | 2.14 | –0.32, 0.32 |
| VH299450 | 1 | 0.82 | 0.35 | – |
| VH300438 | 3 | 0.53 | 0.42 | –0.32, 0.26, 0.06 |
| VH300297 | 2 | 0.58 | 0.27 | 1.11, –1.11 |
| VH299586 | 2 | 0.41 | 2.30 | 1.11, –1.11 |
| VH300192 | 1 | 0.81 | –0.15 | – |
| VH298998 | 1 | 1.08 | 0.46 | – |
| VH299006 | 2 | 0.64 | 0.58 | –0.03, 0.03 |
| VH299522 | 2 | 0.70 | 1.78 | –0.95, 0.95 |
| VH300234 | 4 | 0.39 | 0.41 | 0.43, 0.7, 0.09, –1.22 |
| VH300202 | 1 | 0.82 | 0.50 | – |
| VH300197 | 1 | 1.03 | 1.55 | – |
| VH299015 | 3 | 0.46 | 0.53 | –0.59, 0.3, 0.29 |
| VH299520 | 2 | 0.68 | 1.48 | –0.29, 0.29 |
| VH300233 | 2 | 0.91 | 1.70 | 0.02, –0.02 |
| VH300200 | 1 | 0.57 | –0.19 | – |
| VH299789 | 1 | 0.59 | –0.69 | – |
| VH300153 | 2 | 0.59 | 2.14 | –0.84, 0.84 |
| VH299653 | 1 | 0.73 | –0.33 | – |
| VH299655 | 2 | 0.55 | 1.42 | –0.84, 0.84 |
| VH299732 | 4 | 0.39 | 0.36 | –0.2, 0.44, 0.24, –0.48 |
| VH300421 | 1 | 0.95 | 0.52 | – |
| VH299792 | 2 | 0.50 | 2.21 | 0.48, –0.48 |
| VH300126 | 2 | 0.76 | 1.79 | –0.48, 0.48 |
| VH299517 | 1 | 0.61 | –0.65 | – |
| VH300423 | 2 | 0.46 | 2.19 | –0.3, 0.3 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300390 | 1 | 1.29 | 0.79 | – |
| VH300294 | 1 | 0.96 | 1.01 | – |
| VH299582 | 1 | 0.98 | 0.46 | – |
| VH299480 | 1 | 0.77 | 1.49 | – |
| VH299485 | 2 | 0.51 | 0.65 | 0.39, –0.39 |
| VH300148 | 1 | 0.86 | –0.64 | – |
| VH299729 | 2 | 0.80 | 1.91 | –0.99, 0.99 |
| VH300408 | 1 | 1.19 | 0.62 | – |
| VH299455 | 1 | 1.02 | 1.70 | – |
| VH300384 | 1 | 1.01 | 0.53 | – |

**Table 8.A.96 PT Item Statistics—Mathematics, Grade Seven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300256 | 1 | 0.92 | 1.98 | – |
| VH300021 | 1 | 0.68 | –0.88 | – |
| VH299572 | 1 | 1.22 | 2.28 | – |
| VH299577 | 2 | 0.36 | 2.83 | 2.66, –2.66 |
| VH299051 | 1 | 0.65 | 0.41 | – |
| VH299925 | 2 | 0.69 | 2.55 | 0.17, –0.17 |
| VH299245 | 1 | 0.82 | 0.98 | – |
| VH299064 | 1 | 0.79 | 1.20 | – |
| VH299207 | 1 | 0.95 | 0.15 | – |
| VH299218 | 2 | 0.87 | 2.32 | 0.21, –0.21 |
| VH300312 | 1 | 1.19 | 2.23 | – |
| VH300067 | 1 | 0.93 | 0.26 | – |
| VH300069 | 1 | 0.38 | 0.75 | – |
| VH299574 | 1 | 1.52 | 2.41 | – |
| VH299926 | 1 | 0.84 | 1.81 | – |
| VH299246 | 1 | 1.10 | 2.00 | – |
| VH299768 | 2 | 0.82 | 1.20 | 0.51, –0.51 |
| VH299240 | 1 | 1.14 | 2.77 | – |
| VH300318 | 1 | 1.05 | 2.83 | – |
| VH299571 | 1 | 0.91 | 1.83 | – |
| VH299865 | 1 | 0.68 | 1.40 | – |
| VH299223 | 1 | 0.92 | 1.78 | – |
| VH300087 | 1 | 1.02 | 0.77 | – |
| VH300449 | 2 | 0.77 | 1.20 | –0.04, 0.04 |
| VH299237 | 1 | 1.03 | 1.11 | – |
| VH300252 | 1 | 0.73 | 0.40 | – |
| VH299247 | 1 | 1.27 | 2.22 | – |
| VH299761 | 1 | 1.03 | 1.09 | – |
| VH299770 | 1 | 0.19 | 2.82 | – |
| VH300315 | 1 | 1.10 | 1.03 | – |
| VH300070 | 2 | 1.02 | 1.22 | 0.11, –0.11 |
| VH299054 | 1 | 0.15 | 2.71 | – |
| VH299866 | 1 | 0.71 | –0.72 | – |
| VH300444 | 1 | 0.76 | 2.08 | – |
| VH299923 | 1 | 1.34 | 2.65 | – |
| VH299248 | 2 | 0.91 | 2.91 | –0.03, 0.03 |
| VH299756 | 1 | 1.29 | 2.29 | – |
| VH299872 | 2 | 0.82 | 2.17 | –0.45, 0.45 |
| VH300314 | 1 | 1.19 | 1.95 | – |
| VH299922 | 1 | 0.72 | 1.29 | – |
| VH299927 | 2 | 0.51 | 4.02 | 1.43, –1.43 |
| VH299073 | 1 | 0.75 | –0.86 | – |
| VH300091 | 2 | 0.69 | 1.32 | 0.55, –0.55 |
| VH300446 | 1 | 0.86 | –0.35 | – |
| VH299948 | 1 | 0.70 | –0.75 | – |
| VH300068 | 1 | 1.06 | 1.93 | – |
| VH299570 | 1 | 1.01 | 1.35 | – |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299921 | 1 | 0.86 | 0.33 | – |
| VH299249 | 1 | 1.40 | 2.18 | – |
| VH299869 | 2 | 0.85 | 1.24 | 0.46, –0.46 |
| VH300090 | 2 | 0.87 | 2.56 | –0.41, 0.41 |
| VH300447 | 1 | 1.00 | 1.97 | – |
| VH299238 | 1 | 1.43 | 1.74 | – |
| VH300323 | 1 | 0.21 | 3.75 | – |
| VH299765 | 1 | 1.38 | 2.58 | – |
| VH300092 | 1 | 1.42 | 2.06 | – |
| VH300448 | 1 | 0.15 | 3.38 | – |
| VH299950 | 2 | 0.66 | 1.33 | 0.55, –0.55 |
| VH300071 | 2 | 0.74 | 0.99 | –0.22, 0.22 |
| VH299074 | 1 | 1.02 | 1.88 | – |
| VH299210 | 1 | 0.90 | 1.13 | – |
| VH299953 | 2 | 0.82 | 2.33 | –0.21, 0.21 |
| VH300320 | 2 | 0.68 | 1.20 | 0.67, –0.67 |
| VH300254 | 1 | 0.85 | –0.57 | – |
| VH299575 | 2 | 0.78 | 1.17 | 0.51, –0.51 |
| VH299050 | 1 | 0.76 | 2.30 | – |
| VH299053 | 1 | 0.79 | 2.09 | – |
| VH299759 | 1 | 1.03 | 1.68 | – |
| VH299212 | 1 | 1.68 | 2.54 | – |
| VH299227 | 2 | 0.53 | 3.75 | 1.14, –1.14 |
| VH300088 | 1 | 1.32 | 1.64 | – |
| VH299239 | 1 | 1.37 | 2.20 | – |
| VH299242 | 2 | 0.34 | 3.09 | 2.58, –2.58 |
| VH299947 | 1 | 0.69 | 1.17 | – |
| VH299949 | 1 | 1.07 | 1.27 | – |
| VH299952 | 1 | 1.03 | 2.10 | – |
| VH300257 | 1 | 0.41 | 0.59 | – |
| VH300259 | 2 | 0.82 | 1.17 | –0.05, 0.05 |
| VH300066 | 1 | 0.84 | 0.49 | – |
| VH300019 | 1 | 0.70 | 1.29 | – |
| VH300020 | 1 | 0.71 | –0.62 | – |
| VH300022 | 1 | 0.95 | 1.95 | – |
| VH299055 | 2 | 0.69 | 1.36 | –0.07, 0.07 |
| VH299070 | 1 | 0.83 | –0.57 | – |
| VH299868 | 1 | 1.35 | 1.34 | – |
| VH299871 | 1 | 1.30 | 2.05 | – |
| VH300089 | 1 | 1.14 | 2.27 | – |

**Table 8.A.97 PT Item Statistics—Mathematics, Grade Eight**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300337 | 2 | 1.36 | 2.24 | 0.6, –0.6 |
| VH299711 | 2 | 0.47 | –0.07 | 0.36, –0.36 |
| VH299614 | 2 | 0.56 | 2.40 | –1.76, 1.76 |
| VH299084 | 1 | 1.17 | 1.11 | – |
| VH299806 | 2 | 0.79 | 2.11 | –0.17, 0.17 |
| VH300084 | 1 | 1.20 | 2.03 | – |
| VH299253 | 1 | 1.18 | 2.29 | – |
| VH299902 | 1 | 0.67 | 1.70 | – |
| VH299494 | 2 | 0.75 | 3.27 | 0.1, –0.1 |
| VH299260 | 1 | 0.95 | 2.54 | – |
| VH300245 | 2 | 0.44 | 0.03 | 0.31, –0.31 |
| VH299320 | 1 | 0.96 | 1.63 | – |
| VH299668 | 1 | 0.73 | 2.21 | – |
| VH300052 | 1 | 1.11 | 1.20 | – |
| VH299899 | 1 | 1.18 | 2.78 | – |
| VH299493 | 2 | 0.42 | 0.17 | 0.07, –0.07 |
| VH300016 | 2 | 0.61 | 2.64 | 0.95, –0.95 |
| VH300340 | 1 | 0.66 | 1.67 | – |
| VH299270 | 2 | 0.65 | 2.08 | –0.63, 0.63 |
| VH299710 | 1 | 1.09 | 2.14 | – |
| VH300167 | 2 | 0.80 | 3.01 | 0.34, –0.34 |
| VH300461 | 1 | 0.60 | 1.61 | – |
| VH300470 | 2 | 0.85 | 2.79 | –0.35, 0.35 |
| VH299305 | 1 | 0.92 | 1.69 | – |
| VH300053 | 1 | 1.15 | 1.64 | – |
| VH299738 | 1 | 1.19 | 1.86 | – |
| VH299741 | 2 | 0.54 | 1.49 | –0.42, 0.42 |
| VH299085 | 1 | 1.13 | 2.58 | – |
| VH299088 | 1 | 0.66 | 2.49 | – |
| VH299796 | 1 | 0.98 | 1.74 | – |
| VH300345 | 2 | 0.56 | 2.50 | 0.76, –0.76 |
| VH300054 | 2 | 1.24 | 1.86 | 0.42, –0.42 |
| VH300012 | 1 | 0.56 | 1.93 | – |
| VH300081 | 2 | 0.78 | 2.95 | –0.02, 0.02 |
| VH299274 | 2 | 0.50 | 2.73 | –1.27, 1.27 |
| VH300246 | 1 | 0.88 | 1.29 | – |
| VH300467 | 1 | 0.96 | 1.34 | – |
| VH299314 | 2 | 0.74 | 2.15 | –0.2, 0.2 |
| VH300014 | 2 | 0.64 | 3.05 | 0.3, –0.3 |
| VH299087 | 2 | 0.75 | 1.94 | 1.01, –1.01 |
| VH300243 | 1 | 1.13 | 2.10 | – |
| VH299669 | 2 | 1.08 | 2.31 | 0.28, –0.28 |
| VH299897 | 1 | 1.01 | 1.36 | – |
| VH300165 | 1 | 1.01 | 2.81 | – |
| VH300468 | 2 | 0.52 | 3.22 | 1.34, –1.34 |
| VH299670 | 1 | 0.71 | 1.24 | – |
| VH299901 | 2 | 0.85 | 2.40 | 0.36, –0.36 |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299490 | 1 | 0.87 | 1.73 | – |
| VH300015 | 1 | 0.72 | 0.19 | – |
| VH300017 | 2 | 0.65 | 2.75 | –0.68, 0.68 |
| VH299737 | 1 | 1.16 | 1.46 | – |
| VH299707 | 2 | 0.53 | 3.03 | –1.05, 1.05 |
| VH300334 | 1 | 0.73 | 2.90 | – |
| VH300169 | 2 | 0.60 | 2.01 | –0.77, 0.77 |
| VH299312 | 1 | 1.22 | 2.06 | – |
| VH300055 | 2 | 0.51 | 1.49 | –0.62, 0.62 |
| VH299608 | 1 | 1.17 | 2.26 | – |
| VH300013 | 1 | 0.76 | 2.41 | – |
| VH299704 | 1 | 0.68 | 2.63 | – |
| VH299706 | 2 | 0.57 | 1.74 | –1.19, 1.19 |
| VH299811 | 2 | 0.86 | 2.78 | 0.02, –0.02 |
| VH300247 | 2 | 0.59 | 2.52 | –0.78, 0.78 |
| VH299709 | 1 | 0.85 | 1.71 | – |
| VH299712 | 1 | 0.88 | 1.30 | – |
| VH299713 | 2 | 0.57 | 2.61 | –0.53, 0.53 |
| VH300463 | 1 | 0.78 | 2.58 | – |
| VH299667 | 1 | 0.92 | 1.54 | – |
| VH300056 | 1 | 0.79 | 0.70 | – |
| VH299900 | 2 | 0.82 | 2.10 | 0.74, –0.74 |
| VH299489 | 1 | 0.82 | 1.51 | – |
| VH299492 | 1 | 1.15 | 2.09 | – |
| VH299611 | 2 | 0.72 | 3.16 | 0.23, –0.23 |
| VH299742 | 1 | 0.86 | 0.85 | – |
| VH299701 | 1 | 1.01 | 2.36 | – |
| VH299807 | 1 | 0.99 | 1.62 | – |
| VH300080 | 1 | 1.00 | 1.41 | – |
| VH300083 | 1 | 0.95 | 1.67 | – |
| VH300085 | 2 | 0.47 | 0.51 | –0.32, 0.32 |
| VH300242 | 1 | 0.87 | 1.71 | – |
| VH300170 | 2 | 0.53 | 3.01 | –0.9, 0.9 |
| VH300465 | 2 | 0.58 | 3.12 | –0.11, 0.11 |
| VH300332 | 1 | 0.98 | 1.69 | – |
| VH299325 | 2 | 0.78 | 3.16 | 0.06, –0.06 |
| VH299613 | 2 | 0.71 | 1.52 | –0.65, 0.65 |
| VH299739 | 2 | 0.82 | 1.85 | –0.1, 0.1 |
| VH299802 | 1 | 1.16 | 2.12 | – |

**Table 8.A.98 PT Item Statistics—Mathematics, Grade Eleven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300132 | 2 | 0.37 | 3.61 | –1.9, 1.9 |
| VH299462 | 2 | 0.77 | 1.90 | 0.24, –0.24 |
| VH300281 | 1 | 1.42 | 2.56 | – |
| VH299029 | 1 | 0.57 | 1.21 | – |
| VH299554 | 1 | 0.66 | 1.81 | – |
| VH299838 | 2 | 0.50 | 3.43 | –0.8, 0.8 |
| VH300240 | 1 | 0.25 | 5.35 | – |
| VH299463 | 2 | 0.64 | 3.17 | 0.24, –0.24 |
| VH300283 | 2 | 1.09 | 2.13 | 0.1, –0.1 |
| VH300225 | 2 | 0.41 | 1.50 | –1.76, 1.76 |
| VH300178 | 3 | 0.58 | 3.20 | –1.08, 0.88, 0.2 |
| VH299974 | 2 | 0.51 | 2.80 | –0.61, 0.61 |
| VH299956 | 1 | 1.14 | 3.30 | – |
| VH299834 | 1 | 0.45 | 2.56 | – |
| VH299385 | 1 | 0.60 | 2.04 | – |
| VH299460 | 3 | 0.71 | 2.35 | –0.67, 0.1, 0.58 |
| VH300276 | 1 | 1.29 | 1.24 | – |
| VH299026 | 1 | 1.39 | 1.35 | – |
| VH300174 | 1 | 0.89 | 1.88 | – |
| VH299746 | 1 | 0.76 | 4.44 | – |
| VH299555 | 2 | 0.37 | 3.07 | –1.9, 1.9 |
| VH299955 | 1 | 0.83 | 1.32 | – |
| VH299833 | 1 | 0.37 | 6.44 | – |
| VH300129 | 1 | 1.28 | 3.60 | – |
| VH299720 | 2 | 0.83 | 2.38 | 0.05, –0.05 |
| VH300272 | 2 | 0.80 | 1.24 | 0.48, –0.48 |
| VH299024 | 1 | 0.60 | 1.52 | – |
| VH299745 | 2 | 0.32 | 3.32 | –4.39, 4.39 |
| VH299195 | 3 | 0.88 | 2.01 | –0.07, 0.26, –0.2 |
| VH299552 | 1 | 0.40 | 2.66 | – |
| VH299977 | 2 | 0.34 | 3.23 | 1.99, –1.99 |
| VH299961 | 2 | 0.35 | 2.81 | –1.97, 1.97 |
| VH299717 | 1 | 0.44 | 0.48 | – |
| VH299910 | 2 | 0.39 | 2.77 | –1.54, 1.54 |
| VH299660 | 2 | 0.55 | 4.24 | –2.44, 2.44 |
| VH300224 | 2 | 0.34 | 2.74 | 1.97, –1.97 |
| VH300177 | 2 | 0.30 | 2.52 | –2.44, 2.44 |
| VH299192 | 2 | 0.42 | 2.13 | –2.12, 2.12 |
| VH299199 | 1 | 1.00 | 3.42 | – |
| VH299979 | 2 | 0.47 | 1.37 | –1.14, 1.14 |
| VH299965 | 3 | 0.75 | 3.07 | –0.83, 0.17, 0.66 |
| VH299718 | 1 | 0.73 | 1.45 | – |
| VH300237 | 2 | 0.46 | 0.50 | 2.27, –2.27 |
| VH299912 | 3 | 0.67 | 3.08 | –1.04, 0.57, 0.48 |
| VH300221 | 2 | 0.44 | 2.87 | –0.69, 0.69 |
| VH299196 | 2 | 0.62 | 1.95 | –1.17, 1.17 |
| VH299835 | 1 | 0.84 | 2.65 | – |

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH299387 | 3 | 0.74 | 3.09 | –0.66, 0.71, –0.05 |
| VH299909 | 2 | 0.61 | 3.61 | –1.27, 1.27 |
| VH299662 | 3 | 0.70 | 3.15 | –0.74, 0.52, 0.22 |
| VH299197 | 2 | 0.75 | 1.81 | 0.19, –0.19 |
| VH299976 | 2 | 0.62 | 1.89 | 0.04, –0.04 |
| VH300133 | 3 | 0.71 | 3.21 | –0.77, 0.15, 0.63 |
| VH299723 | 2 | 1.32 | 3.03 | –0.05, 0.05 |
| VH299905 | 1 | 1.09 | 3.26 | – |
| VH299659 | 1 | 1.11 | 3.47 | – |
| VH299553 | 1 | 0.79 | 2.44 | – |
| VH300128 | 1 | 0.70 | 1.51 | – |
| VH299384 | 1 | 0.90 | 2.41 | – |
| VH299719 | 1 | 0.73 | 1.56 | – |
| VH300239 | 2 | 0.76 | 3.55 | 0.64, –0.64 |
| VH299917 | 1 | 0.98 | 1.50 | – |
| VH299459 | 1 | 0.89 | 3.37 | – |
| VH299747 | 2 | 0.80 | 1.74 | –0.57, 0.57 |
| VH299836 | 1 | 0.56 | 1.22 | – |
| VH299725 | 1 | 1.49 | 2.30 | – |
| VH300173 | 1 | 1.07 | 1.38 | – |
| VH299551 | 1 | 0.42 | 4.13 | – |
| VH299958 | 2 | 0.67 | 4.05 | –1.39, 1.39 |
| VH299386 | 2 | 0.56 | 2.90 | –1.11, 1.11 |
| VH299022 | 1 | 0.80 | 2.67 | – |
| VH299032 | 2 | 0.65 | 2.51 | 0.13, –0.13 |
| VH299750 | 1 | 1.31 | 2.06 | – |
| VH299194 | 1 | 0.67 | 3.23 | – |
| VH299383 | 1 | 0.86 | 1.38 | – |
| VH299461 | 2 | 0.55 | 1.98 | –1.51, 1.51 |
| VH300280 | 2 | 0.65 | 2.22 | –1.08, 1.08 |
| VH299027 | 1 | 1.26 | 1.29 | – |
| VH299657 | 1 | 0.94 | 1.44 | – |
| VH300222 | 2 | 0.57 | 1.90 | 0.22, –0.22 |
| VH300176 | 1 | 0.65 | 1.93 | – |
| VH299980 | 2 | 0.50 | 3.21 | 0.98, –0.98 |
| VH299968 | 3 | 0.47 | 2.70 | 1.01, –1.5, 0.49 |
| VH300238 | 1 | 1.18 | 2.95 | – |
| VH299913 | 3 | 0.60 | 2.82 | 0.68, –2.65, 1.98 |
| VH299458 | 2 | 0.43 | 2.43 | –2.13, 2.13 |
| VH300274 | 1 | 1.39 | 2.35 | – |
| VH299661 | 2 | 0.37 | 3.64 | –2.66, 2.66 |
| VH300226 | 2 | 0.48 | 3.42 | 0.87, –0.87 |

# 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] | (50, 100] |
| **Grade 3** | | | | | | | | |
| PT | No. of Items | – | 62 | – | – | – | – | – |
| | Mean a | – | 0.71 | – | – | – | – | – |
| | Mean b | – | 0.21 | – | – | – | – | – |
| CAT | No. of Items | 295 | 280 | – | – | – | – | – |
| | Mean a | 0.64 | 0.69 | – | – | – | – | – |
| | Mean b | –0.33 | –0.63 | – | – | – | – | – |
| **Grade 4** | | | | | | | | |
| PT | No. of Items | – | 85 | – | – | – | – | – |
| | Mean a | – | 0.65 | – | – | – | – | – |
| | Mean b | – | 0.45 | – | – | – | – | – |
| CAT | No. of Items | 267 | 299 | – | – | – | – | 1 |
| | Mean a | 0.57 | 0.62 | – | – | – | – | 0.58 |
| | Mean b | 0.27 | –0.19 | – | – | – | – | 1.23 |
| **Grade 5** | | | | | | | | |
| PT | No. of Items | – | 95 | – | – | – | – | – |
| | Mean a | – | 0.71 | – | – | – | – | – |
| | Mean b | – | 0.74 | – | – | – | – | – |
| CAT | No. of Items | 303 | 238 | – | – | – | – | – |
| | Mean a | 0.58 | 0.63 | – | – | – | – | – |
| | Mean b | 0.66 | 0.23 | – | – | – | – | – |
| **Grade 6** | | | | | | | | |
| PT | No. of Items | – | 61 | – | – | – | – | – |
| | Mean a | – | 0.87 | – | – | – | – | – |
| | Mean b | – | 0.92 | – | – | – | – | – |
| CAT | No. of Items | 254 | 273 | 3 | – | – | – | – |
| | Mean a | 0.5 | 0.56 | 0.79 | – | – | – | – |
| | Mean b | 1.27 | 0.72 | 1.53 | – | – | – | – |
| **Grade 7** | | | | | | | | |
| PT | No. of Items | – | 79 | – | – | – | – | – |
| | Mean a | – | 0.81 | – | – | – | – | – |
| | Mean b | – | 1.15 | – | – | – | – | – |
| CAT | No. of Items | 239 | 272 | – | – | – | – | – |
| | Mean a | 0.5 | 0.56 | – | – | – | – | – |
| | Mean b | 1.28 | 0.94 | – | – | – | – | – |

| Section | | Omission Rate (in percent) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 0 | (0, 0.5] | (0.5, 1] | (1, 5] | (5, 10] | (10, 50] | (50, 100] |
| **Grade 8** | | | | | | | | |
| PT | No. of Items | – | 94 | – | – | – | – | – |
| | Mean a | – | 0.72 | – | – | – | – | – |
| | Mean b | – | 1.27 | – | – | – | – | – |
| CAT | No. of Items | 160 | 329 | 3 | – | – | – | – |
| | Mean a | 0.47 | 0.54 | 0.94 | – | – | – | – |
| | Mean b | 1.43 | 1.19 | 1.9 | – | – | – | – |
| **Grade 11** | | | | | | | | |
| PT | No. of Items | – | 77 | 28 | – | – | – | – |
| | Mean a | – | 0.58 | 0.61 | – | – | – | – |
| | Mean b | – | 1.81 | 1.92 | – | – | – | – |
| CAT | No. of Items | 688 | 675 | 6 | 2 | – | – | – |
| | Mean a | 0.48 | 0.5 | 0.57 | 0.69 | – | – | – |
| | Mean b | 1.82 | 1.48 | 0.41 | 0.79 | – | – | – |

**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] | (50, 100] |
| **Grade 3** | | | | | | | | |
| PT | No. of Items | 1 | 101 | – | – | – | – | – |
| | Mean a | 1.04 | 0.91 | – | – | – | – | – |
| | Mean b | –1.41 | –0.52 | – | – | – | – | – |
| CAT | No. of Items | 557 | 271 | – | – | – | – | – |
| | Mean a | 0.84 | 0.86 | – | – | – | – | – |
| | Mean b | –0.73 | –1.05 | – | – | – | – | – |
| **Grade 4** | | | | | | | | |
| PT | No. of Items | 1 | 94 | – | – | – | – | – |
| | Mean a | 0.79 | 0.85 | – | – | – | – | – |
| | Mean b | –1.26 | –0.02 | – | – | – | – | – |
| CAT | No. of Items | 618 | 215 | – | – | – | – | – |
| | Mean a | 0.81 | 0.84 | – | – | – | – | – |
| | Mean b | –0.02 | –0.38 | – | – | – | – | – |
| **Grade 5** | | | | | | | | |
| PT | No. of Items | 1 | 84 | – | – | – | – | – |
| | Mean a | 0.82 | 0.76 | – | – | – | – | – |
| | Mean b | –0.94 | 1.04 | – | – | – | – | – |
| CAT | No. of Items | 605 | 247 | – | – | – | – | – |
| | Mean a | 0.78 | 0.76 | – | – | – | – | – |
| | Mean b | 0.63 | 0.24 | – | – | – | – | – |
| **Grade 6** | | | | | | | | |
| PT | No. of Items | – | 105 | – | – | – | – | – |
| | Mean a | – | 0.73 | – | – | – | – | – |
| | Mean b | – | 0.82 | – | – | – | – | – |
| CAT | No. of Items | 452 | 305 | – | – | – | – | – |
| | Mean a | 0.69 | 0.7 | – | – | – | – | – |
| | Mean b | 1.18 | 0.69 | – | – | – | – | – |
| **Grade 7** | | | | | | | | |
| PT | No. of Items | – | 87 | – | – | – | – | – |
| | Mean a | – | 0.89 | – | – | – | – | – |
| | Mean b | – | 1.58 | – | – | – | – | – |
| CAT | No. of Items | 378 | 301 | – | – | 1 | – | – |
| | Mean a | 0.72 | 0.7 | – | – | 0.88 | – | – |
| | Mean b | 2.05 | 1.38 | – | – | 2.39 | – | – |
| **Grade 8** | | | | | | | | |
| PT | No. of Items | – | 86 | – | – | – | – | – |
| | Mean a | – | 0.83 | – | – | – | – | – |
| | Mean b | – | 2 | – | – | – | – | – |
| CAT | No. of Items | 298 | 327 | – | – | – | – | – |
| | Mean a | 0.59 | 0.63 | – | – | – | – | – |
| | Mean b | 2.84 | 1.68 | – | – | – | – | – |

| Section | | Omission Rate (in percent) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 0 | (0, 0.5] | (0.5, 1] | (1, 5] | (5, 10] | (10, 50] | (50, 100] |
| **Grade 11** | | | | | | | | |
| PT | No. of Items | – | 83 | 6 | – | – | – | – |
| | Mean a | – | 0.71 | 0.85 | – | – | – | – |
| | Mean b | – | 2.56 | 2.55 | – | – | – | – |
| CAT | No. of Items | 1, 165 | 547 | – | – | – | – | – |
| | Mean a | 0.52 | 0.53 | – | – | – | – | – |
| | Mean b | 2.93 | 2.19 | – | – | – | – | – |

**Table 8.B.3 Item Completion**

| Score | ELA | | Mathematics | |
|---|---|---|---|---|
| | % Completion | Total N | % Completion | Total N |
| **Grade 3** | | | | |
| Overall | 99.96 | 472,496 | 99.97 | 474,113 |
| Claim 1 | 99.82 | 471,820 | 99.91 | 473,833 |
| Claim 2 | 99.58 | 470,683 | 99.93 | 473,911 |
| Claim 3 | 99.88 | 472,096 | 99.89 | 473,717 |
| Claim 4 | 99.77 | 471,574 | – | – |
| PT | 100.00 | 472,659 | 100.00 | 474,253 |
| Non-PT | 99.97 | 472,511 | 99.97 | 474,121 |
| **Grade 4** | | | | |
| Overall | 99.97 | 462,551 | 99.98 | 464,260 |
| Claim 1 | 99.85 | 461,979 | 99.93 | 464,021 |
| Claim 2 | 99.66 | 461,084 | 99.93 | 464,052 |
| Claim 3 | 99.90 | 462,208 | 99.90 | 463,909 |
| Claim 4 | 94.52 | 437,343 | – | – |
| PT | 100.00 | 462,665 | 100.00 | 464,349 |
| Non-PT | 99.98 | 462,565 | 99.98 | 464,266 |
| **Grade 5** | | | | |
| Overall | 99.98 | 460,076 | 99.96 | 461,432 |
| Claim 1 | 99.86 | 459,568 | 99.91 | 461,194 |
| Claim 2 | 99.74 | 459,015 | 99.93 | 461,289 |
| Claim 3 | 99.89 | 459,688 | 99.89 | 461,107 |
| Claim 4 | 99.98 | 460,085 | – | – |
| PT | 100.00 | 460,179 | 100.00 | 461,600 |
| Non-PT | 99.98 | 460,086 | 99.96 | 461,444 |
| **Grade 6** | | | | |
| Overall | 99.93 | 456,022 | 99.96 | 457,351 |
| Claim 1 | 99.65 | 454,725 | 99.80 | 456,613 |
| Claim 2 | 99.43 | 453,721 | 99.96 | 457,347 |
| Claim 3 | 99.69 | 454,925 | 99.91 | 457,143 |
| Claim 4 | 99.78 | 455,304 | – | – |
| PT | 99.99 | 456,294 | 100.00 | 457,535 |
| Non-PT | 99.94 | 456,045 | 99.96 | 457,365 |
| **Grade 7** | | | | |
| Overall | 99.90 | 449,271 | 99.95 | 450,163 |
| Claim 1 | 99.55 | 447,674 | 99.68 | 448,971 |
| Claim 2 | 99.36 | 446,820 | 99.91 | 450,003 |
| Claim 3 | 99.61 | 447,963 | 99.81 | 449,559 |
| Claim 4 | 99.54 | 447,641 | – | – |
| PT | 99.99 | 449,674 | 99.99 | 450,371 |
| Non-PT | 99.91 | 449,309 | 99.95 | 450,182 |

| Score | ELA | | Mathematics | |
|---|---|---|---|---|
| | % Completion | Total N | % Completion | Total N |
| **Grade 8** | | | | |
| Overall | 99.95 | 450,956 | 99.94 | 451,675 |
| Claim 1 | 99.61 | 449,406 | 99.68 | 450,540 |
| Claim 2 | 99.14 | 447,318 | 99.83 | 451,198 |
| Claim 3 | 99.66 | 449,645 | 99.78 | 450,955 |
| Claim 4 | 99.50 | 448,946 | – | – |
| PT | 99.99 | 451,156 | 99.99 | 451,939 |
| Non-PT | 99.96 | 450,984 | 99.94 | 451,699 |
| **Grade 11** | | | | |
| Overall | 99.81 | 421,313 | 99.88 | 419,018 |
| Claim 1 | 99.45 | 419,762 | 99.62 | 417,920 |
| Claim 2 | 98.61 | 416,231 | 99.44 | 417,166 |
| Claim 3 | 99.20 | 418,705 | 99.70 | 418,230 |
| Claim 4 | 99.04 | 418,065 | – | – |
| PT | 99.99 | 422,040 | 99.98 | 419,439 |
| Non-PT | 99.83 | 421,369 | 99.90 | 419,085 |

# 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 | 669 | 32 | 15 | 6 | 5 | 132 | 479 |
| Claim 1 | 217 | 16 | 9 | 6 | 5 | 66 | 115 |
| Claim 2 | 203 | 2 | 3 | – | – | 8 | 190 |
| Claim 3 | 118 | 14 | 1 | – | – | 53 | 50 |
| Claim 4 | 131 | – | 2 | – | – | 5 | 124 |
| **Grade 4** | | | | | | | |
| Overall | 705 | 53 | 19 | 10 | 8 | 108 | 507 |
| Claim 1 | 177 | 16 | 7 | 7 | 3 | 42 | 102 |
| Claim 2 | 232 | 15 | 7 | – | – | 13 | 197 |
| Claim 3 | 127 | 16 | 1 | 1 | 1 | 39 | 69 |
| Claim 4 | 169 | 6 | 4 | 2 | 4 | 14 | 139 |
| **Grade 5** | | | | | | | |
| Overall | 675 | 39 | 12 | 7 | 9 | 152 | 456 |
| Claim 1 | 194 | 17 | 9 | 5 | 6 | 44 | 113 |
| Claim 2 | 225 | 14 | 3 | 2 | 2 | 33 | 171 |
| Claim 3 | 108 | – | – | – | – | 74 | 34 |
| Claim 4 | 148 | 8 | | – | 1 | 1 | 138 |
| **Grade 6** | | | | | | | |
| Overall | 650 | 59 | 9 | 2 | – | 177 | 403 |
| Claim 1 | 175 | 31 | 6 | 2 | – | 47 | 89 |
| Claim 2 | 220 | 18 | – | – | – | 30 | 172 |
| Claim 3 | 116 | – | – | – | – | 96 | 20 |
| Claim 4 | 139 | 10 | 3 | – | – | 4 | 122 |
| **Grade 7** | | | | | | | |
| Overall | 631 | 41 | 17 | 14 | 3 | 181 | 375 |
| Claim 1 | 183 | 18 | 12 | 9 | 1 | 45 | 98 |
| Claim 2 | 221 | 17 | 3 | 4 | 2 | 45 | 150 |
| Claim 3 | 117 | – | – | – | – | 81 | 36 |
| Claim 4 | 110 | 6 | 2 | 1 | – | 10 | 91 |

| Claim | No. of Items | Frequency=0 | 1<=Frequency<100 | 100<=Frequency<500 | 500<=Frequency<1000 | 1000<=Frequency<3000 | Frequency>=3000 |
|---|---|---|---|---|---|---|---|
| **Grade 8** | | | | | | | |
| Overall | 629 | 43 | 8 | 7 | 3 | 119 | 449 |
| Claim 1 | 161 | 14 | – | 6 | 1 | 17 | 123 |
| Claim 2 | 219 | 23 | 5 | 1 | 2 | 8 | 180 |
| Claim 3 | 131 | 2 | 2 | – | – | 91 | 36 |
| Claim 4 | 118 | 4 | 1 | – | – | 3 | 110 |
| **Grade 11** | | | | | | | |
| Overall | 1581 | 105 | 36 | 210 | 340 | 89 | 801 |
| Claim 1 | 499 | 84 | 30 | 99 | 157 | 22 | 107 |
| Claim 2 | 437 | 8 | 2 | 4 | 13 | 29 | 381 |
| Claim 3 | 334 | 6 | – | 105 | 157 | 4 | 62 |
| Claim 4 | 311 | 7 | 4 | 2 | 13 | 34 | 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 | 960 | 30 | – | – | 213 | 53 | 664 |
| Claim 1 | 554 | 7 | – | – | 186 | 8 | 353 |
| Claim 2 | 246 | 18 | – | – | 11 | 34 | 183 |
| Claim 3 | 160 | 5 | – | – | 16 | 11 | 128 |
| **Grade 4** | | | | | | | |
| Overall | 956 | 28 | 4 | – | 36 | 84 | 804 |
| Claim 1 | 551 | 18 | 4 | – | 1 | 22 | 506 |
| Claim 2 | 256 | 7 | – | – | 8 | 53 | 188 |
| Claim 3 | 149 | 3 | – | – | 27 | 9 | 110 |
| **Grade 5** | | | | | | | |
| Overall | 969 | 32 | 15 | 5 | 69 | 110 | 738 |
| Claim 1 | 517 | 14 | 15 | 5 | 7 | 29 | 447 |
| Claim 2 | 270 | 10 | – | – | 37 | 59 | 164 |
| Claim 3 | 182 | 8 | – | – | 25 | 22 | 127 |
| **Grade 6** | | | | | | | |
| Overall | 873 | 11 | – | – | – | 160 | 702 |
| Claim 1 | 538 | 8 | – | – | – | 98 | 432 |
| Claim 2 | 198 | 1 | – | – | – | 43 | 154 |
| Claim 3 | 137 | 2 | – | – | – | 19 | 116 |
| **Grade 7** | | | | | | | |
| Overall | 777 | 10 | 1 | – | – | 191 | 575 |
| Claim 1 | 462 | 1 | – | – | – | 137 | 324 |
| Claim 2 | 190 | 4 | 1 | – | – | 33 | 152 |
| Claim 3 | 125 | 5 | – | – | – | 21 | 99 |
| **Grade 8** | | | | | | | |
| Overall | 753 | 42 | – | – | 13 | 117 | 581 |
| Claim 1 | 439 | 25 | – | – | 6 | 59 | 349 |
| Claim 2 | 171 | 13 | – | – | 2 | 27 | 129 |
| Claim 3 | 143 | 4 | – | – | 5 | 31 | 103 |
| **Grade 11** | | | | | | | |
| Overall | 1878 | 77 | – | 301 | 214 | 555 | 731 |
| Claim 1 | 1028 | 48 | – | 96 | 138 | 378 | 368 |
| Claim 2 | 390 | 10 | – | 150 | 30 | 63 | 137 |
| Claim 3 | 460 | 19 | – | 55 | 46 | 114 | 226 |

**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 | – | – | – | 1 | 3 |
| (2.0, 2.5] | 7 | – | – | – | – | 4 | 3 |
| (1.5, 2.0] | 20 | 5 | 1 | – | – | 4 | 10 |
| (1.0, 1.5] | 49 | 6 | | 1 | – | 16 | 26 |
| (0.5, 1.0] | 76 | 9 | 2 | 2 | 1 | 10 | 52 |
| (0, 0.5] | 89 | 1 | 1 | 1 | 1 | 16 | 69 |
| (–0.5, 0] | 101 | 2 | 4 | – | 2 | 18 | 75 |
| (–1.0, –0.5] | 99 | – | 3 | 1 | 1 | 18 | 76 |
| (–1.5, –1.0] | 102 | 2 | 3 | – | – | 24 | 73 |
| (–2.0, –1.5] | 86 | 4 | 1 | – | – | 16 | 65 |
| (–2.5, –2.0] | 26 | – | – | – | – | 4 | 22 |
| (–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**

| *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 | – | – | – | – | – | – |
| (3.5, 4.0] | 3 | 1 | 1 | – | – | – | 1 |
| (3.0, 3.5] | 5 | 1 | 1 | 1 | – | 2 | |
| (2.5, 3.0] | 16 | 2 | 1 | 2 | 1 | 5 | 5 |
| (2.0, 2.5] | 26 | 6 | 1 | – | 1 | 9 | 9 |
| (1.5, 2.0] | 52 | 6 | 2 | – | 1 | 19 | 24 |
| (1.0, 1.5] | 72 | 10 | 3 | 1 | 1 | 4 | 53 |
| (0.5, 1.0] | 89 | 5 | 1 | 2 | – | 13 | 68 |
| (0, 0.5] | 103 | 10 | 2 | 2 | – | 13 | 76 |
| (–0.5, 0] | 114 | 5 | 2 | – | 1 | 6 | 100 |
| (–1.0, –0.5] | 85 | 1 | – | – | 2 | 15 | 67 |
| (–1.5, –1.0] | 83 | 4 | 1 | 2 | 1 | 13 | 62 |
| (–2.0, –1.5] | 40 | 2 | 2 | – | – | 6 | 30 |
| (–2.5, –2.0] | 13 | – | 1 | – | – | 2 | 10 |
| (–3.0, –2.5] | 2 | – | – | – | – | – | 1 |
| (–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] | 4 | – | 1 | – | – | 3 | – |
| (3.0, 3.5] | 6 | – | 1 | – | – | 2 | 3 |
| (2.5, 3.0] | 18 | – | – | – | 1 | 7 | 10 |
| (2.0, 2.5] | 41 | 3 | 1 | 1 | 1 | 14 | 21 |
| (1.5, 2.0] | 63 | 7 | 1 | 2 | – | 10 | 43 |
| (1.0, 1.5] | 95 | 9 | 4 | – | 1 | 19 | 62 |
| (0.5, 1.0] | 113 | 4 | 1 | 2 | 1 | 25 | 80 |
| (0, 0.5] | 110 | 5 | 1 | – | – | 20 | 84 |
| (–0.5, 0] | 81 | 3 | – | – | – | 19 | 59 |
| (–1.0, –0.5] | 82 | 4 | – | – | 2 | 24 | 52 |
| (–1.5, –1.0] | 39 | 1 | 2 | – | 3 | 4 | 29 |
| (–2.0, –1.5] | 15 | 2 | – | 1 | – | 3 | 9 |
| (–2.5, –2.0] | 4 | – | – | – | – | 1 | 3 |
| (–3.0, –2.5] | 2 | – | – | 1 | – | 1 | – |
| (–3.5, –3.0] | – | – | – | – | – | – | – |
| <= –3.5 | – | – | – | – | – | – | – |

**Table 8.C.6 Conditional Exposure by Difficulty for ELA, 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] | – | – | – | – | – | – | – |
| (4.5, 5.0] | 4 | – | – | – | – | 2 | 2 |
| (4.0, 4.5] | 9 | – | – | – | – | 7 | 2 |
| (3.5, 4.0] | 11 | – | – | – | – | 10 | 1 |
| (3.0, 3.5] | 21 | – | – | – | – | 11 | 10 |
| (2.5, 3.0] | 31 | 3 | 1 | – | – | 6 | 21 |
| (2.0, 2.5] | 55 | 5 | 2 | – | – | 15 | 33 |
| (1.5, 2.0] | 88 | 14 | 1 | 1 | – | 15 | 57 |
| (1.0, 1.5] | 92 | 9 | – | – | – | 20 | 63 |
| (0.5, 1.0] | 93 | 5 | 4 | – | – | 28 | 56 |
| (0, 0.5] | 81 | 8 | – | 1 | – | 18 | 54 |
| (–0.5, 0] | 80 | 8 | – | – | – | 19 | 53 |
| (–1.0, –0.5] | 56 | 6 | 1 | – | – | 18 | 31 |
| (–1.5, –1.0] | 24 | 1 | – | – | – | 6 | 17 |
| (–2.0, –1.5] | 4 | – | – | – | – | 1 | 3 |
| (–2.5, –2.0] | – | – | – | – | – | – | – |
| (–3.0, –2.5] | 1 | – | – | – | – | 1 | – |
| (–3.5, –3.0] | – | – | – | – | – | – | – |
| <= –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 | – | – | – | – | 2 | – |
| (4.5, 5.0] | 5 | – | – | – | – | 4 | 1 |
| (4.0, 4.5] | 5 | – | – | – | – | 5 | – |
| (3.5, 4.0] | 16 | – | 1 | 1 | – | 7 | 7 |
| (3.0, 3.5] | 25 | 1 | 2 | 1 | 1 | 7 | 13 |
| (2.5, 3.0] | 22 | 4 | – | – | – | 4 | 14 |
| (2.0, 2.5] | 58 | 8 | 3 | 1 | 1 | 22 | 23 |
| (1.5, 2.0] | 95 | 12 | 3 | 3 | – | 20 | 57 |
| (1.0, 1.5] | 109 | 1 | 2 | 3 | – | 18 | 85 |
| (0.5, 1.0] | 90 | 2 | 1 | – | – | 24 | 63 |
| (0, 0.5] | 72 | 3 | 1 | – | 1 | 21 | 46 |
| (–0.5, 0] | 79 | 6 | 3 | 2 | – | 21 | 47 |
| (–1.0, –0.5] | 27 | 3 | 1 | 1 | – | 11 | 11 |
| (–1.5, –1.0] | 19 | 1 | – | 2 | – | 11 | 5 |
| (–2.0, –1.5] | 6 | – | – | – | – | 3 | 3 |
| (–2.5, –2.0] | – | – | – | – | – | – | – |
| (–3.0, –2.5] | – | – | – | – | – | – | – |
| (–3.5, –3.0] | – | – | – | – | – | – | – |
| <= –3.5 | – | – | – | – | – | – | – |

**Table 8.C.8 Conditional Exposure by Difficulty for ELA, 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 | – | – | – | – | – | – | – |
| (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 | – | 1 | – | 4 | 2 |
| (3.5, 4.0] | 20 | 3 | 1 | 1 | – | 5 | 10 |
| (3.0, 3.5] | 26 | – | – | – | 1 | 5 | 20 |
| (2.5, 3.0] | 47 | 1 | – | 2 | – | 8 | 36 |
| (2.0, 2.5] | 76 | 12 | – | – | 1 | 11 | 52 |
| (1.5, 2.0] | 98 | 8 | 2 | 2 | 1 | 16 | 69 |
| (1.0, 1.5] | 97 | 6 | 4 | – | – | 12 | 75 |
| (0.5, 1.0] | 66 | 3 | – | – | – | 12 | 51 |
| (0, 0.5] | 66 | 5 | – | – | – | 15 | 46 |
| (–0.5, 0] | 84 | 3 | – | 1 | | 18 | 62 |
| (–1.0, –0.5] | 25 | 1 | – | – | – | 7 | 17 |
| (–1.5, –1.0] | 8 | – | 1 | – | – | 2 | 5 |
| (–2.0, –1.5] | 3 | – | – | – | – | 2 | 1 |
| (–2.5, –2.0] | – | – | – | – | – | – | – |
| (–3.0, –2.5] | – | – | – | – | – | – | – |
| (–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 | | 1 | 2 | 1 | – | – |
| (5.0, 5.5] | 7 | 1 | – | 2 | 3 | 1 | – |
| (4.5, 5.0] | 21 | – | – | 4 | 12 | 2 | 3 |
| (4.0, 4.5] | 52 | 5 | 1 | 8 | 23 | 5 | 10 |
| (3.5, 4.0] | 72 | 5 | 2 | 4 | 14 | 34 | 13 |
| (3.0, 3.5] | 111 | 13 | 2 | 12 | 18 | 23 | 43 |
| (2.5, 3.0] | 150 | 13 | 6 | 27 | 24 | 2 | 78 |
| (2.0, 2.5] | 201 | 31 | 6 | 21 | 36 | 6 | 101 |
| (1.5, 2.0] | 270 | 24 | 5 | 27 | 37 | 3 | 174 |
| (1.0, 1.5] | 198 | 5 | 4 | 27 | 33 | 2 | 127 |
| (0.5, 1.0] | 185 | 3 | 5 | 29 | 54 | 4 | 90 |
| (0, 0.5] | 149 | 4 | 3 | 23 | 37 | 3 | 79 |
| (–0.5, 0] | 98 | 1 | 1 | 15 | 27 | 3 | 51 |
| (–1.0, –0.5] | 48 | – | – | 6 | 17 | – | 25 |
| (–1.5, –1.0] | 12 | – | – | 3 | 4 | – | 5 |
| (–2.0, –1.5] | 3 | – | – | – | – | 1 | 2 |
| (–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**

| *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] | – | – | – | – | – | – | – |
| (3.0, 3.5] | 2 | – | – | – | 2 | – | – |
| (2.5, 3.0] | – | – | – | – | – | – | – |
| (2.0, 2.5] | 3 | – | – | – | 2 | – | 1 |
| (1.5, 2.0] | 7 | – | – | – | 4 | 3 | – |
| (1.0, 1.5] | 20 | – | – | – | 4 | 6 | 10 |
| (0.5, 1.0] | 75 | 9 | – | – | 15 | 11 | 40 |
| (0, 0.5] | 122 | 9 | – | – | 20 | 15 | 78 |
| (–0.5, 0] | 163 | 5 | – | – | 28 | 7 | 123 |
| (–1.0, –0.5] | 154 | 1 | – | – | 37 | 8 | 108 |
| (–1.5, –1.0] | 140 | 1 | – | – | 33 | 1 | 105 |
| (–2.0, –1.5] | 163 | 4 | – | – | 37 | 1 | 121 |
| (–2.5, –2.0] | 68 | 1 | – | – | 9 | 1 | 57 |
| (–3.0, –2.5] | 34 | – | – | – | 16 | – | 18 |
| (–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 | – | – | – | – | 2 | – |
| (2.0, 2.5] | 15 | – | – | – | 3 | 4 | 8 |
| (1.5, 2.0] | 32 | – | – | – | 1 | 14 | 17 |
| (1.0, 1.5] | 78 | 3 | – | – | 8 | 12 | 55 |
| (0.5, 1.0] | 146 | 5 | – | – | 8 | 15 | 118 |
| (0, 0.5] | 179 | 6 | – | – | 5 | 10 | 158 |
| (–0.5, 0] | 182 | 2 | – | – | 7 | 12 | 161 |
| (–1.0, –0.5] | 123 | – | – | – | 3 | 9 | 111 |
| (–1.5, –1.0] | 91 | – | – | – | – | 2 | 89 |
| (–2.0, –1.5] | 52 | 1 | – | – | – | – | 51 |
| (–2.5, –2.0] | 26 | 1 | – | – | – | 1 | 24 |
| (–3.0, –2.5] | 20 | 7 | 2 | – | – | 3 | 8 |
| (–3.5, –3.0] | 8 | 3 | 2 | – | – | – | 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 | – | – | – | – | 2 | – |
| (2.5, 3.0] | 21 | 1 | – | – | 4 | 11 | 5 |
| (2.0, 2.5] | 50 | 1 | – | – | 9 | 13 | 27 |
| (1.5, 2.0] | 117 | 4 | – | – | 17 | 27 | 69 |
| (1.0, 1.5] | 143 | 6 | – | – | 20 | 20 | 97 |
| (0.5, 1.0] | 178 | 4 | – | – | 5 | 9 | 160 |
| (0, 0.5] | 184 | 3 | – | – | 3 | 6 | 172 |
| (–0.5, 0] | 108 | – | – | – | – | 5 | 103 |
| (–1.0, –0.5] | 68 | 1 | – | – | – | 7 | 60 |
| (–1.5, –1.0] | 21 | 1 | – | – | 2 | 2 | 16 |
| (–2.0, –1.5] | 22 | 1 | 5 | 1 | 1 | 3 | 11 |
| (–2.5, –2.0] | 22 | 2 | 5 | 4 | 2 | 1 | 8 |
| (–3.0, –2.5] | 18 | 5 | 5 | – | 1 | 1 | 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 | – | – | – | – | 9 | 3 |
| (3.0, 3.5] | 17 | – | – | – | – | 7 | 10 |
| (2.5, 3.0] | 37 | – | – | – | – | 12 | 25 |
| (2.0, 2.5] | 103 | 1 | – | – | – | 35 | 67 |
| (1.5, 2.0] | 130 | 3 | – | – | – | 32 | 95 |
| (1.0, 1.5] | 149 | 1 | – | – | – | 22 | 126 |
| (0.5, 1.0] | 139 | 1 | – | – | – | 15 | 123 |
| (0, 0.5] | 110 | 2 | – | – | – | 10 | 98 |
| (–0.5, 0] | 64 | 1 | – | – | – | – | 63 |
| (–1.0, –0.5] | 48 | 1 | – | – | – | – | 47 |
| (–1.5, –1.0] | 19 | 1 | – | – | – | 1 | 17 |
| (–2.0, –1.5] | 20 | – | – | – | – | 7 | 13 |
| (–2.5, –2.0] | 12 | – | – | – | – | 2 | 10 |
| (–3.0, –2.5] | 6 | – | – | – | – | 2 | 4 |
| (–3.5, –3.0] | 1 | – | – | – | – | 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 | 2 |
| (4.5, 5.0] | 7 | – | – | – | – | 3 | 4 |
| (4.0, 4.5] | 14 | – | – | – | – | 9 | 5 |
| (3.5, 4.0] | 18 | – | – | – | – | 10 | 8 |
| (3.0, 3.5] | 33 | – | – | – | – | 14 | 19 |
| (2.5, 3.0] | 95 | – | – | – | – | 38 | 57 |
| (2.0, 2.5] | 143 | 2 | 1 | – | – | 53 | 87 |
| (1.5, 2.0] | 147 | 2 | – | – | – | 36 | 109 |
| (1.0, 1.5] | 130 | 2 | – | – | – | 23 | 105 |
| (0.5, 1.0] | 76 | 1 | – | – | – | – | 75 |
| (0, 0.5] | 46 | 1 | – | – | – | – | 45 |
| (–0.5, 0] | 22 | – | – | – | – | – | 22 |
| (–1.0, –0.5] | 17 | 1 | – | – | – | – | 16 |
| (–1.5, –1.0] | 12 | 1 | – | – | – | – | 11 |
| (–2.0, –1.5] | 8 | – | – | – | – | – | 8 |
| (–2.5, –2.0] | – | – | – | – | – | – | – |
| (–3.0, –2.5] | – | – | – | – | – | – | – |
| (–3.5, –3.0] | – | – | – | – | – | – | – |
| <= –3.5 | – | – | – | – | – | – | – |

**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 | – | – | – | 1 | – | 1 |
| (5.5, 6.0] | 12 | – | – | – | 3 | 8 | 1 |
| (5.0, 5.5] | 12 | – | – | – | 5 | 5 | 2 |
| (4.5, 5.0] | 16 | – | – | – | 3 | 5 | 8 |
| (4.0, 4.5] | 29 | 1 | – | – | 1 | 13 | 14 |
| (3.5, 4.0] | 50 | – | – | – | – | 20 | 30 |
| (3.0, 3.5] | 77 | 2 | – | – | – | 22 | 53 |
| (2.5, 3.0] | 107 | 6 | – | – | – | 13 | 88 |
| (2.0, 2.5] | 134 | 8 | – | – | – | 15 | 111 |
| (1.5, 2.0] | 109 | 6 | – | – | – | 2 | 101 |
| (1.0, 1.5] | 67 | 7 | – | – | – | 1 | 59 |
| (0.5, 1.0] | 40 | 4 | – | – | – | 1 | 35 |
| (0, 0.5] | 30 | 2 | – | – | – | – | 28 |
| (–0.5, 0] | 23 | 1 | – | – | – | 2 | 20 |
| (–1.0, –0.5] | 25 | 2 | – | – | – | 2 | 21 |
| (–1.5, –1.0] | 10 | – | – | – | – | 4 | 6 |
| (–2.0, –1.5] | 10 | 3 | – | – | – | 4 | 3 |
| (–2.5, –2.0] | – | – | – | – | – | – | – |
| (–3.0, –2.5] | – | – | – | – | – | – | – |
| (–3.5, –3.0] | – | – | – | – | – | – | – |
| <= –3.5 | – | – | – | – | – | – | – |

**Table 8.C.16 Conditional Exposure by Difficulty for Mathematics, 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 | 34 | 1 | – | 24 | 1 | 2 | 6 |
| (5.5, 6.0] | 36 | 1 | – | 27 | 3 | 2 | 3 |
| (5.0, 5.5] | 44 | – | – | 31 | 5 | 4 | 4 |
| (4.5, 5.0] | 88 | 1 | – | 62 | 13 | 6 | 6 |
| (4.0, 4.5] | 114 | 5 | – | 54 | 12 | 27 | 16 |
| (3.5, 4.0] | 216 | 8 | – | 23 | 45 | 95 | 45 |
| (3.0, 3.5] | 266 | 14 | – | 31 | 51 | 103 | 67 |
| (2.5, 3.0] | 292 | 17 | – | 20 | 58 | 120 | 77 |
| (2.0, 2.5] | 232 | 12 | – | 8 | 19 | 80 | 113 |
| (1.5, 2.0] | 186 | 10 | – | 9 | 3 | 54 | 110 |
| (1.0, 1.5] | 133 | 3 | – | 7 | – | 24 | 99 |
| (0.5, 1.0] | 85 | 1 | – | 1 | – | 8 | 75 |
| (0, 0.5] | 57 | 1 | – | – | – | 12 | 44 |
| (–0.5, 0] | 31 | – | – | – | – | 2 | 29 |
| (–1.0, –0.5] | 23 | 2 | – | – | – | 4 | 17 |
| (–1.5, –1.0] | 21 | – | – | – | – | 4 | 17 |
| (–2.0, –1.5] | 12 | 1 | – | – | 2 | 6 | 3 |
| (–2.5, –2.0] | 5 | – | – | 1 | 2 | 2 | – |
| (–3.0, –2.5] | – | – | – | | – | – | – |
| (–3.5, –3.0] | 3 | – | – | 3 | – | – | – |
| <= –3.5 | – | – | – | | – | – | – |

# Appendix 8.D: Reliability Analyses

**Table 8.D.1 Reliabilities of Claims and Intercorrelations for ELA, Grade Three**

| | | Intercorrelations | | | | | |
|---|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **4** | **Reliability** | **SEM** |
| Claim 1 | 14–16 | 1.00 | . | . | . | 0.75 | 0.54 |
| Claim 2 | 12 | 0.69 | 1.00 | . | . | 0.76 | 0.54 |
| Claim 3 | 8–9 | 0.62 | 0.61 | 1.00 | . | 0.50 | 0.81 |
| Claim 4 | 8–9 | 0.65 | 0.64 | 0.56 | 1.00 | 0.61 | 0.73 |

**Table 8.D.2 Reliabilities of Claims and Intercorrelations for ELA, Grade Four**

| | | Intercorrelations | | | | | |
|---|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **4** | **Reliability** | **SEM** |
| Claim 1 | 14–16 | 1.00 | . | . | . | 0.74 | 0.60 |
| Claim 2 | 12 | 0.71 | 1.00 | . | . | 0.76 | 0.55 |
| Claim 3 | 8–9 | 0.63 | 0.62 | 1.00 | . | 0.52 | 0.87 |
| Claim 4 | 8–9 | 0.67 | 0.66 | 0.59 | 1.00 | 0.61 | 0.76 |

**Table 8.D.3 Reliabilities of Claims and Intercorrelations for ELA, Grade Five**

| | | Intercorrelations | | | | | |
|---|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **4** | **Reliability** | **SEM** |
| Claim 1 | 14–16 | 1.00 | . | . | . | 0.76 | 0.57 |
| Claim 2 | 12 | 0.72 | 1.00 | . | . | 0.79 | 0.53 |
| Claim 3 | 8–9 | 0.65 | 0.62 | 1.00 | . | 0.48 | 0.97 |
| Claim 4 | 8–9 | 0.70 | 0.70 | 0.61 | 1.00 | 0.64 | 0.68 |

**Table 8.D.4 Reliabilities of Claims and Intercorrelations for ELA, Grade Six**

| | | Intercorrelations | | | | | |
|---|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **4** | **Reliability** | **SEM** |
| Claim 1 | 13–17 | 1.00 | . | . | . | 0.68 | 0.70 |
| Claim 2 | 12 | 0.68 | 1.00 | . | . | 0.77 | 0.53 |
| Claim 3 | 8–9 | 0.60 | 0.62 | 1.00 | . | 0.40 | 0.97 |
| Claim 4 | 8–9 | 0.64 | 0.66 | 0.57 | 1.00 | 0.56 | 0.77 |

**Table 8.D.5 Reliabilities of Claims and Intercorrelations for ELA, Grade Seven**

| | | Intercorrelations | | | | | |
|---|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **4** | **Reliability** | **SEM** |
| Claim 1 | 13–17 | 1.00 | . | . | . | 0.72 | 0.63 |
| Claim 2 | 12 | 0.71 | 1.00 | . | . | 0.76 | 0.56 |
| Claim 3 | 8–9 | 0.65 | 0.61 | 1.00 | . | 0.42 | 0.95 |
| Claim 4 | 8–9 | 0.69 | 0.68 | 0.59 | 1.00 | 0.60 | 0.79 |

**Table 8.D.6 Reliabilities of Claims and Intercorrelations for ELA, Grade Eight**

| | | Intercorrelations | | | | | |
|---|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **4** | **Reliability** | **SEM** |
| Claim 1 | 13–17 | 1.00 | . | . | . | 0.73 | 0.60 |
| Claim 2 | 12 | 0.71 | 1.00 | . | . | 0.74 | 0.57 |
| Claim 3 | 8–9 | 0.64 | 0.61 | 1.00 | . | 0.44 | 0.93 |
| Claim 4 | 8–9 | 0.68 | 0.67 | 0.58 | 1.00 | 0.60 | 0.80 |

**Table 8.D.7 Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven**

| | | Intercorrelations | | | | | |
|---|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **4** | **Reliability** | **SEM** |
| Claim 1 | 15–16 | 1.00 | . | . | . | 0.71 | 0.66 |
| Claim 2 | 12 | 0.72 | 1.00 | . | . | 0.74 | 0.66 |
| Claim 3 | 8–9 | 0.63 | 0.62 | 1.00 | . | 0.44 | 1.03 |
| Claim 4 | 8–9 | 0.67 | 0.72 | 0.60 | 1.00 | 0.60 | 0.84 |

**Table 8.D 8 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three**

| | | Intercorrelations | | | | |
|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **Reliability** | **SEM** |
| Claim 1 | 17–20 | 1.00 | . | . | 0.89 | 0.34 |
| Claim 2 | 8–10 | 0.79 | 1.00 | . | 0.75 | 0.51 |
| Claim 3 | 8–10 | 0.75 | 0.71 | 1.00 | 0.64 | 0.63 |

**Table 8.D.9 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four**

| | | Intercorrelations | | | | |
|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **Reliability** | **SEM** |
| Claim 1 | 17–20 | 1.00 | . | . | 0.89 | 0.34 |
| Claim 2 | 8–10 | 0.77 | 1.00 | . | 0.69 | 0.56 |
| Claim 3 | 8–10 | 0.79 | 0.71 | 1.00 | 0.71 | 0.58 |

**Table 8.D.10 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five**

| | | Intercorrelations | | | | |
|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **Reliability** | **SEM** |
| Claim 1 | 17–20 | 1.00 | . | . | 0.87 | 0.41 |
| Claim 2 | 8–10 | 0.75 | 1.00 | . | 0.67 | 0.60 |
| Claim 3 | 8–10 | 0.73 | 0.67 | 1.00 | 0.60 | 0.73 |

**Table 8.D.11 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six**

| | | Intercorrelations | | | | |
|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **Reliability** | **SEM** |
| Claim 1 | 16–20 | 1.00 | . | . | 0.87 | 0.46 |
| Claim 2 | 8–10 | 0.78 | 1.00 | . | 0.63 | 0.70 |
| Claim 3 | 8–10 | 0.76 | 0.69 | 1.00 | 0.62 | 0.79 |

**Table 8.D.12 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven**

| | | Intercorrelations | | | | |
|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **Reliability** | **SEM** |
| Claim 1 | 16–20 | 1.00 | . | . | 0.85 | 0.52 |
| Claim 2 | 8–10 | 0.76 | 1.00 | . | 0.59 | 0.76 |
| Claim 3 | 8–10 | 0.72 | 0.64 | 1.00 | 0.44 | 0.93 |

**Table 8.D.13 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight**

| | | Intercorrelations | | | | |
|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **Reliability** | **SEM** |
| Claim 1 | 16–20 | 1.00 | . | . | 0.84 | 0.57 |
| Claim 2 | 8–10 | 0.72 | 1.00 | . | 0.55 | 0.86 |
| Claim 3 | 8–10 | 0.78 | 0.66 | 1.00 | 0.64 | 0.87 |

**Table 8.D.14 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven**

| | | Intercorrelations | | | | |
|---|---|---|---|---|---|---|
| **Claim** | **No. of Items** | **1** | **2** | **3** | **Reliability** | **SEM** |
| Claim 1 | 19–22 | 1.00 | . | . | 0.82 | 0.65 |
| Claim 2 | 8–10 | 0.73 | 1.00 | . | 0.47 | 1.05 |
| Claim 3 | 8–10 | 0.71 | 0.64 | 1.00 | 0.50 | 1.10 |

**Table 8.D.15 Reliabilities and SEMs by Gender**

| Content Area | Grade | Male | | | Female | | |
|---|---|---|---|---|---|---|---|
| | | **N** | **Reliability** | **SEM** | **N** | **Reliability** | **SEM** |
| **ELA** | 3 | 240,687 | 0.91 | 0.31 | 229,660 | 0.91 | 0.30 |
| | 4 | 234,159 | 0.91 | 0.33 | 224,677 | 0.91 | 0.31 |
| | 5 | 233,363 | 0.92 | 0.31 | 222,583 | 0.92 | 0.30 |
| | 6 | 231,686 | 0.91 | 0.33 | 221,251 | 0.90 | 0.32 |
| | 7 | 227,125 | 0.91 | 0.33 | 217,859 | 0.91 | 0.32 |
| | 8 | 228,590 | 0.91 | 0.33 | 218,865 | 0.91 | 0.32 |
| | 11 | 209,328 | 0.92 | 0.37 | 202,253 | 0.91 | 0.35 |
| **Mathematics** | 3 | 239,220 | 0.92 | 0.28 | 229,935 | 0.93 | 0.24 |
| | 4 | 233,787 | 0.94 | 0.25 | 226,487 | 0.93 | 0.25 |
| | 5 | 232,955 | 0.93 | 0.31 | 224,429 | 0.92 | 0.30 |
| | 6 | 228,927 | 0.93 | 0.35 | 221,360 | 0.92 | 0.33 |
| | 7 | 224,354 | 0.91 | 0.40 | 217,685 | 0.91 | 0.39 |
| | 8 | 224,574 | 0.91 | 0.42 | 217,728 | 0.91 | 0.40 |
| | 11 | 207,475 | 0.90 | 0.51 | 203,432 | 0.89 | 0.48 |

**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 | 176,037 | 0.91 | 0.29 | 294,310 | 0.88 | 0.31 |
| | 4 | 173,530 | 0.91 | 0.31 | 285,306 | 0.89 | 0.33 |
| | 5 | 176,829 | 0.91 | 0.30 | 279,117 | 0.90 | 0.30 |
| | 6 | 177,673 | 0.90 | 0.32 | 275,264 | 0.89 | 0.33 |
| | 7 | 175,698 | 0.90 | 0.32 | 269,286 | 0.89 | 0.33 |
| | 8 | 180,825 | 0.90 | 0.32 | 266,630 | 0.90 | 0.32 |
| | 11 | 182,546 | 0.91 | 0.35 | 229,035 | 0.90 | 0.36 |
| Mathematics | 3 | 175,905 | 0.94 | 0.23 | 293,250 | 0.90 | 0.28 |
| | 4 | 174,359 | 0.94 | 0.23 | 285,915 | 0.92 | 0.26 |
| | 5 | 177,604 | 0.93 | 0.27 | 279,780 | 0.89 | 0.32 |
| | 6 | 177,368 | 0.93 | 0.30 | 272,919 | 0.90 | 0.36 |
| | 7 | 175,773 | 0.93 | 0.34 | 266,266 | 0.87 | 0.43 |
| | 8 | 178,323 | 0.93 | 0.37 | 263,979 | 0.88 | 0.44 |
| | 11 | 184,674 | 0.92 | 0.45 | 226,233 | 0.85 | 0.53 |

**Table 8.D.17 Reliabilities and SEMs by Special Services**

| Content Area | Grade | No Special Services | | | Special Services | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 425,480 | 0.91 | 0.30 | 44,867 | 0.84 | 0.38 |
| | 4 | 410,128 | 0.91 | 0.31 | 48,708 | 0.86 | 0.37 |
| | 5 | 405,640 | 0.92 | 0.30 | 50,306 | 0.88 | 0.33 |
| | 6 | 405,574 | 0.90 | 0.32 | 47,363 | 0.85 | 0.37 |
| | 7 | 400,181 | 0.91 | 0.32 | 44,803 | 0.84 | 0.37 |
| | 8 | 403,525 | 0.91 | 0.32 | 43,930 | 0.85 | 0.35 |
| | 11 | 377,798 | 0.91 | 0.36 | 33,783 | 0.86 | 0.40 |
| Mathematics | 3 | 425,942 | 0.93 | 0.24 | 43,213 | 0.85 | 0.41 |
| | 4 | 412,094 | 0.93 | 0.24 | 48,180 | 0.92 | 0.30 |
| | 5 | 407,529 | 0.92 | 0.29 | 49,855 | 0.87 | 0.38 |
| | 6 | 405,413 | 0.92 | 0.32 | 44,874 | 0.86 | 0.45 |
| | 7 | 399,584 | 0.91 | 0.38 | 42,455 | 0.79 | 0.54 |
| | 8 | 400,131 | 0.91 | 0.40 | 42,171 | 0.80 | 0.53 |
| | 11 | 378,683 | 0.89 | 0.48 | 32,224 | 0.68 | 0.66 |

**Table 8.D.18 Reliabilities and SEMs by English–Language Fluency**

| Content Area | Grade | English Only | | | Initially Designated Fluent | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 269,208 | 0.91 | 0.30 | 17,775 | 0.91 | 0.28 |
| | 4 | 258,897 | 0.91 | 0.31 | 17,525 | 0.90 | 0.30 |
| | 5 | 254,749 | 0.92 | 0.30 | 19,583 | 0.91 | 0.30 |
| | 6 | 251,248 | 0.90 | 0.32 | 20,974 | 0.90 | 0.31 |
| | 7 | 244,124 | 0.91 | 0.32 | 19,903 | 0.90 | 0.32 |
| | 8 | 244,310 | 0.91 | 0.32 | 20,508 | 0.90 | 0.32 |
| | 11 | 225,810 | 0.91 | 0.36 | 34,368 | 0.90 | 0.35 |
| Mathematics | 3 | 267,504 | 0.92 | 0.27 | 17,617 | 0.94 | 0.23 |
| | 4 | 258,914 | 0.94 | 0.24 | 17,416 | 0.94 | 0.23 |
| | 5 | 254,807 | 0.93 | 0.30 | 19,528 | 0.94 | 0.27 |
| | 6 | 249,378 | 0.93 | 0.33 | 20,745 | 0.93 | 0.30 |
| | 7 | 242,394 | 0.92 | 0.38 | 19,723 | 0.93 | 0.33 |
| | 8 | 240,972 | 0.92 | 0.40 | 19,966 | 0.93 | 0.36 |
| | 11 | 225,844 | 0.90 | 0.48 | 34,774 | 0.92 | 0.44 |

**Table 8.D.19 Reliabilities and SEMs by English–Language Fluency (continued)**

| Content Area | Grade | English Learner | | | Redesignated Fluent | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 151,146 | 0.85 | 0.33 | 30,966 | 0.87 | 0.27 |
| | 4 | 119,879 | 0.83 | 0.34 | 61,454 | 0.87 | 0.29 |
| | 5 | 100,111 | 0.85 | 0.31 | 80,521 | 0.88 | 0.29 |
| | 6 | 76,085 | 0.81 | 0.35 | 103,648 | 0.87 | 0.31 |
| | 7 | 65,297 | 0.79 | 0.36 | 114,608 | 0.88 | 0.31 |
| | 8 | 57,768 | 0.80 | 0.35 | 123,933 | 0.88 | 0.31 |
| | 11 | 39,003 | 0.80 | 0.40 | 111,519 | 0.89 | 0.35 |
| Mathematics | 3 | 151,550 | 0.91 | 0.26 | 30,819 | 0.91 | 0.22 |
| | 4 | 121,169 | 0.89 | 0.27 | 61,314 | 0.92 | 0.23 |
| | 5 | 101,323 | 0.83 | 0.36 | 80,366 | 0.91 | 0.27 |
| | 6 | 75,597 | 0.83 | 0.41 | 103,315 | 0.91 | 0.31 |
| | 7 | 64,563 | 0.77 | 0.51 | 113,981 | 0.90 | 0.36 |
| | 8 | 57,452 | 0.78 | 0.52 | 122,705 | 0.90 | 0.39 |
| | 11 | 38,191 | 0.68 | 0.66 | 111,084 | 0.88 | 0.47 |

**Table 8.D.20 Reliabilities and SEMs by Primary Ethnicity**

| Content Area | Grade | American Indian | | | Asian | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 2,535 | 0.90 | 0.30 | 39,955 | 0.92 | 0.28 |
| | 4 | 2,443 | 0.89 | 0.34 | 39,727 | 0.91 | 0.30 |
| | 5 | 2,511 | 0.91 | 0.31 | 40,725 | 0.92 | 0.30 |
| | 6 | 2,493 | 0.89 | 0.33 | 40,433 | 0.90 | 0.31 |
| | 7 | 2,661 | 0.90 | 0.33 | 38,822 | 0.91 | 0.32 |
| | 8 | 2,588 | 0.90 | 0.33 | 39,404 | 0.90 | 0.32 |
| | 11 | 2,572 | 0.91 | 0.36 | 35,514 | 0.91 | 0.35 |
| Mathematics | 3 | 2,511 | 0.93 | 0.25 | 40,006 | 0.94 | 0.23 |
| | 4 | 2,434 | 0.93 | 0.26 | 39,779 | 0.94 | 0.23 |
| | 5 | 2,501 | 0.90 | 0.33 | 40,767 | 0.94 | 0.26 |
| | 6 | 2,468 | 0.91 | 0.36 | 40,249 | 0.94 | 0.29 |
| | 7 | 2,643 | 0.88 | 0.43 | 38,783 | 0.94 | 0.31 |
| | 8 | 2,540 | 0.89 | 0.44 | 38,005 | 0.94 | 0.34 |
| | 11 | 2,516 | 0.86 | 0.52 | 36,740 | 0.93 | 0.38 |

**Table 8.D.21 Reliabilities and SEMs by Primary Ethnicity (continued)**

| Content Area | Grade | Pacific Islander | | | Filipino | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 2,215 | 0.90 | 0.29 | 10,651 | 0.90 | 0.28 |
| | 4 | 2,282 | 0.90 | 0.31 | 10,992 | 0.90 | 0.31 |
| | 5 | 2,383 | 0.91 | 0.30 | 11,632 | 0.91 | 0.30 |
| | 6 | 2,293 | 0.89 | 0.32 | 12,292 | 0.89 | 0.31 |
| | 7 | 2,318 | 0.89 | 0.32 | 12,269 | 0.90 | 0.31 |
| | 8 | 2,296 | 0.90 | 0.32 | 12,855 | 0.89 | 0.31 |
| | 11 | 2,347 | 0.91 | 0.36 | 13,463 | 0.89 | 0.35 |
| Mathematics | 3 | 2,212 | 0.93 | 0.24 | 10,753 | 0.93 | 0.23 |
| | 4 | 2,276 | 0.92 | 0.25 | 11,172 | 0.93 | 0.23 |
| | 5 | 2,385 | 0.91 | 0.31 | 11,742 | 0.93 | 0.27 |
| | 6 | 2,278 | 0.91 | 0.33 | 12,404 | 0.92 | 0.30 |
| | 7 | 2,306 | 0.89 | 0.40 | 12,424 | 0.92 | 0.34 |
| | 8 | 2,287 | 0.89 | 0.42 | 12,851 | 0.92 | 0.36 |
| | 11 | 2,318 | 0.86 | 0.51 | 13,638 | 0.90 | 0.42 |

**Table 8.D.22 Reliabilities and SEMs by Primary Ethnicity (continued)**

| Content Area | Grade | Hispanic | | | African American | | | White | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 261,518 | 0.88 | 0.31 | 26,391 | 0.88 | 0.32 | 108,941 | 0.90 | 0.30 |
| | 4 | 252,447 | 0.89 | 0.32 | 25,952 | 0.89 | 0.33 | 108,454 | 0.91 | 0.31 |
| | 5 | 246,388 | 0.91 | 0.30 | 26,301 | 0.91 | 0.31 | 110,763 | 0.92 | 0.30 |
| | 6 | 243,059 | 0.89 | 0.33 | 26,335 | 0.89 | 0.34 | 111,515 | 0.90 | 0.32 |
| | 7 | 239,482 | 0.89 | 0.33 | 26,747 | 0.90 | 0.34 | 109,426 | 0.91 | 0.32 |
| | 8 | 238,789 | 0.89 | 0.32 | 27,675 | 0.90 | 0.33 | 111,121 | 0.90 | 0.32 |
| | 11 | 216,440 | 0.90 | 0.36 | 25,104 | 0.91 | 0.37 | 105,159 | 0.91 | 0.35 |
| Mathematics | 3 | 260,790 | 0.90 | 0.28 | 26,050 | 0.91 | 0.28 | 108,785 | 0.93 | 0.24 |
| | 4 | 253,311 | 0.92 | 0.26 | 25,845 | 0.91 | 0.27 | 108,886 | 0.94 | 0.23 |
| | 5 | 247,238 | 0.89 | 0.32 | 26,164 | 0.89 | 0.34 | 111,277 | 0.93 | 0.28 |
| | 6 | 241,243 | 0.90 | 0.36 | 25,864 | 0.90 | 0.38 | 111,383 | 0.93 | 0.31 |
| | 7 | 237,153 | 0.87 | 0.43 | 26,070 | 0.86 | 0.45 | 109,403 | 0.92 | 0.35 |
| | 8 | 236,728 | 0.88 | 0.44 | 27,111 | 0.87 | 0.46 | 110,200 | 0.92 | 0.37 |
| | 11 | 213,785 | 0.84 | 0.53 | 24,570 | 0.82 | 0.56 | 106,285 | 0.91 | 0.45 |

**Table 8.D.23 Reliabilities and SEMs by Migrant Status**

| Content Area | Grade | Migrant | | | Non-Migrant | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 4,646 | 0.87 | 0.31 | 465,701 | 0.91 | 0.31 |
| | 4 | 4,492 | 0.78 | 0.42 | 454,344 | 0.91 | 0.32 |
| | 5 | 4,455 | 0.89 | 0.31 | 451,491 | 0.92 | 0.30 |
| | 6 | 3,921 | 0.87 | 0.34 | 449,016 | 0.91 | 0.32 |
| | 7 | 3,734 | 0.88 | 0.34 | 441,250 | 0.91 | 0.32 |
| | 8 | 3,880 | 0.89 | 0.33 | 443,575 | 0.91 | 0.32 |
| | 11 | 3,353 | 0.89 | 0.37 | 408,228 | 0.91 | 0.36 |
| Mathematics | 3 | 4,685 | 0.90 | 0.26 | 464,470 | 0.93 | 0.26 |
| | 4 | 4,521 | 0.90 | 0.27 | 455,753 | 0.94 | 0.25 |
| | 5 | 4,500 | 0.86 | 0.34 | 452,884 | 0.92 | 0.30 |
| | 6 | 3,916 | 0.88 | 0.38 | 446,371 | 0.92 | 0.34 |
| | 7 | 3,721 | 0.84 | 0.45 | 438,318 | 0.91 | 0.40 |
| | 8 | 3,874 | 0.86 | 0.46 | 438,428 | 0.91 | 0.41 |
| | 11 | 3,310 | 0.80 | 0.56 | 407,597 | 0.89 | 0.49 |

**Table 8.D.24 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged**

| Content Area | Grade | American Indian | | | Asian | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 785 | 0.91 | 0.28 | 25,651 | 0.90 | 0.28 |
| | 4 | 793 | 0.91 | 0.31 | 25,088 | 0.89 | 0.30 |
| | 5 | 790 | 0.92 | 0.30 | 25,672 | 0.89 | 0.30 |
| | 6 | 832 | 0.90 | 0.32 | 25,221 | 0.88 | 0.31 |
| | 7 | 936 | 0.91 | 0.32 | 24,019 | 0.88 | 0.32 |
| | 8 | 970 | 0.90 | 0.32 | 24,187 | 0.88 | 0.32 |
| | 11 | 1202 | 0.91 | 0.36 | 20,552 | 0.89 | 0.35 |
| Mathematics | 3 | 778 | 0.94 | 0.24 | 25,568 | 0.93 | 0.23 |
| | 4 | 794 | 0.94 | 0.24 | 24,959 | 0.93 | 0.22 |
| | 5 | 789 | 0.92 | 0.29 | 25,482 | 0.93 | 0.25 |
| | 6 | 836 | 0.92 | 0.33 | 24,928 | 0.92 | 0.28 |
| | 7 | 930 | 0.91 | 0.38 | 23,829 | 0.93 | 0.29 |
| | 8 | 950 | 0.91 | 0.41 | 22,834 | 0.93 | 0.32 |
| | 11 | 1,201 | 0.89 | 0.48 | 21,472 | 0.93 | 0.35 |

**Table 8.D.25 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged (continued)**

| Content Area | Grade | Pacific Islander | | | Filipino | | |
|---|---|---|---|---|---|---|---|
| | | No. | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 742 | 0.91 | 0.28 | 6,891 | 0.90 | 0.28 |
| | 4 | 743 | 0.90 | 0.30 | 7,110 | 0.89 | 0.31 |
| | 5 | 817 | 0.90 | 0.30 | 7,424 | 0.90 | 0.30 |
| | 6 | 795 | 0.90 | 0.32 | 7,902 | 0.88 | 0.31 |
| | 7 | 832 | 0.89 | 0.32 | 7,871 | 0.89 | 0.31 |
| | 8 | 839 | 0.90 | 0.32 | 8,362 | 0.88 | 0.31 |
| | 11 | 1,081 | 0.91 | 0.36 | 9,189 | 0.88 | 0.35 |
| Mathematics | 3 | 739 | 0.93 | 0.23 | 6,957 | 0.93 | 0.23 |
| | 4 | 748 | 0.93 | 0.24 | 7,224 | 0.93 | 0.23 |
| | 5 | 821 | 0.92 | 0.29 | 7,497 | 0.93 | 0.26 |
| | 6 | 792 | 0.92 | 0.32 | 7,976 | 0.92 | 0.29 |
| | 7 | 832 | 0.91 | 0.36 | 7,993 | 0.92 | 0.32 |
| | 8 | 831 | 0.91 | 0.39 | 8,340 | 0.92 | 0.35 |
| | 11 | 1,066 | 0.88 | 0.48 | 9,357 | 0.91 | 0.41 |

**Table 8.D.26 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged (continued)**

| Content Area | Grade | Hispanic | | | African American | | | White | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 48,346 | 0.90 | 0.29 | 6,406 | 0.88 | 0.33 | 76,274 | 0.89 | 0.30 |
| | 4 | 46,948 | 0.90 | 0.31 | 6,417 | 0.90 | 0.32 | 76,386 | 0.90 | 0.30 |
| | 5 | 46,432 | 0.91 | 0.30 | 6,963 | 0.92 | 0.30 | 79,411 | 0.90 | 0.30 |
| | 6 | 46,803 | 0.89 | 0.32 | 7,188 | 0.90 | 0.32 | 80,126 | 0.88 | 0.32 |
| | 7 | 47,381 | 0.90 | 0.32 | 7,581 | 0.91 | 0.33 | 78,853 | 0.89 | 0.31 |
| | 8 | 49,040 | 0.90 | 0.32 | 8,195 | 0.91 | 0.32 | 81,234 | 0.89 | 0.31 |
| | 11 | 54,618 | 0.91 | 0.36 | 9,501 | 0.91 | 0.36 | 79,249 | 0.90 | 0.35 |
| Mathematics | 3 | 48,385 | 0.93 | 0.24 | 6,373 | 0.93 | 0.24 | 76,208 | 0.93 | 0.23 |
| | 4 | 47,305 | 0.93 | 0.24 | 6,416 | 0.93 | 0.25 | 76,825 | 0.93 | 0.23 |
| | 5 | 46,766 | 0.92 | 0.29 | 6,954 | 0.91 | 0.31 | 79,904 | 0.93 | 0.26 |
| | 6 | 46,766 | 0.92 | 0.32 | 7,113 | 0.92 | 0.34 | 80,223 | 0.92 | 0.29 |
| | 7 | 47,308 | 0.90 | 0.38 | 7,462 | 0.89 | 0.41 | 79,146 | 0.92 | 0.32 |
| | 8 | 48,784 | 0.90 | 0.40 | 8,084 | 0.90 | 0.43 | 80,601 | 0.92 | 0.35 |
| | 11 | 54,301 | 0.87 | 0.50 | 9,393 | 0.86 | 0.53 | 80,608 | 0.92 | 0.42 |

**Table 8.D.27 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged**

| Content Area | Grade | American Indian | | | Asian | | |
|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 1,750 | 0.88 | 0.30 | 14,304 | 0.91 | 0.29 |
| | 4 | 1,650 | 0.85 | 0.36 | 14,639 | 0.91 | 0.30 |
| | 5 | 1,721 | 0.89 | 0.31 | 15,053 | 0.92 | 0.30 |
| | 6 | 1,661 | 0.88 | 0.34 | 15,212 | 0.90 | 0.32 |
| | 7 | 1,725 | 0.88 | 0.34 | 14,803 | 0.91 | 0.32 |
| | 8 | 1,618 | 0.89 | 0.33 | 15,217 | 0.91 | 0.32 |
| | 11 | 1,370 | 0.90 | 0.37 | 14,962 | 0.91 | 0.35 |
| Mathematics | 3 | 1,733 | 0.92 | 0.26 | 14,438 | 0.93 | 0.25 |
| | 4 | 1,640 | 0.91 | 0.27 | 14,820 | 0.94 | 0.24 |
| | 5 | 1,712 | 0.87 | 0.34 | 15,285 | 0.93 | 0.28 |
| | 6 | 1,632 | 0.89 | 0.37 | 15,321 | 0.93 | 0.31 |
| | 7 | 1,713 | 0.85 | 0.45 | 14,954 | 0.92 | 0.34 |
| | 8 | 1,590 | 0.86 | 0.46 | 15,171 | 0.93 | 0.37 |
| | 11 | 1,315 | 0.81 | 0.56 | 15,268 | 0.92 | 0.42 |

**Table 8.D.28 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (continued)**

| Content Area | Grade | Pacific Islander | | | Filipino | | |
|---|---|---|---|---|---|---|---|
| | | No. | Reliability | SEM | No. | Reliability | SEM |
| ELA | 3 | 1,473 | 0.89 | 0.29 | 3,760 | 0.90 | 0.28 |
| | 4 | 1,539 | 0.89 | 0.31 | 3,882 | 0.90 | 0.30 |
| | 5 | 1,566 | 0.90 | 0.30 | 4,208 | 0.91 | 0.30 |
| | 6 | 1,498 | 0.88 | 0.33 | 4,390 | 0.89 | 0.32 |
| | 7 | 1,486 | 0.89 | 0.33 | 4,398 | 0.90 | 0.32 |
| | 8 | 1,457 | 0.89 | 0.32 | 4,493 | 0.89 | 0.31 |
| | 11 | 1,266 | 0.90 | 0.37 | 4,274 | 0.90 | 0.35 |
| Mathematics | 3 | 1,473 | 0.92 | 0.25 | 3,796 | 0.93 | 0.23 |
| | 4 | 1,528 | 0.91 | 0.25 | 3,948 | 0.93 | 0.24 |
| | 5 | 1,564 | 0.89 | 0.32 | 4,245 | 0.92 | 0.28 |
| | 6 | 1,486 | 0.89 | 0.34 | 4,428 | 0.92 | 0.32 |
| | 7 | 1,474 | 0.87 | 0.42 | 4,431 | 0.90 | 0.36 |
| | 8 | 1,456 | 0.88 | 0.44 | 4,511 | 0.90 | 0.38 |
| | 11 | 1,252 | 0.84 | 0.53 | 4,281 | 0.89 | 0.45 |

**Table 8.D.29 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (continued)**

| Content Area | Grade | Hispanic | | | African American | | | White | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | N | Reliability | SEM | N | Reliability | SEM | N | Reliability | SEM |
| ELA | 3 | 213,172 | 0.87 | 0.31 | 19,985 | 0.88 | 0.31 | 32,667 | 0.89 | 0.32 |
| | 4 | 205,499 | 0.88 | 0.33 | 19,535 | 0.88 | 0.33 | 32,068 | 0.89 | 0.32 |
| | 5 | 199,956 | 0.90 | 0.30 | 19,338 | 0.90 | 0.31 | 31,352 | 0.91 | 0.30 |
| | 6 | 196,256 | 0.88 | 0.33 | 19,147 | 0.88 | 0.34 | 31,389 | 0.89 | 0.32 |
| | 7 | 192,101 | 0.89 | 0.33 | 19,166 | 0.88 | 0.34 | 30,573 | 0.90 | 0.32 |
| | 8 | 189,749 | 0.89 | 0.32 | 19,480 | 0.89 | 0.33 | 29,887 | 0.90 | 0.32 |
| | 11 | 161,822 | 0.90 | 0.37 | 15,603 | 0.90 | 0.38 | 25,910 | 0.91 | 0.36 |
| Mathematics | 3 | 212,405 | 0.89 | 0.29 | 19,677 | 0.89 | 0.29 | 32,577 | 0.91 | 0.27 |
| | 4 | 206,006 | 0.91 | 0.26 | 19,429 | 0.90 | 0.27 | 32,061 | 0.93 | 0.25 |
| | 5 | 200,472 | 0.88 | 0.33 | 19,210 | 0.86 | 0.35 | 31,373 | 0.91 | 0.31 |
| | 6 | 194,477 | 0.89 | 0.36 | 18,751 | 0.88 | 0.39 | 31,160 | 0.91 | 0.34 |
| | 7 | 189,845 | 0.85 | 0.44 | 18,608 | 0.83 | 0.47 | 30,257 | 0.89 | 0.40 |
| | 8 | 187,944 | 0.86 | 0.45 | 19,027 | 0.84 | 0.47 | 29,599 | 0.89 | 0.42 |
| | 11 | 159,484 | 0.82 | 0.54 | 15,177 | 0.78 | 0.58 | 25,677 | 0.87 | 0.51 |

**Table 8.D.30 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 | 0.74 | 0.55 | 0.75 | 0.53 | 0.75 | 0.52 | 0.68 | 0.55 | 0.61 | 0.57 | 0.75 | 0.54 |
| **Claim 2** | 12 | 0.75 | 0.55 | 0.77 | 0.54 | 0.76 | 0.52 | 0.71 | 0.56 | 0.67 | 0.58 | 0.76 | 0.54 |
| **Claim 3** | 8–9 | 0.51 | 0.81 | 0.49 | 0.80 | 0.45 | 0.79 | 0.45 | 0.81 | 0.39 | 0.84 | 0.50 | 0.80 |
| **Claim 4** | 8–9 | 0.60 | 0.74 | 0.62 | 0.72 | 0.63 | 0.69 | 0.53 | 0.76 | 0.46 | 0.78 | 0.61 | 0.73 |

**Table 8.D.31 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 | 0.73 | 0.60 | 0.74 | 0.59 | 0.74 | 0.57 | 0.67 | 0.61 | 0.59 | 0.63 | 0.74 | 0.59 |
| **Claim 2** | 12 | 0.76 | 0.56 | 0.76 | 0.55 | 0.73 | 0.55 | 0.73 | 0.56 | 0.71 | 0.57 | 0.76 | 0.55 |
| **Claim 3** | 8–9 | 0.52 | 0.87 | 0.50 | 0.86 | 0.48 | 0.83 | 0.46 | 0.89 | 0.39 | 0.92 | 0.52 | 0.86 |
| **Claim 4** | 8–9 | 0.60 | 0.77 | 0.62 | 0.75 | 0.61 | 0.73 | 0.54 | 0.78 | 0.48 | 0.80 | 0.61 | 0.76 |

**Table 8.D.32 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 | 0.58 | 0.76 | 0.56 | 0.75 | 0.55 | 0.71 | 0.58 | 0.64 | 0.59 | 0.76 | 0.57 |
| **Claim 2** | 12 | 0.79 | 0.53 | 0.78 | 0.53 | 0.76 | 0.54 | 0.76 | 0.53 | 0.75 | 0.54 | 0.79 | 0.53 |
| **Claim 3** | 8–9 | 0.48 | 0.97 | 0.47 | 0.97 | 0.46 | 0.93 | 0.41 | 0.99 | 0.34 | 1.01 | 0.48 | 0.97 |
| **Claim 4** | 8–9 | 0.64 | 0.68 | 0.64 | 0.67 | 0.61 | 0.65 | 0.60 | 0.69 | 0.56 | 0.71 | 0.64 | 0.68 |

**Table 8.D.33 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 | 0.67 | 0.72 | 0.68 | 0.69 | 0.70 | 0.66 | 0.61 | 0.73 | 0.54 | 0.76 | 0.68 | 0.70 |
| **Claim 2** | 12 | 0.77 | 0.53 | 0.76 | 0.52 | 0.74 | 0.52 | 0.74 | 0.53 | 0.72 | 0.55 | 0.77 | 0.53 |
| **Claim 3** | 8–9 | 0.41 | 0.97 | 0.37 | 0.97 | 0.29 | 0.98 | 0.40 | 0.96 | 0.40 | 0.96 | 0.40 | 0.97 |
| **Claim 4** | 8–9 | 0.55 | 0.79 | 0.57 | 0.75 | 0.57 | 0.71 | 0.50 | 0.80 | 0.46 | 0.83 | 0.56 | 0.77 |

**Table 8.D.34 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 | 0.72 | 0.64 | 0.72 | 0.62 | 0.71 | 0.61 | 0.67 | 0.64 | 0.62 | 0.67 | 0.72 | 0.63 |
| **Claim 2** | 12 | 0.76 | 0.57 | 0.75 | 0.56 | 0.73 | 0.56 | 0.74 | 0.57 | 0.71 | 0.58 | 0.76 | 0.56 |
| **Claim 3** | 8–9 | 0.43 | 0.95 | 0.41 | 0.95 | 0.36 | 0.95 | 0.38 | 0.95 | 0.35 | 0.95 | 0.42 | 0.95 |
| **Claim 4** | 8–9 | 0.59 | 0.82 | 0.60 | 0.77 | 0.61 | 0.73 | 0.53 | 0.83 | 0.48 | 0.86 | 0.60 | 0.79 |

**Table 8.D.35 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 | 0.73 | 0.62 | 0.73 | 0.59 | 0.73 | 0.58 | 0.69 | 0.62 | 0.64 | 0.64 | 0.73 | 0.60 |
| **Claim 2** | 12 | 0.75 | 0.57 | 0.72 | 0.57 | 0.71 | 0.58 | 0.71 | 0.57 | 0.71 | 0.57 | 0.74 | 0.57 |
| **Claim 3** | 8–9 | 0.46 | 0.93 | 0.41 | 0.93 | 0.37 | 0.94 | 0.42 | 0.92 | 0.42 | 0.92 | 0.44 | 0.93 |
| **Claim 4** | 8–9 | 0.59 | 0.82 | 0.61 | 0.77 | 0.61 | 0.75 | 0.55 | 0.83 | 0.51 | 0.85 | 0.60 | 0.80 |

**Table 8.D.36 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 | 0.71 | 0.67 | 0.70 | 0.65 | 0.70 | 0.64 | 0.68 | 0.67 | 0.63 | 0.69 | 0.71 | 0.66 |
| **Claim 2** | 12 | 0.74 | 0.67 | 0.72 | 0.65 | 0.72 | 0.65 | 0.72 | 0.67 | 0.69 | 0.68 | 0.74 | 0.66 |
| **Claim 3** | 8–9 | 0.47 | 1.02 | 0.40 | 1.03 | 0.40 | 1.04 | 0.43 | 1.02 | 0.40 | 1.01 | 0.44 | 1.03 |
| **Claim 4** | 8–9 | 0.60 | 0.87 | 0.59 | 0.82 | 0.60 | 0.80 | 0.57 | 0.87 | 0.52 | 0.90 | 0.60 | 0.84 |

**Table 8.D.37 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 | 0.89 | 0.34 | 0.88 | 0.33 | 0.88 | 0.33 | 0.86 | 0.34 | 0.84 | 0.34 | 0.89 | 0.33 |
| **Claim 2** | 8–10 | 0.75 | 0.51 | 0.74 | 0.51 | 0.76 | 0.47 | 0.67 | 0.53 | 0.60 | 0.56 | 0.75 | 0.51 |
| **Claim 3** | 8–10 | 0.64 | 0.64 | 0.63 | 0.62 | 0.69 | 0.56 | 0.52 | 0.67 | 0.41 | 0.70 | 0.64 | 0.63 |

**Table 8.D.38 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 | 0.34 | 0.88 | 0.34 | 0.88 | 0.33 | 0.86 | 0.35 | 0.84 | 0.35 | 0.89 | 0.34 |
| **Claim 2** | 8–10 | 0.69 | 0.57 | 0.68 | 0.56 | 0.72 | 0.52 | 0.58 | 0.59 | 0.49 | 0.62 | 0.69 | 0.56 |
| **Claim 3** | 8–10 | 0.72 | 0.58 | 0.70 | 0.57 | 0.76 | 0.51 | 0.61 | 0.62 | 0.51 | 0.65 | 0.71 | 0.58 |

**Table 8.D.39 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 | 0.88 | 0.41 | 0.86 | 0.41 | 0.88 | 0.38 | 0.83 | 0.43 | 0.79 | 0.45 | 0.87 | 0.41 |
| **Claim 2** | 8–10 | 0.68 | 0.60 | 0.66 | 0.60 | 0.72 | 0.53 | 0.52 | 0.64 | 0.36 | 0.68 | 0.67 | 0.60 |
| **Claim 3** | 8–10 | 0.61 | 0.73 | 0.59 | 0.72 | 0.67 | 0.65 | 0.44 | 0.77 | 0.28 | 0.80 | 0.60 | 0.73 |

**Table 8.D.40 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 | 0.87 | 0.46 | 0.87 | 0.45 | 0.87 | 0.43 | 0.84 | 0.47 | 0.82 | 0.49 | 0.87 | 0.46 |
| **Claim 2** | 8–10 | 0.64 | 0.70 | 0.62 | 0.70 | 0.69 | 0.62 | 0.48 | 0.75 | 0.38 | 0.78 | 0.63 | 0.70 |
| **Claim 3** | 8–10 | 0.62 | 0.80 | 0.61 | 0.78 | 0.68 | 0.70 | 0.48 | 0.84 | 0.35 | 0.88 | 0.62 | 0.79 |

**Table 8.D.41 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 | 0.86 | 0.52 | 0.85 | 0.51 | 0.87 | 0.46 | 0.81 | 0.55 | 0.78 | 0.57 | 0.85 | 0.51 |
| **Claim 2** | 8–10 | 0.60 | 0.76 | 0.58 | 0.76 | 0.67 | 0.67 | 0.40 | 0.82 | 0.25 | 0.86 | 0.59 | 0.76 |
| **Claim 3** | 8–10 | 0.44 | 0.95 | 0.43 | 0.91 | 0.57 | 0.81 | 0.20 | 1.01 | N/A | N/A | 0.44 | 0.93 |

**Table 8.D.42 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 | 0.85 | 0.58 | 0.84 | 0.56 | 0.86 | 0.52 | 0.80 | 0.60 | 0.77 | 0.62 | 0.84 | 0.57 |
| **Claim 2** | 8–10 | 0.56 | 0.86 | 0.53 | 0.86 | 0.63 | 0.77 | 0.36 | 0.92 | 0.22 | 0.96 | 0.55 | 0.86 |
| **Claim 3** | 8–10 | 0.65 | 0.88 | 0.64 | 0.85 | 0.69 | 0.79 | 0.54 | 0.91 | 0.47 | 0.95 | 0.64 | 0.87 |

**Table 8.D.43 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 | 0.82 | 0.67 | 0.81 | 0.64 | 0.85 | 0.60 | 0.76 | 0.70 | 0.70 | 0.72 | 0.82 | 0.65 |
| **Claim 2** | 8–10 | 0.50 | 1.05 | 0.44 | 1.05 | 0.58 | 0.95 | 0.28 | 1.13 | 0.09 | 1.18 | 0.48 | 1.05 |
| **Claim 3** | 8–10 | 0.51 | 1.12 | 0.49 | 1.08 | 0.59 | 1.02 | 0.35 | 1.16 | 0.23 | 1.21 | 0.50 | 1.10 |

**Table 8.D.44 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Three**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.75 | 0.53 | 0.63 | 0.59 | 0.76 | 0.53 | 0.74 | 0.51 | 0.63 | 0.56 | 0.69 | 0.50 |
| **Claim 2** | 12 | 0.76 | 0.54 | 0.69 | 0.61 | 0.77 | 0.54 | 0.75 | 0.51 | 0.68 | 0.57 | 0.67 | 0.50 |
| **Claim 3** | 8–9 | 0.49 | 0.80 | 0.45 | 0.88 | 0.50 | 0.80 | 0.41 | 0.79 | 0.41 | 0.82 | 0.31 | 0.78 |
| **Claim 4** | 8–9 | 0.61 | 0.73 | 0.48 | 0.79 | 0.63 | 0.72 | 0.64 | 0.67 | 0.48 | 0.77 | 0.56 | 0.69 |

**Table 8.D.45 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Four**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.73 | 0.59 | 0.61 | 0.66 | 0.74 | 0.59 | 0.73 | 0.56 | 0.53 | 0.63 | 0.67 | 0.56 |
| **Claim 2** | 12 | 0.75 | 0.55 | 0.71 | 0.61 | 0.76 | 0.55 | 0.71 | 0.55 | 0.67 | 0.57 | 0.64 | 0.53 |
| **Claim 3** | 8–9 | 0.50 | 0.85 | 0.43 | 0.97 | 0.52 | 0.85 | 0.44 | 0.82 | 0.35 | 0.92 | 0.38 | 0.82 |
| **Claim 4** | 8–9 | 0.61 | 0.76 | 0.46 | 0.82 | 0.62 | 0.75 | 0.61 | 0.71 | 0.41 | 0.80 | 0.54 | 0.73 |

**Table 8.D.46 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Five**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.75 | 0.56 | 0.61 | 0.62 | 0.76 | 0.56 | 0.74 | 0.55 | 0.53 | 0.61 | 0.70 | 0.54 |
| **Claim 2** | 12 | 0.77 | 0.53 | 0.73 | 0.56 | 0.79 | 0.53 | 0.74 | 0.54 | 0.69 | 0.53 | 0.69 | 0.53 |
| **Claim 3** | 8–9 | 0.46 | 0.96 | 0.34 | 1.04 | 0.48 | 0.96 | 0.45 | 0.92 | 0.23 | 1.03 | 0.37 | 0.95 |
| **Claim 4** | 8–9 | 0.63 | 0.67 | 0.50 | 0.75 | 0.64 | 0.67 | 0.59 | 0.65 | 0.45 | 0.72 | 0.55 | 0.64 |

**Table 8.D.47 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Six**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.68 | 0.69 | 0.43 | 0.81 | 0.69 | 0.69 | 0.70 | 0.65 | 0.31 | 0.80 | 0.63 | 0.67 |
| **Claim 2** | 12 | 0.75 | 0.52 | 0.67 | 0.60 | 0.77 | 0.53 | 0.73 | 0.53 | 0.64 | 0.56 | 0.69 | 0.51 |
| **Claim 3** | 8–9 | 0.35 | 0.97 | 0.36 | 0.98 | 0.37 | 0.97 | 0.26 | 0.98 | 0.32 | 0.96 | 0.26 | 0.96 |
| **Claim 4** | 8–9 | 0.56 | 0.75 | 0.30 | 0.90 | 0.57 | 0.75 | 0.57 | 0.70 | 0.26 | 0.88 | 0.51 | 0.73 |

**Table 8.D.48 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Seven**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.72 | 0.62 | 0.52 | 0.71 | 0.73 | 0.62 | 0.71 | 0.61 | 0.36 | 0.70 | 0.67 | 0.61 |
| **Claim 2** | 12 | 0.75 | 0.56 | 0.64 | 0.63 | 0.76 | 0.56 | 0.72 | 0.56 | 0.61 | 0.61 | 0.69 | 0.54 |
| **Claim 3** | 8–9 | 0.40 | 0.95 | 0.26 | 0.98 | 0.41 | 0.95 | 0.33 | 0.95 | 0.14 | 0.96 | 0.33 | 0.94 |
| **Claim 4** | 8–9 | 0.60 | 0.78 | 0.30 | 0.92 | 0.61 | 0.78 | 0.62 | 0.72 | 0.22 | 0.91 | 0.56 | 0.77 |

**Table 8.D.49 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Eight**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.73 | 0.59 | 0.53 | 0.69 | 0.74 | 0.59 | 0.73 | 0.58 | 0.36 | 0.70 | 0.69 | 0.58 |
| **Claim 2** | 12 | 0.72 | 0.57 | 0.66 | 0.59 | 0.74 | 0.57 | 0.70 | 0.58 | 0.58 | 0.58 | 0.66 | 0.57 |
| **Claim 3** | 8–9 | 0.41 | 0.93 | 0.37 | 0.93 | 0.43 | 0.93 | 0.36 | 0.94 | 0.24 | 0.92 | 0.33 | 0.92 |
| **Claim 4** | 8–9 | 0.60 | 0.78 | 0.31 | 0.92 | 0.61 | 0.79 | 0.61 | 0.74 | 0.24 | 0.91 | 0.56 | 0.77 |

**Table 8.D.50 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Eleven**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 15–16 | 0.70 | 0.65 | 0.56 | 0.73 | 0.71 | 0.65 | 0.68 | 0.64 | 0.37 | 0.74 | 0.65 | 0.64 |
| **Claim 2** | 12 | 0.72 | 0.65 | 0.60 | 0.73 | 0.74 | 0.66 | 0.70 | 0.65 | 0.53 | 0.73 | 0.68 | 0.65 |
| **Claim 3** | 8–9 | 0.42 | 1.03 | 0.36 | 0.98 | 0.43 | 1.03 | 0.37 | 1.04 | 0.22 | 0.97 | 0.36 | 1.03 |
| **Claim 4** | 8–9 | 0.59 | 0.83 | 0.34 | 1.01 | 0.60 | 0.83 | 0.58 | 0.79 | 0.24 | 1.02 | 0.56 | 0.82 |

**Table 8.D.51 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Three**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 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 | 0.86 | 0.34 | 0.83 | 0.32 |
| **Claim 2** | 8–10 | 0.75 | 0.50 | 0.66 | 0.59 | 0.76 | 0.49 | 0.77 | 0.46 | 0.63 | 0.55 | 0.71 | 0.45 |
| **Claim 3** | 8–10 | 0.64 | 0.62 | 0.47 | 0.74 | 0.66 | 0.61 | 0.71 | 0.54 | 0.47 | 0.69 | 0.64 | 0.55 |

**Table 8.D.52 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Four**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.88 | 0.33 | 0.87 | 0.38 | 0.89 | 0.34 | 0.89 | 0.33 | 0.83 | 0.36 | 0.85 | 0.32 |
| **Claim 2** | 8–10 | 0.69 | 0.55 | 0.54 | 0.66 | 0.70 | 0.55 | 0.72 | 0.51 | 0.44 | 0.64 | 0.65 | 0.51 |
| **Claim 3** | 8–10 | 0.71 | 0.56 | 0.53 | 0.71 | 0.73 | 0.56 | 0.77 | 0.49 | 0.48 | 0.66 | 0.71 | 0.50 |

**Table 8.D.53 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Five**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.86 | 0.40 | 0.81 | 0.49 | 0.87 | 0.40 | 0.88 | 0.37 | 0.76 | 0.46 | 0.84 | 0.38 |
| **Claim 2** | 8–10 | 0.67 | 0.59 | 0.41 | 0.72 | 0.69 | 0.58 | 0.74 | 0.53 | 0.21 | 0.72 | 0.66 | 0.55 |
| **Claim 3** | 8–10 | 0.61 | 0.71 | 0.28 | 0.85 | 0.63 | 0.70 | 0.69 | 0.64 | 0.13 | 0.84 | 0.60 | 0.67 |

**Table 8.D.54 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Six**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 16–20 | 0.87 | 0.44 | 0.79 | 0.56 | 0.87 | 0.45 | 0.87 | 0.43 | 0.77 | 0.53 | 0.84 | 0.43 |
| **Claim 2** | 8–10 | 0.63 | 0.69 | 0.32 | 0.89 | 0.65 | 0.68 | 0.71 | 0.62 | 0.14 | 0.86 | 0.59 | 0.67 |
| **Claim 3** | 8–10 | 0.62 | 0.77 | 0.25 | 0.96 | 0.64 | 0.76 | 0.70 | 0.69 | 0.12 | 0.94 | 0.58 | 0.75 |

**Table 8.D.55 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Seven**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 16–20 | 0.85 | 0.50 | 0.71 | 0.66 | 0.86 | 0.50 | 0.87 | 0.46 | 0.68 | 0.64 | 0.83 | 0.48 |
| **Claim 2** | 8–10 | 0.60 | 0.75 | 0.18 | 0.95 | 0.61 | 0.74 | 0.70 | 0.67 | 0.01 | 0.94 | 0.54 | 0.75 |
| **Claim 3** | 8–10 | 0.46 | 0.90 | N/A | N/A | 0.48 | 0.90 | 0.60 | 0.79 | N/A | N/A | 0.41 | 0.89 |

**Table 8.D.56 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Eight**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 16–20 | 0.84 | 0.55 | 0.68 | 0.70 | 0.85 | 0.55 | 0.87 | 0.51 | 0.66 | 0.68 | 0.82 | 0.54 |
| **Claim 2** | 8–10 | 0.55 | 0.84 | 0.11 | 1.04 | 0.58 | 0.83 | 0.66 | 0.77 | N/A | N/A | 0.48 | 0.86 |
| **Claim 3** | 8–10 | 0.64 | 0.85 | 0.31 | 1.04 | 0.66 | 0.84 | 0.71 | 0.78 | 0.25 | 1.06 | 0.61 | 0.84 |

**Table 8.D.57 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Eleven**

| Claim | No. of Items | No Special Services | | Special Services | | English Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 19–22 | 0.82 | 0.63 | 0.53 | 0.85 | 0.83 | 0.64 | 0.86 | 0.59 | 0.54 | 0.85 | 0.80 | 0.63 |
| **Claim 2** | 8–10 | 0.49 | 1.02 | N/A | N/A | 0.50 | 1.02 | 0.59 | 0.94 | N/A | N/A | 0.40 | 1.05 |
| **Claim 3** | 8–10 | 0.51 | 1.08 | N/A | N/A | 0.53 | 1.07 | 0.60 | 1.01 | N/A | N/A | 0.46 | 1.09 |

**Table 8.D.58 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Three**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.71 | 0.56 | 0.75 | 0.52 | 0.71 | 0.53 | 0.74 | 0.51 | 0.69 | 0.55 | 0.68 | 0.57 | 0.76 | 0.52 |
| **Claim 2** | 12 | 0.73 | 0.56 | 0.77 | 0.52 | 0.75 | 0.54 | 0.75 | 0.51 | 0.72 | 0.56 | 0.72 | 0.57 | 0.76 | 0.52 |
| **Claim 3** | 8–9 | 0.48 | 0.81 | 0.45 | 0.79 | 0.45 | 0.80 | 0.41 | 0.79 | 0.46 | 0.81 | 0.47 | 0.83 | 0.47 | 0.79 |
| **Claim 4** | 8–9 | 0.54 | 0.76 | 0.65 | 0.68 | 0.57 | 0.74 | 0.62 | 0.69 | 0.54 | 0.75 | 0.53 | 0.77 | 0.63 | 0.70 |

**Table 8.D.59 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Four**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.69 | 0.61 | 0.74 | 0.57 | 0.69 | 0.60 | 0.72 | 0.57 | 0.68 | 0.61 | 0.67 | 0.62 | 0.74 | 0.57 |
| **Claim 2** | 12 | 0.74 | 0.56 | 0.73 | 0.56 | 0.74 | 0.55 | 0.72 | 0.55 | 0.73 | 0.55 | 0.74 | 0.56 | 0.74 | 0.55 |
| **Claim 3** | 8–9 | 0.48 | 0.88 | 0.50 | 0.83 | 0.47 | 0.87 | 0.47 | 0.83 | 0.46 | 0.88 | 0.47 | 0.91 | 0.49 | 0.83 |
| **Claim 4** | 8–9 | 0.57 | 0.79 | 0.63 | 0.71 | 0.58 | 0.78 | 0.61 | 0.72 | 0.55 | 0.78 | 0.53 | 0.80 | 0.61 | 0.74 |

**Table 8.D.60 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Five**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.72 | 0.59 | 0.75 | 0.55 | 0.73 | 0.57 | 0.73 | 0.55 | 0.71 | 0.57 | 0.71 | 0.59 | 0.76 | 0.56 |
| **Claim 2** | 12 | 0.77 | 0.54 | 0.76 | 0.54 | 0.77 | 0.53 | 0.74 | 0.54 | 0.76 | 0.53 | 0.77 | 0.54 | 0.77 | 0.54 |
| **Claim 3** | 8–9 | 0.40 | 1.00 | 0.48 | 0.92 | 0.42 | 0.99 | 0.44 | 0.94 | 0.41 | 0.99 | 0.42 | 1.01 | 0.46 | 0.94 |
| **Claim 4** | 8–9 | 0.60 | 0.70 | 0.62 | 0.65 | 0.62 | 0.68 | 0.61 | 0.65 | 0.60 | 0.69 | 0.60 | 0.70 | 0.62 | 0.66 |

**Table 8.D.61 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Six**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 13–17 | 0.63 | 0.73 | 0.70 | 0.65 | 0.64 | 0.72 | 0.68 | 0.66 | 0.61 | 0.73 | 0.60 | 0.75 | 0.70 | 0.66 |
| Claim 2 | 12 | 0.76 | 0.54 | 0.73 | 0.54 | 0.75 | 0.53 | 0.72 | 0.52 | 0.74 | 0.53 | 0.75 | 0.55 | 0.75 | 0.52 |
| Claim 3 | 8–9 | 0.42 | 0.97 | 0.28 | 0.99 | 0.37 | 0.96 | 0.28 | 0.98 | 0.39 | 0.96 | 0.41 | 0.97 | 0.31 | 0.98 |
| Claim 4 | 8–9 | 0.50 | 0.82 | 0.59 | 0.69 | 0.53 | 0.79 | 0.57 | 0.71 | 0.50 | 0.80 | 0.49 | 0.82 | 0.56 | 0.73 |

**Table 8.D.62 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Seven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 13–17 | 0.69 | 0.65 | 0.72 | 0.61 | 0.68 | 0.63 | 0.70 | 0.61 | 0.67 | 0.64 | 0.66 | 0.65 | 0.71 | 0.61 |
| Claim 2 | 12 | 0.75 | 0.58 | 0.72 | 0.56 | 0.74 | 0.56 | 0.71 | 0.56 | 0.73 | 0.57 | 0.74 | 0.58 | 0.74 | 0.56 |
| Claim 3 | 8–9 | 0.39 | 0.95 | 0.33 | 0.96 | 0.36 | 0.94 | 0.34 | 0.95 | 0.39 | 0.95 | 0.39 | 0.95 | 0.36 | 0.95 |
| Claim 4 | 8–9 | 0.52 | 0.84 | 0.62 | 0.70 | 0.54 | 0.80 | 0.59 | 0.72 | 0.54 | 0.82 | 0.51 | 0.85 | 0.60 | 0.75 |

**Table 8.D.63 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eight**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 13–17 | 0.70 | 0.62 | 0.73 | 0.57 | 0.70 | 0.61 | 0.71 | 0.57 | 0.69 | 0.62 | 0.68 | 0.64 | 0.73 | 0.58 |
| Claim 2 | 12 | 0.73 | 0.57 | 0.70 | 0.59 | 0.72 | 0.57 | 0.67 | 0.58 | 0.71 | 0.57 | 0.73 | 0.58 | 0.72 | 0.58 |
| Claim 3 | 8–9 | 0.44 | 0.92 | 0.34 | 0.94 | 0.42 | 0.92 | 0.33 | 0.94 | 0.42 | 0.92 | 0.44 | 0.92 | 0.39 | 0.94 |
| Claim 4 | 8–9 | 0.54 | 0.83 | 0.61 | 0.72 | 0.57 | 0.82 | 0.59 | 0.74 | 0.55 | 0.82 | 0.52 | 0.85 | 0.60 | 0.76 |

**Table 8.D.64 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eleven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 15–16 | 0.70 | 0.66 | 0.71 | 0.64 | 0.69 | 0.66 | 0.66 | 0.64 | 0.68 | 0.67 | 0.69 | 0.68 | 0.70 | 0.64 |
| Claim 2 | 12 | 0.73 | 0.67 | 0.71 | 0.65 | 0.73 | 0.67 | 0.68 | 0.64 | 0.72 | 0.67 | 0.72 | 0.68 | 0.72 | 0.65 |
| Claim 3 | 8–9 | 0.46 | 1.03 | 0.38 | 1.04 | 0.42 | 1.03 | 0.36 | 1.04 | 0.42 | 1.02 | 0.45 | 1.01 | 0.40 | 1.04 |
| Claim 4 | 8–9 | 0.59 | 0.87 | 0.57 | 0.77 | 0.57 | 0.86 | 0.55 | 0.77 | 0.57 | 0.87 | 0.55 | 0.91 | 0.60 | 0.81 |

**Table 8.D.65 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Three**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | 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 | 0.86 | 0.34 | 0.87 | 0.34 | 0.88 | 0.33 |
| **Claim 2** | 8–10 | 0.69 | 0.53 | 0.77 | 0.47 | 0.71 | 0.52 | 0.74 | 0.47 | 0.67 | 0.53 | 0.66 | 0.55 | 0.76 | 0.47 |
| **Claim 3** | 8–10 | 0.55 | 0.67 | 0.72 | 0.54 | 0.58 | 0.64 | 0.67 | 0.56 | 0.53 | 0.67 | 0.50 | 0.69 | 0.68 | 0.58 |

**Table 8.D.66 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Four**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | 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 | 0.89 | 0.33 | 0.87 | 0.34 | 0.87 | 0.33 | 0.86 | 0.34 | 0.86 | 0.35 | 0.88 | 0.33 |
| **Claim 2** | 8–10 | 0.64 | 0.58 | 0.73 | 0.51 | 0.63 | 0.57 | 0.69 | 0.52 | 0.59 | 0.59 | 0.56 | 0.61 | 0.71 | 0.52 |
| **Claim 3** | 8–10 | 0.66 | 0.62 | 0.77 | 0.48 | 0.64 | 0.59 | 0.74 | 0.50 | 0.61 | 0.61 | 0.58 | 0.65 | 0.75 | 0.52 |

**Table 8.D.67 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Five**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.83 | 0.43 | 0.88 | 0.37 | 0.85 | 0.42 | 0.86 | 0.38 | 0.82 | 0.43 | 0.82 | 0.45 | 0.87 | 0.38 |
| **Claim 2** | 8–10 | 0.55 | 0.64 | 0.76 | 0.51 | 0.57 | 0.62 | 0.70 | 0.54 | 0.53 | 0.64 | 0.47 | 0.67 | 0.71 | 0.54 |
| **Claim 3** | 8–10 | 0.48 | 0.78 | 0.70 | 0.62 | 0.53 | 0.75 | 0.65 | 0.65 | 0.45 | 0.77 | 0.40 | 0.79 | 0.65 | 0.66 |

**Table 8.D.68 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Six**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 16–20 | 0.85 | 0.47 | 0.87 | 0.42 | 0.85 | 0.45 | 0.86 | 0.43 | 0.84 | 0.47 | 0.84 | 0.49 | 0.87 | 0.43 |
| **Claim 2** | 8–10 | 0.52 | 0.74 | 0.73 | 0.59 | 0.56 | 0.73 | 0.66 | 0.63 | 0.48 | 0.75 | 0.45 | 0.79 | 0.67 | 0.63 |
| **Claim 3** | 8–10 | 0.53 | 0.83 | 0.72 | 0.66 | 0.55 | 0.80 | 0.65 | 0.70 | 0.48 | 0.84 | 0.46 | 0.86 | 0.66 | 0.71 |

**Table 8.D.69 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Seven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 16–20 | 0.82 | 0.54 | 0.87 | 0.44 | 0.83 | 0.52 | 0.86 | 0.46 | 0.80 | 0.54 | 0.79 | 0.57 | 0.86 | 0.47 |
| **Claim 2** | 8–10 | 0.45 | 0.83 | 0.73 | 0.61 | 0.49 | 0.79 | 0.64 | 0.68 | 0.40 | 0.82 | 0.33 | 0.86 | 0.64 | 0.68 |
| **Claim 3** | 8–10 | 0.25 | 1.01 | 0.65 | 0.72 | 0.34 | 0.93 | 0.54 | 0.80 | 0.19 | 1.01 | 0.11 | 1.05 | 0.54 | 0.83 |

**Table 8.D.70 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eight**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 16–20 | 0.80 | 0.60 | 0.87 | 0.49 | 0.82 | 0.58 | 0.85 | 0.51 | 0.79 | 0.59 | 0.78 | 0.62 | 0.85 | 0.52 |
| **Claim 2** | 8–10 | 0.43 | 0.91 | 0.69 | 0.70 | 0.43 | 0.89 | 0.59 | 0.77 | 0.34 | 0.92 | 0.28 | 0.96 | 0.61 | 0.78 |
| **Claim 3** | 8–10 | 0.55 | 0.91 | 0.72 | 0.73 | 0.58 | 0.87 | 0.66 | 0.78 | 0.53 | 0.91 | 0.51 | 0.93 | 0.68 | 0.80 |

**Table 8.D.71 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eleven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 19–22 | 0.78 | 0.69 | 0.88 | 0.52 | 0.78 | 0.67 | 0.83 | 0.57 | 0.75 | 0.69 | 0.73 | 0.73 | 0.85 | 0.60 |
| **Claim 2** | 8–10 | 0.36 | 1.11 | 0.67 | 0.81 | 0.35 | 1.11 | 0.54 | 0.92 | 0.25 | 1.13 | 0.10 | 1.22 | 0.56 | 0.95 |
| **Claim 3** | 8–10 | 0.39 | 1.15 | 0.66 | 0.90 | 0.42 | 1.12 | 0.56 | 0.98 | 0.33 | 1.17 | 0.27 | 1.20 | 0.57 | 1.02 |

**Table 8.D.72 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.75 | 0.54 | 0.72 | 0.51 | 0.74 | 0.52 | 0.73 | 0.51 | 0.74 | 0.53 | 0.74 | 0.54 | 0.74 | 0.51 |
| **Claim 2** | 12 | 0.75 | 0.53 | 0.73 | 0.51 | 0.74 | 0.52 | 0.74 | 0.51 | 0.75 | 0.53 | 0.75 | 0.54 | 0.74 | 0.51 |
| **Claim 3** | 8–9 | 0.46 | 0.78 | 0.37 | 0.79 | 0.44 | 0.79 | 0.39 | 0.79 | 0.47 | 0.79 | 0.49 | 0.80 | 0.42 | 0.79 |
| **Claim 4** | 8–9 | 0.60 | 0.72 | 0.63 | 0.66 | 0.61 | 0.71 | 0.61 | 0.68 | 0.60 | 0.72 | 0.61 | 0.74 | 0.62 | 0.69 |

**Table 8.D.73 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.73 | 0.58 | 0.70 | 0.56 | 0.72 | 0.58 | 0.70 | 0.56 | 0.72 | 0.58 | 0.73 | 0.60 | 0.72 | 0.56 |
| **Claim 2** | 12 | 0.74 | 0.54 | 0.67 | 0.56 | 0.73 | 0.54 | 0.70 | 0.55 | 0.74 | 0.55 | 0.75 | 0.55 | 0.70 | 0.55 |
| **Claim 3** | 8–9 | 0.51 | 0.84 | 0.41 | 0.81 | 0.47 | 0.84 | 0.45 | 0.82 | 0.49 | 0.85 | 0.50 | 0.87 | 0.44 | 0.82 |
| **Claim 4** | 8–9 | 0.62 | 0.75 | 0.58 | 0.69 | 0.61 | 0.76 | 0.60 | 0.71 | 0.60 | 0.75 | 0.58 | 0.77 | 0.58 | 0.72 |

**Table 8.D.74 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | 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 | 0.71 | 0.55 | 0.74 | 0.55 | 0.72 | 0.55 | 0.75 | 0.56 | 0.75 | 0.57 | 0.73 | 0.55 |
| **Claim 2** | 12 | 0.77 | 0.53 | 0.70 | 0.55 | 0.75 | 0.53 | 0.73 | 0.54 | 0.76 | 0.53 | 0.78 | 0.53 | 0.74 | 0.54 |
| **Claim 3** | 8–9 | 0.45 | 0.97 | 0.42 | 0.89 | 0.42 | 0.96 | 0.43 | 0.93 | 0.45 | 0.96 | 0.47 | 0.97 | 0.42 | 0.92 |
| **Claim 4** | 8–9 | 0.63 | 0.67 | 0.53 | 0.65 | 0.62 | 0.67 | 0.58 | 0.65 | 0.62 | 0.66 | 0.63 | 0.67 | 0.58 | 0.65 |

**Table 8.D.75 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.68 | 0.70 | 0.67 | 0.63 | 0.68 | 0.69 | 0.67 | 0.65 | 0.67 | 0.69 | 0.67 | 0.70 | 0.68 | 0.65 |
| **Claim 2** | 12 | 0.76 | 0.53 | 0.66 | 0.54 | 0.74 | 0.52 | 0.69 | 0.53 | 0.74 | 0.52 | 0.77 | 0.53 | 0.71 | 0.52 |
| **Claim 3** | 8–9 | 0.38 | 0.98 | 0.14 | 0.99 | 0.32 | 0.96 | 0.24 | 0.98 | 0.34 | 0.97 | 0.39 | 0.97 | 0.23 | 0.98 |
| **Claim 4** | 8–9 | 0.55 | 0.77 | 0.53 | 0.66 | 0.55 | 0.75 | 0.55 | 0.69 | 0.54 | 0.75 | 0.54 | 0.77 | 0.54 | 0.70 |

**Table 8.D.76 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | 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 | 0.66 | 0.60 | 0.70 | 0.62 | 0.68 | 0.60 | 0.71 | 0.62 | 0.70 | 0.63 | 0.69 | 0.60 |
| **Claim 2** | 12 | 0.76 | 0.56 | 0.64 | 0.57 | 0.72 | 0.56 | 0.67 | 0.56 | 0.74 | 0.55 | 0.76 | 0.56 | 0.70 | 0.55 |
| **Claim 3** | 8–9 | 0.40 | 0.94 | 0.22 | 0.96 | 0.35 | 0.94 | 0.31 | 0.95 | 0.39 | 0.95 | 0.40 | 0.95 | 0.30 | 0.95 |
| **Claim 4** | 8–9 | 0.58 | 0.79 | 0.57 | 0.67 | 0.55 | 0.76 | 0.58 | 0.70 | 0.58 | 0.77 | 0.58 | 0.80 | 0.59 | 0.72 |

**Table 8.D.77 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.71 | 0.60 | 0.68 | 0.56 | 0.72 | 0.58 | 0.70 | 0.56 | 0.72 | 0.59 | 0.72 | 0.61 | 0.71 | 0.57 |
| **Claim 2** | 12 | 0.74 | 0.57 | 0.63 | 0.59 | 0.71 | 0.58 | 0.63 | 0.58 | 0.71 | 0.57 | 0.74 | 0.58 | 0.68 | 0.58 |
| **Claim 3** | 8–9 | 0.41 | 0.92 | 0.24 | 0.95 | 0.41 | 0.94 | 0.28 | 0.94 | 0.40 | 0.93 | 0.44 | 0.93 | 0.33 | 0.94 |
| **Claim 4** | 8–9 | 0.58 | 0.79 | 0.55 | 0.70 | 0.59 | 0.79 | 0.57 | 0.72 | 0.59 | 0.78 | 0.58 | 0.81 | 0.58 | 0.74 |

**Table 8.D.78 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 15–16 | 0.70 | 0.65 | 0.66 | 0.64 | 0.70 | 0.65 | 0.64 | 0.63 | 0.69 | 0.65 | 0.70 | 0.67 | 0.68 | 0.64 |
| **Claim 2** | 12 | 0.72 | 0.66 | 0.66 | 0.65 | 0.73 | 0.66 | 0.65 | 0.64 | 0.72 | 0.66 | 0.73 | 0.67 | 0.70 | 0.65 |
| **Claim 3** | 8–9 | 0.44 | 1.02 | 0.30 | 1.05 | 0.41 | 1.04 | 0.34 | 1.04 | 0.42 | 1.03 | 0.45 | 1.02 | 0.37 | 1.04 |
| **Claim 4** | 8–9 | 0.61 | 0.83 | 0.52 | 0.75 | 0.58 | 0.84 | 0.53 | 0.76 | 0.58 | 0.84 | 0.58 | 0.87 | 0.59 | 0.79 |

**Table 8.D.79 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.88 | 0.33 | 0.85 | 0.33 | 0.87 | 0.33 | 0.85 | 0.33 | 0.87 | 0.33 | 0.87 | 0.34 | 0.86 | 0.33 |
| **Claim 2** | 8–10 | 0.75 | 0.50 | 0.74 | 0.45 | 0.75 | 0.49 | 0.74 | 0.46 | 0.73 | 0.49 | 0.72 | 0.51 | 0.75 | 0.46 |
| **Claim 3** | 8–10 | 0.62 | 0.62 | 0.71 | 0.51 | 0.65 | 0.59 | 0.68 | 0.55 | 0.63 | 0.61 | 0.61 | 0.64 | 0.68 | 0.55 |

**Table 8.D.80 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.88 | 0.33 | 0.86 | 0.33 | 0.87 | 0.33 | 0.86 | 0.33 | 0.87 | 0.33 | 0.88 | 0.34 | 0.87 | 0.33 |
| **Claim 2** | 8–10 | 0.71 | 0.54 | 0.69 | 0.50 | 0.69 | 0.55 | 0.69 | 0.51 | 0.67 | 0.55 | 0.65 | 0.56 | 0.70 | 0.50 |
| **Claim 3** | 8–10 | 0.74 | 0.55 | 0.75 | 0.46 | 0.71 | 0.55 | 0.74 | 0.49 | 0.70 | 0.55 | 0.68 | 0.59 | 0.75 | 0.49 |

**Table 8.D.81 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.86 | 0.40 | 0.86 | 0.36 | 0.86 | 0.39 | 0.86 | 0.37 | 0.85 | 0.40 | 0.86 | 0.42 | 0.87 | 0.37 |
| **Claim 2** | 8–10 | 0.67 | 0.57 | 0.74 | 0.48 | 0.64 | 0.57 | 0.71 | 0.52 | 0.65 | 0.58 | 0.62 | 0.61 | 0.71 | 0.51 |
| **Claim 3** | 8–10 | 0.60 | 0.73 | 0.68 | 0.58 | 0.61 | 0.68 | 0.65 | 0.63 | 0.58 | 0.71 | 0.54 | 0.74 | 0.66 | 0.63 |

**Table 8.D.82 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Six**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 16–20 | 0.87 | 0.45 | 0.84 | 0.42 | 0.86 | 0.44 | 0.85 | 0.42 | 0.86 | 0.44 | 0.86 | 0.46 | 0.85 | 0.42 |
| Claim 2 | 8–10 | 0.61 | 0.70 | 0.71 | 0.56 | 0.64 | 0.68 | 0.67 | 0.60 | 0.60 | 0.68 | 0.57 | 0.72 | 0.68 | 0.60 |
| Claim 3 | 8–10 | 0.62 | 0.76 | 0.70 | 0.61 | 0.62 | 0.75 | 0.67 | 0.68 | 0.60 | 0.77 | 0.58 | 0.79 | 0.67 | 0.68 |

**Table 8.D.83 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Seven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 16–20 | 0.85 | 0.50 | 0.85 | 0.43 | 0.84 | 0.48 | 0.85 | 0.45 | 0.84 | 0.50 | 0.83 | 0.53 | 0.85 | 0.45 |
| Claim 2 | 8–10 | 0.58 | 0.76 | 0.72 | 0.57 | 0.57 | 0.73 | 0.65 | 0.65 | 0.55 | 0.75 | 0.49 | 0.79 | 0.66 | 0.65 |
| Claim 3 | 8–10 | 0.43 | 0.90 | 0.65 | 0.66 | 0.46 | 0.85 | 0.57 | 0.77 | 0.40 | 0.91 | 0.33 | 0.96 | 0.57 | 0.78 |

**Table 8.D.84 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eight**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 16–20 | 0.82 | 0.56 | 0.86 | 0.46 | 0.84 | 0.54 | 0.85 | 0.49 | 0.83 | 0.56 | 0.82 | 0.58 | 0.85 | 0.50 |
| Claim 2 | 8–10 | 0.55 | 0.85 | 0.69 | 0.65 | 0.53 | 0.82 | 0.61 | 0.74 | 0.49 | 0.86 | 0.44 | 0.89 | 0.62 | 0.74 |
| Claim 3 | 8–10 | 0.63 | 0.85 | 0.71 | 0.69 | 0.63 | 0.84 | 0.67 | 0.76 | 0.61 | 0.86 | 0.60 | 0.88 | 0.68 | 0.77 |

**Table 8.D.85 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eleven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 19–22 | 0.81 | 0.64 | 0.88 | 0.49 | 0.81 | 0.64 | 0.84 | 0.55 | 0.79 | 0.66 | 0.78 | 0.69 | 0.85 | 0.57 |
| Claim 2 | 8–10 | 0.48 | 1.01 | 0.68 | 0.76 | 0.43 | 1.06 | 0.56 | 0.89 | 0.38 | 1.07 | 0.27 | 1.14 | 0.58 | 0.90 |
| Claim 3 | 8–10 | 0.49 | 1.10 | 0.67 | 0.83 | 0.48 | 1.09 | 0.57 | 0.95 | 0.43 | 1.12 | 0.38 | 1.15 | 0.60 | 0.99 |

**Table 8.D.86 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.66 | 0.57 | 0.74 | 0.53 | 0.67 | 0.54 | 0.73 | 0.52 | 0.66 | 0.56 | 0.64 | 0.57 | 0.73 | 0.54 |
| **Claim 2** | 12 | 0.69 | 0.57 | 0.76 | 0.53 | 0.73 | 0.55 | 0.74 | 0.52 | 0.70 | 0.56 | 0.70 | 0.57 | 0.73 | 0.55 |
| **Claim 3** | 8–9 | 0.45 | 0.83 | 0.46 | 0.79 | 0.41 | 0.81 | 0.41 | 0.79 | 0.44 | 0.82 | 0.44 | 0.83 | 0.49 | 0.80 |
| **Claim 4** | 8–9 | 0.48 | 0.78 | 0.62 | 0.71 | 0.52 | 0.75 | 0.61 | 0.71 | 0.51 | 0.76 | 0.48 | 0.78 | 0.57 | 0.74 |

**Table 8.D.87 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.63 | 0.63 | 0.73 | 0.58 | 0.65 | 0.61 | 0.71 | 0.58 | 0.65 | 0.61 | 0.63 | 0.63 | 0.71 | 0.60 |
| **Claim 2** | 12 | 0.71 | 0.56 | 0.75 | 0.55 | 0.73 | 0.55 | 0.74 | 0.55 | 0.72 | 0.56 | 0.72 | 0.57 | 0.74 | 0.55 |
| **Claim 3** | 8–9 | 0.42 | 0.90 | 0.50 | 0.85 | 0.44 | 0.88 | 0.46 | 0.84 | 0.44 | 0.89 | 0.43 | 0.92 | 0.49 | 0.87 |
| **Claim 4** | 8–9 | 0.49 | 0.80 | 0.62 | 0.75 | 0.55 | 0.78 | 0.60 | 0.74 | 0.52 | 0.79 | 0.48 | 0.81 | 0.56 | 0.78 |

**Table 8.D.88 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 14–16 | 0.67 | 0.59 | 0.75 | 0.56 | 0.69 | 0.58 | 0.73 | 0.55 | 0.69 | 0.58 | 0.67 | 0.60 | 0.74 | 0.57 |
| **Claim 2** | 12 | 0.75 | 0.54 | 0.78 | 0.53 | 0.77 | 0.53 | 0.75 | 0.53 | 0.75 | 0.53 | 0.75 | 0.54 | 0.77 | 0.53 |
| **Claim 3** | 8–9 | 0.33 | 1.01 | 0.48 | 0.96 | 0.39 | 1.00 | 0.43 | 0.96 | 0.39 | 1.00 | 0.37 | 1.02 | 0.44 | 0.98 |
| **Claim 4** | 8–9 | 0.55 | 0.71 | 0.64 | 0.66 | 0.59 | 0.68 | 0.63 | 0.66 | 0.58 | 0.69 | 0.56 | 0.71 | 0.61 | 0.68 |

**Table 8.D.89 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.57 | 0.75 | 0.69 | 0.68 | 0.57 | 0.73 | 0.67 | 0.68 | 0.58 | 0.74 | 0.55 | 0.76 | 0.65 | 0.71 |
| **Claim 2** | 12 | 0.73 | 0.55 | 0.76 | 0.53 | 0.75 | 0.53 | 0.74 | 0.52 | 0.73 | 0.53 | 0.73 | 0.55 | 0.75 | 0.53 |
| **Claim 3** | 8–9 | 0.40 | 0.97 | 0.36 | 0.97 | 0.37 | 0.96 | 0.31 | 0.97 | 0.39 | 0.96 | 0.40 | 0.96 | 0.37 | 0.96 |
| **Claim 4** | 8–9 | 0.44 | 0.84 | 0.59 | 0.73 | 0.51 | 0.81 | 0.56 | 0.74 | 0.47 | 0.81 | 0.44 | 0.84 | 0.50 | 0.79 |

**Table 8.D.90 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.64 | 0.66 | 0.73 | 0.62 | 0.65 | 0.64 | 0.70 | 0.61 | 0.65 | 0.65 | 0.62 | 0.66 | 0.70 | 0.63 |
| **Claim 2** | 12 | 0.72 | 0.58 | 0.75 | 0.56 | 0.73 | 0.56 | 0.73 | 0.55 | 0.72 | 0.57 | 0.72 | 0.59 | 0.75 | 0.56 |
| **Claim 3** | 8–9 | 0.35 | 0.95 | 0.38 | 0.95 | 0.33 | 0.94 | 0.36 | 0.94 | 0.37 | 0.95 | 0.36 | 0.95 | 0.40 | 0.95 |
| **Claim 4** | 8–9 | 0.45 | 0.86 | 0.62 | 0.74 | 0.52 | 0.82 | 0.57 | 0.75 | 0.51 | 0.84 | 0.46 | 0.87 | 0.55 | 0.81 |

**Table 8.D.91 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 13–17 | 0.67 | 0.63 | 0.74 | 0.58 | 0.66 | 0.62 | 0.70 | 0.58 | 0.67 | 0.63 | 0.65 | 0.65 | 0.72 | 0.61 |
| **Claim 2** | 12 | 0.70 | 0.57 | 0.72 | 0.58 | 0.70 | 0.57 | 0.68 | 0.57 | 0.70 | 0.57 | 0.71 | 0.58 | 0.73 | 0.57 |
| **Claim 3** | 8–9 | 0.43 | 0.92 | 0.39 | 0.93 | 0.41 | 0.92 | 0.37 | 0.93 | 0.41 | 0.92 | 0.42 | 0.92 | 0.43 | 0.93 |
| **Claim 4** | 8–9 | 0.49 | 0.86 | 0.62 | 0.76 | 0.53 | 0.84 | 0.60 | 0.77 | 0.53 | 0.83 | 0.48 | 0.87 | 0.57 | 0.81 |

**Table 8.D.92 Claim Reliabilities and SEM for ELA, Grade Eleven by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 15–16 | 0.68 | 0.67 | 0.71 | 0.65 | 0.67 | 0.67 | 0.67 | 0.65 | 0.67 | 0.67 | 0.66 | 0.69 | 0.71 | 0.66 |
| **Claim 2** | 12 | 0.70 | 0.68 | 0.73 | 0.65 | 0.71 | 0.68 | 0.70 | 0.65 | 0.71 | 0.67 | 0.70 | 0.69 | 0.73 | 0.67 |
| **Claim 3** | 8–9 | 0.45 | 1.03 | 0.42 | 1.03 | 0.41 | 1.02 | 0.37 | 1.03 | 0.42 | 1.01 | 0.44 | 1.01 | 0.44 | 1.03 |
| **Claim 4** | 8–9 | 0.54 | 0.91 | 0.59 | 0.80 | 0.54 | 0.88 | 0.57 | 0.80 | 0.56 | 0.88 | 0.52 | 0.93 | 0.59 | 0.86 |

**Table 8.D.93 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | 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 | 0.33 | 0.86 | 0.34 | 0.86 | 0.33 | 0.85 | 0.34 | 0.86 | 0.35 | 0.87 | 0.34 |
| **Claim 2** | 8–10 | 0.64 | 0.54 | 0.75 | 0.49 | 0.67 | 0.53 | 0.73 | 0.49 | 0.64 | 0.54 | 0.61 | 0.57 | 0.72 | 0.50 |
| **Claim 3** | 8–10 | 0.48 | 0.69 | 0.67 | 0.59 | 0.51 | 0.66 | 0.63 | 0.59 | 0.48 | 0.68 | 0.44 | 0.71 | 0.59 | 0.64 |

**Table 8.D.94 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.85 | 0.35 | 0.89 | 0.33 | 0.85 | 0.34 | 0.86 | 0.33 | 0.85 | 0.35 | 0.85 | 0.35 | 0.87 | 0.34 |
| **Claim 2** | 8–10 | 0.55 | 0.60 | 0.70 | 0.54 | 0.57 | 0.58 | 0.66 | 0.54 | 0.55 | 0.60 | 0.49 | 0.62 | 0.64 | 0.56 |
| **Claim 3** | 8–10 | 0.57 | 0.65 | 0.74 | 0.52 | 0.58 | 0.60 | 0.70 | 0.54 | 0.57 | 0.62 | 0.51 | 0.67 | 0.67 | 0.59 |

**Table 8.D.95 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| **Claim 1** | 17–20 | 0.80 | 0.45 | 0.87 | 0.39 | 0.83 | 0.43 | 0.85 | 0.39 | 0.81 | 0.44 | 0.80 | 0.46 | 0.84 | 0.41 |
| **Claim 2** | 8–10 | 0.41 | 0.67 | 0.70 | 0.56 | 0.50 | 0.64 | 0.66 | 0.57 | 0.47 | 0.66 | 0.36 | 0.69 | 0.60 | 0.60 |
| **Claim 3** | 8–10 | 0.35 | 0.80 | 0.64 | 0.67 | 0.44 | 0.78 | 0.61 | 0.68 | 0.38 | 0.78 | 0.29 | 0.81 | 0.53 | 0.74 |

**Table 8.D.96 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Six**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 16–20 | 0.83 | 0.48 | 0.87 | 0.43 | 0.83 | 0.46 | 0.86 | 0.44 | 0.83 | 0.48 | 0.82 | 0.50 | 0.85 | 0.46 |
| Claim 2 | 8–10 | 0.43 | 0.77 | 0.67 | 0.64 | 0.48 | 0.75 | 0.60 | 0.67 | 0.42 | 0.77 | 0.35 | 0.81 | 0.55 | 0.71 |
| Claim 3 | 8–10 | 0.43 | 0.86 | 0.66 | 0.72 | 0.49 | 0.82 | 0.60 | 0.75 | 0.42 | 0.85 | 0.36 | 0.89 | 0.56 | 0.80 |

**Table 8.D.97 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Seven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 16–20 | 0.78 | 0.56 | 0.87 | 0.47 | 0.80 | 0.54 | 0.84 | 0.49 | 0.79 | 0.55 | 0.76 | 0.58 | 0.83 | 0.52 |
| Claim 2 | 8–10 | 0.28 | 0.87 | 0.66 | 0.68 | 0.39 | 0.82 | 0.56 | 0.73 | 0.32 | 0.84 | 0.20 | 0.88 | 0.47 | 0.78 |
| Claim 3 | 8–10 | 0.05 | 1.07 | 0.55 | 0.81 | 0.23 | 0.98 | 0.44 | 0.86 | 0.10 | 1.03 | N/A | N/A | 0.32 | 0.95 |

**Table 8.D.98 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eight**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 16–20 | 0.76 | 0.62 | 0.87 | 0.52 | 0.79 | 0.59 | 0.83 | 0.54 | 0.77 | 0.60 | 0.74 | 0.64 | 0.81 | 0.57 |
| Claim 2 | 8–10 | 0.28 | 0.94 | 0.63 | 0.78 | 0.30 | 0.93 | 0.51 | 0.83 | 0.27 | 0.94 | 0.14 | 0.98 | 0.45 | 0.87 |
| Claim 3 | 8–10 | 0.46 | 0.94 | 0.69 | 0.79 | 0.53 | 0.89 | 0.62 | 0.82 | 0.49 | 0.93 | 0.45 | 0.95 | 0.59 | 0.88 |

**Table 8.D.99 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eleven**

| Claim | No. of Items | American Indian | | Asian | | Pacific Islander | | Filipino | | Hispanic | | African American | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM | Reliability | SEM |
| Claim 1 | 19–22 | 0.71 | 0.74 | 0.86 | 0.57 | 0.74 | 0.69 | 0.81 | 0.60 | 0.73 | 0.71 | 0.68 | 0.76 | 0.78 | 0.68 |
| Claim 2 | 8–10 | 0.13 | 1.20 | 0.61 | 0.89 | 0.25 | 1.15 | 0.46 | 0.99 | 0.18 | 1.16 | N/A | N/A | 0.38 | 1.08 |
| Claim 3 | 8–10 | 0.23 | 1.20 | 0.60 | 0.98 | 0.33 | 1.15 | 0.50 | 1.04 | 0.28 | 1.18 | 0.16 | 1.23 | 0.42 | 1.13 |

# Appendix 8.E: Scale Score CSEM Distribution

**Notes:**

- CSEMs reported in these tables and figures are not truncated.
- 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.E.1 Scale Score CSEM Distribution—ELA, Grade Three**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 90 | 90 | 0% | 0% |
| [20, 25) | 305,286 | 305,376 | 65% | 65% |
| [25, 30) | 125,990 | 431,366 | 27% | 91% |
| [30, 35) | 27,593 | 458,959 | 6% | 97% |
| [35, 40) | 8,661 | 467,620 | 2% | 99% |
| [40, 45) | 2,862 | 470,482 | 1% | 100% |
| [45, 50) | 1,076 | 471,558 | 0% | 100% |
| [50, 55) | 459 | 472,017 | 0% | 100% |
| [55, 60) | 245 | 472,262 | 0% | 100% |
| [60, 65) | 119 | 472,381 | 0% | 100% |
| [65, 70) | 79 | 472,460 | 0% | 100% |
| [70, 75) | 33 | 472,493 | 0% | 100% |
| [75, 80) | 23 | 472,516 | 0% | 100% |
| [80, 85) | 25 | 472,541 | 0% | 100% |
| [85, 90) | 20 | 472,561 | 0% | 100% |
| [90, 95) | 11 | 472,572 | 0% | 100% |
| [95, 100) | 9 | 472,581 | 0% | 100% |
| [100, 105) | 7 | 472,588 | 0% | 100% |
| [105, 110) | 10 | 472,598 | 0% | 100% |
| [110, 115) | 5 | 472,603 | 0% | 100% |
| [115, 120) | 7 | 472,610 | 0% | 100% |
| [120, 125) | 5 | 472,615 | 0% | 100% |
| [125, 130) | 2 | 472,617 | 0% | 100% |
| [160, 165) | 1 | 472,618 | 0% | 100% |
| [165, 170) | 1 | 472,619 | 0% | 100% |
| [170, 175) | 1 | 472,620 | 0% | 100% |
| [180, 185) | 1 | 472,621 | 0% | 100% |
| [190, 195) | 1 | 472,622 | 0% | 100% |
| [210, 215) | 52 | 472,674 | 0% | 100% |

**Table 8.E.2 Scale Score CSEM Distribution—ELA, Grade Four**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 122,330 | 122,330 | 26% | 26% |
| [25, 30) | 287,563 | 409,893 | 62% | 89% |
| [30, 35) | 38,733 | 448,626 | 8% | 97% |
| [35, 40) | 9,357 | 457,983 | 2% | 99% |
| [40, 45) | 2,794 | 460,777 | 1% | 100% |
| [45, 50) | 1,013 | 461,790 | 0% | 100% |
| [50, 55) | 412 | 462,202 | 0% | 100% |
| [55, 60) | 187 | 462,389 | 0% | 100% |
| [60, 65) | 80 | 462,469 | 0% | 100% |
| [65, 70) | 54 | 462,523 | 0% | 100% |
| [70, 75) | 28 | 462,551 | 0% | 100% |
| [75, 80) | 15 | 462,566 | 0% | 100% |
| [80, 85) | 15 | 462,581 | 0% | 100% |
| [85, 90) | 11 | 462,592 | 0% | 100% |
| [90, 95) | 7 | 462,599 | 0% | 100% |
| [95, 100) | 7 | 462,606 | 0% | 100% |
| [100, 105) | 10 | 462,616 | 0% | 100% |
| [105, 110) | 3 | 462,619 | 0% | 100% |
| [110, 115) | 6 | 462,625 | 0% | 100% |
| [115, 120) | 3 | 462,628 | 0% | 100% |
| [120, 125) | 4 | 462,632 | 0% | 100% |
| [125, 130) | 3 | 462,635 | 0% | 100% |
| [135, 140) | 1 | 462,636 | 0% | 100% |
| [180, 185) | 1 | 462,637 | 0% | 100% |
| [210, 215) | 42 | 462,679 | 0% | 100% |

**Table 8.E.3 Scale Score CSEM Distribution—ELA, Grade Five**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 165,453 | 165,453 | 36% | 36% |
| [25, 30) | 256,410 | 421,863 | 56% | 92% |
| [30, 35) | 26,614 | 448,477 | 6% | 97% |
| [35, 40) | 7,107 | 455,584 | 2% | 99% |
| [40, 45) | 2,511 | 458,095 | 1% | 100% |
| [45, 50) | 1,004 | 459,099 | 0% | 100% |
| [50, 55) | 456 | 459,555 | 0% | 100% |
| [55, 60) | 242 | 459,797 | 0% | 100% |
| [60, 65) | 132 | 459,929 | 0% | 100% |
| [65, 70) | 77 | 460,006 | 0% | 100% |
| [70, 75) | 27 | 460,033 | 0% | 100% |
| [75, 80) | 41 | 460,074 | 0% | 100% |
| [80, 85) | 24 | 460,098 | 0% | 100% |
| [85, 90) | 13 | 460,111 | 0% | 100% |
| [90, 95) | 5 | 460,116 | 0% | 100% |
| [95, 100) | 9 | 460,125 | 0% | 100% |
| [100, 105) | 6 | 460,131 | 0% | 100% |
| [105, 110) | 7 | 460,138 | 0% | 100% |
| [110, 115) | 6 | 460,144 | 0% | 100% |
| [115, 120) | 10 | 460,154 | 0% | 100% |
| [120, 125) | 2 | 460,156 | 0% | 100% |
| [125, 130) | 2 | 460,158 | 0% | 100% |
| [130, 135) | 1 | 460,159 | 0% | 100% |
| [190, 195) | 1 | 460,160 | 0% | 100% |
| [210, 215) | 30 | 460,190 | 0% | 100% |

**Table 8.E.4 Scale Score CSEM Distribution—ELA, Grade Six**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 50,953 | 50,953 | 11% | 11% |
| [25, 30) | 328,799 | 379,752 | 72% | 83% |
| [30, 35) | 51,731 | 431,483 | 11% | 95% |
| [35, 40) | 15,479 | 446,962 | 3% | 98% |
| [40, 45) | 5,438 | 452,400 | 1% | 99% |
| [45, 50) | 2,044 | 454,444 | 0% | 100% |
| [50, 55) | 814 | 455,258 | 0% | 100% |
| [55, 60) | 450 | 455,708 | 0% | 100% |
| [60, 65) | 217 | 455,925 | 0% | 100% |
| [65, 70) | 119 | 456,044 | 0% | 100% |
| [70, 75) | 71 | 456,115 | 0% | 100% |
| [75, 80) | 52 | 456,167 | 0% | 100% |
| [80, 85) | 17 | 456,184 | 0% | 100% |
| [85, 90) | 22 | 456,206 | 0% | 100% |
| [90, 95) | 8 | 456,214 | 0% | 100% |
| [95, 100) | 15 | 456,229 | 0% | 100% |
| [100, 105) | 8 | 456,237 | 0% | 100% |
| [105, 110) | 4 | 456,241 | 0% | 100% |
| [110, 115) | 9 | 456,250 | 0% | 100% |
| [115, 120) | 5 | 456,255 | 0% | 100% |
| [120, 125) | 9 | 456,264 | 0% | 100% |
| [125, 130) | 3 | 456,267 | 0% | 100% |
| [130, 135) | 1 | 456,268 | 0% | 100% |
| [200, 205) | 1 | 456,269 | 0% | 100% |
| [210, 215) | 52 | 456,321 | 0% | 100% |

**Table 8.E.5 Scale Score CSEM Distribution—ELA, Grade Seven**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 42,404 | 42,404 | 9% | 9% |
| [25, 30) | 322,562 | 364,966 | 72% | 81% |
| [30, 35) | 59,265 | 424,231 | 13% | 94% |
| [35, 40) | 16,273 | 440,504 | 4% | 98% |
| [40, 45) | 5,442 | 445,946 | 1% | 99% |
| [45, 50) | 1,963 | 447,909 | 0% | 100% |
| [50, 55) | 773 | 448,682 | 0% | 100% |
| [55, 60) | 413 | 449,095 | 0% | 100% |
| [60, 65) | 162 | 449,257 | 0% | 100% |
| [65, 70) | 107 | 449,364 | 0% | 100% |
| [70, 75) | 75 | 449,439 | 0% | 100% |
| [75, 80) | 54 | 449,493 | 0% | 100% |
| [80, 85) | 31 | 449,524 | 0% | 100% |
| [85, 90) | 20 | 449,544 | 0% | 100% |
| [90, 95) | 17 | 449,561 | 0% | 100% |
| [95, 100) | 17 | 449,578 | 0% | 100% |
| [100, 105) | 14 | 449,592 | 0% | 100% |
| [105, 110) | 10 | 449,602 | 0% | 100% |
| [110, 115) | 7 | 449,609 | 0% | 100% |
| [115, 120) | 9 | 449,618 | 0% | 100% |
| [120, 125) | 7 | 449,625 | 0% | 100% |
| [125, 130) | 4 | 449,629 | 0% | 100% |
| [130, 135) | 1 | 449,630 | 0% | 100% |
| [135, 140) | 1 | 449,631 | 0% | 100% |
| [140, 145) | 1 | 449,632 | 0% | 100% |
| [210, 215) | 82 | 449,714 | 0% | 100% |

**Table 8.E.6 Scale Score CSEM Distribution—ELA, Grade Eight**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 22,519 | 22,519 | 5% | 5% |
| [25, 30) | 362,618 | 385,137 | 80% | 85% |
| [30, 35) | 49,917 | 435,054 | 11% | 96% |
| [35, 40) | 10,831 | 445,885 | 2% | 99% |
| [40, 45) | 3,166 | 449,051 | 1% | 100% |
| [45, 50) | 1,103 | 450,154 | 0% | 100% |
| [50, 55) | 438 | 450,592 | 0% | 100% |
| [55, 60) | 178 | 450,770 | 0% | 100% |
| [60, 65) | 109 | 450,879 | 0% | 100% |
| [65, 70) | 79 | 450,958 | 0% | 100% |
| [70, 75) | 45 | 451,003 | 0% | 100% |
| [75, 80) | 34 | 451,037 | 0% | 100% |
| [80, 85) | 25 | 451,062 | 0% | 100% |
| [85, 90) | 17 | 451,079 | 0% | 100% |
| [90, 95) | 5 | 451,084 | 0% | 100% |
| [95, 100) | 11 | 451,095 | 0% | 100% |
| [100, 105) | 8 | 451,103 | 0% | 100% |
| [105, 110) | 7 | 451,110 | 0% | 100% |
| [110, 115) | 6 | 451,116 | 0% | 100% |
| [115, 120) | 5 | 451,121 | 0% | 100% |
| [120, 125) | 5 | 451,126 | 0% | 100% |
| [125, 130) | 5 | 451,131 | 0% | 100% |
| [130, 135) | 2 | 451,133 | 0% | 100% |
| [135, 140) | 3 | 451,136 | 0% | 100% |
| [145, 150) | 1 | 451,137 | 0% | 100% |
| [155, 160) | 1 | 451,138 | 0% | 100% |
| [165, 170) | 2 | 451,140 | 0% | 100% |
| [180, 185) | 1 | 451,141 | 0% | 100% |
| [200, 205) | 1 | 451,142 | 0% | 100% |
| [210, 215) | 43 | 451,185 | 0% | 100% |

**Table 8.E.7 Scale Score CSEM Distribution—ELA, Grade Eleven**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 22 | 22 | 0% | 0% |
| [25, 30) | 203,409 | 203,431 | 48% | 48% |
| [30, 35) | 158,612 | 362,043 | 38% | 86% |
| [35, 40) | 41,278 | 403,321 | 10% | 96% |
| [40, 45) | 12,232 | 415,553 | 3% | 98% |
| [45, 50) | 3,785 | 419,338 | 1% | 99% |
| [50, 55) | 1,357 | 420,695 | 0% | 100% |
| [55, 60) | 535 | 421,230 | 0% | 100% |
| [60, 65) | 255 | 421,485 | 0% | 100% |
| [65, 70) | 140 | 421,625 | 0% | 100% |
| [70, 75) | 79 | 421,704 | 0% | 100% |
| [75, 80) | 55 | 421,759 | 0% | 100% |
| [80, 85) | 23 | 421,782 | 0% | 100% |
| [85, 90) | 29 | 421,811 | 0% | 100% |
| [90, 95) | 22 | 421,833 | 0% | 100% |
| [95, 100) | 20 | 421,853 | 0% | 100% |
| [100, 105) | 19 | 421,872 | 0% | 100% |
| [105, 110) | 22 | 421,894 | 0% | 100% |
| [110, 115) | 16 | 421,910 | 0% | 100% |
| [115, 120) | 8 | 421,918 | 0% | 100% |
| [120, 125) | 11 | 421,929 | 0% | 100% |
| [125, 130) | 13 | 421,942 | 0% | 100% |
| [130, 135) | 3 | 421,945 | 0% | 100% |
| [140, 145) | 1 | 421,946 | 0% | 100% |
| [145, 150) | 2 | 421,948 | 0% | 100% |
| [155, 160) | 2 | 421,950 | 0% | 100% |
| [185, 190) | 1 | 421,951 | 0% | 100% |
| [195, 200) | 1 | 421,952 | 0% | 100% |
| [210, 215) | 146 | 422,098 | 0% | 100% |

**Table 8.E.8 Scale Score CSEM Distribution—Mathematics, Grade Three**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [10, 15) | 53 | 53 | 0% | 0% |
| [15, 20) | 330,618 | 330,671 | 70% | 70% |
| [20, 25) | 111,819 | 442,490 | 24% | 93% |
| [25, 30) | 18,752 | 461,242 | 4% | 97% |
| [30, 35) | 6,373 | 467,615 | 1% | 99% |
| [35, 40) | 2,890 | 470,505 | 1% | 99% |
| [40, 45) | 1,503 | 472,008 | 0% | 100% |
| [45, 50) | 760 | 472,768 | 0% | 100% |
| [50, 55) | 428 | 473,196 | 0% | 100% |
| [55, 60) | 293 | 473,489 | 0% | 100% |
| [60, 65) | 156 | 473,645 | 0% | 100% |
| [65, 70) | 165 | 473,810 | 0% | 100% |
| [70, 75) | 70 | 473,880 | 0% | 100% |
| [75, 80) | 53 | 473,933 | 0% | 100% |
| [80, 85) | 27 | 473,960 | 0% | 100% |
| [85, 90) | 28 | 473,988 | 0% | 100% |
| [90, 95) | 22 | 474,010 | 0% | 100% |
| [95, 100) | 28 | 474,038 | 0% | 100% |
| [100, 105) | 27 | 474,065 | 0% | 100% |
| [105, 110) | 15 | 474,080 | 0% | 100% |
| [110, 115) | 13 | 474,093 | 0% | 100% |
| [115, 120) | 2 | 474,095 | 0% | 100% |
| [135, 140) | 1 | 474,096 | 0% | 100% |
| [140, 145) | 1 | 474,097 | 0% | 100% |
| [145, 150) | 5 | 474,102 | 0% | 100% |
| [150, 155) | 11 | 474,113 | 0% | 100% |
| [155, 160) | 20 | 474,133 | 0% | 100% |
| [160, 165) | 4 | 474,137 | 0% | 100% |
| [165, 170) | 22 | 474,159 | 0% | 100% |
| [170, 175) | 12 | 474,171 | 0% | 100% |
| [175, 180) | 10 | 474,181 | 0% | 100% |
| [180, 185) | 5 | 474,186 | 0% | 100% |
| [185, 190) | 4 | 474,190 | 0% | 100% |
| [190, 195) | 2 | 474,192 | 0% | 100% |
| [195, 200) | 69 | 474,261 | 0% | 100% |

**Table 8.E.9 Scale Score CSEM Distribution—Mathematics, Grade Four**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [10, 15) | 55 | 55 | 0% | 0% |
| [15, 20) | 309,075 | 309,130 | 67% | 67% |
| [20, 25) | 116,612 | 425,742 | 25% | 92% |
| [25, 30) | 24,959 | 450,701 | 5% | 97% |
| [30, 35) | 7,606 | 458,307 | 2% | 99% |
| [35, 40) | 2,980 | 461,287 | 1% | 99% |
| [40, 45) | 1,289 | 462,576 | 0% | 100% |
| [45, 50) | 688 | 463,264 | 0% | 100% |
| [50, 55) | 373 | 463,637 | 0% | 100% |
| [55, 60) | 197 | 463,834 | 0% | 100% |
| [60, 65) | 135 | 463,969 | 0% | 100% |
| [65, 70) | 86 | 464,055 | 0% | 100% |
| [70, 75) | 59 | 464,114 | 0% | 100% |
| [75, 80) | 38 | 464,152 | 0% | 100% |
| [80, 85) | 20 | 464,172 | 0% | 100% |
| [85, 90) | 16 | 464,188 | 0% | 100% |
| [90, 95) | 30 | 464,218 | 0% | 100% |
| [95, 100) | 20 | 464,238 | 0% | 100% |
| [100, 105) | 20 | 464,258 | 0% | 100% |
| [105, 110) | 12 | 464,270 | 0% | 100% |
| [110, 115) | 2 | 464,272 | 0% | 100% |
| [130, 135) | 1 | 464,273 | 0% | 100% |
| [145, 150) | 1 | 464,274 | 0% | 100% |
| [150, 155) | 1 | 464,275 | 0% | 100% |
| [155, 160) | 1 | 464,276 | 0% | 100% |
| [160, 165) | 2 | 464,278 | 0% | 100% |
| [165, 170) | 1 | 464,279 | 0% | 100% |
| [170, 175) | 3 | 464,282 | 0% | 100% |
| [175, 180) | 2 | 464,284 | 0% | 100% |
| [180, 185) | 11 | 464,295 | 0% | 100% |
| [185, 190) | 2 | 464,297 | 0% | 100% |
| [190, 195) | 3 | 464,300 | 0% | 100% |
| [195, 200) | 55 | 464,355 | 0% | 100% |

**Table 8.E.10 Scale Score CSEM Distribution—Mathematics. Grade Five**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 150,236 | 150,236 | 33% | 33% |
| [20, 25) | 158,747 | 308,983 | 34% | 67% |
| [25, 30) | 84,352 | 393,335 | 18% | 85% |
| [30, 35) | 40,048 | 433,383 | 9% | 94% |
| [35, 40) | 15,975 | 449,358 | 3% | 97% |
| [40, 45) | 6,578 | 455,936 | 1% | 99% |
| [45, 50) | 2,803 | 458,739 | 1% | 99% |
| [50, 55) | 1,234 | 459,973 | 0% | 100% |
| [55, 60) | 589 | 460,562 | 0% | 100% |
| [60, 65) | 315 | 460,877 | 0% | 100% |
| [65, 70) | 197 | 461,074 | 0% | 100% |
| [70, 75) | 120 | 461,194 | 0% | 100% |
| [75, 80) | 96 | 461,290 | 0% | 100% |
| [80, 85) | 58 | 461,348 | 0% | 100% |
| [85, 90) | 52 | 461,400 | 0% | 100% |
| [90, 95) | 41 | 461,441 | 0% | 100% |
| [95, 100) | 29 | 461,470 | 0% | 100% |
| [100, 105) | 20 | 461,490 | 0% | 100% |
| [105, 110) | 23 | 461,513 | 0% | 100% |
| [110, 115) | 10 | 461,523 | 0% | 100% |
| [115, 120) | 12 | 461,535 | 0% | 100% |
| [120, 125) | 1 | 461,536 | 0% | 100% |
| [130, 135) | 3 | 461,539 | 0% | 100% |
| [140, 145) | 1 | 461,540 | 0% | 100% |
| [170, 175) | 2 | 461,542 | 0% | 100% |
| [180, 185) | 3 | 461,545 | 0% | 100% |
| [185, 190) | 2 | 461,547 | 0% | 100% |
| [190, 195) | 1 | 461,548 | 0% | 100% |
| [195, 200) | 69 | 461,617 | 0% | 100% |

**Table 8.E.11 Scale Score CSEM Distribution—Mathematics, Grade Six**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 21,859 | 21,859 | 5% | 5% |
| [20, 25) | 245,416 | 267,275 | 54% | 58% |
| [25, 30) | 96,618 | 363,893 | 21% | 80% |
| [30, 35) | 41,245 | 405,138 | 9% | 89% |
| [35, 40) | 21,571 | 426,709 | 5% | 93% |
| [40, 45) | 11,494 | 438,203 | 3% | 96% |
| [45, 50) | 6,571 | 444,774 | 1% | 97% |
| [50, 55) | 3,925 | 448,699 | 1% | 98% |
| [55, 60) | 2,469 | 451,168 | 1% | 99% |
| [60, 65) | 1,485 | 452,653 | 0% | 99% |
| [65, 70) | 1,111 | 453,764 | 0% | 99% |
| [70, 75) | 750 | 454,514 | 0% | 99% |
| [75, 80) | 526 | 455,040 | 0% | 99% |
| [80, 85) | 384 | 455,424 | 0% | 100% |
| [85, 90) | 330 | 455,754 | 0% | 100% |
| [90, 95) | 281 | 456,035 | 0% | 100% |
| [95, 100) | 230 | 456,265 | 0% | 100% |
| [100, 105) | 200 | 456,465 | 0% | 100% |
| [105, 110) | 195 | 456,660 | 0% | 100% |
| [110, 115) | 192 | 456,852 | 0% | 100% |
| [115, 120) | 156 | 457,008 | 0% | 100% |
| [120, 125) | 32 | 457,040 | 0% | 100% |
| [125, 130) | 21 | 457,061 | 0% | 100% |
| [130, 135) | 9 | 457,070 | 0% | 100% |
| [135, 140) | 11 | 457,081 | 0% | 100% |
| [140, 145) | 4 | 457,085 | 0% | 100% |
| [145, 150) | 8 | 457,093 | 0% | 100% |
| [150, 155) | 2 | 457,095 | 0% | 100% |
| [175, 180) | 1 | 457,096 | 0% | 100% |
| [185, 190) | 2 | 457,098 | 0% | 100% |
| [190, 195) | 9 | 457,107 | 0% | 100% |
| [195, 200) | 443 | 457,550 | 0% | 100% |

**Table 8.E.12 Scale Score CSEM Distribution—Mathematics, Grade Seven**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 35,133 | 35,133 | 8% | 8% |
| [20, 25) | 139,129 | 174,262 | 31% | 39% |
| [25, 30) | 99,407 | 273,669 | 22% | 61% |
| [30, 35) | 70,600 | 344,269 | 16% | 76% |
| [35, 40) | 39,729 | 383,998 | 9% | 85% |
| [40, 45) | 22,525 | 406,523 | 5% | 90% |
| [45, 50) | 13,811 | 420,334 | 3% | 93% |
| [50, 55) | 8,693 | 429,027 | 2% | 95% |
| [55, 60) | 5,671 | 434,698 | 1% | 97% |
| [60, 65) | 3,700 | 438,398 | 1% | 97% |
| [65, 70) | 2,632 | 441,030 | 1% | 98% |
| [70, 75) | 1,803 | 442,833 | 0% | 98% |
| [75, 80) | 1,366 | 444,199 | 0% | 99% |
| [80, 85) | 1,113 | 445,312 | 0% | 99% |
| [85, 90) | 850 | 446,162 | 0% | 99% |
| [90, 95) | 588 | 446,750 | 0% | 99% |
| [95, 100) | 522 | 447,272 | 0% | 99% |
| [100, 105) | 461 | 447,733 | 0% | 99% |
| [105, 110) | 469 | 448,202 | 0% | 100% |
| [110, 115) | 431 | 448,633 | 0% | 100% |
| [115, 120) | 360 | 448,993 | 0% | 100% |
| [120, 125) | 121 | 449,114 | 0% | 100% |
| [125, 130) | 80 | 449,194 | 0% | 100% |
| [130, 135) | 75 | 449,269 | 0% | 100% |
| [135, 140) | 68 | 449,337 | 0% | 100% |
| [140, 145) | 36 | 449,373 | 0% | 100% |
| [145, 150) | 36 | 449,409 | 0% | 100% |
| [150, 155) | 16 | 449,425 | 0% | 100% |
| [155, 160) | 10 | 449,435 | 0% | 100% |
| [160, 165) | 17 | 449,452 | 0% | 100% |
| [165, 170) | 3 | 449,455 | 0% | 100% |
| [170, 175) | 4 | 449,459 | 0% | 100% |
| [175, 180) | 2 | 449,461 | 0% | 100% |
| [180, 185) | 1 | 449,462 | 0% | 100% |
| [190, 195) | 1 | 449,463 | 0% | 100% |
| [195, 200) | 932 | 450,395 | 0% | 100% |

**Table 8.E.13 Scale Score CSEM Distribution—Mathematics, Grade Eight**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 1,635 | 1,635 | 0% | 0% |
| [20, 25) | 116,700 | 118,335 | 26% | 26% |
| [25, 30) | 91,503 | 209,838 | 20% | 46% |
| [30, 35) | 100,225 | 310,063 | 22% | 69% |
| [35, 40) | 70,580 | 380,643 | 16% | 84% |
| [40, 45) | 31,618 | 412,261 | 7% | 91% |
| [45, 50) | 15,736 | 427,997 | 3% | 95% |
| [50, 55) | 8,377 | 436,374 | 2% | 97% |
| [55, 60) | 5,005 | 441,379 | 1% | 98% |
| [60, 65) | 3,039 | 444,418 | 1% | 98% |
| [65, 70) | 1,971 | 446,389 | 0% | 99% |
| [70, 75) | 1,346 | 447,735 | 0% | 99% |
| [75, 80) | 927 | 448,662 | 0% | 99% |
| [80, 85) | 627 | 449,289 | 0% | 99% |
| [85, 90) | 497 | 449,786 | 0% | 100% |
| [90, 95) | 353 | 450,139 | 0% | 100% |
| [95, 100) | 309 | 450,448 | 0% | 100% |
| [100, 105) | 241 | 450,689 | 0% | 100% |
| [105, 110) | 210 | 450,899 | 0% | 100% |
| [110, 115) | 181 | 451,080 | 0% | 100% |
| [115, 120) | 122 | 451,202 | 0% | 100% |
| [120, 125) | 28 | 451,230 | 0% | 100% |
| [125, 130) | 19 | 451,249 | 0% | 100% |
| [130, 135) | 40 | 451,289 | 0% | 100% |
| [135, 140) | 35 | 451,324 | 0% | 100% |
| [140, 145) | 28 | 451,352 | 0% | 100% |
| [145, 150) | 32 | 451,384 | 0% | 100% |
| [150, 155) | 23 | 451,407 | 0% | 100% |
| [155, 160) | 29 | 451,436 | 0% | 100% |
| [160, 165) | 27 | 451,463 | 0% | 100% |
| [165, 170) | 22 | 451,485 | 0% | 100% |
| [170, 175) | 29 | 451,514 | 0% | 100% |
| [175, 180) | 17 | 451,531 | 0% | 100% |
| [180, 185) | 15 | 451,546 | 0% | 100% |
| [185, 190) | 25 | 451,571 | 0% | 100% |
| [190, 195) | 12 | 451,583 | 0% | 100% |
| [195, 200) | 382 | 451,965 | 0% | 100% |

**Table 8.E.14 Scale Score CSEM Distribution—Mathematics, Grade Eleven**

| CSEM Range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 2,152 | 2,152 | 1% | 1% |
| [20, 25) | 73,298 | 75,450 | 17% | 18% |
| [25, 30) | 76,558 | 152,008 | 18% | 36% |
| [30, 35) | 67,266 | 219,274 | 16% | 52% |
| [35, 40) | 54,641 | 273,915 | 13% | 65% |
| [40, 45) | 42,998 | 316,913 | 10% | 76% |
| [45, 50) | 31,629 | 348,542 | 8% | 83% |
| [50, 55) | 21,720 | 370,262 | 5% | 88% |
| [55, 60) | 15,081 | 385,343 | 4% | 92% |
| [60, 65) | 10,210 | 395,553 | 2% | 94% |
| [65, 70) | 6,901 | 402,454 | 2% | 96% |
| [70, 75) | 4,663 | 407,117 | 1% | 97% |
| [75, 80) | 3,202 | 410,319 | 1% | 98% |
| [80, 85) | 2,199 | 412,518 | 1% | 98% |
| [85, 90) | 1,619 | 414,137 | 0% | 99% |
| [90, 95) | 1,127 | 415,264 | 0% | 99% |
| [95, 100) | 859 | 416,123 | 0% | 99% |
| [100, 105) | 688 | 416,811 | 0% | 99% |
| [105, 110) | 519 | 417,330 | 0% | 99% |
| [110, 115) | 420 | 417,750 | 0% | 100% |
| [115, 120) | 328 | 418,078 | 0% | 100% |
| [120, 125) | 103 | 418,181 | 0% | 100% |
| [125, 130) | 104 | 418,285 | 0% | 100% |
| [130, 135) | 73 | 418,358 | 0% | 100% |
| [135, 140) | 55 | 418,413 | 0% | 100% |
| [140, 145) | 40 | 418,453 | 0% | 100% |
| [145, 150) | 28 | 418,481 | 0% | 100% |
| [150, 155) | 40 | 418,521 | 0% | 100% |
| [155, 160) | 28 | 418,549 | 0% | 100% |
| [160, 165) | 20 | 418,569 | 0% | 100% |
| [165, 170) | 40 | 418,609 | 0% | 100% |
| [170, 175) | 53 | 418,662 | 0% | 100% |
| [175, 180) | 61 | 418,723 | 0% | 100% |
| [180, 185) | 52 | 418,775 | 0% | 100% |
| [185, 190) | 62 | 418,837 | 0% | 100% |
| [190, 195) | 50 | 418,887 | 0% | 100% |
| [195, 200) | 621 | 419,508 | 0% | 100% |

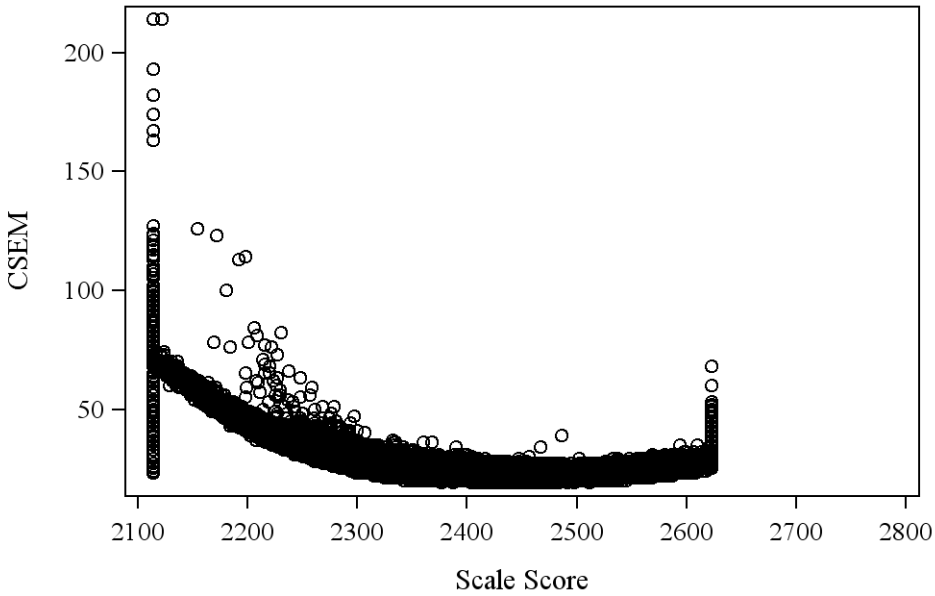


**Figure 8.E.1 Scale Score CSEM Distribution Plots—ELA, Grade Three**

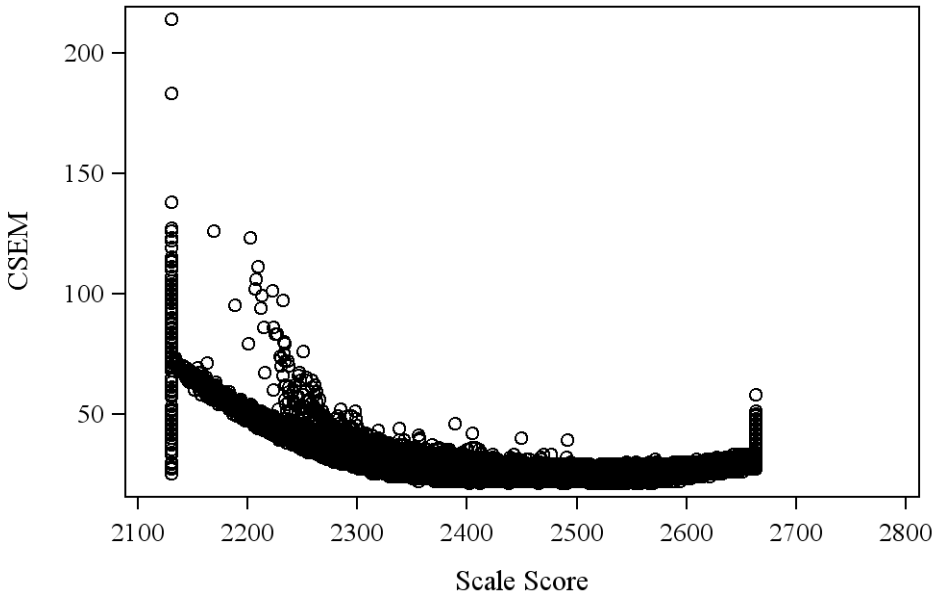


**Figure 8.E.2 Scale Score CSEM Distribution Plots—ELA, Grade Four**

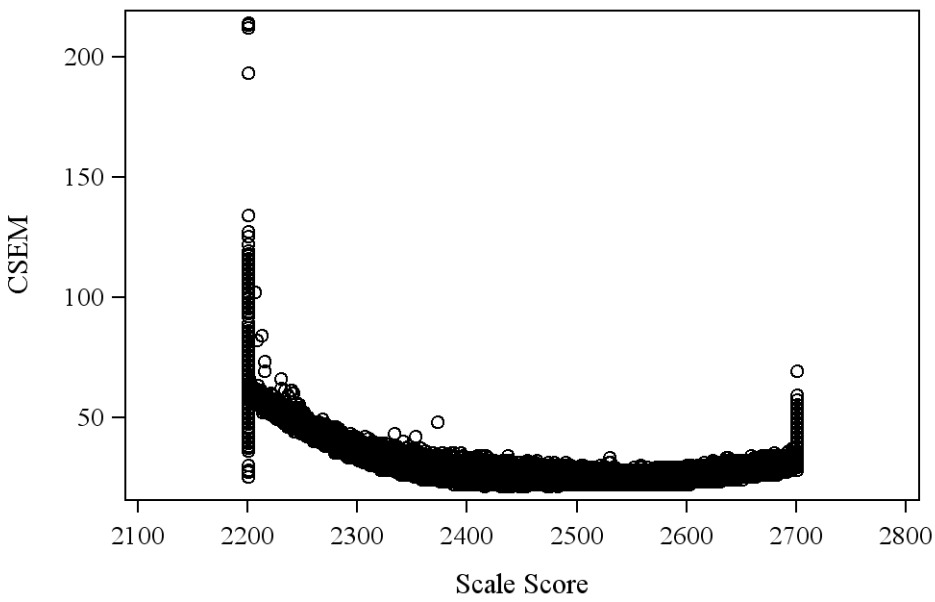


**Figure 8.E.3 Scale Score CSEM Distribution Plots—ELA, Grade 5**

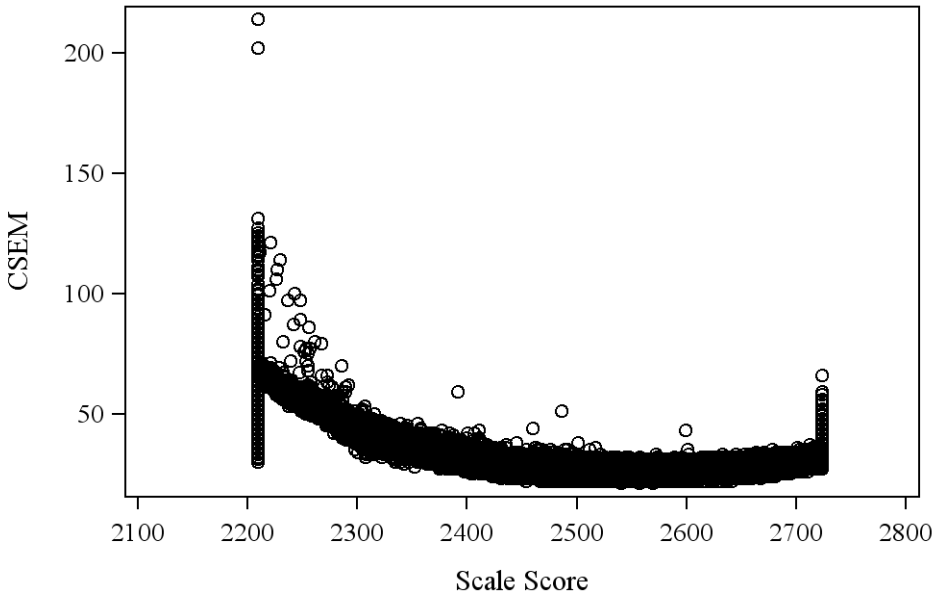


**Figure 8.E.4 Scale Score CSEM Distribution Plots—ELA, Grade Six**

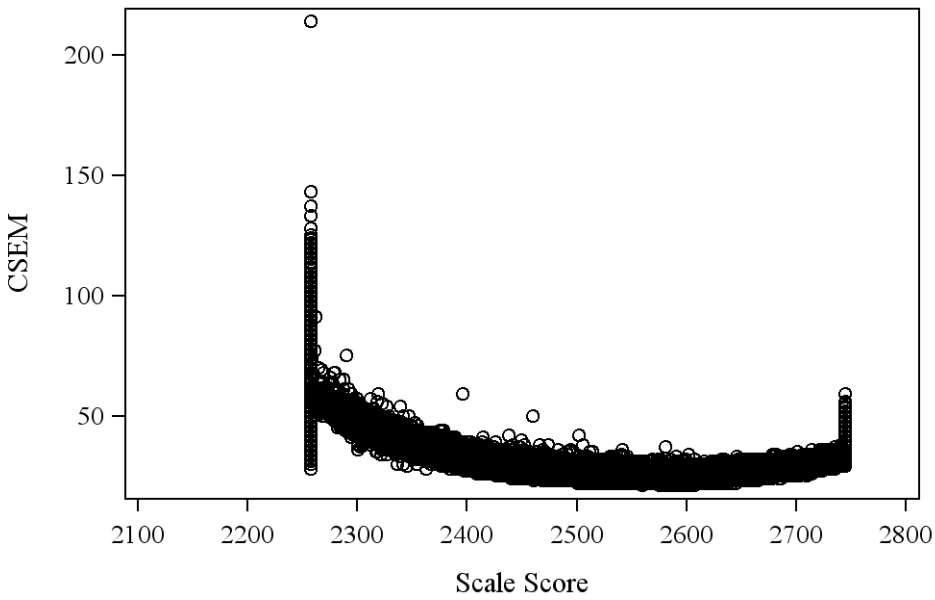


**Figure 8.E.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven**

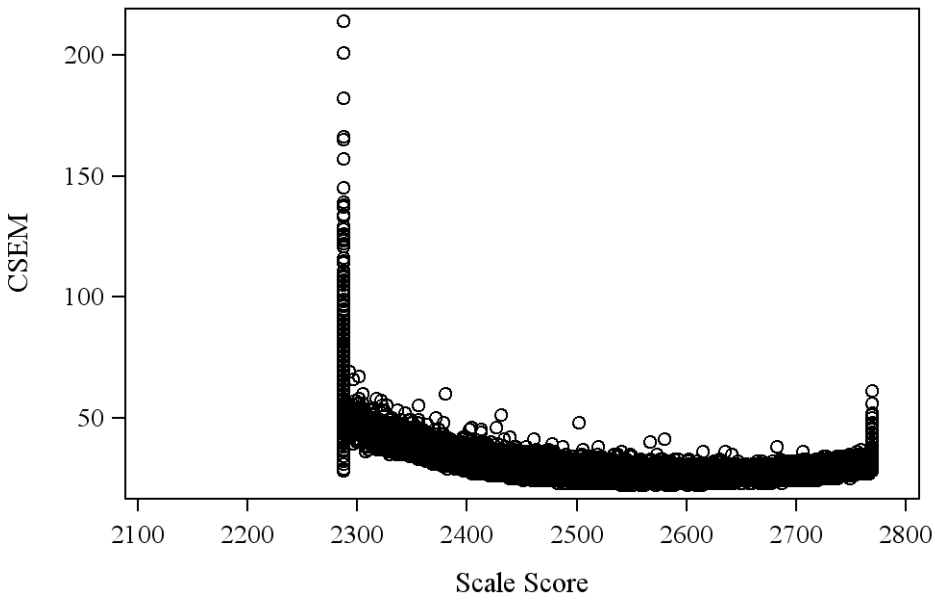


**Figure 8.E.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight**

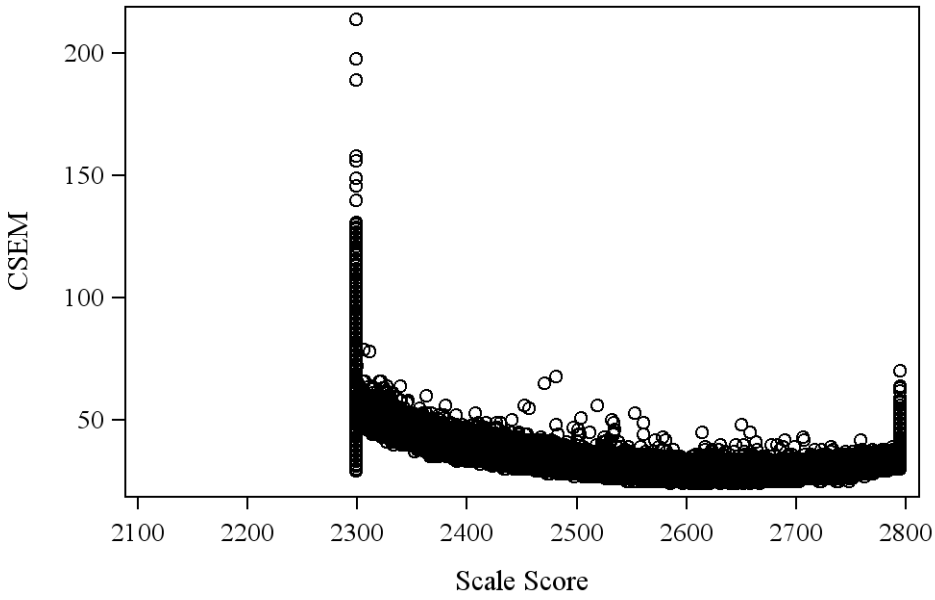


**Figure 8.E.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven**

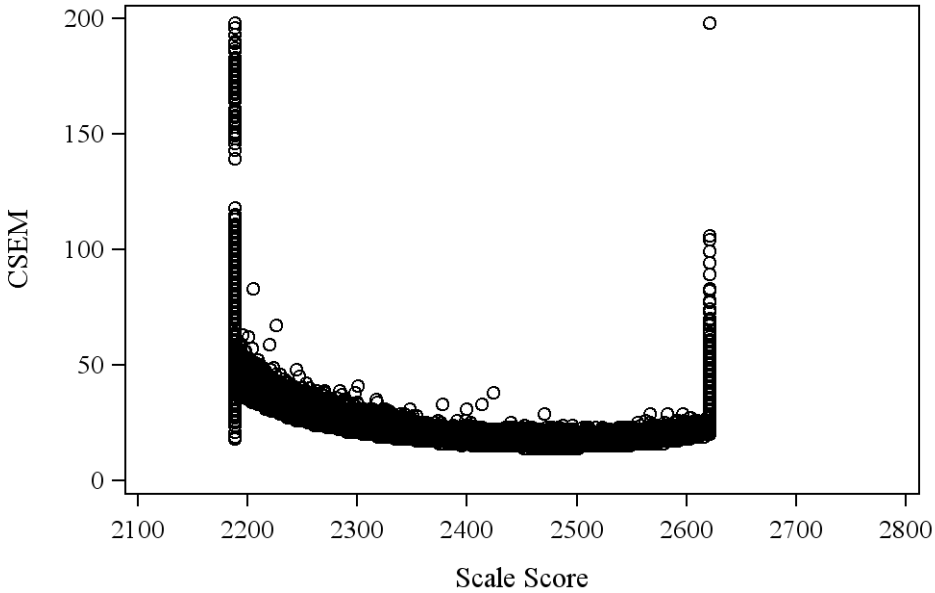


**Figure 8.E.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three**

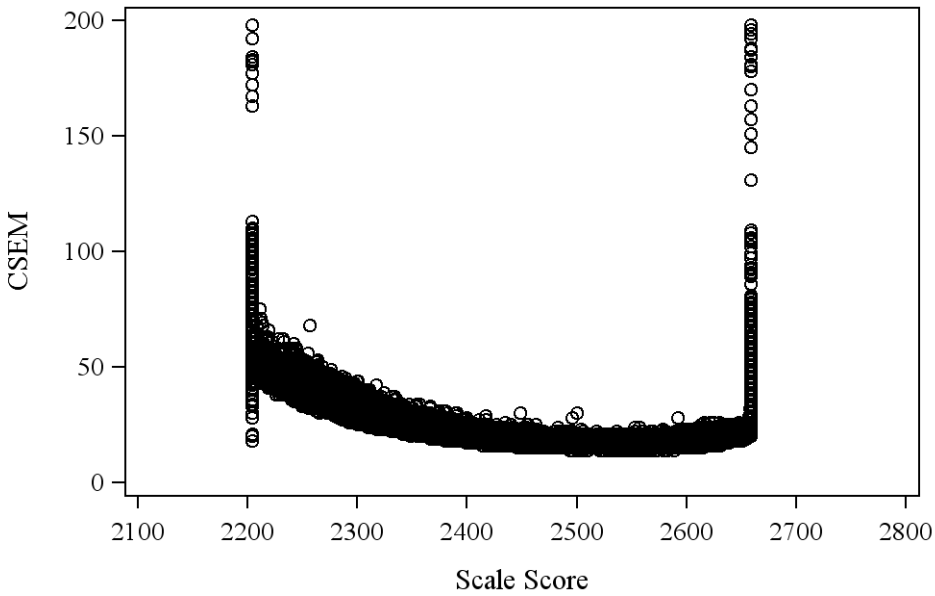


**Figure 8.E.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four**

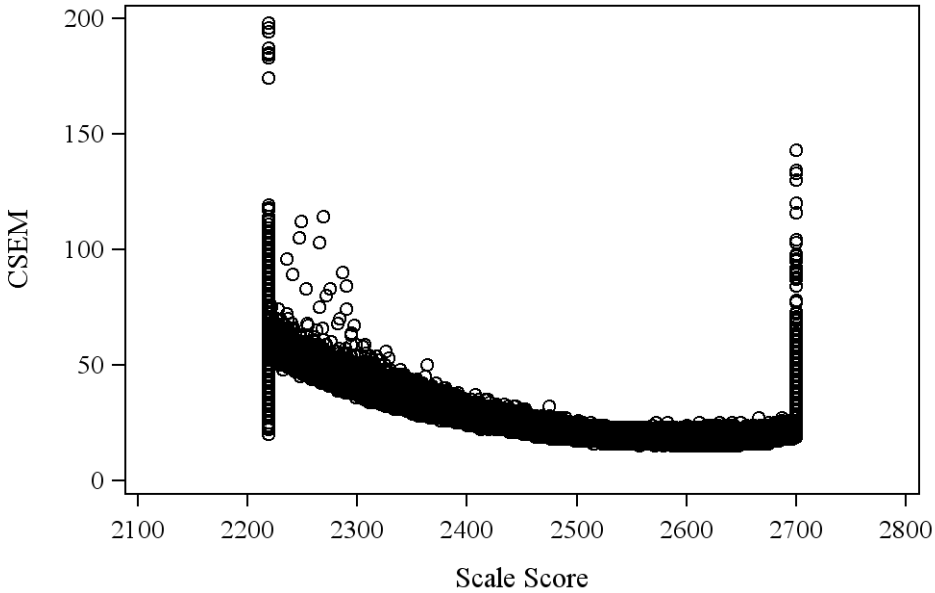


**Figure 8.E.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five**

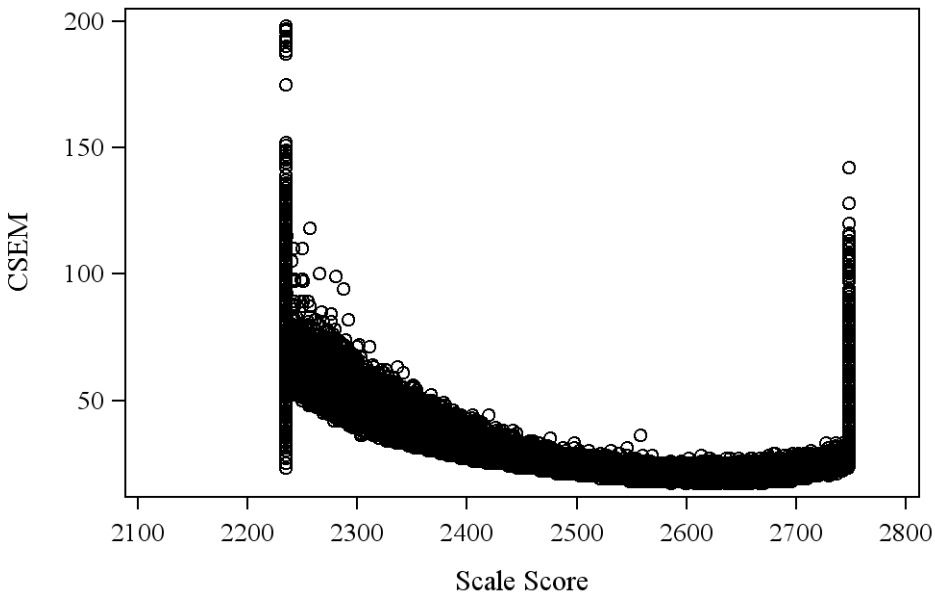


**Figure 8.E.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six**

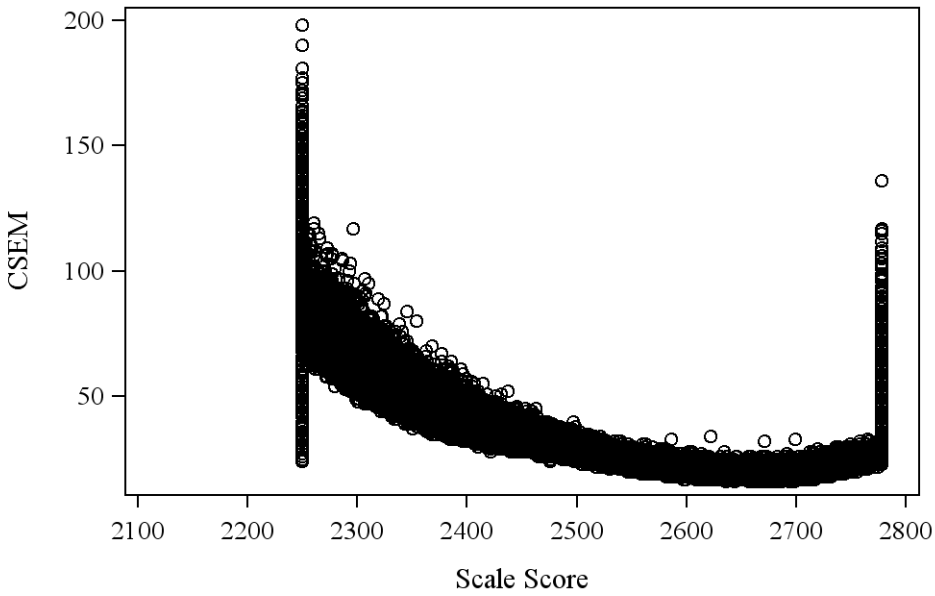


**Figure 8.E.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven**

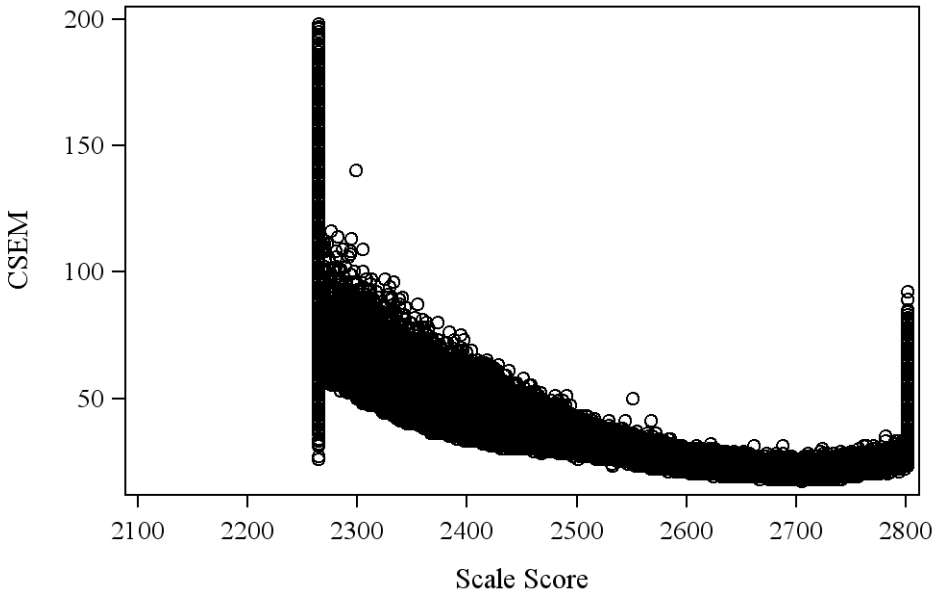


**Figure 8.E.13 Scale Score CSEM Distribution Plots—Mathematics, Grade 8**

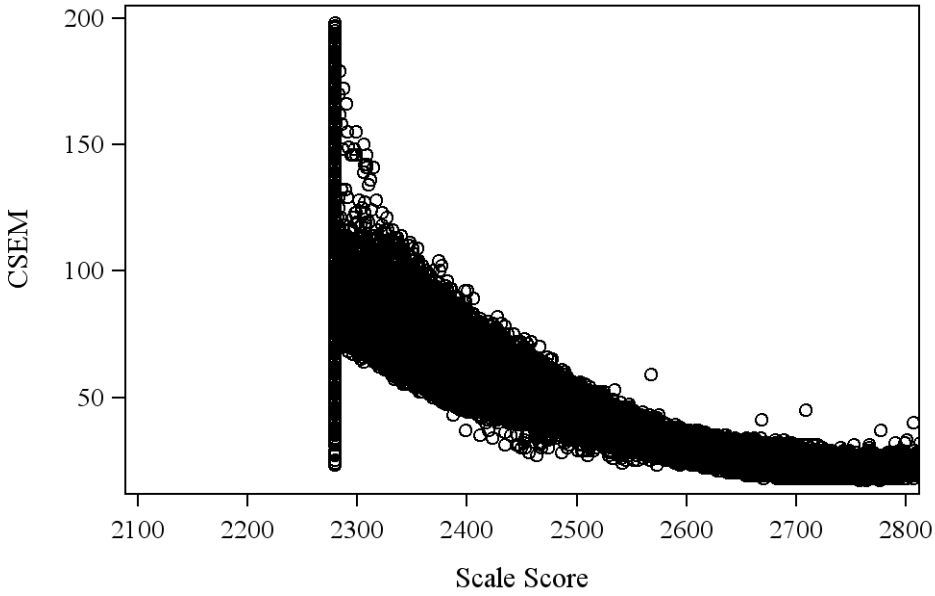


**Figure 8.E.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven**

# 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 | 0.32 | 0.04 | 0.00 | 0.00 | 0.36 |
| | 2367–2431 | 0.04 | 0.18 | 0.04 | 0.00 | 0.26 |
| | 2432–2489 | 0.00 | 0.04 | 0.13 | 0.02 | 0.20 |
| | 2490–2623 | 0.00 | 0.00 | 0.03 | 0.15 | 0.18 |
| All-Forms Average | Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.92 | | | | | |
| Decision Consistency | 2114–2366 | 0.30 | 0.06 | 0.00 | 0.00 | 0.36 |
| | 2367–2431 | 0.06 | 0.15 | 0.05 | 0.00 | 0.26 |
| | 2432–2489 | 0.00 | 0.05 | 0.11 | 0.04 | 0.20 |
| | 2490–2623 | 0.00 | 0.00 | 0.03 | 0.14 | 0.18 |
| 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 | 0.35 | 0.04 | 0.00 | 0.00 | 0.39 |
| | 2416–2472 | 0.04 | 0.13 | 0.04 | 0.00 | 0.21 |
| | 2473–2532 | 0.00 | 0.04 | 0.13 | 0.03 | 0.21 |
| | 2533–2663 | 0.00 | 0.00 | 0.03 | 0.16 | 0.19 |
| All-Forms Average | Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.92 | | | | | |
| Decision Consistency | 2131–2415 | 0.33 | 0.05 | 0.00 | 0.00 | 0.39 |
| | 2416–2472 | 0.06 | 0.10 | 0.05 | 0.00 | 0.21 |
| | 2473–2532 | 0.01 | 0.05 | 0.11 | 0.04 | 0.21 |
| | 2533–2663 | 0.00 | 0.00 | 0.03 | 0.16 | 0.19 |
| Alternate Form | Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.89 | | | | | |

**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 | 0.30 | 0.04 | 0.00 | 0.00 | 0.34 |
| | 2442–2501 | 0.04 | 0.14 | 0.04 | 0.00 | 0.21 |
| | 2502–2581 | 0.00 | 0.04 | 0.20 | 0.03 | 0.27 |
| | 2582–2701 | 0.00 | 0.00 | 0.03 | 0.15 | 0.17 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.79 Standard Met and Exceeded = 0.92** | | | | | |
| **Decision Consistency** | 2201–2441 | 0.28 | 0.05 | 0.00 | 0.00 | 0.34 |
| | 2442–2501 | 0.05 | 0.11 | 0.05 | 0.00 | 0.21 |
| | 2502–2581 | 0.01 | 0.05 | 0.17 | 0.04 | 0.27 |
| | 2582–2701 | 0.00 | 0.00 | 0.03 | 0.14 | 0.17 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.71 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 | 0.24 | 0.04 | 0.00 | 0.00 | 0.28 |
| | 2457–2530 | 0.04 | 0.20 | 0.05 | 0.00 | 0.29 |
| | 2531–2617 | 0.00 | 0.05 | 0.23 | 0.02 | 0.29 |
| | 2618–2724 | 0.00 | 0.00 | 0.03 | 0.10 | 0.13 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Exceeded = 0.91** | | | | | |
| **Decision Consistency** | 2210–2456 | 0.23 | 0.05 | 0.00 | 0.00 | 0.28 |
| | 2457–2530 | 0.06 | 0.16 | 0.07 | 0.00 | 0.29 |
| | 2531–2617 | 0.00 | 0.06 | 0.20 | 0.04 | 0.29 |
| | 2618–2724 | 0.00 | 0.00 | 0.03 | 0.10 | 0.13 |
| **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 | 0.27 | 0.04 | 0.00 | 0.00 | 0.31 |
| | 2479–2551 | 0.04 | 0.18 | 0.04 | 0.00 | 0.25 |
| | 2552–2648 | 0.00 | 0.05 | 0.25 | 0.02 | 0.32 |
| | 2649–2745 | 0.00 | 0.00 | 0.03 | 0.09 | 0.12 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.91** | | | | | |
| **Decision Consistency** | 2258–2478 | 0.25 | 0.05 | 0.00 | 0.00 | 0.31 |
| | 2479–2551 | 0.05 | 0.14 | 0.06 | 0.00 | 0.25 |
| | 2552–2648 | 0.00 | 0.06 | 0.22 | 0.04 | 0.32 |
| | 2649–2745 | 0.00 | 0.00 | 0.03 | 0.09 | 0.12 |
| **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 | 0.22 | 0.04 | 0.00 | 0.00 | 0.26 |
| | 2487–2566 | 0.04 | 0.21 | 0.05 | 0.00 | 0.29 |
| | 2567–2667 | 0.00 | 0.05 | 0.27 | 0.02 | 0.33 |
| | 2668–2769 | 0.00 | 0.00 | 0.03 | 0.09 | 0.12 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.79 Standard Met and Exceeded = 0.91** | | | | | |
| **Decision Consistency** | 2288–2486 | 0.21 | 0.05 | 0.00 | 0.00 | 0.26 |
| | 2487–2566 | 0.05 | 0.17 | 0.06 | 0.00 | 0.29 |
| | 2567–2667 | 0.00 | 0.06 | 0.24 | 0.04 | 0.33 |
| | 2668–2769 | 0.00 | 0.00 | 0.03 | 0.09 | 0.12 |
| **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 | 0.17 | 0.03 | 0.00 | 0.00 | 0.20 |
| | 2493–2582 | 0.03 | 0.17 | 0.04 | 0.00 | 0.24 |
| | 2583–2681 | 0.00 | 0.05 | 0.25 | 0.04 | 0.33 |
| | 2682–2795 | 0.00 | 0.00 | 0.03 | 0.19 | 0.23 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Above = 0.91** | | | | | |
| **Decision Consistency** | 2299–2492 | 0.16 | 0.04 | 0.00 | 0.00 | 0.20 |
| | 2493–2582 | 0.04 | 0.14 | 0.06 | 0.00 | 0.24 |
| | 2583–2681 | 0.00 | 0.06 | 0.21 | 0.06 | 0.33 |
| | 2682–2795 | 0.00 | 0.00 | 0.04 | 0.18 | 0.23 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.69 Standard Met and Above = 0.88** | | | | | |

**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 | 0.30 | 0.03 | 0.00 | 0.00 | 0.33 |
| | 2381–2435 | 0.04 | 0.18 | 0.04 | 0.00 | 0.27 |
| | 2436–2500 | 0.00 | 0.04 | 0.20 | 0.02 | 0.26 |
| | 2501–2621 | 0.00 | 0.00 | 0.02 | 0.12 | 0.14 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.80 Standard Met and Above = 0.92** | | | | | |
| **Decision Consistency** | 2189–2380 | 0.29 | 0.04 | 0.00 | 0.00 | 0.33 |
| | 2381–2435 | 0.05 | 0.15 | 0.06 | 0.00 | 0.27 |
| | 2436–2500 | 0.00 | 0.05 | 0.17 | 0.04 | 0.26 |
| | 2501–2621 | 0.00 | 0.00 | 0.02 | 0.12 | 0.14 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.73 Standard Met and Above = 0.89** | | | | | |

**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 | 0.28 | 0.03 | 0.00 | 0.00 | 0.31 |
| | 2411–2484 | 0.04 | 0.26 | 0.04 | 0.01 | 0.35 |
| | 2485–2548 | 0.00 | 0.03 | 0.17 | 0.02 | 0.22 |
| | 2549–2659 | 0.00 | 0.00 | 0.02 | 0.11 | 0.13 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.82 Standard Met and Above = 0.92** | | | | | |
| **Decision Consistency** | 2204–2410 | 0.26 | 0.04 | 0.00 | 0.00 | 0.31 |
| | 2411–2484 | 0.06 | 0.23 | 0.06 | 0.01 | 0.35 |
| | 2485–2548 | 0.00 | 0.04 | 0.15 | 0.03 | 0.22 |
| | 2549–2659 | 0.00 | 0.00 | 0.02 | 0.11 | 0.13 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.74 Standard Met and Above = 0.90** | | | | | |

**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 | 0.37 | 0.04 | 0.00 | 0.00 | 0.41 |
| | 2455–2527 | 0.04 | 0.21 | 0.04 | 0.00 | 0.29 |
| | 2528–2578 | 0.00 | 0.03 | 0.10 | 0.02 | 0.15 |
| | 2579–2700 | 0.00 | 0.00 | 0.02 | 0.13 | 0.15 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.80 Standard Met and Above = 0.93** | | | | | |
| **Decision Consistency** | 2219–2454 | 0.35 | 0.06 | 0.00 | 0.00 | 0.41 |
| | 2455–2527 | 0.06 | 0.17 | 0.05 | 0.01 | 0.29 |
| | 2528–2578 | 0.00 | 0.04 | 0.08 | 0.03 | 0.15 |
| | 2579–2700 | 0.00 | 0.00 | 0.03 | 0.12 | 0.15 |
| **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 | 0.33 | 0.03 | 0.00 | 0.00 | 0.36 |
| | 2473–2551 | 0.05 | 0.20 | 0.05 | 0.01 | 0.31 |
| | 2552–2609 | 0.00 | 0.04 | 0.12 | 0.03 | 0.18 |
| | 2610–2748 | 0.00 | 0.00 | 0.02 | 0.13 | 0.15 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Above = 0.90** | | | | | |
| **Decision Consistency** | 2235–2472 | 0.31 | 0.05 | 0.00 | 0.00 | 0.36 |
| | 2473–2551 | 0.06 | 0.17 | 0.06 | 0.01 | 0.31 |
| | 2552–2609 | 0.00 | 0.05 | 0.09 | 0.04 | 0.18 |
| | 2610–2748 | 0.00 | 0.00 | 0.03 | 0.12 | 0.15 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.70 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 | 0.33 | 0.04 | 0.00 | 0.00 | 0.37 |
| | 2484–2566 | 0.05 | 0.18 | 0.05 | 0.01 | 0.29 |
| | 2567–2634 | 0.00 | 0.05 | 0.12 | 0.03 | 0.19 |
| | 2635–2778 | 0.00 | 0.00 | 0.03 | 0.12 | 0.15 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.74 Standard Met and Above = 0.90** | | | | | |
| **Decision Consistency** | 2250–2483 | 0.31 | 0.06 | 0.00 | 0.00 | 0.37 |
| | 2484–2566 | 0.07 | 0.15 | 0.06 | 0.01 | 0.29 |
| | 2567–2634 | 0.00 | 0.06 | 0.09 | 0.04 | 0.19 |
| | 2635–2778 | 0.00 | 0.00 | 0.04 | 0.11 | 0.15 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.66 Standard Met and Above = 0.87** | | | | | |

**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 | 0.36 | 0.04 | 0.00 | 0.00 | 0.41 |
| | 2504–2585 | 0.05 | 0.16 | 0.04 | 0.01 | 0.26 |
| | 2586–2652 | 0.00 | 0.04 | 0.10 | 0.02 | 0.17 |
| | 2653–2802 | 0.00 | 0.00 | 0.03 | 0.14 | 0.16 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Above = 0.91** | | | | | |
| **Decision Consistency** | 2265–2503 | 0.35 | 0.06 | 0.00 | 0.00 | 0.41 |
| | 2504–2585 | 0.07 | 0.13 | 0.06 | 0.01 | 0.26 |
| | 2586–2652 | 0.00 | 0.05 | 0.08 | 0.04 | 0.17 |
| | 2653–2802 | 0.00 | 0.00 | 0.03 | 0.13 | 0.16 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.69 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 | 0.41 | 0.05 | 0.00 | 0.00 | 0.45 |
| | 2543–2627 | 0.05 | 0.15 | 0.05 | 0.00 | 0.25 |
| | 2628–2717 | 0.00 | 0.04 | 0.12 | 0.02 | 0.18 |
| | 2718–2862 | 0.00 | 0.00 | 0.03 | 0.09 | 0.11 |
| **All-Forms Average** | **Estimated Proportion Correctly Classified: Total = 0.76 Standard Met and Above = 0.91** | | | | | |
| **Decision Consistency** | 2280–2542 | 0.39 | 0.06 | 0.01 | 0.00 | 0.45 |
| | 2543–2627 | 0.07 | 0.11 | 0.06 | 0.01 | 0.25 |
| | 2628–2717 | 0.00 | 0.05 | 0.10 | 0.03 | 0.18 |
| | 2718–2862 | 0.00 | 0.00 | 0.03 | 0.08 | 0.11 |
| **Alternate Form** | **Estimated Proportion Consistently Classified: Total = 0.68 Standard Met and Above = 0.88** | | | | | |

# 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 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH279435 | 2 | 17,827 | 6,075 | 0.29 | 0.40 | 67.8 | 29.4 | 97.2 | 0.36 | 0.58 | 0.36 | 0.58 |
| 2 | VH279720 | 2 | 8,954 | 904 | 0.40 | 0.50 | 71.0 | 25.6 | 96.6 | 0.40 | 0.63 | 0.41 | 0.63 |
| 3 | VH282903 | 2 | 1,060 | 105 | 0.50 | 0.65 | 79.0 | 19.0 | 98.1 | 0.32 | 0.58 | 0.36 | 0.65 |
| 4 | VH295225 | 2 | 18,233 | 2,805 | 0.45 | 0.60 | 78.4 | 20.7 | 99.1 | 0.29 | 0.55 | 0.30 | 0.55 |
| 5 | VH295226 | 2 | 17,801 | 2,734 | 0.46 | 0.63 | 81.5 | 17.8 | 99.4 | 0.24 | 0.51 | 0.26 | 0.53 |
| 6 | VH295342 | 2 | 18,765 | 2,977 | 0.44 | 0.62 | 66.8 | 31.9 | 98.8 | 0.60 | 0.70 | 0.60 | 0.69 |
| 7 | VH295343 | 2 | 18,577 | 2,912 | 0.42 | 0.54 | 74.6 | 24.9 | 99.4 | 0.33 | 0.55 | 0.33 | 0.54 |
| 8 | VH295564 | 2 | 18,383 | 2,695 | 0.47 | 0.62 | 70.2 | 28.3 | 98.6 | 0.54 | 0.67 | 0.53 | 0.67 |
| 9 | VH295565 | 2 | 17,625 | 2,671 | 0.49 | 0.66 | 77.3 | 21.8 | 99.1 | 0.37 | 0.62 | 0.36 | 0.61 |
| 10 | VH295658 | 2 | 18,233 | 2,890 | 0.46 | 0.63 | 77.5 | 21.4 | 98.9 | 0.33 | 0.59 | 0.32 | 0.58 |
| 11 | VH295688 | 2 | 17,973 | 2,780 | 0.46 | 0.63 | 73.5 | 23.7 | 97.2 | 0.45 | 0.69 | 0.44 | 0.69 |
| 12 | VH295711 | 2 | 19,001 | 2,896 | 0.45 | 0.63 | 67.6 | 28.8 | 96.3 | 0.63 | 0.76 | 0.61 | 0.76 |
| 13 | VH295712 | 2 | 18,574 | 2,832 | 0.42 | 0.56 | 72.4 | 26.0 | 98.4 | 0.39 | 0.60 | 0.41 | 0.61 |
| 14 | VH295877 | 2 | 19,399 | 2,954 | 0.46 | 0.62 | 72.2 | 26.7 | 99.0 | 0.45 | 0.64 | 0.44 | 0.64 |
| 15 | VH295911 | 2 | 18,481 | 2,842 | 0.44 | 0.60 | 72.6 | 26.8 | 99.4 | 0.41 | 0.62 | 0.40 | 0.60 |
| 16 | VH295915 | 2 | 18,142 | 2,834 | 0.44 | 0.59 | 78.5 | 20.2 | 98.7 | 0.29 | 0.55 | 0.29 | 0.56 |
| 17 | VH295947 | 2 | 18,651 | 2,950 | 0.36 | 0.49 | 60.3 | 35.6 | 95.8 | 0.71 | 0.71 | 0.73 | 0.71 |
| 18 | VH295961 | 2 | 18,502 | 2,670 | 0.43 | 0.59 | 74.0 | 23.2 | 97.2 | 0.40 | 0.66 | 0.38 | 0.64 |
| 19 | VH295995 | 2 | 18,336 | 2,714 | 0.52 | 0.68 | 79.0 | 20.1 | 99.2 | 0.35 | 0.61 | 0.35 | 0.61 |
| 20 | VH295996 | 2 | 18,086 | 2,843 | 0.38 | 0.50 | 79.7 | 18.8 | 98.5 | 0.23 | 0.50 | 0.23 | 0.49 |
| 21 | VH296065 | 2 | 18,137 | 2,707 | 0.54 | 0.72 | 77.6 | 20.4 | 98.0 | 0.45 | 0.71 | 0.46 | 0.71 |
| | | **AVERAGE** | **17,083** | **2,752** | **0.44** | **0.59** | **73.9** | **24.3** | **98.2** | **0.41** | **0.62** | **0.41** | **0.62** |

**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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH281222 | 2 | 1,403 | 156 | 0.46 | 0.56 | 75.6 | 21.2 | 96.8 | 0.33 | 0.59 | 0.41 | 0.64 |
| 2 | VH281326 | 2 | 1,625 | 148 | 0.50 | 0.66 | 75.7 | 23.6 | 99.3 | 0.41 | 0.63 | 0.41 | 0.62 |
| 3 | VH281693 | 2 | 18,393 | 12,663 | 0.37 | 0.51 | 78.2 | 20.7 | 98.9 | 0.25 | 0.50 | 0.25 | 0.51 |
| 4 | VH281949 | 2 | 1,340 | 101 | 0.29 | 0.50 | 70.3 | 28.7 | 99.0 | 0.30 | 0.56 | 0.35 | 0.59 |
| 5 | VH282756 | 2 | 18,471 | 10,063 | 0.43 | 0.57 | 74.9 | 24.0 | 98.9 | 0.34 | 0.58 | 0.35 | 0.58 |
| 6 | VH295256 | 2 | 19,276 | 2,020 | 0.40 | 0.54 | 68.5 | 30.5 | 99.1 | 0.46 | 0.61 | 0.46 | 0.62 |
| 7 | VH295257 | 2 | 18,801 | 2,085 | 0.42 | 0.61 | 69.8 | 28.4 | 98.2 | 0.47 | 0.68 | 0.48 | 0.67 |
| 8 | VH295349 | 2 | 19,490 | 2,175 | 0.56 | 0.74 | 71.8 | 27.1 | 98.9 | 0.79 | 0.78 | 0.80 | 0.78 |
| 9 | VH295350 | 2 | 18,908 | 2,142 | 0.36 | 0.46 | 80.9 | 17.1 | 97.9 | 0.22 | 0.49 | 0.20 | 0.48 |
| 10 | VH295423 | 2 | 18,917 | 2,121 | 0.57 | 0.72 | 75.6 | 23.0 | 98.5 | 0.56 | 0.72 | 0.55 | 0.72 |
| 11 | VH295443 | 2 | 19,175 | 2,152 | 0.37 | 0.51 | 71.7 | 25.5 | 97.2 | 0.37 | 0.61 | 0.36 | 0.62 |
| 12 | VH295458 | 2 | 18,790 | 2,116 | 0.42 | 0.60 | 71.3 | 26.1 | 97.4 | 0.44 | 0.67 | 0.43 | 0.67 |
| 13 | VH295496 | 2 | 19,050 | 2,205 | 0.43 | 0.61 | 67.0 | 31.4 | 98.5 | 0.58 | 0.69 | 0.58 | 0.69 |
| 14 | VH295520 | 2 | 18,889 | 2,187 | 0.44 | 0.60 | 66.4 | 31.4 | 97.9 | 0.65 | 0.71 | 0.66 | 0.71 |
| 15 | VH295521 | 2 | 18,632 | 2,151 | 0.53 | 0.73 | 70.4 | 28.3 | 98.7 | 0.71 | 0.79 | 0.76 | 0.79 |
| 16 | VH295590 | 2 | 19,125 | 2,180 | 0.49 | 0.69 | 68.0 | 31.1 | 99.1 | 0.75 | 0.74 | 0.74 | 0.74 |
| 17 | VH295591 | 2 | 18,786 | 2,141 | 0.58 | 0.72 | 75.6 | 22.1 | 97.7 | 0.58 | 0.75 | 0.60 | 0.76 |
| 18 | VH295629 | 2 | 19,187 | 2,055 | 0.30 | 0.42 | 65.5 | 31.5 | 97.1 | 0.40 | 0.61 | 0.42 | 0.61 |
| 19 | VH295643 | 2 | 18,838 | 2,153 | 0.55 | 0.71 | 71.7 | 26.9 | 98.7 | 0.71 | 0.74 | 0.72 | 0.74 |
| 20 | VH295647 | 2 | 19,058 | 2,196 | 0.47 | 0.66 | 70.7 | 28.1 | 98.8 | 0.54 | 0.71 | 0.53 | 0.69 |
| 21 | VH295704 | 2 | 19,150 | 2,190 | 0.57 | 0.76 | 72.1 | 27.1 | 99.2 | 0.77 | 0.79 | 0.78 | 0.79 |
| 22 | VH295705 | 2 | 19,109 | 2,180 | 0.51 | 0.68 | 73.6 | 24.8 | 98.4 | 0.51 | 0.69 | 0.50 | 0.70 |
| 23 | VH295730 | 2 | 18,873 | 2,065 | 0.56 | 0.74 | 74.7 | 23.4 | 98.2 | 0.59 | 0.77 | 0.60 | 0.77 |
| 24 | VH295734 | 2 | 18,884 | 2,082 | 0.55 | 0.72 | 76.0 | 22.1 | 98.1 | 0.52 | 0.72 | 0.50 | 0.72 |
| 25 | VH295772 | 2 | 18,895 | 2,191 | 0.53 | 0.70 | 75.8 | 23.1 | 99.0 | 0.46 | 0.68 | 0.47 | 0.67 |
| 26 | VH295773 | 2 | 18,892 | 2,184 | 0.42 | 0.56 | 83.3 | 14.8 | 98.1 | 0.20 | 0.51 | 0.22 | 0.50 |
| 27 | VH295779 | 2 | 19,032 | 2,083 | 0.39 | 0.54 | 71.2 | 26.7 | 97.9 | 0.39 | 0.61 | 0.40 | 0.62 |
| 28 | VH295784 | 2 | 19,171 | 2,038 | 0.61 | 0.79 | 79.1 | 18.5 | 97.7 | 0.57 | 0.81 | 0.57 | 0.81 |
| 29 | VH295786 | 2 | 19,110 | 2,129 | 0.45 | 0.59 | 69.8 | 27.8 | 97.6 | 0.51 | 0.68 | 0.50 | 0.68 |
| 30 | VH295790 | 2 | 18,626 | 1,991 | 0.41 | 0.56 | 74.9 | 23.5 | 98.4 | 0.33 | 0.57 | 0.35 | 0.59 |
| 31 | VH295856 | 2 | 19,646 | 2,230 | 0.44 | 0.62 | 65.9 | 32.2 | 98.1 | 0.68 | 0.72 | 0.66 | 0.72 |
| 32 | VH295857 | 2 | 18,956 | 2,187 | 0.45 | 0.65 | 71.0 | 27.0 | 98.0 | 0.50 | 0.71 | 0.49 | 0.70 |
| 33 | VH295863 | 2 | 18,698 | 2,090 | 0.60 | 0.76 | 77.7 | 21.4 | 99.1 | 0.54 | 0.72 | 0.55 | 0.71 |
| 34 | VH295868 | 2 | 18,945 | 2,069 | 0.50 | 0.67 | 71.2 | 26.1 | 97.3 | 0.56 | 0.74 | 0.59 | 0.75 |
| 35 | VH295895 | 2 | 19,553 | 2,161 | 0.45 | 0.65 | 64.8 | 33.5 | 98.3 | 0.76 | 0.75 | 0.77 | 0.76 |
| 36 | VH295896 | 2 | 19,496 | 2,004 | 0.45 | 0.61 | 71.4 | 27.5 | 98.9 | 0.44 | 0.63 | 0.48 | 0.65 |
| 37 | VH295954 | 2 | 19,181 | 2,129 | 0.46 | 0.61 | 73.9 | 23.3 | 97.2 | 0.43 | 0.67 | 0.43 | 0.67 |
| 38 | VH295959 | 2 | 18,679 | 2,146 | 0.59 | 0.76 | 75.5 | 22.6 | 98.1 | 0.66 | 0.78 | 0.66 | 0.79 |
| | **AVERAGE** | | **17,607** | **2,457** | **0.47** | **0.63** | **72.7** | **25.6** | **98.3** | **0.51** | **0.68** | **0.52** | **0.68** |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH288881 | 2 | 1,256 | 129 | 0.23 | 0.32 | 63.6 | 32.6 | 96.1 | 0.36 | 0.60 | 0.41 | 0.59 |
| 2 | VH289122 | 2 | 1,234 | 113 | 0.05 | 0.24 | 56.6 | 38.9 | 95.6 | 0.44 | 0.67 | 0.30 | 0.53 |
| 3 | VH289482 | 2 | 1,382 | 118 | 0.46 | 0.61 | 72.0 | 27.1 | 99.2 | 0.42 | 0.63 | 0.48 | 0.62 |
| 4 | VH295218 | 2 | 19,292 | 1,892 | 0.42 | 0.60 | 64.4 | 33.8 | 98.2 | 0.68 | 0.72 | 0.68 | 0.72 |
| 5 | VH295219 | 2 | 19,133 | 1,982 | 0.50 | 0.69 | 67.1 | 30.7 | 97.8 | 0.92 | 0.80 | 0.92 | 0.80 |
| 6 | VH295228 | 2 | 19,427 | 2,106 | 0.38 | 0.55 | 61.1 | 36.5 | 97.6 | 0.90 | 0.71 | 0.90 | 0.71 |
| 7 | VH295229 | 2 | 19,612 | 2,069 | 0.46 | 0.63 | 72.8 | 25.6 | 98.4 | 0.45 | 0.66 | 0.45 | 0.66 |
| 8 | VH295236 | 2 | 19,750 | 2,038 | 0.61 | 0.76 | 86.2 | 12.9 | 99.1 | 0.29 | 0.60 | 0.28 | 0.58 |
| 9 | VH295237 | 2 | 19,202 | 1,991 | 0.48 | 0.65 | 72.7 | 25.3 | 98.0 | 0.48 | 0.69 | 0.49 | 0.69 |
| 10 | VH295403 | 2 | 19,589 | 2,030 | 0.51 | 0.70 | 72.7 | 26.2 | 98.8 | 0.54 | 0.71 | 0.55 | 0.71 |
| 11 | VH295404 | 2 | 19,363 | 2,126 | 0.57 | 0.76 | 72.8 | 26.2 | 99.0 | 0.72 | 0.79 | 0.73 | 0.79 |
| 12 | VH295430 | 2 | 19,594 | 2,112 | 0.45 | 0.65 | 64.3 | 34.5 | 98.8 | 0.87 | 0.74 | 0.88 | 0.76 |
| 13 | VH295435 | 2 | 19,767 | 2,105 | 0.45 | 0.66 | 64.7 | 34.4 | 99.1 | 0.80 | 0.74 | 0.78 | 0.75 |
| 14 | VH295449 | 2 | 19,803 | 2,138 | 0.51 | 0.70 | 74.8 | 23.8 | 98.6 | 0.47 | 0.69 | 0.47 | 0.69 |
| 15 | VH295450 | 2 | 19,419 | 2,126 | 0.59 | 0.77 | 73.0 | 25.5 | 98.6 | 0.83 | 0.81 | 0.83 | 0.81 |
| 16 | VH295477 | 2 | 18,959 | 2,041 | 0.55 | 0.73 | 77.5 | 21.0 | 98.5 | 0.45 | 0.70 | 0.47 | 0.70 |
| 17 | VH295479 | 2 | 19,391 | 2,106 | 0.44 | 0.61 | 66.0 | 32.9 | 98.8 | 0.71 | 0.69 | 0.72 | 0.70 |
| 18 | VH295541 | 2 | 19,131 | 2,073 | 0.53 | 0.74 | 70.4 | 28.8 | 99.2 | 0.74 | 0.77 | 0.75 | 0.79 |
| 19 | VH295738 | 2 | 19,376 | 2,082 | 0.56 | 0.76 | 74.6 | 24.4 | 99.1 | 0.60 | 0.76 | 0.59 | 0.76 |
| 20 | VH295739 | 2 | 19,185 | 2,063 | 0.49 | 0.66 | 69.1 | 30.1 | 99.1 | 0.66 | 0.70 | 0.68 | 0.71 |
| 21 | VH295798 | 2 | 19,344 | 2,011 | 0.41 | 0.62 | 63.9 | 34.2 | 98.1 | 0.68 | 0.74 | 0.67 | 0.74 |
| 22 | VH295807 | 2 | 19,143 | 2,103 | 0.50 | 0.69 | 67.7 | 31.7 | 99.4 | 0.82 | 0.74 | 0.82 | 0.76 |
| 23 | VH295808 | 2 | 19,080 | 2,078 | 0.58 | 0.73 | 78.1 | 20.4 | 98.5 | 0.49 | 0.72 | 0.47 | 0.70 |
| 24 | VH295839 | 2 | 19,418 | 2,098 | 0.46 | 0.69 | 65.6 | 32.9 | 98.5 | 0.76 | 0.80 | 0.76 | 0.78 |
| 25 | VH295840 | 2 | 19,558 | 2,147 | 0.43 | 0.62 | 63.7 | 34.1 | 97.8 | 0.74 | 0.75 | 0.76 | 0.75 |
| 26 | VH295898 | 2 | 19,025 | 2,048 | 0.41 | 0.62 | 62.5 | 33.6 | 96.1 | 0.77 | 0.81 | 0.77 | 0.79 |
| 27 | VH295918 | 2 | 19,460 | 2,066 | 0.49 | 0.65 | 68.4 | 30.3 | 98.8 | 0.73 | 0.70 | 0.73 | 0.71 |
| 28 | VH295919 | 2 | 19,446 | 2,036 | 0.42 | 0.61 | 65.6 | 33.5 | 99.1 | 0.64 | 0.70 | 0.64 | 0.68 |
| 29 | VH295968 | 2 | 19,619 | 2,038 | 0.44 | 0.62 | 64.9 | 32.5 | 97.4 | 0.70 | 0.74 | 0.71 | 0.76 |
| 30 | VH295969 | 2 | 19,424 | 1,977 | 0.49 | 0.67 | 71.3 | 26.6 | 97.9 | 0.57 | 0.75 | 0.55 | 0.72 |
| 31 | VH296030 | 2 | 19,070 | 2,017 | 0.61 | 0.76 | 85.2 | 13.7 | 98.9 | 0.31 | 0.62 | 0.32 | 0.62 |
| 32 | VH296032 | 2 | 19,769 | 2,113 | 0.47 | 0.67 | 67.2 | 31.6 | 98.7 | 0.70 | 0.74 | 0.72 | 0.74 |
| 33 | VH296044 | 2 | 19,705 | 1,989 | 0.52 | 0.70 | 69.3 | 29.8 | 99.1 | 0.78 | 0.75 | 0.77 | 0.74 |
| 34 | VH296045 | 2 | 19,466 | 2,079 | 0.50 | 0.64 | 73.8 | 24.5 | 98.3 | 0.46 | 0.65 | 0.48 | 0.66 |
| 35 | VH296076 | 2 | 19,629 | 2,079 | 0.62 | 0.78 | 78.3 | 20.6 | 98.9 | 0.60 | 0.76 | 0.59 | 0.76 |
| 36 | VH296077 | 2 | 19,409 | 2,078 | 0.52 | 0.70 | 70.7 | 28.3 | 99.0 | 0.65 | 0.73 | 0.67 | 0.75 |
| 37 | VH296080 | 2 | 19,593 | 2,080 | 0.43 | 0.63 | 63.3 | 35.9 | 99.1 | 1.03 | 0.73 | 1.01 | 0.74 |
| 38 | VH296084 | 2 | 18,811 | 1,876 | 0.55 | 0.73 | 70.5 | 27.2 | 97.7 | 0.84 | 0.83 | 0.82 | 0.83 |
| 39 | VH296087 | 2 | 19,594 | 2,039 | 0.40 | 0.56 | 64.1 | 34.4 | 98.5 | 0.64 | 0.69 | 0.63 | 0.67 |
| 40 | VH296088 | 2 | 19,499 | 2,089 | 0.50 | 0.70 | 67.8 | 31.3 | 99.1 | 0.77 | 0.75 | 0.77 | 0.76 |
| | **AVERAGE** | | **18,048** | **1,912** | **0.47** | **0.65** | **69.5** | **29.0** | **98.4** | **0.65** | **0.72** | **0.65** | **0.72** |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295314 | 2 | 2,776 | 2,776 | 0.45 | 0.54 | 80.7 | 17.0 | 97.8 | 0.26 | 0.54 | 0.25 | 0.53 |
| 2 | VH295315 | 2 | 3,428 | 3,428 | 0.61 | 0.73 | 81.9 | 17.3 | 99.2 | 0.40 | 0.63 | 0.37 | 0.60 |
| 3 | VH295437 | 2 | 2,887 | 2,887 | 0.63 | 0.79 | 81.8 | 17.5 | 99.3 | 0.45 | 0.70 | 0.46 | 0.70 |
| 4 | VH295438 | 2 | 2,840 | 2,839 | 0.72 | 0.83 | 87.7 | 11.2 | 99.0 | 0.39 | 0.67 | 0.37 | 0.66 |
| 5 | VH295555 | 2 | 2,698 | 2,698 | 0.55 | 0.71 | 72.6 | 25.9 | 98.5 | 0.66 | 0.74 | 0.67 | 0.74 |
| 6 | VH295580 | 2 | 3,418 | 3,417 | 0.57 | 0.65 | 86.5 | 12.5 | 99.0 | 0.22 | 0.49 | 0.22 | 0.48 |
| 7 | VH295581 | 2 | 2,815 | 2,815 | 0.73 | 0.85 | 89.7 | 9.9 | 99.6 | 0.32 | 0.63 | 0.32 | 0.62 |
| 8 | VH295666 | 2 | 2,963 | 2,963 | 0.64 | 0.78 | 79.1 | 20.6 | 99.6 | 0.56 | 0.70 | 0.58 | 0.71 |
| 9 | VH295667 | 2 | 2,888 | 2,888 | 0.66 | 0.79 | 82.0 | 16.8 | 98.8 | 0.51 | 0.73 | 0.50 | 0.71 |
| 10 | VH295678 | 2 | 3,262 | 3,262 | 0.56 | 0.62 | 84.5 | 13.4 | 97.9 | 0.26 | 0.54 | 0.25 | 0.53 |
| 11 | VH295752 | 2 | 2,782 | 2,782 | 0.59 | 0.74 | 77.4 | 21.4 | 98.7 | 0.54 | 0.71 | 0.54 | 0.70 |
| 12 | VH295872 | 2 | 2,600 | 2,600 | 0.56 | 0.72 | 73.2 | 24.7 | 98.0 | 0.67 | 0.76 | 0.67 | 0.76 |
| 13 | VH295935 | 2 | 2,597 | 2,597 | 0.52 | 0.67 | 77.6 | 21.5 | 99.1 | 0.40 | 0.63 | 0.38 | 0.61 |
| 14 | VH295982 | 2 | 3,289 | 3,287 | 0.54 | 0.68 | 79.9 | 19.0 | 98.8 | 0.35 | 0.60 | 0.36 | 0.60 |
| 15 | VH296010 | 2 | 2,855 | 2,855 | 0.56 | 0.69 | 77.9 | 21.2 | 99.1 | 0.44 | 0.63 | 0.44 | 0.64 |
| 16 | VH296011 | 2 | 2,619 | 2,617 | 0.60 | 0.73 | 77.7 | 21.4 | 99.1 | 0.52 | 0.68 | 0.53 | 0.68 |
| 17 | VH296039 | 2 | 2,239 | 2,238 | 0.45 | 0.57 | 83.8 | 15.4 | 99.2 | 0.21 | 0.47 | 0.19 | 0.45 |
| 18 | VH296363 | 2 | 1,585 | 1,584 | 0.45 | 0.56 | 68.5 | 30.1 | 98.5 | 0.58 | 0.64 | 0.60 | 0.64 |
| 19 | VH297172 | 2 | 228 | 228 | 0.81 | 0.87 | 88.6 | 11.0 | 99.6 | 0.70 | 0.72 | 0.63 | 0.68 |
| 20 | VH297220 | 2 | 1 | 1 | - | - | 100.0 | 0.0 | 100.0 | 0.00 | - | 0.00 | - |
| | **AVERAGE** | | **2,539** | **2,538** | **0.59** | **0.71** | **81.6** | **17.4** | **98.9** | **0.42** | **0.64** | **0.42** | **0.63** |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295263 | 2 | 1,811 | 1,811 | 0.61 | 0.77 | 75.6 | 22.9 | 98.5 | 0.70 | 0.79 | 0.72 | 0.80 |
| 2 | VH295264 | 2 | 1,878 | 1,878 | 0.46 | 0.63 | 78.3 | 19.9 | 98.2 | 0.32 | 0.59 | 0.33 | 0.61 |
| 3 | VH295270 | 2 | 2,001 | 2,001 | 0.65 | 0.79 | 82.7 | 16.6 | 99.4 | 0.45 | 0.68 | 0.43 | 0.68 |
| 4 | VH295274 | 2 | 2,055 | 2,055 | 0.46 | 0.61 | 77.2 | 20.6 | 97.9 | 0.33 | 0.60 | 0.35 | 0.62 |
| 5 | VH295305 | 2 | 2,004 | 2,004 | 0.60 | 0.77 | 75.2 | 22.9 | 98.1 | 0.69 | 0.80 | 0.72 | 0.83 |
| 6 | VH295306 | 2 | 1,720 | 1,720 | 0.53 | 0.69 | 75.9 | 23.0 | 98.9 | 0.46 | 0.67 | 0.45 | 0.66 |
| 7 | VH295324 | 2 | 1,995 | 1,995 | 0.58 | 0.70 | 76.1 | 22.9 | 99.0 | 0.52 | 0.65 | 0.58 | 0.68 |
| 8 | VH295325 | 2 | 2,096 | 2,096 | 0.57 | 0.76 | 75.5 | 23.8 | 99.2 | 0.54 | 0.75 | 0.62 | 0.75 |
| 9 | VH295339 | 2 | 1,856 | 1,856 | 0.53 | 0.70 | 68.7 | 29.1 | 97.8 | 0.95 | 0.79 | 0.91 | 0.81 |
| 10 | VH295370 | 2 | 2,098 | 2,098 | 0.82 | 0.88 | 92.4 | 6.7 | 99.0 | 0.37 | 0.66 | 0.36 | 0.65 |
| 11 | VH295371 | 2 | 1,933 | 1,933 | 0.55 | 0.64 | 81.6 | 17.7 | 99.3 | 0.31 | 0.53 | 0.31 | 0.53 |
| 12 | VH295397 | 2 | 2,158 | 2,158 | 0.70 | 0.79 | 82.1 | 17.5 | 99.6 | 0.65 | 0.66 | 0.67 | 0.68 |
| 13 | VH295401 | 2 | 1,736 | 1,735 | 0.55 | 0.74 | 71.4 | 27.2 | 98.6 | 0.77 | 0.79 | 0.76 | 0.82 |
| 14 | VH295414 | 2 | 2,097 | 2,097 | 0.61 | 0.74 | 82.5 | 16.5 | 99.0 | 0.37 | 0.63 | 0.38 | 0.64 |
| 15 | VH295415 | 2 | 1,812 | 1,812 | 0.55 | 0.67 | 81.6 | 16.9 | 98.5 | 0.29 | 0.55 | 0.36 | 0.61 |
| 16 | VH295505 | 2 | 1,880 | 1,880 | 0.48 | 0.67 | 67.6 | 30.6 | 98.1 | 0.75 | 0.77 | 0.70 | 0.76 |
| 17 | VH295506 | 2 | 2,208 | 2,208 | 0.71 | 0.83 | 82.7 | 16.8 | 99.5 | 0.66 | 0.75 | 0.63 | 0.72 |
| 18 | VH295526 | 2 | 1,856 | 1,856 | 0.47 | 0.64 | 75.9 | 20.7 | 96.6 | 0.41 | 0.69 | 0.40 | 0.69 |
| 19 | VH295527 | 2 | 1,918 | 1,918 | 0.65 | 0.75 | 85.9 | 12.1 | 98.0 | 0.35 | 0.64 | 0.34 | 0.63 |
| 20 | VH295574 | 2 | 1,901 | 1,901 | 0.54 | 0.71 | 75.6 | 22.5 | 98.1 | 0.50 | 0.71 | 0.52 | 0.74 |
| 21 | VH295575 | 2 | 1,822 | 1,820 | 0.68 | 0.78 | 83.1 | 16.4 | 99.5 | 0.46 | 0.65 | 0.49 | 0.66 |
| 22 | VH295608 | 2 | 1,858 | 1,858 | 0.72 | 0.79 | 86.4 | 12.4 | 98.8 | 0.40 | 0.63 | 0.42 | 0.66 |
| 23 | VH295613 | 2 | 2,071 | 2,071 | 0.58 | 0.73 | 74.7 | 23.0 | 97.7 | 0.64 | 0.76 | 0.64 | 0.77 |
| 24 | VH295635 | 2 | 1,454 | 1,454 | 0.62 | 0.79 | 85.5 | 14.0 | 99.5 | 0.32 | 0.61 | 0.31 | 0.62 |
| 25 | VH295639 | 2 | 1,906 | 1,905 | 0.73 | 0.86 | 84.0 | 15.9 | 99.8 | 0.62 | 0.75 | 0.63 | 0.76 |
| 26 | VH295717 | 2 | 2,113 | 2,113 | 0.51 | 0.64 | 80.1 | 18.6 | 98.7 | 0.31 | 0.57 | 0.32 | 0.57 |
| 27 | VH295718 | 2 | 1,956 | 1,956 | 0.65 | 0.74 | 86.0 | 12.5 | 98.5 | 0.29 | 0.58 | 0.34 | 0.62 |
| 28 | VH295758 | 2 | 1,980 | 1,980 | 0.43 | 0.56 | 73.5 | 22.2 | 95.7 | 0.39 | 0.67 | 0.42 | 0.67 |
| 29 | VH295759 | 2 | 2,277 | 2,277 | 0.65 | 0.77 | 77.8 | 20.4 | 98.2 | 0.72 | 0.76 | 0.72 | 0.78 |
| 30 | VH295909 | 2 | 1,965 | 1,965 | 0.45 | 0.60 | 69.8 | 27.0 | 96.8 | 0.52 | 0.71 | 0.54 | 0.71 |
| 31 | VH295940 | 2 | 2,201 | 2,201 | 0.63 | 0.73 | 80.7 | 18.9 | 99.6 | 0.46 | 0.61 | 0.49 | 0.62 |
| 32 | VH295941 | 2 | 1,943 | 1,943 | 0.56 | 0.71 | 73.0 | 25.0 | 98.0 | 0.65 | 0.74 | 0.66 | 0.76 |
| 33 | VH296101 | 2 | 2,077 | 2,077 | 0.67 | 0.81 | 91.4 | 8.1 | 99.5 | 0.19 | 0.51 | 0.21 | 0.52 |
| 34 | VH296102 | 2 | 1,544 | 1,544 | 0.59 | 0.72 | 77.8 | 21.1 | 98.9 | 0.51 | 0.68 | 0.48 | 0.66 |
| 35 | VH296115 | 2 | 1,592 | 1,592 | 0.67 | 0.82 | 80.3 | 18.7 | 99.0 | 0.65 | 0.81 | 0.64 | 0.79 |
| 36 | VH296116 | 2 | 1,811 | 1,811 | 0.55 | 0.67 | 79.1 | 20.0 | 99.1 | 0.37 | 0.59 | 0.38 | 0.61 |
| 37 | VH298062 | 2 | 278 | 278 | 0.89 | 0.92 | 94.2 | 5.8 | 100.0 | 0.52 | 0.60 | 0.54 | 0.61 |
| 38 | VH298666 | 2 | 329 | 329 | 0.92 | 0.95 | 96.4 | 3.6 | 100.0 | 0.34 | 0.59 | 0.36 | 0.62 |
| | AVERAGE | | 1,847 | 1,847 | 0.61 | 0.74 | 80.0 | 18.7 | 98.7 | 0.49 | 0.67 | 0.50 | 0.68 |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH279941 | 2 | 2,001 | 2,001 | 0.45 | 0.58 | 66.4 | 31.7 | 98.1 | 0.76 | 0.68 | 0.78 | 0.70 |
| 2 | VH279694 | 2 | 429 | 429 | 0.39 | 0.55 | 70.4 | 27.3 | 97.7 | 0.41 | 0.63 | 0.42 | 0.64 |
| 3 | VH280258 | 2 | 1,840 | 1,839 | 0.36 | 0.49 | 61.6 | 35.7 | 97.3 | 0.71 | 0.67 | 0.73 | 0.69 |
| 4 | VH280491 | 2 | 359 | 359 | 0.36 | 0.54 | 63.8 | 35.9 | 99.7 | 1.09 | 0.63 | 1.13 | 0.63 |
| 5 | VH282249 | 2 | 244 | 244 | 0.80 | 0.87 | 88.5 | 11.1 | 99.6 | 0.56 | 0.70 | 0.60 | 0.70 |
| 6 | VH295277 | 2 | 1,407 | 1,407 | 0.55 | 0.73 | 71.3 | 26.4 | 97.7 | 0.79 | 0.81 | 0.80 | 0.81 |
| 7 | VH295278 | 2 | 1,701 | 1,701 | 0.72 | 0.84 | 89.5 | 10.1 | 99.6 | 0.30 | 0.60 | 0.30 | 0.61 |
| 8 | VH295291 | 2 | 2,032 | 2,032 | 0.45 | 0.62 | 67.5 | 31.2 | 98.6 | 0.64 | 0.70 | 0.64 | 0.69 |
| 9 | VH295298 | 2 | 2,811 | 2,811 | 0.63 | 0.71 | 77.7 | 20.8 | 98.5 | 0.80 | 0.68 | 0.81 | 0.68 |
| 10 | VH295299 | 2 | 1,848 | 1,848 | 0.60 | 0.76 | 75.6 | 23.6 | 99.2 | 0.66 | 0.74 | 0.67 | 0.75 |
| 11 | VH295327 | 2 | 1,664 | 1,664 | 0.70 | 0.83 | 84.3 | 15.4 | 99.7 | 0.49 | 0.70 | 0.49 | 0.69 |
| 12 | VH295328 | 2 | 1,477 | 1,477 | 0.48 | 0.61 | 76.6 | 21.4 | 98.0 | 0.33 | 0.58 | 0.39 | 0.63 |
| 13 | VH295355 | 2 | 1,807 | 1,807 | 0.50 | 0.66 | 71.8 | 26.4 | 98.2 | 0.55 | 0.71 | 0.55 | 0.70 |
| 14 | VH295383 | 2 | 1,536 | 1,534 | 0.38 | 0.54 | 66.2 | 31.2 | 97.5 | 0.49 | 0.66 | 0.51 | 0.68 |
| 15 | VH295384 | 2 | 1,683 | 1,683 | 0.61 | 0.75 | 78.6 | 20.0 | 98.6 | 0.55 | 0.73 | 0.54 | 0.72 |
| 16 | VH295463 | 2 | 1,798 | 1,796 | 0.62 | 0.74 | 80.8 | 17.5 | 98.3 | 0.45 | 0.68 | 0.45 | 0.69 |
| 17 | VH295464 | 2 | 1,656 | 1,655 | 0.62 | 0.75 | 80.2 | 17.6 | 97.8 | 0.49 | 0.73 | 0.49 | 0.73 |
| 18 | VH295484 | 2 | 1,977 | 1,976 | 0.48 | 0.61 | 84.9 | 14.3 | 99.1 | 0.19 | 0.46 | 0.21 | 0.49 |
| 19 | VH295489 | 2 | 2,065 | 2,065 | 0.56 | 0.63 | 75.1 | 21.8 | 96.9 | 0.54 | 0.68 | 0.54 | 0.69 |
| 20 | VH295512 | 2 | 1,781 | 1,781 | 0.48 | 0.65 | 71.4 | 27.0 | 98.4 | 0.51 | 0.69 | 0.52 | 0.70 |
| 21 | VH295517 | 2 | 2,966 | 2,966 | 0.77 | 0.81 | 87.5 | 12.3 | 99.8 | 0.50 | 0.59 | 0.51 | 0.59 |
| 22 | VH295567 | 2 | 1,727 | 1,727 | 0.52 | 0.66 | 76.1 | 21.7 | 97.7 | 0.43 | 0.66 | 0.47 | 0.69 |
| 23 | VH295571 | 2 | 1,838 | 1,838 | 0.64 | 0.78 | 78.7 | 20.3 | 99.0 | 0.58 | 0.74 | 0.64 | 0.76 |
| 24 | VH295595 | 2 | 1,910 | 1,910 | 0.80 | 0.89 | 92.2 | 7.7 | 99.9 | 0.33 | 0.62 | 0.32 | 0.61 |
| 25 | VH295599 | 2 | 1,690 | 1,690 | 0.55 | 0.71 | 72.5 | 26.3 | 98.8 | 0.65 | 0.74 | 0.65 | 0.74 |
| 26 | VH295601 | 2 | 1,996 | 1,996 | 0.50 | 0.65 | 71.0 | 26.9 | 97.9 | 0.56 | 0.70 | 0.59 | 0.72 |
| 27 | VH295602 | 2 | 1,843 | 1,843 | 0.63 | 0.74 | 79.6 | 19.2 | 98.8 | 0.53 | 0.68 | 0.51 | 0.69 |
| 28 | VH295622 | 2 | 1,878 | 1,877 | 0.51 | 0.66 | 84.1 | 15.5 | 99.6 | 0.24 | 0.51 | 0.23 | 0.50 |
| 29 | VH295623 | 2 | 1,857 | 1,857 | 0.41 | 0.50 | 68.2 | 27.4 | 95.5 | 0.43 | 0.63 | 0.56 | 0.71 |
| 30 | VH295765 | 2 | 1,942 | 1,942 | 0.58 | 0.77 | 72.6 | 26.4 | 99.0 | 0.87 | 0.82 | 0.87 | 0.82 |
| 31 | VH295766 | 2 | 1,984 | 1,984 | 0.79 | 0.87 | 95.7 | 3.7 | 99.4 | 0.15 | 0.46 | 0.18 | 0.51 |
| 32 | VH295828 | 2 | 1,753 | 1,751 | 0.57 | 0.74 | 75.2 | 23.6 | 98.7 | 0.60 | 0.74 | 0.59 | 0.73 |
| 33 | VH295829 | 2 | 1,953 | 1,952 | 0.71 | 0.81 | 82.9 | 16.3 | 99.3 | 0.60 | 0.71 | 0.61 | 0.72 |
| 34 | VH295844 | 2 | 1,456 | 1,456 | 0.56 | 0.73 | 78.2 | 19.6 | 97.9 | 0.47 | 0.73 | 0.47 | 0.72 |
| 35 | VH295975 | 2 | 1,790 | 1,790 | 0.45 | 0.63 | 69.9 | 29.0 | 98.9 | 0.50 | 0.66 | 0.52 | 0.68 |

| Prompt | Item ID | Score Points | Rater 1 N | Rater 2 N | Kappa | Quadratic Weighted Kappa | Percent exact | Percent adjacent | Percent exact + adjacent | Rater 1 Mean | Rater 1 SD | Rater 2 Mean | Rater 2 SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | VH295977 | 2 | 1,576 | 1,576 | 0.54 | 0.65 | 73.8 | 23.2 | 97.0 | 0.56 | 0.71 | 0.58 | 0.71 |
| 37 | VH296016 | 2 | 1,849 | 1,849 | 0.43 | 0.56 | 74.3 | 22.8 | 97.1 | 0.38 | 0.62 | 0.36 | 0.62 |
| 38 | VH296021 | 2 | 1,724 | 1,722 | 0.59 | 0.76 | 74.4 | 24.1 | 98.5 | 0.72 | 0.78 | 0.72 | 0.79 |
| 39 | VH296023 | 2 | 1,622 | 1,622 | 0.56 | 0.70 | 73.7 | 24.6 | 98.3 | 0.58 | 0.71 | 0.69 | 0.73 |
| 40 | VH296028 | 2 | 1,936 | 1,936 | 0.64 | 0.75 | 80.5 | 18.6 | 99.1 | 0.52 | 0.67 | 0.50 | 0.65 |
| 41 | VH296062 | 2 | 1,700 | 1,700 | 0.59 | 0.71 | 75.9 | 22.9 | 98.8 | 0.62 | 0.69 | 0.60 | 0.70 |
| 42 | VH296063 | 2 | 1,567 | 1,567 | 0.65 | 0.78 | 81.3 | 17.8 | 99.1 | 0.52 | 0.71 | 0.51 | 0.69 |
| 43 | VH296094 | 2 | 1,889 | 1,889 | 0.79 | 0.89 | 88.1 | 11.5 | 99.7 | 0.60 | 0.77 | 0.59 | 0.78 |
| 44 | VH296095 | 2 | 1,637 | 1,637 | 0.51 | 0.66 | 74.6 | 22.5 | 97.1 | 0.49 | 0.71 | 0.46 | 0.71 |
| | **AVERAGE** | | **1,732** | **1,732** | **0.57** | **0.70** | **76.9** | **21.6** | **98.5** | **0.54** | **0.68** | **0.55** | **0.69** |

**Notes:**
– Numbers indicate students who received valid ratings from Rater 1.
– 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 Mean | Rater 1 SD | Rater 2 Mean | Rater 2 SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | VH289614 | 2 | 8,660 | 863 | 0.29 | 0.44 | 57.5 | 39.9 | 97.3 | 1.10 | 0.66 | 1.08 | 0.69 |
| 2 | VH289859 | 2 | 449 | 41 | 0.18 | 0.43 | 51.2 | 48.8 | 100.0 | 1.20 | 0.72 | 1.29 | 0.60 |
| 3 | VH290305 | 2 | 610 | 66 | 0.38 | 0.53 | 60.6 | 36.4 | 97.0 | 0.89 | 0.77 | 0.83 | 0.67 |
| 4 | VH291067 | 2 | 18,852 | 5,441 | 0.43 | 0.64 | 66.7 | 31.2 | 97.9 | 0.60 | 0.73 | 0.61 | 0.74 |
| 5 | VH294117 | 2 | 483 | 45 | 0.38 | 0.66 | 60.0 | 40.0 | 100.0 | 0.67 | 0.77 | 0.84 | 0.77 |
| 6 | VH295242 | 2 | 15,306 | 1,544 | 0.48 | 0.69 | 65.6 | 33.4 | 99.0 | 0.93 | 0.78 | 0.95 | 0.77 |
| 7 | VH295243 | 2 | 15,622 | 1,526 | 0.54 | 0.72 | 69.7 | 29.2 | 98.8 | 1.00 | 0.78 | 1.01 | 0.78 |
| 8 | VH295249 | 2 | 15,210 | 1,556 | 0.38 | 0.57 | 59.5 | 37.6 | 97.1 | 0.90 | 0.76 | 0.91 | 0.76 |
| 9 | VH295284 | 2 | 15,930 | 1,582 | 0.48 | 0.65 | 65.9 | 32.0 | 97.9 | 1.11 | 0.76 | 1.14 | 0.76 |
| 10 | VH295285 | 2 | 15,804 | 1,574 | 0.39 | 0.57 | 59.7 | 35.7 | 95.4 | 0.88 | 0.80 | 0.86 | 0.78 |
| 11 | VH295362 | 2 | 14,410 | 1,484 | 0.43 | 0.62 | 62.5 | 35.0 | 97.4 | 0.99 | 0.78 | 0.96 | 0.76 |
| 12 | VH295363 | 2 | 14,742 | 1,483 | 0.57 | 0.71 | 75.0 | 24.3 | 99.3 | 0.58 | 0.69 | 0.57 | 0.68 |
| 13 | VH295378 | 2 | 15,080 | 1,535 | 0.55 | 0.72 | 70.8 | 28.8 | 99.6 | 0.89 | 0.74 | 0.88 | 0.74 |
| 14 | VH295395 | 2 | 14,685 | 1,460 | 0.48 | 0.68 | 66.6 | 31.2 | 97.7 | 0.77 | 0.79 | 0.77 | 0.79 |
| 15 | VH295470 | 2 | 15,756 | 1,584 | 0.46 | 0.67 | 65.2 | 34.0 | 99.2 | 1.08 | 0.75 | 1.11 | 0.76 |
| 16 | VH295471 | 2 | 15,402 | 1,510 | 0.50 | 0.69 | 67.4 | 31.7 | 99.1 | 0.98 | 0.75 | 0.97 | 0.76 |
| 17 | VH295498 | 2 | 14,506 | 1,459 | 0.54 | 0.64 | 80.1 | 16.9 | 97.0 | 0.36 | 0.64 | 0.36 | 0.63 |
| 18 | VH295537 | 2 | 15,453 | 1,545 | 0.47 | 0.65 | 65.5 | 32.7 | 98.2 | 0.95 | 0.76 | 0.95 | 0.76 |
| 19 | VH295620 | 2 | 15,570 | 1,556 | 0.41 | 0.60 | 60.6 | 35.3 | 95.9 | 0.99 | 0.81 | 0.99 | 0.81 |
| 20 | VH295649 | 2 | 15,277 | 1,525 | 0.45 | 0.66 | 63.6 | 33.9 | 97.5 | 0.96 | 0.81 | 0.96 | 0.80 |
| 21 | VH295650 | 2 | 15,181 | 1,474 | 0.55 | 0.74 | 69.9 | 29.2 | 99.2 | 1.11 | 0.79 | 1.09 | 0.79 |
| 22 | VH295697 | 2 | 15,541 | 1,578 | 0.54 | 0.74 | 69.2 | 29.9 | 99.1 | 0.96 | 0.81 | 0.97 | 0.79 |

| 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 |
| 23 | VH295698 | 2 | 15,564 | 1,543 | 0.54 | 0.67 | 76.4 | 21.0 | 97.4 | 0.46 | 0.69 | 0.48 | 0.70 |
| 24 | VH295725 | 2 | 15,795 | 1,550 | 0.35 | 0.46 | 71.9 | 23.9 | 95.9 | 0.36 | 0.61 | 0.35 | 0.61 |
| 25 | VH295744 | 2 | 16,082 | 1,580 | 0.55 | 0.74 | 70.3 | 28.7 | 99.0 | 0.97 | 0.79 | 0.93 | 0.79 |
| 26 | VH295800 | 2 | 16,088 | 1,612 | 0.41 | 0.59 | 61.5 | 35.4 | 96.8 | 0.83 | 0.75 | 0.84 | 0.77 |
| 27 | VH295802 | 2 | 16,284 | 1,621 | 0.54 | 0.73 | 69.6 | 29.5 | 99.1 | 0.97 | 0.79 | 0.95 | 0.78 |
| 28 | VH295814 | 2 | 15,443 | 1,595 | 0.67 | 0.78 | 79.0 | 20.6 | 99.6 | 0.83 | 0.72 | 0.82 | 0.72 |
| 29 | VH295850 | 2 | 15,246 | 1,584 | 0.46 | 0.65 | 64.6 | 33.7 | 98.4 | 0.91 | 0.76 | 0.90 | 0.76 |
| 30 | VH295851 | 2 | 15,677 | 1,530 | 0.47 | 0.66 | 65.0 | 33.1 | 98.1 | 1.09 | 0.77 | 1.10 | 0.78 |
| 31 | VH295887 | 2 | 15,232 | 1,573 | 0.54 | 0.71 | 70.2 | 28.8 | 99.0 | 0.92 | 0.75 | 0.92 | 0.75 |
| 32 | VH295988 | 2 | 15,811 | 1,568 | 0.50 | 0.70 | 67.1 | 32.0 | 99.1 | 0.96 | 0.77 | 0.95 | 0.75 |
| 33 | VH295989 | 2 | 15,446 | 1,559 | 0.53 | 0.71 | 68.8 | 30.0 | 98.8 | 0.91 | 0.76 | 0.93 | 0.78 |
| 34 | VH296052 | 2 | 15,931 | 1,591 | 0.53 | 0.72 | 69.7 | 29.1 | 98.8 | 0.80 | 0.78 | 0.83 | 0.78 |
| 35 | VH296109 | 2 | 15,818 | 1,594 | 0.52 | 0.72 | 68.3 | 31.0 | 99.2 | 1.02 | 0.78 | 1.01 | 0.78 |
| 36 | VH296110 | 2 | 15,544 | 1,574 | 0.53 | 0.72 | 68.7 | 29.4 | 98.2 | 0.89 | 0.81 | 0.89 | 0.81 |
| | **AVERAGE** | | **14,125** | **1,514** | **0.47** | **0.66** | **66.8** | **31.5** | **98.3** | **0.88** | **0.76** | **0.89** | **0.75** |

**Notes:**

- Numbers indicate students who received valid ratings from Rater 1.
- 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH299059 | 3 | 2,377 | 2,377 | 0.88 | 0.96 | 92.0 | 7.1 | 99.1 | 1.89 | 1.17 | 1.88 | 1.18 |
| 2 | VH299061 | 1 | 2,175 | 2,173 | 0.78 | 0.78 | 92.3 | 7.7 | 100.0 | 0.23 | 0.42 | 0.23 | 0.42 |
| 3 | VH299093 | 2 | 3,991 | 3,991 | 0.60 | 0.76 | 76.6 | 18.9 | 95.6 | 0.80 | 0.92 | 0.62 | 0.80 |
| 4 | VH299097 | 2 | 1,633 | 1,633 | 0.84 | 0.88 | 97.1 | 2.6 | 99.7 | 0.12 | 0.40 | 0.13 | 0.41 |
| 5 | VH299176 | 2 | 1,545 | 1,543 | 0.87 | 0.93 | 97.1 | 2.7 | 99.8 | 0.17 | 0.49 | 0.17 | 0.48 |
| 6 | VH299294 | 2 | 2,917 | 2,917 | 0.87 | 0.93 | 92.0 | 7.7 | 99.8 | 1.33 | 0.80 | 1.32 | 0.80 |
| 7 | VH299295 | 1 | 1,850 | 1,850 | 0.94 | 0.94 | 97.4 | 2.6 | 100.0 | 0.32 | 0.47 | 0.32 | 0.47 |
| 8 | VH299298 | 2 | 1,554 | 1,551 | 0.79 | 0.86 | 92.6 | 6.3 | 98.9 | 0.30 | 0.63 | 0.30 | 0.62 |
| 9 | VH299352 | 2 | 2,722 | 2,722 | 0.75 | 0.85 | 87.7 | 9.8 | 97.6 | 0.53 | 0.81 | 0.53 | 0.80 |
| 10 | VH299378 | 2 | 59 | 59 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.41 | 0.81 | 0.41 | 0.81 |
| 11 | VH299379 | 3 | 2,672 | 2,672 | 0.94 | 0.98 | 95.5 | 4.2 | 99.7 | 1.86 | 1.19 | 1.88 | 1.19 |
| 12 | VH299380 | 1 | 1,959 | 1,958 | 0.84 | 0.84 | 92.0 | 8.0 | 100.0 | 0.44 | 0.50 | 0.43 | 0.50 |
| 13 | VH299381 | 2 | 1,139 | 1,139 | 0.82 | 0.89 | 92.6 | 6.8 | 99.5 | 0.35 | 0.64 | 0.35 | 0.64 |
| 14 | VH299417 | 2 | 1,973 | 1,972 | 0.87 | 0.93 | 92.1 | 7.9 | 100.0 | 0.62 | 0.77 | 0.62 | 0.77 |
| 15 | VH299420 | 2 | 1,874 | 1,873 | 0.84 | 0.91 | 91.9 | 6.7 | 98.6 | 0.56 | 0.81 | 0.55 | 0.82 |
| 16 | VH299467 | 2 | 2,116 | 2,112 | 0.74 | 0.87 | 97.3 | 2.5 | 99.8 | 0.08 | 0.35 | 0.09 | 0.36 |
| 17 | VH299468 | 2 | 2,101 | 2,101 | 0.86 | 0.92 | 91.8 | 8.0 | 99.8 | 0.59 | 0.75 | 0.59 | 0.75 |
| 18 | VH299470 | 2 | 2,078 | 2,076 | 0.80 | 0.89 | 90.0 | 8.5 | 98.6 | 0.54 | 0.80 | 0.53 | 0.80 |
| 19 | VH299544 | 1 | 2,906 | 2,903 | 0.83 | 0.83 | 92.0 | 8.0 | 100.0 | 0.37 | 0.48 | 0.38 | 0.49 |
| 20 | VH299548 | 2 | 2,859 | 2,858 | 0.96 | 0.98 | 98.6 | 1.4 | 100.0 | 0.34 | 0.64 | 0.34 | 0.64 |
| 21 | VH299549 | 1 | 2,200 | 2,197 | 0.71 | 0.71 | 90.9 | 9.1 | 100.0 | 0.20 | 0.40 | 0.20 | 0.40 |
| 22 | VH299560 | 2 | 2,625 | 2,625 | 0.76 | 0.86 | 90.3 | 7.4 | 97.7 | 0.42 | 0.76 | 0.42 | 0.76 |
| 23 | VH299561 | 2 | 2,460 | 2,460 | 0.95 | 0.97 | 99.5 | 0.5 | 100.0 | 0.07 | 0.32 | 0.07 | 0.32 |
| 24 | VH299632 | 2 | 235 | 235 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.63 | 0.77 | 0.63 | 0.77 |
| 25 | VH299646 | 2 | 2,519 | 2,516 | 0.90 | 0.94 | 95.3 | 3.7 | 99.0 | 0.50 | 0.80 | 0.50 | 0.80 |
| 26 | VH299647 | 2 | 1,985 | 1,975 | 0.82 | 0.87 | 93.7 | 6.0 | 99.7 | 0.25 | 0.52 | 0.24 | 0.52 |
| 27 | VH299783 | 2 | 2,386 | 2,385 | 0.88 | 0.92 | 94.3 | 4.4 | 98.7 | 0.49 | 0.80 | 0.50 | 0.80 |
| 28 | VH299784 | 2 | 1,618 | 1,611 | 0.82 | 0.86 | 93.2 | 5.9 | 99.1 | 0.29 | 0.58 | 0.30 | 0.58 |
| 29 | VH299999 | 3 | 2,370 | 2,368 | 0.94 | 0.98 | 95.4 | 4.3 | 99.7 | 1.79 | 1.21 | 1.80 | 1.21 |
| 30 | VH300000 | 1 | 2,102 | 2,102 | 0.79 | 0.79 | 89.8 | 10.2 | 100.0 | 0.45 | 0.50 | 0.45 | 0.50 |
| 31 | VH300001 | 1 | 1,966 | 1,964 | 0.79 | 0.79 | 92.5 | 7.5 | 100.0 | 0.24 | 0.42 | 0.23 | 0.42 |
| 32 | VH300062 | 1 | 1,853 | 1,853 | 0.95 | 0.95 | 97.9 | 2.1 | 100.0 | 0.32 | 0.46 | 0.32 | 0.46 |
| 33 | VH300064 | 2 | 1,609 | 1,608 | 0.79 | 0.86 | 92.7 | 6.5 | 99.1 | 0.27 | 0.60 | 0.30 | 0.61 |
| 34 | VH300137 | 2 | 1,961 | 1,961 | 0.74 | 0.87 | 83.6 | 15.7 | 99.3 | 0.76 | 0.86 | 0.78 | 0.84 |
| 35 | VH300139 | 1 | 1,802 | 1,799 | 0.78 | 0.78 | 94.8 | 5.2 | 100.0 | 0.14 | 0.35 | 0.14 | 0.35 |

| 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 |
| 36 | VH300140 | 2 | 1,510 | 1,510 | 0.89 | 0.93 | 96.9 | 3.0 | 99.9 | 0.21 | 0.51 | 0.21 | 0.51 |
| 37 | VH300264 | 1 | 2,000 | 2,000 | 0.86 | 0.86 | 93.7 | 6.3 | 100.0 | 0.34 | 0.47 | 0.34 | 0.47 |
| 38 | VH300267 | 1 | 3,035 | 3,035 | 0.77 | 0.77 | 93.7 | 6.3 | 100.0 | 0.15 | 0.36 | 0.17 | 0.37 |
| 39 | VH300360 | 2 | 2,050 | 2,046 | 0.84 | 0.93 | 91.7 | 7.4 | 99.1 | 0.61 | 0.87 | 0.59 | 0.86 |
| 40 | VH300362 | 3 | 2,563 | 2,559 | 0.92 | 0.97 | 94.1 | 5.2 | 99.3 | 1.76 | 1.19 | 1.76 | 1.20 |
| 41 | VH300364 | 1 | 2,121 | 2,121 | 0.80 | 0.80 | 90.3 | 9.7 | 100.0 | 0.46 | 0.50 | 0.46 | 0.50 |
| 42 | VH300365 | 2 | 1,573 | 1,573 | 0.78 | 0.86 | 90.9 | 8.4 | 99.3 | 0.35 | 0.64 | 0.35 | 0.63 |
| 43 | VH300478 | 2 | 97 | 97 | 0.89 | 0.94 | 92.8 | 7.2 | 100.0 | 0.73 | 0.81 | 0.74 | 0.77 |
| 44 | VH300482 | 1 | 1,697 | 1,697 | 0.82 | 0.82 | 95.5 | 4.5 | 100.0 | 0.15 | 0.35 | 0.14 | 0.35 |
| 45 | VH300485 | 2 | 30 | 30 | 0.72 | 0.67 | 93.3 | 3.3 | 96.7 | 0.20 | 0.55 | 0.17 | 0.46 |
| | **AVERAGE** | | **1,975** | **1,973** | **0.84** | **0.88** | **93.2** | **6.2** | **99.4** | **0.52** | **0.65** | **0.52** | **0.65** |

**Notes:**

- Numbers indicate students who received valid ratings from Rater 1.
- 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH299103 | 2 | 1,958 | 1,958 | 0.72 | 0.83 | 91.9 | 7.8 | 99.7 | 0.22 | 0.52 | 0.21 | 0.52 |
| 2 | VH299105 | 2 | 1,827 | 1,827 | 0.41 | 0.51 | 93.3 | 4.9 | 98.1 | 0.09 | 0.35 | 0.08 | 0.36 |
| 3 | VH299107 | 3 | 1,909 | 1,909 | 0.86 | 0.95 | 91.2 | 8.5 | 99.7 | 0.80 | 0.96 | 0.80 | 0.95 |
| 4 | VH299112 | 2 | 1,986 | 1,986 | 0.79 | 0.86 | 90.4 | 9.1 | 99.5 | 0.38 | 0.63 | 0.37 | 0.63 |
| 5 | VH299113 | 2 | 1,957 | 1,957 | 0.77 | 0.87 | 88.4 | 11.2 | 99.6 | 0.45 | 0.69 | 0.45 | 0.69 |
| 6 | VH299115 | 2 | 2,182 | 2,179 | 0.77 | 0.87 | 92.0 | 7.7 | 99.7 | 0.28 | 0.59 | 0.27 | 0.57 |
| 7 | VH299181 | 2 | 2,132 | 2,132 | 0.60 | 0.75 | 78.5 | 19.6 | 98.1 | 0.52 | 0.74 | 0.52 | 0.75 |
| 8 | VH299339 | 2 | 1,941 | 1,941 | 0.72 | 0.87 | 92.6 | 7.1 | 99.7 | 0.22 | 0.56 | 0.22 | 0.57 |
| 9 | VH299340 | 2 | 1,902 | 1,902 | 0.77 | 0.87 | 92.0 | 7.5 | 99.4 | 0.29 | 0.61 | 0.30 | 0.63 |
| 10 | VH299342 | 3 | 2,102 | 2,102 | 0.83 | 0.92 | 88.4 | 10.8 | 99.2 | 0.87 | 0.94 | 0.85 | 0.95 |
| 11 | VH299400 | 1 | 2,067 | 2,067 | 0.77 | 0.77 | 90.8 | 9.2 | 100.0 | 0.28 | 0.45 | 0.27 | 0.44 |
| 12 | VH299402 | 2 | 2,786 | 2,786 | 0.60 | 0.78 | 92.7 | 6.0 | 98.7 | 0.16 | 0.49 | 0.16 | 0.50 |
| 13 | VH299403 | 2 | 26 | 26 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.15 | 0.46 | 0.15 | 0.46 |
| 14 | VH299405 | 2 | 1,628 | 1,628 | 0.82 | 0.89 | 92.2 | 5.4 | 97.6 | 0.52 | 0.84 | 0.51 | 0.84 |
| 15 | VH299445 | 2 | 1,998 | 1,998 | 0.77 | 0.89 | 91.0 | 9.0 | 99.9 | 0.34 | 0.65 | 0.34 | 0.65 |
| 16 | VH299446 | 2 | 1,981 | 1,980 | 0.89 | 0.95 | 97.0 | 2.5 | 99.5 | 0.26 | 0.65 | 0.26 | 0.65 |
| 17 | VH299448 | 3 | 1,764 | 1,764 | 0.83 | 0.94 | 88.6 | 10.8 | 99.4 | 0.91 | 1.02 | 0.88 | 1.01 |
| 18 | VH299474 | 1 | 2,067 | 2,067 | 0.60 | 0.60 | 86.7 | 13.3 | 100.0 | 0.22 | 0.41 | 0.21 | 0.41 |
| 19 | VH299476 | 1 | 2,022 | 2,022 | 0.66 | 0.66 | 86.5 | 13.5 | 100.0 | 0.27 | 0.44 | 0.27 | 0.45 |
| 20 | VH299477 | 2 | 2,360 | 2,360 | 0.92 | 0.95 | 94.9 | 4.9 | 99.8 | 0.65 | 0.76 | 0.64 | 0.76 |
| 21 | VH299504 | 1 | 2,148 | 2,147 | 0.67 | 0.67 | 87.0 | 13.0 | 100.0 | 0.27 | 0.44 | 0.26 | 0.44 |
| 22 | VH299506 | 2 | 11 | 11 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.09 | 0.30 | 0.09 | 0.30 |
| 23 | VH299508 | 1 | 13 | 13 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.23 | 0.44 | 0.23 | 0.44 |
| 24 | VH299512 | 2 | 1,975 | 1,973 | 0.82 | 0.87 | 93.2 | 5.2 | 98.3 | 0.35 | 0.68 | 0.35 | 0.68 |
| 25 | VH299775 | 2 | 52 | 52 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.50 | 0.75 | 0.50 | 0.75 |
| 26 | VH299776 | 2 | 2,143 | 2,142 | 0.79 | 0.87 | 88.0 | 10.9 | 99.0 | 0.57 | 0.75 | 0.58 | 0.76 |
| 27 | VH299823 | 2 | 29 | 29 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.03 | 0.19 | 0.03 | 0.19 |
| 28 | VH299934 | 2 | 28 | 28 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.36 | 0.73 | 0.36 | 0.73 |
| 29 | VH300006 | 1 | 1,910 | 1,910 | 0.86 | 0.86 | 94.7 | 5.3 | 100.0 | 0.26 | 0.44 | 0.26 | 0.44 |
| 30 | VH300007 | 2 | 2,376 | 2,376 | 0.81 | 0.83 | 95.6 | 2.4 | 98.0 | 0.20 | 0.56 | 0.19 | 0.54 |
| 31 | VH300009 | 2 | 1,681 | 1,679 | 0.81 | 0.89 | 91.3 | 5.9 | 97.2 | 0.58 | 0.88 | 0.59 | 0.88 |
| 32 | VH300038 | 2 | 2,670 | 2,670 | 0.62 | 0.74 | 81.3 | 18.0 | 99.3 | 0.41 | 0.62 | 0.42 | 0.63 |
| 33 | VH300047 | 2 | 2,458 | 2,458 | 0.65 | 0.81 | 89.0 | 9.6 | 98.5 | 0.29 | 0.64 | 0.28 | 0.64 |
| 34 | VH300096 | 1 | 2,084 | 2,084 | 0.57 | 0.57 | 86.8 | 13.2 | 100.0 | 0.19 | 0.40 | 0.19 | 0.39 |
| 35 | VH300098 | 1 | 2,048 | 2,048 | 0.67 | 0.67 | 87.5 | 12.5 | 100.0 | 0.24 | 0.43 | 0.26 | 0.44 |

| 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 |
| 36 | VH300099 | 2 | 2,323 | 2,323 | 0.94 | 0.96 | 96.6 | 3.1 | 99.7 | 0.65 | 0.77 | 0.65 | 0.77 |
| 37 | VH300188 | 2 | 2,059 | 2,059 | 0.61 | 0.72 | 86.1 | 12.7 | 98.8 | 0.27 | 0.56 | 0.28 | 0.57 |
| 38 | VH300210 | 2 | 4,574 | 4,574 | 0.73 | 0.85 | 94.1 | 5.8 | 99.9 | 0.14 | 0.42 | 0.17 | 0.48 |
| 39 | VH300211 | 1 | 1,888 | 1,888 | 0.57 | 0.63 | 96.0 | 3.3 | 99.3 | 0.06 | 0.28 | 0.06 | 0.30 |
| 40 | VH300213 | 3 | 1,863 | 1,863 | 0.86 | 0.95 | 92.6 | 7.2 | 99.8 | 0.54 | 0.85 | 0.55 | 0.85 |
| 41 | VH300217 | 1 | 2,182 | 2,181 | 0.68 | 0.68 | 88.5 | 11.5 | 100.0 | 0.23 | 0.42 | 0.25 | 0.43 |
| 42 | VH300219 | 2 | 2,076 | 2,076 | 0.84 | 0.92 | 92.8 | 6.1 | 98.9 | 0.49 | 0.79 | 0.49 | 0.79 |
| 43 | VH300288 | 2 | 2,094 | 2,094 | 0.73 | 0.83 | 88.0 | 11.7 | 99.7 | 0.37 | 0.62 | 0.36 | 0.62 |
| 44 | VH300290 | 2 | 2,000 | 2,000 | 0.81 | 0.89 | 90.3 | 9.4 | 99.7 | 0.47 | 0.69 | 0.46 | 0.69 |
| 45 | VH300414 | 1 | 2,226 | 2,221 | 0.69 | 0.74 | 86.4 | 4.1 | 90.5 | 0.60 | 0.91 | 0.60 | 0.90 |
| | **AVERAGE** | | **1,856** | **1,855** | **0.77** | **0.84** | **91.7** | **7.5** | **99.2** | **0.36** | **0.61** | **0.36** | **0.61** |

**Notes:**

- Numbers indicate students who received valid ratings from Rater 1.
- 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH299043 | 2 | 2,779 | 2,777 | 0.84 | 0.92 | 93.7 | 5.9 | 99.6 | 0.36 | 0.68 | 0.36 | 0.68 |
| 2 | VH299044 | 2 | 2,341 | 2,340 | 0.63 | 0.73 | 92.9 | 6.4 | 99.3 | 0.14 | 0.43 | 0.13 | 0.41 |
| 3 | VH299045 | 2 | 2,515 | 2,515 | 0.81 | 0.90 | 94.1 | 5.4 | 99.6 | 0.26 | 0.59 | 0.26 | 0.59 |
| 4 | VH299046 | 2 | 2,300 | 2,298 | 0.82 | 0.89 | 92.6 | 5.0 | 97.6 | 0.48 | 0.82 | 0.49 | 0.83 |
| 5 | VH299078 | 2 | 2,844 | 2,843 | 0.60 | 0.77 | 85.8 | 11.7 | 97.5 | 0.34 | 0.68 | 0.33 | 0.68 |
| 6 | VH299080 | 2 | 2,494 | 2,494 | 0.76 | 0.85 | 93.6 | 5.4 | 99.0 | 0.22 | 0.55 | 0.22 | 0.55 |
| 7 | VH299082 | 2 | 2,342 | 2,342 | 0.65 | 0.69 | 84.3 | 14.9 | 99.2 | 0.34 | 0.54 | 0.34 | 0.54 |
| 8 | VH299143 | 2 | 2,864 | 2,863 | 0.86 | 0.92 | 94.2 | 5.2 | 99.4 | 0.36 | 0.67 | 0.36 | 0.67 |
| 9 | VH299151 | 2 | 2,435 | 2,434 | 0.65 | 0.78 | 93.8 | 5.8 | 99.5 | 0.12 | 0.41 | 0.13 | 0.43 |
| 10 | VH299164 | 2 | 2,641 | 2,639 | 0.84 | 0.91 | 95.0 | 4.7 | 99.7 | 0.27 | 0.60 | 0.26 | 0.60 |
| 11 | VH299169 | 2 | 2,265 | 2,264 | 0.85 | 0.91 | 93.3 | 4.7 | 98.0 | 0.54 | 0.85 | 0.53 | 0.85 |
| 12 | VH299188 | 3 | 3,106 | 3,106 | 0.97 | 0.96 | 98.8 | 0.6 | 99.4 | 0.35 | 0.61 | 0.35 | 0.61 |
| 13 | VH299190 | 1 | 2,622 | 2,622 | 0.58 | 0.58 | 82.4 | 17.6 | 100.0 | 0.28 | 0.45 | 0.30 | 0.46 |
| 14 | VH299410 | 1 | 2,638 | 2,638 | 0.45 | 0.45 | 93.7 | 6.3 | 100.0 | 0.06 | 0.23 | 0.06 | 0.24 |
| 15 | VH299411 | 2 | 2,429 | 2,426 | 0.42 | 0.53 | 82.5 | 16.1 | 98.6 | 0.22 | 0.49 | 0.20 | 0.47 |
| 16 | VH299412 | 3 | 2,113 | 2,113 | 0.42 | 0.64 | 77.4 | 16.1 | 93.6 | 0.40 | 0.83 | 0.42 | 0.84 |
| 17 | VH299433 | 1 | 2,749 | 2,749 | 0.66 | 0.66 | 93.0 | 7.0 | 100.0 | 0.12 | 0.32 | 0.12 | 0.33 |
| 18 | VH299434 | 2 | 10 | 10 | 0.29 | 0.59 | 60.0 | 40.0 | 100.0 | 0.70 | 0.82 | 0.30 | 0.48 |
| 19 | VH299438 | 2 | 10 | 10 | 0.47 | 0.78 | 90.0 | 10.0 | 100.0 | 0.10 | 0.32 | 0.20 | 0.63 |
| 20 | VH299595 | 2 | 3,005 | 3,005 | 0.71 | 0.82 | 87.1 | 11.5 | 98.6 | 0.40 | 0.69 | 0.39 | 0.69 |
| 21 | VH299597 | 2 | 2,535 | 2,535 | 0.75 | 0.83 | 94.8 | 4.6 | 99.4 | 0.16 | 0.46 | 0.15 | 0.45 |
| 22 | VH299601 | 3 | 3,176 | 3,176 | 0.69 | 0.86 | 85.3 | 11.7 | 96.9 | 0.55 | 0.98 | 0.55 | 0.99 |
| 23 | VH299680 | 1 | 13 | 13 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.08 | 0.28 | 0.08 | 0.28 |
| 24 | VH299683 | 2 | 2,819 | 2,819 | 0.73 | 0.86 | 82.3 | 17.3 | 99.6 | 0.82 | 0.80 | 0.83 | 0.81 |
| 25 | VH299685 | 2 | 2,678 | 2,678 | 0.76 | 0.85 | 90.9 | 8.1 | 99.0 | 0.34 | 0.65 | 0.32 | 0.64 |
| 26 | VH299687 | 2 | 2,450 | 2,449 | 0.52 | 0.71 | 92.7 | 6.6 | 99.3 | 0.11 | 0.40 | 0.11 | 0.40 |
| 27 | VH299695 | 2 | 2,810 | 2,810 | 0.84 | 0.91 | 93.0 | 6.6 | 99.6 | 0.39 | 0.67 | 0.39 | 0.68 |
| 28 | VH299696 | 2 | 2,274 | 2,274 | 0.65 | 0.78 | 94.5 | 5.1 | 99.6 | 0.12 | 0.42 | 0.10 | 0.37 |
| 29 | VH299697 | 2 | 2,453 | 2,452 | 0.82 | 0.90 | 94.3 | 5.5 | 99.8 | 0.25 | 0.56 | 0.25 | 0.57 |
| 30 | VH299699 | 2 | 2,271 | 2,271 | 0.82 | 0.91 | 92.0 | 6.0 | 98.1 | 0.55 | 0.86 | 0.55 | 0.86 |
| 31 | VH299855 | 2 | 2,954 | 2,954 | 0.75 | 0.85 | 97.2 | 2.7 | 99.8 | 0.08 | 0.33 | 0.08 | 0.33 |
| 32 | VH299857 | 2 | 3,082 | 3,082 | 0.79 | 0.90 | 87.9 | 11.8 | 99.7 | 0.65 | 0.83 | 0.64 | 0.83 |
| 33 | VH299860 | 1 | 114 | 114 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.09 | 0.28 | 0.09 | 0.28 |
| 34 | VH299861 | 2 | 3,198 | 3,196 | 0.89 | 0.94 | 94.6 | 4.6 | 99.2 | 0.51 | 0.79 | 0.52 | 0.79 |
| 35 | VH299884 | 2 | 3,035 | 3,035 | 0.75 | 0.86 | 88.4 | 10.3 | 98.7 | 0.44 | 0.73 | 0.43 | 0.73 |

| Prompt | Item ID | Score Points | Rater 1 N | Rater 2 N | Kappa | Quadratic Weighted Kappa | Percent exact | Percent adjacent | Percent exact + adjacent | Rater 1 Mean | Rater 1 SD | Rater 2 Mean | Rater 2 SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | VH299887 | 2 | 2,539 | 2,539 | 0.73 | 0.81 | 96.1 | 3.2 | 99.3 | 0.11 | 0.40 | 0.11 | 0.40 |
| 37 | VH299891 | 3 | 2,846 | 2,846 | 0.58 | 0.73 | 84.8 | 11.7 | 96.4 | 0.35 | 0.75 | 0.34 | 0.74 |
| 38 | VH299987 | 2 | 2,537 | 2,537 | 0.48 | 0.55 | 83.6 | 14.9 | 98.5 | 0.22 | 0.49 | 0.22 | 0.48 |
| 39 | VH299989 | 3 | 2,268 | 2,266 | 0.34 | 0.53 | 78.8 | 13.3 | 92.1 | 0.32 | 0.76 | 0.33 | 0.77 |
| 40 | VH299995 | 2 | 3,054 | 3,054 | 0.91 | 0.94 | 94.9 | 5.1 | 99.9 | 0.73 | 0.65 | 0.73 | 0.65 |
| 41 | VH300075 | 2 | 2,789 | 2,789 | 0.71 | 0.85 | 89.5 | 9.1 | 98.5 | 0.36 | 0.71 | 0.36 | 0.71 |
| 42 | VH300076 | 2 | 2,534 | 2,532 | 0.76 | 0.83 | 94.1 | 5.1 | 99.2 | 0.18 | 0.48 | 0.20 | 0.51 |
| 43 | VH300077 | 3 | 2,578 | 2,578 | 0.65 | 0.85 | 81.6 | 14.3 | 95.8 | 0.69 | 1.10 | 0.69 | 1.09 |
| 44 | VH300078 | 2 | 2,388 | 2,388 | 0.58 | 0.61 | 82.5 | 16.0 | 98.5 | 0.33 | 0.54 | 0.30 | 0.52 |
| 45 | VH300306 | 2 | 2,693 | 2,693 | 0.83 | 0.90 | 93.4 | 6.3 | 99.7 | 0.31 | 0.61 | 0.32 | 0.61 |
| 46 | VH300307 | 2 | 2,277 | 2,277 | 0.71 | 0.80 | 94.6 | 5.0 | 99.5 | 0.13 | 0.42 | 0.13 | 0.42 |
| 47 | VH300308 | 2 | 2,442 | 2,442 | 0.81 | 0.88 | 94.0 | 5.6 | 99.6 | 0.24 | 0.55 | 0.23 | 0.54 |
| 48 | VH300309 | 2 | 2,138 | 2,138 | 0.84 | 0.89 | 92.7 | 4.3 | 97.0 | 0.53 | 0.85 | 0.53 | 0.85 |
| 49 | VH303289 | 2 | 1 | 1 | - | - | 100.0 | 0.0 | 100.0 | 2.00 | - | 2.00 | - |
| | **AVERAGE** | | **2,356** | **2,356** | **0.71** | **0.80** | **90.3** | **8.5** | **98.8** | **0.36** | **0.60** | **0.35** | **0.60** |

**Notes:**

- Numbers indicate students who received valid ratings from Rater 1.
- 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH299006 | 2 | 19,500 | 2,336 | 0.77 | 0.87 | 85.6 | 13.4 | 99.0 | 0.72 | 0.82 | 0.73 | 0.82 |
| 2 | VH299009 | 2 | 19,584 | 2,350 | 0.81 | 0.90 | 90.0 | 8.9 | 98.9 | 0.57 | 0.82 | 0.57 | 0.82 |
| 3 | VH299015 | 3 | 19,446 | 2,355 | 0.49 | 0.77 | 65.3 | 26.4 | 91.6 | 1.15 | 1.23 | 1.15 | 1.22 |
| 4 | VH299282 | 1 | 19,791 | 1,972 | 0.96 | 0.96 | 98.8 | 1.2 | 100.0 | 0.21 | 0.41 | 0.20 | 0.40 |
| 5 | VH299283 | 2 | 19,720 | 2,341 | 0.71 | 0.87 | 82.1 | 17.6 | 99.7 | 1.24 | 0.85 | 1.22 | 0.86 |
| 6 | VH299285 | 2 | 19,612 | 2,309 | 0.67 | 0.77 | 84.5 | 15.0 | 99.5 | 0.38 | 0.61 | 0.39 | 0.62 |
| 7 | VH299287 | 2 | 19,414 | 2,290 | 0.40 | 0.51 | 79.5 | 18.0 | 97.6 | 0.25 | 0.53 | 0.25 | 0.53 |
| 8 | VH299454 | 2 | 19,351 | 2,243 | 0.53 | 0.73 | 78.3 | 19.1 | 97.5 | 0.44 | 0.73 | 0.44 | 0.74 |
| 9 | VH299455 | 1 | 24,936 | 2,480 | 0.78 | 0.78 | 95.5 | 4.5 | 100.0 | 0.12 | 0.32 | 0.12 | 0.32 |
| 10 | VH299456 | 2 | 19,245 | 2,235 | 0.43 | 0.61 | 79.7 | 17.1 | 96.8 | 0.29 | 0.61 | 0.31 | 0.63 |
| 11 | VH299482 | 1 | 24,768 | 2,463 | 0.95 | 0.95 | 98.4 | 1.6 | 100.0 | 0.20 | 0.40 | 0.20 | 0.40 |
| 12 | VH299484 | 2 | 19,701 | 2,251 | 0.68 | 0.84 | 79.5 | 19.5 | 99.0 | 1.21 | 0.85 | 1.19 | 0.85 |
| 13 | VH299485 | 2 | 19,812 | 2,261 | 0.74 | 0.84 | 83.5 | 15.3 | 98.9 | 0.76 | 0.80 | 0.76 | 0.80 |
| 14 | VH299486 | 2 | 19,362 | 2,208 | 0.42 | 0.63 | 75.7 | 21.8 | 97.5 | 0.36 | 0.65 | 0.36 | 0.66 |
| 15 | VH299520 | 2 | 19,359 | 2,267 | 0.54 | 0.73 | 78.4 | 19.6 | 98.0 | 0.43 | 0.72 | 0.44 | 0.72 |
| 16 | VH299521 | 1 | 24,673 | 2,472 | 0.84 | 0.84 | 96.4 | 3.6 | 100.0 | 0.12 | 0.33 | 0.13 | 0.34 |
| 17 | VH299522 | 2 | 19,214 | 2,269 | 0.54 | 0.73 | 89.8 | 8.5 | 98.2 | 0.19 | 0.54 | 0.19 | 0.53 |
| 18 | VH299582 | 1 | 26,085 | 2,619 | 0.94 | 0.94 | 97.1 | 2.9 | 100.0 | 0.37 | 0.48 | 0.37 | 0.48 |
| 19 | VH299585 | 1 | 21,416 | 2,129 | 0.85 | 0.85 | 94.7 | 5.3 | 100.0 | 0.23 | 0.42 | 0.23 | 0.42 |
| 20 | VH299586 | 2 | 19,018 | 2,290 | 0.35 | 0.52 | 66.3 | 29.7 | 96.0 | 0.48 | 0.69 | 0.47 | 0.68 |
| 21 | VH299652 | 2 | 19,561 | 2,349 | 0.54 | 0.72 | 79.6 | 17.4 | 97.0 | 0.42 | 0.72 | 0.43 | 0.73 |
| 22 | VH299655 | 2 | 19,487 | 2,334 | 0.49 | 0.65 | 86.8 | 10.1 | 96.9 | 0.21 | 0.56 | 0.23 | 0.58 |
| 23 | VH299727 | 2 | 24,595 | 2,433 | 0.78 | 0.88 | 90.3 | 9.2 | 99.5 | 0.36 | 0.67 | 0.39 | 0.68 |
| 24 | VH299729 | 2 | 19,594 | 2,228 | 0.58 | 0.77 | 93.7 | 5.3 | 99.0 | 0.13 | 0.45 | 0.12 | 0.44 |
| 25 | VH299730 | 2 | 19,721 | 2,221 | 0.55 | 0.73 | 89.0 | 10.0 | 99.0 | 0.19 | 0.51 | 0.19 | 0.51 |
| 26 | VH299732 | 4 | 19,395 | 2,197 | 0.42 | 0.77 | 55.2 | 30.9 | 86.1 | 1.67 | 1.50 | 1.65 | 1.50 |
| 27 | VH299788 | 1 | 25,142 | 2,487 | 0.96 | 0.96 | 97.9 | 2.1 | 100.0 | 0.37 | 0.48 | 0.36 | 0.48 |
| 28 | VH299790 | 2 | 19,833 | 2,275 | 0.60 | 0.74 | 75.4 | 23.9 | 99.3 | 0.74 | 0.72 | 0.73 | 0.71 |
| 29 | VH299792 | 2 | 19,452 | 2,252 | 0.67 | 0.74 | 86.6 | 12.3 | 98.9 | 0.31 | 0.56 | 0.32 | 0.57 |
| 30 | VH300114 | 2 | 19,237 | 2,275 | 0.56 | 0.75 | 80.0 | 17.5 | 97.6 | 0.43 | 0.73 | 0.45 | 0.74 |
| 31 | VH300125 | 1 | 25,664 | 2,575 | 0.82 | 0.82 | 96.3 | 3.7 | 100.0 | 0.12 | 0.33 | 0.12 | 0.32 |
| 32 | VH300126 | 2 | 19,170 | 2,358 | 0.55 | 0.73 | 91.0 | 7.3 | 98.3 | 0.17 | 0.52 | 0.17 | 0.51 |
| 33 | VH300155 | 2 | 19,460 | 2,347 | 0.52 | 0.70 | 79.5 | 17.6 | 97.1 | 0.39 | 0.70 | 0.39 | 0.69 |
| 34 | VH300163 | 2 | 19,202 | 2,350 | 0.54 | 0.71 | 87.0 | 10.7 | 97.7 | 0.23 | 0.58 | 0.25 | 0.60 |
| 35 | VH300196 | 2 | 19,372 | 2,291 | 0.53 | 0.72 | 79.3 | 18.1 | 97.3 | 0.42 | 0.72 | 0.40 | 0.71 |
| 36 | VH300197 | 1 | 25,123 | 2,491 | 0.76 | 0.76 | 95.1 | 4.9 | 100.0 | 0.13 | 0.33 | 0.11 | 0.31 |
| 37 | VH300198 | 2 | 19,509 | 2,241 | 0.41 | 0.60 | 81.7 | 15.3 | 97.1 | 0.24 | 0.57 | 0.27 | 0.59 |
| 38 | VH300202 | 1 | 25,407 | 2,530 | 0.88 | 0.88 | 96.2 | 3.8 | 100.0 | 0.20 | 0.40 | 0.20 | 0.40 |
| 39 | VH300205 | 2 | 19,512 | 2,315 | 0.59 | 0.73 | 74.2 | 25.1 | 99.3 | 0.77 | 0.72 | 0.78 | 0.73 |
| 40 | VH300206 | 2 | 19,639 | 2,252 | 0.75 | 0.81 | 90.0 | 9.5 | 99.5 | 0.30 | 0.56 | 0.30 | 0.55 |

| 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 |
| 41 | VH300230 | 2 | 21,776 | 2,162 | 0.79 | 0.90 | 90.7 | 9.3 | 99.9 | 0.42 | 0.70 | 0.41 | 0.70 |
| 42 | VH300232 | 2 | 19,541 | 2,297 | 0.64 | 0.79 | 94.5 | 4.5 | 99.0 | 0.12 | 0.45 | 0.13 | 0.45 |
| 43 | VH300233 | 2 | 19,379 | 2,283 | 0.69 | 0.85 | 93.3 | 6.4 | 99.6 | 0.18 | 0.51 | 0.18 | 0.51 |
| 44 | VH300234 | 4 | 19,680 | 2,268 | 0.38 | 0.72 | 52.4 | 31.6 | 84.0 | 1.54 | 1.43 | 1.55 | 1.44 |
| 45 | VH300297 | 2 | 19,740 | 2,305 | 0.59 | 0.75 | 73.4 | 26.2 | 99.6 | 1.06 | 0.75 | 1.06 | 0.74 |
| 46 | VH300299 | 2 | 19,123 | 2,259 | 0.81 | 0.92 | 88.3 | 11.3 | 99.6 | 0.93 | 0.92 | 0.93 | 0.92 |
| 47 | VH300301 | 4 | 19,365 | 2,275 | 0.46 | 0.76 | 59.0 | 28.0 | 86.9 | 1.46 | 1.46 | 1.49 | 1.47 |
| 48 | VH300384 | 1 | 25,871 | 2,563 | 0.92 | 0.92 | 96.2 | 3.8 | 100.0 | 0.36 | 0.48 | 0.35 | 0.48 |
| 49 | VH300390 | 1 | 23,576 | 2,365 | 0.89 | 0.89 | 96.2 | 3.8 | 100.0 | 0.25 | 0.43 | 0.24 | 0.43 |
| 50 | VH300397 | 2 | 18,968 | 2,269 | 0.34 | 0.48 | 65.7 | 29.3 | 94.9 | 0.49 | 0.70 | 0.47 | 0.68 |
| 51 | VH300403 | 2 | 19,521 | 2,229 | 0.55 | 0.74 | 70.8 | 28.8 | 99.6 | 1.14 | 0.75 | 1.16 | 0.77 |
| 52 | VH300405 | 2 | 19,170 | 2,231 | 0.78 | 0.90 | 86.1 | 12.9 | 99.0 | 0.98 | 0.92 | 0.98 | 0.92 |
| 53 | VH300406 | 4 | 19,536 | 2,242 | 0.50 | 0.75 | 61.9 | 24.8 | 86.7 | 1.46 | 1.46 | 1.44 | 1.44 |
| 54 | VH300428 | 2 | 19,490 | 2,416 | 0.79 | 0.90 | 87.2 | 12.7 | 99.9 | 0.67 | 0.79 | 0.67 | 0.80 |
| 55 | VH300431 | 2 | 19,582 | 2,452 | 0.78 | 0.89 | 88.4 | 10.8 | 99.2 | 0.57 | 0.81 | 0.55 | 0.80 |
| 56 | VH300438 | 3 | 19,663 | 2,398 | 0.55 | 0.81 | 69.2 | 23.5 | 92.7 | 1.14 | 1.22 | 1.16 | 1.22 |
| 57 | VH303296 | 1 | 219 | 23 | 0.68 | 0.68 | 87.0 | 13.0 | 100.0 | 0.37 | 0.49 | 0.35 | 0.49 |
| | **AVERAGE** | | **20,286** | **2,280** | **0.65** | **0.78** | **83.6** | **14.1** | **97.7** | **0.54** | **0.69** | **0.54** | **0.69** |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH292675 | 2 | 19,294 | 4,839 | 0.51 | 0.59 | 91.3 | 7.5 | 98.7 | 0.12 | 0.39 | 0.12 | 0.40 |
| 2 | VH294224 | 2 | 19,687 | 14,375 | 0.62 | 0.74 | 83.1 | 15.5 | 98.6 | 0.37 | 0.63 | 0.37 | 0.64 |
| 3 | VH294227 | 2 | 2,043 | 216 | 0.54 | 0.66 | 78.2 | 20.4 | 98.6 | 0.41 | 0.63 | 0.38 | 0.61 |
| 4 | VH294228 | 2 | 1,838 | 185 | 0.53 | 0.77 | 82.7 | 16.2 | 98.9 | 0.34 | 0.70 | 0.32 | 0.64 |
| 5 | VH294235 | 2 | 2,417 | 225 | 0.78 | 0.87 | 89.8 | 8.4 | 98.2 | 0.46 | 0.77 | 0.47 | 0.77 |
| 6 | VH294236 | 2 | 2,786 | 286 | 0.51 | 0.70 | 79.4 | 17.8 | 97.2 | 0.34 | 0.66 | 0.43 | 0.74 |
| 7 | VH294502 | 2 | 2,648 | 260 | 0.38 | 0.49 | 70.4 | 15.4 | 85.8 | 0.56 | 0.83 | 0.55 | 0.85 |
| 8 | VH294540 | 1 | 1,447 | 129 | 0.79 | 0.79 | 94.6 | 5.4 | 100.0 | 0.13 | 0.34 | 0.17 | 0.38 |
| 9 | VH294786 | 3 | 7,630 | 761 | 0.39 | 0.69 | 57.0 | 34.6 | 91.6 | 1.08 | 1.11 | 1.04 | 1.11 |
| 10 | VH294788 | 3 | 10,244 | 1,034 | 0.59 | 0.83 | 76.2 | 19.5 | 95.7 | 0.77 | 1.06 | 0.78 | 1.07 |
| 11 | VH294789 | 3 | 7,496 | 752 | 0.44 | 0.65 | 70.7 | 23.9 | 94.7 | 0.55 | 0.83 | 0.51 | 0.81 |
| 12 | VH299055 | 2 | 27,416 | 2,742 | 0.67 | 0.80 | 84.5 | 13.6 | 98.2 | 0.42 | 0.72 | 0.44 | 0.73 |
| 13 | VH299074 | 1 | 29,157 | 2,910 | 0.92 | 0.92 | 97.8 | 2.2 | 100.0 | 0.16 | 0.37 | 0.17 | 0.38 |
| 14 | VH299212 | 1 | 70 | 9 | 0.00 | 0.00 | 66.7 | 33.3 | 100.0 | 0.33 | 0.50 | 0.00 | 0.00 |
| 15 | VH299227 | 2 | 19,428 | 2,606 | 0.35 | 0.47 | 80.8 | 18.1 | 98.8 | 0.19 | 0.45 | 0.21 | 0.47 |
| 16 | VH299240 | 1 | 18,143 | 2,341 | 0.50 | 0.64 | 90.6 | 7.4 | 98.0 | 0.15 | 0.46 | 0.15 | 0.46 |
| 17 | VH299242 | 2 | 27,693 | 2,743 | 0.51 | 0.58 | 76.4 | 22.4 | 98.8 | 0.38 | 0.56 | 0.40 | 0.57 |
| 18 | VH299248 | 2 | 17,972 | 2,312 | 0.37 | 0.59 | 89.1 | 9.6 | 98.7 | 0.12 | 0.41 | 0.14 | 0.44 |
| 19 | VH299249 | 1 | 27,119 | 2,704 | 0.86 | 0.86 | 97.7 | 2.3 | 100.0 | 0.09 | 0.29 | 0.10 | 0.29 |
| 20 | VH299574 | 1 | 17,772 | 2,293 | 0.46 | 0.65 | 92.1 | 6.8 | 98.9 | 0.10 | 0.39 | 0.11 | 0.41 |
| 21 | VH299575 | 2 | 18,739 | 2,436 | 0.61 | 0.77 | 77.0 | 21.6 | 98.6 | 0.60 | 0.76 | 0.62 | 0.77 |
| 22 | VH299577 | 2 | 27,651 | 2,745 | 0.73 | 0.78 | 85.5 | 14.0 | 99.6 | 0.54 | 0.59 | 0.54 | 0.59 |
| 23 | VH299765 | 1 | 17,791 | 2,404 | 0.37 | 0.55 | 91.7 | 7.0 | 98.7 | 0.09 | 0.36 | 0.10 | 0.37 |
| 24 | VH299768 | 2 | 18,653 | 2,533 | 0.52 | 0.70 | 72.0 | 26.6 | 98.6 | 0.60 | 0.74 | 0.59 | 0.73 |
| 25 | VH299869 | 2 | 19,421 | 2,431 | 0.63 | 0.78 | 83.8 | 15.3 | 99.1 | 0.38 | 0.67 | 0.38 | 0.65 |
| 26 | VH299871 | 1 | 27,449 | 2,745 | 0.82 | 0.82 | 96.9 | 3.1 | 100.0 | 0.09 | 0.29 | 0.10 | 0.30 |
| 27 | VH299872 | 2 | 19,013 | 2,434 | 0.43 | 0.67 | 84.3 | 14.5 | 98.7 | 0.22 | 0.54 | 0.22 | 0.54 |
| 28 | VH299923 | 1 | 19,562 | 2,563 | 0.36 | 0.36 | 86.0 | 14.0 | 100.0 | 0.13 | 0.33 | 0.13 | 0.33 |
| 29 | VH299927 | 2 | 19,540 | 2,544 | 0.38 | 0.45 | 82.5 | 16.1 | 98.6 | 0.19 | 0.45 | 0.18 | 0.44 |
| 30 | VH299950 | 2 | 19,410 | 2,382 | 0.61 | 0.76 | 82.7 | 15.9 | 98.6 | 0.38 | 0.67 | 0.39 | 0.68 |
| 31 | VH299952 | 1 | 27,296 | 2,702 | 0.77 | 0.77 | 96.4 | 3.6 | 100.0 | 0.08 | 0.28 | 0.09 | 0.28 |
| 32 | VH299953 | 2 | 19,306 | 2,435 | 0.44 | 0.61 | 86.5 | 11.4 | 97.9 | 0.18 | 0.50 | 0.19 | 0.51 |
| 33 | VH300022 | 1 | 25,733 | 2,588 | 0.93 | 0.93 | 98.0 | 2.0 | 100.0 | 0.17 | 0.38 | 0.17 | 0.38 |
| 34 | VH300070 | 2 | 18,924 | 2,397 | 0.73 | 0.86 | 88.7 | 9.9 | 98.7 | 0.41 | 0.73 | 0.40 | 0.73 |
| 35 | VH300071 | 2 | 27,959 | 2,790 | 0.71 | 0.83 | 86.1 | 12.0 | 98.2 | 0.45 | 0.74 | 0.49 | 0.76 |
| 36 | VH300090 | 2 | 18,551 | 2,300 | 0.44 | 0.62 | 89.0 | 9.0 | 98.0 | 0.16 | 0.48 | 0.15 | 0.47 |
| 37 | VH300091 | 2 | 18,703 | 2,398 | 0.70 | 0.83 | 83.6 | 15.8 | 99.3 | 0.54 | 0.73 | 0.54 | 0.72 |
| 38 | VH300092 | 1 | 22,866 | 2,282 | 0.78 | 0.78 | 95.9 | 4.1 | 100.0 | 0.10 | 0.29 | 0.10 | 0.31 |
| 39 | VH300259 | 2 | 18,523 | 2,426 | 0.74 | 0.87 | 88.5 | 10.4 | 99.0 | 0.42 | 0.73 | 0.43 | 0.75 |
| 40 | VH300318 | 1 | 18,219 | 2,460 | 0.41 | 0.54 | 90.6 | 7.7 | 98.3 | 0.12 | 0.41 | 0.11 | 0.40 |
| 41 | VH300320 | 2 | 18,653 | 2,559 | 0.62 | 0.77 | 77.2 | 21.6 | 98.8 | 0.65 | 0.75 | 0.64 | 0.76 |
| 42 | VH300449 | 2 | 25,121 | 2,470 | 0.70 | 0.83 | 85.5 | 12.9 | 98.4 | 0.49 | 0.76 | 0.48 | 0.75 |
| 43 | VH303301 | 2 | 100 | 15 | 0.86 | 0.94 | 93.3 | 6.7 | 100.0 | 0.41 | 0.73 | 0.47 | 0.74 |
| 44 | VH303302 | 1 | 101 | 9 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.17 | 0.38 | 0.11 | 0.33 |
| | **AVERAGE** | | **16,581** | **2,245** | **0.59** | **0.71** | **85.2** | **13.1** | **98.3** | **0.33** | **0.58** | **0.33** | **0.57** |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH276633 | 1 | 19,451 | 2,658 | 0.71 | 0.71 | 89.1 | 10.9 | 100.0 | 0.26 | 0.44 | 0.25 | 0.43 |
| 2 | VH299087 | 2 | 19,432 | 2,221 | 0.60 | 0.76 | 85.2 | 14.0 | 99.3 | 0.31 | 0.60 | 0.29 | 0.60 |
| 3 | VH299088 | 1 | 19,162 | 2,211 | 0.49 | 0.49 | 85.1 | 14.9 | 100.0 | 0.17 | 0.37 | 0.18 | 0.39 |
| 4 | VH299260 | 1 | 17,645 | 2,078 | 0.32 | 0.44 | 82.2 | 15.6 | 97.9 | 0.18 | 0.46 | 0.18 | 0.46 |
| 5 | VH299274 | 2 | 18,592 | 2,136 | 0.59 | 0.76 | 89.4 | 8.8 | 98.3 | 0.24 | 0.59 | 0.20 | 0.55 |
| 6 | VH299320 | 1 | 26,080 | 2,582 | 0.82 | 0.82 | 94.0 | 6.0 | 100.0 | 0.22 | 0.41 | 0.21 | 0.41 |
| 7 | VH299325 | 2 | 18,997 | 2,239 | 0.41 | 0.60 | 85.7 | 13.0 | 98.7 | 0.18 | 0.47 | 0.18 | 0.49 |
| 8 | VH299489 | 1 | 24,725 | 2,475 | 0.84 | 0.84 | 94.0 | 6.0 | 100.0 | 0.25 | 0.43 | 0.25 | 0.43 |
| 9 | VH299494 | 2 | 19,016 | 2,153 | 0.51 | 0.64 | 87.6 | 11.2 | 98.8 | 0.18 | 0.47 | 0.18 | 0.47 |
| 10 | VH299611 | 2 | 17,395 | 1,965 | 0.40 | 0.52 | 84.9 | 13.5 | 98.5 | 0.17 | 0.45 | 0.17 | 0.46 |
| 11 | VH299614 | 2 | 18,592 | 2,044 | 0.50 | 0.66 | 86.5 | 10.1 | 96.7 | 0.22 | 0.57 | 0.25 | 0.61 |
| 12 | VH299669 | 2 | 19,618 | 2,250 | 0.66 | 0.80 | 88.5 | 11.1 | 99.6 | 0.26 | 0.57 | 0.27 | 0.57 |
| 13 | VH299670 | 1 | 19,083 | 2,224 | 0.49 | 0.49 | 80.4 | 19.6 | 100.0 | 0.26 | 0.44 | 0.26 | 0.44 |
| 14 | VH299704 | 1 | 17,440 | 1,980 | 0.30 | 0.43 | 83.0 | 15.3 | 98.3 | 0.17 | 0.46 | 0.16 | 0.43 |
| 15 | VH299707 | 2 | 18,752 | 2,042 | 0.47 | 0.63 | 86.4 | 11.3 | 97.7 | 0.21 | 0.54 | 0.19 | 0.51 |
| 16 | VH299711 | 2 | 19,525 | 2,180 | 0.65 | 0.85 | 78.5 | 20.9 | 99.4 | 0.77 | 0.87 | 0.78 | 0.87 |
| 17 | VH299712 | 1 | 24,360 | 2,427 | 0.89 | 0.89 | 95.6 | 4.4 | 100.0 | 0.28 | 0.45 | 0.28 | 0.45 |
| 18 | VH299713 | 2 | 19,540 | 2,152 | 0.50 | 0.70 | 84.0 | 13.2 | 97.2 | 0.29 | 0.64 | 0.28 | 0.63 |
| 19 | VH299739 | 2 | 19,264 | 2,253 | 0.71 | 0.87 | 89.7 | 9.8 | 99.5 | 0.32 | 0.67 | 0.32 | 0.66 |
| 20 | VH299741 | 2 | 25,289 | 2,547 | 0.92 | 0.96 | 96.2 | 3.5 | 99.7 | 0.46 | 0.76 | 0.47 | 0.76 |
| 21 | VH299742 | 1 | 19,054 | 2,231 | 0.57 | 0.57 | 82.5 | 17.5 | 100.0 | 0.28 | 0.45 | 0.29 | 0.45 |
| 22 | VH299807 | 1 | 25,726 | 2,537 | 0.87 | 0.87 | 95.5 | 4.5 | 100.0 | 0.22 | 0.42 | 0.22 | 0.41 |
| 23 | VH299811 | 2 | 19,063 | 2,243 | 0.54 | 0.70 | 86.6 | 12.2 | 98.8 | 0.22 | 0.53 | 0.22 | 0.54 |
| 24 | VH299900 | 2 | 19,156 | 2,199 | 0.67 | 0.79 | 85.3 | 13.7 | 99.0 | 0.37 | 0.65 | 0.38 | 0.65 |
| 25 | VH299901 | 2 | 24,589 | 2,447 | 0.81 | 0.85 | 93.6 | 5.5 | 99.1 | 0.24 | 0.54 | 0.26 | 0.56 |
| 26 | VH299902 | 1 | 19,364 | 2,161 | 0.53 | 0.53 | 82.6 | 17.4 | 100.0 | 0.24 | 0.43 | 0.25 | 0.43 |
| 27 | VH300014 | 2 | 16,209 | 1,927 | 0.56 | 0.69 | 86.1 | 12.6 | 98.8 | 0.24 | 0.54 | 0.23 | 0.53 |
| 28 | VH300016 | 2 | 25,623 | 2,538 | 0.43 | 0.56 | 79.9 | 18.9 | 98.8 | 0.26 | 0.52 | 0.26 | 0.52 |
| 29 | VH300017 | 2 | 19,091 | 2,252 | 0.35 | 0.49 | 74.7 | 18.9 | 93.7 | 0.34 | 0.67 | 0.34 | 0.66 |
| 30 | VH300054 | 2 | 19,273 | 2,261 | 0.73 | 0.87 | 91.1 | 8.6 | 99.7 | 0.29 | 0.62 | 0.29 | 0.62 |
| 31 | VH300055 | 2 | 25,310 | 2,515 | 0.92 | 0.95 | 96.1 | 3.5 | 99.6 | 0.47 | 0.76 | 0.47 | 0.75 |
| 32 | VH300056 | 1 | 19,056 | 2,251 | 0.56 | 0.56 | 81.2 | 18.8 | 100.0 | 0.30 | 0.46 | 0.31 | 0.46 |
| 33 | VH300080 | 1 | 25,113 | 2,520 | 0.88 | 0.88 | 95.4 | 4.6 | 100.0 | 0.26 | 0.44 | 0.27 | 0.44 |
| 34 | VH300081 | 2 | 18,951 | 2,194 | 0.54 | 0.65 | 88.3 | 9.8 | 98.1 | 0.19 | 0.50 | 0.19 | 0.50 |
| 35 | VH300167 | 2 | 17,582 | 1,968 | 0.34 | 0.46 | 81.8 | 15.9 | 97.7 | 0.18 | 0.47 | 0.21 | 0.49 |

| 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 |
| 36 | VH300170 | 2 | 18,352 | 2,098 | 0.50 | 0.66 | 82.3 | 15.5 | 97.9 | 0.28 | 0.59 | 0.29 | 0.59 |
| 37 | VH300246 | 1 | 24,642 | 2,451 | 0.91 | 0.91 | 96.3 | 3.7 | 100.0 | 0.30 | 0.46 | 0.31 | 0.46 |
| 38 | VH300247 | 2 | 19,037 | 2,137 | 0.50 | 0.69 | 83.5 | 13.6 | 97.1 | 0.30 | 0.64 | 0.29 | 0.63 |
| 39 | VH300337 | 2 | 19,043 | 2,219 | 0.56 | 0.73 | 87.1 | 11.9 | 99.1 | 0.22 | 0.53 | 0.23 | 0.55 |
| 40 | VH300340 | 1 | 19,337 | 2,235 | 0.42 | 0.42 | 80.9 | 19.1 | 100.0 | 0.20 | 0.40 | 0.22 | 0.41 |
| 41 | VH300345 | 2 | 25,043 | 2,482 | 0.81 | 0.86 | 92.6 | 7.0 | 99.6 | 0.28 | 0.54 | 0.30 | 0.56 |
| 42 | VH300465 | 2 | 16,691 | 2,017 | 0.62 | 0.76 | 89.1 | 10.2 | 99.4 | 0.22 | 0.52 | 0.21 | 0.52 |
| 43 | VH300468 | 2 | 25,896 | 2,589 | 0.48 | 0.58 | 82.8 | 15.5 | 98.3 | 0.24 | 0.51 | 0.25 | 0.52 |
| 44 | VH300470 | 2 | 18,880 | 2,239 | 0.38 | 0.55 | 78.3 | 17.2 | 95.6 | 0.29 | 0.61 | 0.30 | 0.63 |
| 45 | VH303305 | 1 | 70 | 7 | 1.00 | 1.00 | 100.0 | 0.0 | 100.0 | 0.04 | 0.20 | 0.14 | 0.38 |
| 46 | VH303306 | 1 | 75 | 7 | . | . | 100.0 | 0.0 | 100.0 | 0.03 | 0.16 | 0.00 | 0.00 |
| | **AVERAGE** | | **19,613** | **2,164** | **0.61** | **0.70** | **87.4** | **11.5** | **98.9** | **0.26** | **0.52** | **0.26** | **0.52** |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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 | Percent Exact | Percent Adjacent | Percent Exact + Adjacent | Rater 1 | | Rater 2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH298806 | 1 | 289 | 27 | 0.34 | 0.34 | 81.5 | 18.5 | 100.0 | 0.19 | 0.40 | 0.15 | 0.36 |
| 2 | VH298928 | 2 | 1,400 | 151 | 0.50 | 0.63 | 68.2 | 27.8 | 96.0 | 0.73 | 0.75 | 0.76 | 0.80 |
| 3 | VH299022 | 1 | 17,619 | 1,983 | 0.91 | 0.91 | 98.1 | 1.9 | 100.0 | 0.12 | 0.33 | 0.12 | 0.33 |
| 4 | VH299032 | 2 | 17,944 | 2,042 | 0.62 | 0.78 | 84.4 | 14.2 | 98.6 | 0.35 | 0.67 | 0.36 | 0.67 |
| 5 | VH299194 | 1 | 24,931 | 2,478 | 0.73 | 0.73 | 94.9 | 5.1 | 100.0 | 0.10 | 0.29 | 0.10 | 0.31 |
| 6 | VH299196 | 2 | 21,421 | 2,135 | 0.82 | 0.88 | 92.9 | 4.7 | 97.7 | 0.44 | 0.79 | 0.43 | 0.78 |
| 7 | VH299197 | 2 | 17,972 | 2,078 | 0.71 | 0.85 | 84.5 | 14.5 | 98.9 | 0.57 | 0.78 | 0.56 | 0.79 |
| 8 | VH299199 | 1 | 24,740 | 2,471 | 0.51 | 0.51 | 95.1 | 4.9 | 100.0 | 0.06 | 0.23 | 0.05 | 0.22 |
| 9 | VH299384 | 1 | 18,903 | 2,103 | 0.58 | 0.58 | 87.3 | 12.7 | 100.0 | 0.18 | 0.39 | 0.19 | 0.39 |
| 10 | VH299385 | 1 | 21,446 | 2,124 | 0.94 | 0.94 | 97.5 | 2.5 | 100.0 | 0.26 | 0.44 | 0.26 | 0.44 |
| 11 | VH299386 | 2 | 24,813 | 2,485 | 0.85 | 0.88 | 96.0 | 2.3 | 98.2 | 0.23 | 0.60 | 0.26 | 0.64 |
| 12 | VH299459 | 1 | 24,483 | 2,450 | 0.74 | 0.74 | 96.9 | 3.1 | 100.0 | 0.06 | 0.24 | 0.07 | 0.25 |
| 13 | VH299461 | 2 | 24,326 | 2,440 | 0.76 | 0.82 | 89.9 | 5.6 | 95.5 | 0.46 | 0.80 | 0.47 | 0.81 |
| 14 | VH299462 | 2 | 17,932 | 2,010 | 0.67 | 0.82 | 81.7 | 17.0 | 98.8 | 0.56 | 0.77 | 0.56 | 0.77 |
| 15 | VH299463 | 2 | 24,370 | 2,437 | 0.84 | 0.91 | 95.3 | 4.5 | 99.8 | 0.22 | 0.52 | 0.23 | 0.54 |
| 16 | VH299552 | 1 | 18,621 | 2,072 | 0.58 | 0.58 | 83.4 | 16.6 | 100.0 | 0.27 | 0.44 | 0.27 | 0.45 |
| 17 | VH299555 | 2 | 16,993 | 1,920 | 0.67 | 0.82 | 90.8 | 7.6 | 98.4 | 0.26 | 0.63 | 0.25 | 0.62 |
| 18 | VH299659 | 1 | 17,786 | 2,007 | 0.53 | 0.53 | 93.0 | 7.0 | 100.0 | 0.08 | 0.27 | 0.08 | 0.27 |
| 19 | VH299660 | 2 | 23,699 | 2,303 | 0.60 | 0.78 | 93.5 | 5.7 | 99.3 | 0.13 | 0.45 | 0.13 | 0.44 |
| 20 | VH299661 | 2 | 22,848 | 2,274 | 0.68 | 0.71 | 92.4 | 3.7 | 96.1 | 0.21 | 0.57 | 0.22 | 0.59 |
| 21 | VH299662 | 3 | 18,202 | 1,996 | 0.43 | 0.78 | 81.5 | 16.4 | 97.9 | 0.33 | 0.77 | 0.32 | 0.77 |
| 22 | VH299720 | 2 | 17,035 | 1,908 | 0.60 | 0.76 | 83.4 | 14.4 | 97.7 | 0.37 | 0.68 | 0.38 | 0.70 |
| 23 | VH299723 | 2 | 17,844 | 1,909 | 0.66 | 0.84 | 90.9 | 8.7 | 99.6 | 0.23 | 0.57 | 0.23 | 0.57 |
| 24 | VH299725 | 1 | 24,850 | 2,465 | 0.96 | 0.96 | 99.1 | 0.9 | 100.0 | 0.14 | 0.34 | 0.14 | 0.35 |
| 25 | VH299750 | 1 | 19,578 | 1,931 | 0.81 | 0.81 | 95.1 | 4.9 | 100.0 | 0.15 | 0.35 | 0.16 | 0.37 |
| 26 | VH299834 | 1 | 18,740 | 2,108 | 0.65 | 0.65 | 87.1 | 12.9 | 100.0 | 0.24 | 0.43 | 0.25 | 0.43 |
| 27 | VH299835 | 1 | 24,265 | 2,441 | 0.95 | 0.95 | 98.7 | 1.3 | 100.0 | 0.15 | 0.36 | 0.14 | 0.35 |
| 28 | VH299836 | 1 | 24,303 | 2,412 | 0.99 | 0.99 | 99.5 | 0.5 | 100.0 | 0.38 | 0.48 | 0.37 | 0.48 |
| 29 | VH299905 | 1 | 18,198 | 2,088 | 0.66 | 0.66 | 94.3 | 5.7 | 100.0 | 0.09 | 0.29 | 0.09 | 0.29 |
| 30 | VH299910 | 2 | 25,647 | 2,543 | 0.89 | 0.91 | 95.8 | 2.5 | 98.3 | 0.35 | 0.70 | 0.36 | 0.71 |
| 31 | VH299956 | 1 | 17,662 | 2,011 | 0.62 | 0.62 | 94.1 | 5.9 | 100.0 | 0.09 | 0.28 | 0.09 | 0.28 |
| 32 | VH299958 | 2 | 24,576 | 2,422 | 0.61 | 0.80 | 92.5 | 6.8 | 99.3 | 0.15 | 0.48 | 0.15 | 0.48 |
| 33 | VH299961 | 2 | 24,760 | 2,449 | 0.85 | 0.87 | 94.4 | 3.1 | 97.6 | 0.37 | 0.71 | 0.35 | 0.69 |
| 34 | VH299972 | 2 | 2,207 | 233 | 0.50 | 0.66 | 90.1 | 9.4 | 99.6 | 0.14 | 0.41 | 0.13 | 0.40 |
| 35 | VH299975 | 2 | 2,358 | 223 | 0.58 | 0.74 | 77.1 | 19.7 | 96.9 | 0.57 | 0.79 | 0.56 | 0.79 |
| 36 | VH299980 | 2 | 18,499 | 2,060 | 0.49 | 0.64 | 69.4 | 28.4 | 97.9 | 0.65 | 0.72 | 0.65 | 0.72 |
| 37 | VH300032 | 1 | 944 | 98 | 0.53 | 0.53 | 80.6 | 19.4 | 100.0 | 0.31 | 0.46 | 0.28 | 0.45 |
| 38 | VH300129 | 1 | 18,029 | 1,980 | 0.60 | 0.60 | 93.9 | 6.1 | 100.0 | 0.08 | 0.28 | 0.08 | 0.27 |
| 39 | VH300132 | 2 | 22,157 | 2,221 | 0.69 | 0.71 | 91.1 | 5.0 | 96.1 | 0.24 | 0.59 | 0.25 | 0.60 |
| 40 | VH300174 | 1 | 19,066 | 2,115 | 0.72 | 0.72 | 89.8 | 10.2 | 100.0 | 0.24 | 0.43 | 0.24 | 0.43 |

| Prompt | Item ID | Score Points | Rater 1 N | Rater 2 N | Kappa | Quadratic Weighted | Percent Exact | Percent Adjacent | Percent Exact + Adjacent | Rater 1 | | Rater 2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Mean | SD | Mean | SD |
| 41 | VH300176 | 1 | 25,009 | 2,485 | 0.96 | 0.96 | 98.6 | 1.4 | 100.0 | 0.26 | 0.44 | 0.26 | 0.44 |
| 42 | VH300177 | 2 | 25,001 | 2,490 | 0.96 | 0.97 | 98.3 | 0.9 | 99.2 | 0.42 | 0.76 | 0.42 | 0.76 |
| 43 | VH300178 | 3 | 18,652 | 2,124 | 0.46 | 0.77 | 81.8 | 15.5 | 97.3 | 0.33 | 0.78 | 0.35 | 0.80 |
| 44 | VH300224 | 2 | 18,777 | 2,142 | 0.57 | 0.69 | 73.0 | 25.6 | 98.6 | 0.81 | 0.71 | 0.82 | 0.71 |
| 45 | VH300226 | 2 | 18,391 | 2,106 | 0.51 | 0.67 | 70.2 | 28.3 | 98.6 | 0.68 | 0.72 | 0.67 | 0.71 |
| 46 | VH300237 | 2 | 19,093 | 2,179 | 0.67 | 0.75 | 81.9 | 17.8 | 99.7 | 1.04 | 0.62 | 1.06 | 0.63 |
| 47 | VH300238 | 1 | 18,540 | 2,082 | 0.51 | 0.51 | 90.1 | 9.9 | 100.0 | 0.11 | 0.32 | 0.11 | 0.32 |
| 48 | VH300239 | 2 | 17,574 | 1,950 | 0.71 | 0.81 | 91.5 | 8.3 | 99.8 | 0.21 | 0.48 | 0.21 | 0.48 |
| 49 | VH300274 | 2 | 25,057 | 2,496 | 0.82 | 0.82 | 95.5 | 4.5 | 100.0 | 0.14 | 0.34 | 0.15 | 0.36 |
| 50 | VH300281 | 1 | 25,041 | 2,509 | 0.81 | 0.81 | 95.9 | 4.1 | 100.0 | 0.13 | 0.34 | 0.12 | 0.33 |
| 51 | VH300283 | 2 | 24,975 | 2,482 | 0.67 | 0.79 | 90.5 | 7.3 | 97.8 | 0.27 | 0.63 | 0.26 | 0.61 |
| 52 | VH300589 | 1 | 212 | 25 | 0.41 | 0.41 | 84.0 | 16.0 | 100.0 | 0.16 | 0.37 | 0.16 | 0.37 |
| 53 | VH300897 | 2 | 2,523 | 273 | 0.41 | 0.60 | 66.7 | 29.7 | 96.3 | 0.59 | 0.75 | 0.55 | 0.73 |
| 54 | VH301145 | 2 | 448 | 44 | 0.55 | 0.78 | 72.7 | 25.0 | 97.7 | 0.80 | 0.90 | 0.73 | 0.87 |
| 55 | VH301769 | 1 | 2,191 | 230 | 0.68 | 0.68 | 87.4 | 12.6 | 100.0 | 0.27 | 0.44 | 0.27 | 0.45 |
| 56 | VH301904 | 2 | 1,288 | 119 | 0.28 | 0.58 | 53.8 | 42.0 | 95.8 | 0.74 | 0.81 | 0.86 | 0.86 |
| 57 | VH301993 | 1 | 325 | 34 | 0.77 | 0.77 | 91.2 | 8.8 | 100.0 | 0.27 | 0.45 | 0.24 | 0.43 |
| | **AVERAGE** | | **17,273** | **1,814** | **0.67** | **0.74** | **88.0** | **10.9** | **98.9** | **0.32** | **0.53** | **0.32** | **0.53** |

**Notes:**

– Numbers indicate students who received valid ratings from Rater 1.

– 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**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295222 | 2 | COV | 21,596 | 1,838 | 0.29 | 0.51 | 55.0 | 42.7 | 97.7 | 1.00 | 0.74 | 1.06 | 0.73 |
| 2 | VH295344 | 2 | COV | 2,988 | 2,952 | 0.21 | 0.38 | 49.3 | 43.9 | 93.2 | 0.83 | 0.74 | 0.73 | 0.76 |
| 3 | VH295418 | 2 | COV | 22,896 | 2,155 | 0.32 | 0.54 | 56.3 | 41.5 | 97.8 | 0.92 | 0.74 | 0.94 | 0.74 |
| 4 | VH295561 | 2 | COV | 18,597 | 1,637 | 0.30 | 0.48 | 55.3 | 41.2 | 96.5 | 0.95 | 0.74 | 1.00 | 0.73 |
| 5 | VH295659 | 2 | COV | 27,644 | 2,597 | 0.36 | 0.54 | 58.2 | 38.5 | 96.7 | 0.88 | 0.74 | 0.92 | 0.75 |
| 6 | VH295670 | 2 | COV | 24,490 | 2,217 | 0.30 | 0.50 | 54.5 | 42.2 | 96.7 | 1.02 | 0.75 | 1.04 | 0.74 |
| 7 | VH295684 | 2 | COV | 1,297 | 1,247 | 0.22 | 0.42 | 48.4 | 46.1 | 94.5 | 0.87 | 0.75 | 1.10 | 0.76 |
| 8 | VH295713 | 2 | COV | 19,434 | 1,646 | 0.30 | 0.51 | 55.0 | 42.4 | 97.4 | 1.01 | 0.74 | 1.06 | 0.73 |
| 9 | VH295880 | 2 | COV | 1,692 | 1,651 | 0.23 | 0.43 | 48.3 | 45.9 | 94.1 | 0.86 | 0.75 | 1.13 | 0.76 |
| 10 | VH295912 | 2 | COV | 21,250 | 1,701 | 0.30 | 0.50 | 55.2 | 42.1 | 97.3 | 0.93 | 0.73 | 0.98 | 0.72 |
| 11 | VH295950 | 2 | COV | 11,267 | 850 | 0.33 | 0.52 | 56.4 | 40.5 | 96.8 | 0.96 | 0.76 | 1.08 | 0.76 |
| 12 | VH295962 | 2 | COV | 19,460 | 1,594 | 0.32 | 0.52 | 56.2 | 41.0 | 97.2 | 0.99 | 0.74 | 1.05 | 0.73 |
| 13 | VH295997 | 2 | COV | 24,389 | 2,205 | 0.26 | 0.47 | 52.5 | 44.4 | 97.0 | 0.98 | 0.74 | 1.01 | 0.73 |
| 14 | VH296068 | 2 | COV | 11,943 | 933 | 0.30 | 0.49 | 55.2 | 42.0 | 97.2 | 1.02 | 0.74 | 1.10 | 0.72 |
| 15 | VH295561 | 4 | DVE | 18,591 | 1,637 | 0.33 | 0.61 | 58.2 | 38.2 | 96.5 | 1.67 | 0.81 | 1.72 | 0.84 |
| 16 | VH295684 | 4 | DVE | 1,288 | 1,008 | 0.20 | 0.39 | 46.3 | 47.8 | 94.1 | 1.51 | 0.73 | 2.02 | 0.66 |
| 17 | VH295880 | 4 | DVE | 1,635 | 1,289 | 0.28 | 0.50 | 52.4 | 42.3 | 94.7 | 1.63 | 0.80 | 1.95 | 0.74 |
| 18 | VH295950 | 4 | DVE | 11,210 | 847 | 0.40 | 0.59 | 61.0 | 33.1 | 94.1 | 1.63 | 0.82 | 1.80 | 0.88 |
| 19 | VH296068 | 4 | DVE | 11,875 | 931 | 0.35 | 0.58 | 58.1 | 35.4 | 93.6 | 1.67 | 0.83 | 1.76 | 0.85 |
| 20 | VH295222 | 4 | EEL | 21,566 | 1,834 | 0.30 | 0.47 | 59.5 | 35.6 | 95.1 | 1.54 | 0.72 | 1.59 | 0.74 |
| 21 | VH295344 | 4 | EEL | 2,985 | 2,503 | 0.37 | 0.56 | 65.0 | 32.6 | 97.5 | 1.50 | 0.68 | 1.54 | 0.70 |
| 22 | VH295418 | 4 | EEL | 22,829 | 2,151 | 0.38 | 0.57 | 64.5 | 33.0 | 97.5 | 1.55 | 0.72 | 1.58 | 0.72 |
| 23 | VH295659 | 4 | EEL | 27,617 | 2,595 | 0.36 | 0.53 | 64.7 | 31.6 | 96.3 | 1.48 | 0.68 | 1.52 | 0.70 |
| 24 | VH295670 | 4 | EEL | 24,450 | 2,211 | 0.31 | 0.48 | 59.4 | 35.2 | 94.6 | 1.59 | 0.74 | 1.61 | 0.76 |
| 25 | VH295713 | 4 | EEL | 19,364 | 1,646 | 0.33 | 0.53 | 60.6 | 35.6 | 96.2 | 1.57 | 0.74 | 1.58 | 0.73 |
| 26 | VH295912 | 4 | EEL | 21,169 | 1,687 | 0.35 | 0.56 | 62.8 | 33.7 | 96.6 | 1.53 | 0.71 | 1.56 | 0.72 |
| 27 | VH295962 | 4 | EEL | 19,432 | 1,591 | 0.34 | 0.54 | 62.2 | 33.8 | 95.9 | 1.51 | 0.72 | 1.59 | 0.75 |
| 28 | VH295997 | 4 | EEL | 24,352 | 2,202 | 0.33 | 0.50 | 62.5 | 33.6 | 96.0 | 1.52 | 0.70 | 1.55 | 0.71 |
| 29 | VH295222 | 4 | POR | 21,569 | 1,834 | 0.29 | 0.46 | 59.9 | 35.6 | 95.4 | 1.50 | 0.70 | 1.55 | 0.72 |
| 30 | VH295344 | 4 | POR | 2,985 | 2,437 | 0.24 | 0.31 | 63.3 | 31.3 | 94.6 | 1.48 | 0.69 | 1.22 | 0.42 |
| 31 | VH295418 | 4 | POR | 22,827 | 2,150 | 0.38 | 0.56 | 65.3 | 31.9 | 97.3 | 1.52 | 0.71 | 1.56 | 0.71 |
| 32 | VH295561 | 4 | POR | 18,591 | 1,637 | 0.35 | 0.61 | 58.2 | 37.9 | 96.1 | 1.71 | 0.82 | 1.78 | 0.84 |
| 33 | VH295659 | 4 | POR | 27,617 | 2,595 | 0.37 | 0.54 | 65.7 | 31.0 | 96.7 | 1.46 | 0.67 | 1.51 | 0.70 |
| 34 | VH295670 | 4 | POR | 24,455 | 2,213 | 0.33 | 0.50 | 62.8 | 32.4 | 95.3 | 1.53 | 0.72 | 1.55 | 0.73 |
| 35 | VH295684 | 4 | POR | 1,291 | 1,019 | 0.23 | 0.30 | 52.7 | 44.7 | 97.4 | 1.52 | 0.73 | 1.79 | 0.44 |

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 36 | VH295713 | 4 | POR | 19,362 | 1,646 | 0.30 | 0.50 | 59.3 | 36.5 | 95.7 | 1.54 | 0.72 | 1.58 | 0.72 |
| 37 | VH295880 | 4 | POR | 1,635 | 1,295 | 0.27 | 0.47 | 53.2 | 42.7 | 95.9 | 1.70 | 0.85 | 1.83 | 0.61 |
| 38 | VH295912 | 4 | POR | 21,157 | 1,687 | 0.33 | 0.52 | 61.6 | 34.1 | 95.7 | 1.52 | 0.70 | 1.55 | 0.72 |
| 39 | VH295950 | 4 | POR | 11,210 | 847 | 0.36 | 0.58 | 58.1 | 35.5 | 93.6 | 1.64 | 0.83 | 1.83 | 0.88 |
| 40 | VH295962 | 4 | POR | 19,431 | 1,592 | 0.36 | 0.56 | 62.4 | 34.0 | 96.4 | 1.53 | 0.73 | 1.60 | 0.75 |
| 41 | VH295997 | 4 | POR | 24,351 | 2,202 | 0.32 | 0.51 | 63.1 | 33.4 | 96.5 | 1.48 | 0.69 | 1.52 | 0.69 |
| 42 | VH296068 | 4 | POR | 11,874 | 931 | 0.32 | 0.60 | 55.9 | 38.7 | 94.5 | 1.71 | 0.84 | 1.80 | 0.86 |
| | | **AVERAGE** | | **16,325** | **1,749** | **0.31** | **0.51** | **58.0** | **38.0** | **95.9** | **1.36** | **0.74** | **1.43** | **0.73** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

| *Dimension Key:* | |
|---|---|
| – 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 Writing Extended Response**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295258 | 2 | COV | 13,621 | 1,255 | 0.31 | 0.50 | 56.1 | 41.4 | 97.5 | 1.07 | 0.72 | 1.09 | 0.73 |
| 2 | VH295351 | 2 | COV | 11,751 | 1,100 | 0.36 | 0.53 | 59.4 | 38.2 | 97.5 | 1.03 | 0.72 | 1.10 | 0.72 |
| 3 | VH295426 | 2 | COV | 19,743 | 1,860 | 0.29 | 0.48 | 54.2 | 41.9 | 96.1 | 1.02 | 0.75 | 1.03 | 0.75 |
| 4 | VH295444 | 2 | COV | 18,950 | 1,813 | 0.32 | 0.50 | 56.6 | 40.4 | 97.0 | 1.06 | 0.73 | 1.07 | 0.72 |
| 5 | VH295459 | 2 | COV | 17,537 | 1,538 | 0.28 | 0.49 | 54.9 | 42.6 | 97.5 | 1.15 | 0.73 | 1.22 | 0.72 |
| 6 | VH295493 | 2 | COV | 20,515 | 1,935 | 0.33 | 0.54 | 57.2 | 40.4 | 97.6 | 1.07 | 0.75 | 1.13 | 0.73 |
| 7 | VH295522 | 2 | COV | 18,753 | 1,762 | 0.29 | 0.51 | 54.8 | 43.1 | 98.0 | 1.09 | 0.74 | 1.11 | 0.72 |
| 8 | VH295587 | 2 | COV | 13,691 | 1,217 | 0.29 | 0.52 | 55.0 | 43.4 | 98.4 | 1.10 | 0.73 | 1.13 | 0.73 |
| 9 | VH295631 | 2 | COV | 14,897 | 1,280 | 0.30 | 0.48 | 55.8 | 41.3 | 97.0 | 1.09 | 0.72 | 1.14 | 0.70 |
| 10 | VH295644 | 2 | COV | 14,441 | 1,303 | 0.34 | 0.52 | 57.5 | 39.1 | 96.6 | 1.13 | 0.74 | 1.16 | 0.73 |
| 11 | VH295707 | 2 | COV | 16,018 | 1,416 | 0.30 | 0.52 | 55.4 | 42.0 | 97.5 | 1.13 | 0.73 | 1.15 | 0.73 |
| 12 | VH295731 | 2 | COV | 19,724 | 1,823 | 0.28 | 0.50 | 54.0 | 43.4 | 97.4 | 1.05 | 0.74 | 1.07 | 0.73 |
| 13 | VH295775 | 2 | COV | 15,536 | 1,394 | 0.30 | 0.48 | 55.9 | 41.2 | 97.1 | 1.03 | 0.73 | 1.07 | 0.71 |
| 14 | VH295781 | 2 | COV | 12,578 | 1,125 | 0.33 | 0.55 | 56.8 | 40.9 | 97.7 | 1.04 | 0.74 | 1.10 | 0.75 |
| 15 | VH295787 | 2 | COV | 19,085 | 1,697 | 0.35 | 0.53 | 58.5 | 38.7 | 97.2 | 1.09 | 0.73 | 1.12 | 0.72 |
| 16 | VH295858 | 2 | COV | 11,403 | 996 | 0.28 | 0.50 | 54.7 | 43.4 | 98.1 | 1.14 | 0.73 | 1.15 | 0.72 |
| 17 | VH295865 | 2 | COV | 6,632 | 566 | 0.38 | 0.57 | 60.2 | 37.6 | 97.9 | 1.02 | 0.74 | 1.02 | 0.73 |
| 18 | VH295892 | 2 | COV | 21,401 | 2,048 | 0.26 | 0.46 | 53.1 | 43.8 | 96.9 | 1.15 | 0.73 | 1.17 | 0.72 |
| 19 | VH295956 | 2 | COV | 20,333 | 1,866 | 0.27 | 0.47 | 53.7 | 42.9 | 96.6 | 1.12 | 0.74 | 1.15 | 0.74 |
| 20 | VH295258 | 4 | DVE | 13,605 | 1,253 | 0.30 | 0.59 | 52.0 | 42.7 | 94.7 | 2.01 | 0.89 | 2.06 | 0.89 |
| 21 | VH295351 | 4 | DVE | 11,718 | 1,100 | 0.34 | 0.63 | 54.0 | 40.1 | 94.1 | 1.92 | 0.91 | 2.03 | 0.94 |
| 22 | VH295587 | 4 | DVE | 13,652 | 1,215 | 0.32 | 0.63 | 52.3 | 42.3 | 94.7 | 2.04 | 0.94 | 2.11 | 0.93 |
| 23 | VH295644 | 4 | DVE | 14,389 | 1,302 | 0.35 | 0.61 | 54.8 | 39.2 | 94.0 | 1.96 | 0.91 | 2.02 | 0.90 |
| 24 | VH295775 | 4 | DVE | 15,525 | 1,394 | 0.33 | 0.56 | 54.7 | 38.5 | 93.2 | 1.86 | 0.88 | 1.95 | 0.90 |
| 25 | VH295781 | 4 | DVE | 12,437 | 1,120 | 0.32 | 0.63 | 54.5 | 42.1 | 96.5 | 1.84 | 0.86 | 1.93 | 0.86 |
| 26 | VH295858 | 4 | DVE | 11,366 | 995 | 0.29 | 0.54 | 50.2 | 42.5 | 92.7 | 2.03 | 0.92 | 2.13 | 0.93 |
| 27 | VH295865 | 4 | DVE | 6,238 | 563 | 0.30 | 0.56 | 52.9 | 41.0 | 94.0 | 1.88 | 0.89 | 1.89 | 0.86 |
| 28 | VH295426 | 4 | EEL | 19,693 | 1,855 | 0.34 | 0.54 | 59.7 | 35.6 | 95.4 | 1.66 | 0.79 | 1.67 | 0.79 |
| 29 | VH295444 | 4 | EEL | 18,927 | 1,810 | 0.35 | 0.53 | 59.2 | 35.1 | 94.4 | 1.69 | 0.80 | 1.70 | 0.79 |
| 30 | VH295459 | 4 | EEL | 17,496 | 1,535 | 0.29 | 0.52 | 52.8 | 40.3 | 93.0 | 1.86 | 0.86 | 1.88 | 0.84 |
| 31 | VH295493 | 4 | EEL | 20,507 | 1,936 | 0.36 | 0.59 | 59.1 | 36.5 | 95.7 | 1.74 | 0.81 | 1.78 | 0.83 |
| 32 | VH295522 | 4 | EEL | 18,747 | 1,761 | 0.33 | 0.57 | 55.3 | 39.7 | 94.9 | 1.88 | 0.85 | 1.91 | 0.86 |
| 33 | VH295631 | 4 | EEL | 14,867 | 1,276 | 0.31 | 0.55 | 56.1 | 39.3 | 95.4 | 1.69 | 0.79 | 1.80 | 0.83 |
| 34 | VH295707 | 4 | EEL | 15,972 | 1,414 | 0.32 | 0.56 | 56.4 | 38.7 | 95.1 | 1.71 | 0.79 | 1.76 | 0.82 |
| 35 | VH295731 | 4 | EEL | 19,713 | 1,823 | 0.38 | 0.59 | 60.4 | 34.4 | 94.9 | 1.74 | 0.81 | 1.79 | 0.82 |

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 36 | VH295787 | 4 | EEL | 19,069 | 1,694 | 0.35 | 0.60 | 56.6 | 38.0 | 94.6 | 1.80 | 0.86 | 1.88 | 0.89 |
| 37 | VH295892 | 4 | EEL | 21,384 | 2,046 | 0.29 | 0.53 | 53.2 | 41.6 | 94.8 | 1.85 | 0.84 | 1.87 | 0.83 |
| 38 | VH295956 | 4 | EEL | 20,280 | 1,857 | 0.33 | 0.56 | 56.3 | 38.6 | 94.9 | 1.83 | 0.84 | 1.86 | 0.83 |
| 39 | VH295258 | 4 | POR | 13,604 | 1,253 | 0.32 | 0.61 | 53.3 | 42.1 | 95.4 | 2.01 | 0.89 | 2.09 | 0.90 |
| 40 | VH295351 | 4 | POR | 11,720 | 1,100 | 0.37 | 0.65 | 55.5 | 39.8 | 95.3 | 1.96 | 0.91 | 2.08 | 0.93 |
| 41 | VH295426 | 4 | POR | 19,693 | 1,855 | 0.34 | 0.55 | 61.5 | 34.6 | 96.1 | 1.60 | 0.76 | 1.61 | 0.76 |
| 42 | VH295444 | 4 | POR | 18,927 | 1,810 | 0.38 | 0.58 | 62.2 | 33.8 | 95.9 | 1.66 | 0.79 | 1.67 | 0.78 |
| 43 | VH295459 | 4 | POR | 17,496 | 1,535 | 0.29 | 0.55 | 52.8 | 41.5 | 94.3 | 1.88 | 0.86 | 1.93 | 0.84 |
| 44 | VH295493 | 4 | POR | 20,507 | 1,935 | 0.35 | 0.57 | 58.8 | 36.5 | 95.3 | 1.70 | 0.80 | 1.75 | 0.83 |
| 45 | VH295522 | 4 | POR | 18,747 | 1,762 | 0.33 | 0.58 | 56.1 | 39.2 | 95.3 | 1.83 | 0.86 | 1.85 | 0.84 |
| 46 | VH295587 | 4 | POR | 13,652 | 1,215 | 0.34 | 0.64 | 53.7 | 41.6 | 95.3 | 2.06 | 0.94 | 2.13 | 0.91 |
| 47 | VH295631 | 4 | POR | 14,868 | 1,276 | 0.33 | 0.54 | 57.1 | 37.5 | 94.6 | 1.73 | 0.81 | 1.86 | 0.83 |
| 48 | VH295644 | 4 | POR | 14,388 | 1,302 | 0.34 | 0.60 | 53.8 | 39.8 | 93.5 | 1.98 | 0.92 | 2.08 | 0.91 |
| 49 | VH295707 | 4 | POR | 15,973 | 1,415 | 0.37 | 0.61 | 59.0 | 37.5 | 96.5 | 1.73 | 0.80 | 1.82 | 0.83 |
| 50 | VH295731 | 4 | POR | 19,714 | 1,823 | 0.36 | 0.60 | 59.7 | 36.1 | 95.9 | 1.71 | 0.80 | 1.75 | 0.82 |
| 51 | VH295775 | 4 | POR | 15,525 | 1,394 | 0.34 | 0.58 | 55.1 | 38.9 | 94.0 | 1.89 | 0.88 | 1.99 | 0.89 |
| 52 | VH295781 | 4 | POR | 12,436 | 1,119 | 0.30 | 0.59 | 52.7 | 42.7 | 95.4 | 1.87 | 0.86 | 1.96 | 0.87 |
| 53 | VH295787 | 4 | POR | 19,069 | 1,694 | 0.33 | 0.57 | 55.7 | 37.7 | 93.3 | 1.77 | 0.85 | 1.86 | 0.89 |
| 54 | VH295858 | 4 | POR | 11,366 | 995 | 0.30 | 0.55 | 50.9 | 42.1 | 93.0 | 2.04 | 0.93 | 2.13 | 0.92 |
| 55 | VH295865 | 4 | POR | 6,237 | 563 | 0.28 | 0.55 | 51.9 | 41.7 | 93.6 | 1.92 | 0.89 | 1.92 | 0.87 |
| 56 | VH295892 | 4 | POR | 21,385 | 2,046 | 0.32 | 0.53 | 56.2 | 38.4 | 94.6 | 1.77 | 0.82 | 1.77 | 0.81 |
| 57 | VH295956 | 4 | POR | 20,278 | 1,857 | 0.32 | 0.58 | 55.8 | 39.9 | 95.7 | 1.78 | 0.84 | 1.81 | 0.83 |
| | | **AVERAGE** | | **16,101** | **1,472** | **0.32** | **0.55** | **55.7** | **25.6** | **95.6** | **1.59** | **0.82** | **1.64** | **0.81** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.
– Rater 2 is the backup rater.

| *Dimension Key:* | |
|---|---|
| – 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 Writing Extended Response**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295215 | 2 | COV | 13,620 | 1,220 | 0.28 | 0.48 | 54.9 | 42.0 | 96.9 | 1.21 | 0.72 | 1.23 | 0.73 |
| 2 | VH295230 | 2 | COV | 19,254 | 1,811 | 0.30 | 0.51 | 56.2 | 41.6 | 97.8 | 1.21 | 0.72 | 1.22 | 0.71 |
| 3 | VH295238 | 2 | COV | 18,149 | 1,709 | 0.28 | 0.47 | 54.7 | 42.6 | 97.2 | 1.16 | 0.73 | 1.22 | 0.72 |
| 4 | VH295406 | 2 | COV | 20,522 | 1,919 | 0.29 | 0.50 | 54.7 | 42.5 | 97.1 | 1.16 | 0.73 | 1.17 | 0.73 |
| 5 | VH295431 | 2 | COV | 19,687 | 1,871 | 0.31 | 0.49 | 57.3 | 40.0 | 97.3 | 1.20 | 0.72 | 1.22 | 0.70 |
| 6 | VH295452 | 2 | COV | 18,400 | 1,728 | 0.29 | 0.51 | 55.8 | 41.7 | 97.5 | 1.23 | 0.73 | 1.26 | 0.73 |
| 7 | VH295480 | 2 | COV | 16,467 | 1,550 | 0.26 | 0.48 | 53.9 | 43.8 | 97.7 | 1.17 | 0.73 | 1.23 | 0.72 |
| 8 | VH295543 | 2 | COV | 17,274 | 1,622 | 0.29 | 0.49 | 55.5 | 41.5 | 97.0 | 1.20 | 0.72 | 1.24 | 0.71 |
| 9 | VH295740 | 2 | COV | 15,563 | 1,394 | 0.28 | 0.48 | 55.4 | 41.8 | 97.1 | 1.19 | 0.72 | 1.23 | 0.71 |
| 10 | VH295793 | 2 | COV | 18,524 | 1,658 | 0.28 | 0.48 | 55.2 | 42.2 | 97.3 | 1.25 | 0.72 | 1.25 | 0.71 |
| 11 | VH295810 | 2 | COV | 15,819 | 1,493 | 0.32 | 0.49 | 58.3 | 38.9 | 97.2 | 1.20 | 0.73 | 1.27 | 0.70 |
| 12 | VH295835 | 2 | COV | 12,044 | 1,143 | 0.37 | 0.55 | 60.5 | 37.5 | 98.1 | 1.19 | 0.72 | 1.21 | 0.71 |
| 13 | VH295900 | 2 | COV | 10,082 | 866 | 0.37 | 0.52 | 60.7 | 35.9 | 96.7 | 1.22 | 0.73 | 1.28 | 0.72 |
| 14 | VH295920 | 2 | COV | 14,516 | 1,347 | 0.33 | 0.51 | 58.1 | 39.2 | 97.3 | 1.19 | 0.72 | 1.22 | 0.71 |
| 15 | VH295971 | 2 | COV | 20,074 | 1,902 | 0.31 | 0.50 | 56.5 | 40.7 | 97.2 | 1.21 | 0.73 | 1.22 | 0.71 |
| 16 | VH296033 | 2 | COV | 17,793 | 1,592 | 0.34 | 0.52 | 59.4 | 37.9 | 97.4 | 1.23 | 0.72 | 1.28 | 0.71 |
| 17 | VH296047 | 2 | COV | 14,523 | 1,421 | 0.30 | 0.50 | 56.1 | 41.7 | 97.7 | 1.18 | 0.73 | 1.18 | 0.72 |
| 18 | VH296072 | 2 | COV | 17,856 | 1,675 | 0.29 | 0.47 | 56.2 | 40.5 | 96.7 | 1.25 | 0.71 | 1.25 | 0.71 |
| 19 | VH296081 | 2 | COV | 18,064 | 1,710 | 0.32 | 0.50 | 58.6 | 38.5 | 97.1 | 1.27 | 0.71 | 1.29 | 0.71 |
| 20 | VH296090 | 2 | COV | 14,999 | 1,397 | 0.38 | 0.55 | 61.6 | 36.1 | 97.8 | 1.22 | 0.72 | 1.26 | 0.70 |
| 21 | VH295215 | 4 | DVE | 13,595 | 1,219 | 0.29 | 0.61 | 49.5 | 44.1 | 93.6 | 2.25 | 0.95 | 2.32 | 0.95 |
| 22 | VH295480 | 4 | DVE | 16,432 | 1,548 | 0.30 | 0.61 | 50.3 | 44.1 | 94.4 | 2.22 | 0.94 | 2.34 | 0.94 |
| 23 | VH295740 | 4 | DVE | 15,532 | 1,392 | 0.30 | 0.56 | 50.4 | 42.0 | 92.4 | 2.20 | 0.93 | 2.28 | 0.94 |
| 24 | VH295810 | 4 | DVE | 15,776 | 1,490 | 0.29 | 0.56 | 49.5 | 43.0 | 92.4 | 2.25 | 0.96 | 2.36 | 0.93 |
| 25 | VH295835 | 4 | DVE | 11,996 | 1,140 | 0.32 | 0.61 | 51.8 | 42.7 | 94.5 | 2.21 | 0.93 | 2.27 | 0.92 |
| 26 | VH295900 | 4 | DVE | 10,046 | 863 | 0.26 | 0.56 | 47.0 | 44.6 | 91.7 | 2.17 | 0.96 | 2.36 | 0.96 |
| 27 | VH295920 | 4 | DVE | 14,483 | 1,343 | 0.32 | 0.62 | 51.9 | 42.7 | 94.6 | 2.27 | 0.93 | 2.28 | 0.92 |
| 28 | VH296047 | 4 | DVE | 14,512 | 1,421 | 0.31 | 0.58 | 51.4 | 41.9 | 93.2 | 2.29 | 0.94 | 2.33 | 0.92 |
| 29 | VH296090 | 4 | DVE | 14,967 | 1,397 | 0.28 | 0.57 | 48.5 | 43.5 | 92.0 | 2.23 | 0.94 | 2.34 | 0.96 |
| 30 | VH295230 | 4 | EEL | 19,245 | 1,811 | 0.32 | 0.59 | 53.1 | 40.9 | 94.0 | 2.05 | 0.90 | 2.06 | 0.90 |
| 31 | VH295238 | 4 | EEL | 18,112 | 1,705 | 0.31 | 0.58 | 52.4 | 40.9 | 93.3 | 1.91 | 0.91 | 1.99 | 0.92 |
| 32 | VH295406 | 4 | EEL | 20,516 | 1,918 | 0.34 | 0.61 | 55.2 | 39.3 | 94.5 | 1.92 | 0.90 | 1.93 | 0.89 |
| 33 | VH295431 | 4 | EEL | 19,681 | 1,871 | 0.34 | 0.61 | 54.4 | 40.2 | 94.6 | 2.01 | 0.89 | 2.06 | 0.90 |
| 34 | VH295452 | 4 | EEL | 18,224 | 1,703 | 0.34 | 0.63 | 53.7 | 40.7 | 94.4 | 1.99 | 0.94 | 2.03 | 0.93 |
| 35 | VH295543 | 4 | EEL | 17,247 | 1,622 | 0.32 | 0.57 | 53.5 | 40.3 | 93.8 | 2.02 | 0.89 | 2.05 | 0.89 |
| 36 | VH295793 | 4 | EEL | 18,516 | 1,658 | 0.31 | 0.59 | 51.9 | 42.4 | 94.3 | 2.06 | 0.91 | 2.09 | 0.90 |
| 37 | VH295971 | 4 | EEL | 20,015 | 1,894 | 0.33 | 0.62 | 54.4 | 40.4 | 94.8 | 1.94 | 0.91 | 1.98 | 0.91 |
| 38 | VH296033 | 4 | EEL | 17,777 | 1,591 | 0.31 | 0.61 | 50.7 | 42.9 | 93.7 | 2.08 | 0.92 | 2.17 | 0.94 |
| 39 | VH296072 | 4 | EEL | 17,849 | 1,673 | 0.33 | 0.60 | 53.4 | 40.6 | 94.0 | 2.07 | 0.92 | 2.10 | 0.91 |
| 40 | VH296081 | 4 | EEL | 18,061 | 1,710 | 0.31 | 0.59 | 52.5 | 42.1 | 94.6 | 2.04 | 0.90 | 2.07 | 0.90 |
| 41 | VH295215 | 4 | POR | 13,595 | 1,219 | 0.27 | 0.59 | 48.0 | 45.3 | 93.3 | 2.27 | 0.94 | 2.34 | 0.93 |
| 42 | VH295230 | 4 | POR | 19,246 | 1,811 | 0.31 | 0.60 | 52.7 | 41.6 | 94.3 | 1.99 | 0.90 | 2.00 | 0.89 |
| 43 | VH295238 | 4 | POR | 18,111 | 1,704 | 0.34 | 0.63 | 54.6 | 39.8 | 94.4 | 1.92 | 0.91 | 2.01 | 0.94 |
| 44 | VH295406 | 4 | POR | 20,516 | 1,918 | 0.35 | 0.62 | 55.6 | 39.5 | 95.1 | 1.93 | 0.89 | 1.94 | 0.88 |

| 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 Mean | Rater 1 SD | Rater 2 Mean | Rater 2 SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45 | VH295431 | 4 | POR | 19,682 | 1,871 | 0.37 | 0.66 | 56.5 | 39.7 | 96.2 | 1.95 | 0.89 | 2.02 | 0.91 |
| 46 | VH295452 | 4 | POR | 18,223 | 1,703 | 0.36 | 0.64 | 54.8 | 39.2 | 94.0 | 2.02 | 0.94 | 2.06 | 0.94 |
| 47 | VH295480 | 4 | POR | 16,423 | 1,548 | 0.30 | 0.60 | 50.1 | 44.1 | 94.1 | 2.25 | 0.92 | 2.36 | 0.92 |
| 48 | VH295543 | 4 | POR | 17,248 | 1,621 | 0.32 | 0.58 | 53.8 | 40.1 | 93.9 | 1.96 | 0.89 | 1.97 | 0.89 |
| 49 | VH295740 | 4 | POR | 15,533 | 1,392 | 0.29 | 0.57 | 50.3 | 43.0 | 93.3 | 2.22 | 0.92 | 2.30 | 0.94 |
| 50 | VH295793 | 4 | POR | 18,516 | 1,658 | 0.33 | 0.60 | 53.2 | 41.0 | 94.2 | 2.05 | 0.91 | 2.08 | 0.90 |
| 51 | VH295810 | 4 | POR | 15,775 | 1,490 | 0.29 | 0.55 | 50.1 | 42.0 | 92.1 | 2.27 | 0.95 | 2.37 | 0.92 |
| 52 | VH295835 | 4 | POR | 11,995 | 1,140 | 0.29 | 0.58 | 49.7 | 44.2 | 93.9 | 2.23 | 0.93 | 2.32 | 0.90 |
| 53 | VH295900 | 4 | POR | 10,046 | 863 | 0.29 | 0.59 | 49.6 | 43.8 | 93.4 | 2.21 | 0.97 | 2.38 | 0.93 |
| 54 | VH295920 | 4 | POR | 14,483 | 1,343 | 0.28 | 0.60 | 49.6 | 45.4 | 95.0 | 2.28 | 0.92 | 2.33 | 0.91 |
| 55 | VH295971 | 4 | POR | 19,996 | 1,892 | 0.33 | 0.62 | 53.2 | 41.9 | 95.0 | 2.02 | 0.92 | 2.08 | 0.91 |
| 56 | VH296033 | 4 | POR | 17,778 | 1,591 | 0.31 | 0.62 | 51.2 | 43.6 | 94.7 | 2.07 | 0.91 | 2.16 | 0.93 |
| 57 | VH296047 | 4 | POR | 14,511 | 1,421 | 0.33 | 0.57 | 53.3 | 39.8 | 93.1 | 2.31 | 0.93 | 2.36 | 0.91 |
| 58 | VH296072 | 4 | POR | 17,849 | 1,672 | 0.34 | 0.64 | 53.6 | 41.7 | 95.3 | 2.05 | 0.93 | 2.11 | 0.93 |
| 59 | VH296081 | 4 | POR | 18,060 | 1,710 | 0.33 | 0.60 | 53.5 | 40.5 | 94.0 | 2.02 | 0.91 | 2.07 | 0.92 |
| 60 | VH296090 | 4 | POR | 14,966 | 1,397 | 0.29 | 0.59 | 49.5 | 44.0 | 93.4 | 2.26 | 0.93 | 2.37 | 0.94 |
| | | **AVERAGE** | | **16,639** | **1,549** | **0.31** | **0.57** | **53.6** | **41.4** | **95.1** | **1.81** | **0.86** | **1.86** | **0.85** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.
– Rater 2 is the backup rater.

| *Dimension Key:* | |
|---|---|
| – 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 Writing Extended Response**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295316 | 2 | COV | 1,022 | 1,021 | 0.51 | 0.64 | 68.4 | 27.7 | 96.1 | 1.20 | 0.78 | 1.22 | 0.78 |
| 2 | VH295557 | 2 | COV | 1,084 | 1,084 | 0.96 | 0.98 | 97.6 | 2.3 | 99.9 | 1.36 | 0.79 | 1.36 | 0.79 |
| 3 | VH295583 | 2 | COV | 620 | 618 | 0.76 | 0.83 | 84.0 | 14.1 | 98.1 | 1.13 | 0.81 | 1.09 | 0.80 |
| 4 | VH295663 | 2 | COV | 1,095 | 1,095 | 0.98 | 0.99 | 98.9 | 1.0 | 99.9 | 1.46 | 0.74 | 1.46 | 0.74 |
| 5 | VH295680 | 2 | COV | 297 | 297 | 0.94 | 0.96 | 96.3 | 3.4 | 99.7 | 1.08 | 0.78 | 1.08 | 0.79 |
| 6 | VH295693 | 2 | COV | 1,285 | 1,281 | 0.51 | 0.68 | 69.2 | 27.9 | 97.0 | 1.26 | 0.78 | 1.28 | 0.79 |
| 7 | VH295754 | 2 | COV | 1,193 | 1,193 | 0.60 | 0.74 | 73.5 | 23.6 | 97.2 | 1.08 | 0.83 | 1.11 | 0.82 |
| 8 | VH295824 | 2 | COV | 1,179 | 1,178 | 0.48 | 0.64 | 67.8 | 28.2 | 96.0 | 1.28 | 0.77 | 1.30 | 0.79 |
| 9 | VH295873 | 2 | COV | 1,020 | 1,020 | 0.96 | 0.98 | 97.9 | 2.1 | 100.0 | 1.45 | 0.75 | 1.45 | 0.75 |
| 10 | VH295936 | 2 | COV | 832 | 830 | 0.56 | 0.73 | 72.3 | 25.2 | 97.5 | 1.26 | 0.81 | 1.25 | 0.80 |
| 11 | VH295984 | 2 | COV | 1,529 | 1,523 | 0.50 | 0.67 | 67.9 | 29.0 | 96.9 | 1.18 | 0.80 | 1.21 | 0.80 |
| 12 | VH296012 | 2 | COV | 279 | 279 | 0.93 | 0.97 | 95.7 | 4.3 | 100.0 | 0.86 | 0.82 | 0.87 | 0.82 |
| 13 | VH296040 | 2 | COV | 863 | 863 | 0.67 | 0.78 | 78.2 | 19.2 | 97.5 | 1.08 | 0.81 | 1.03 | 0.81 |
| 14 | VH295557 | 4 | DVE | 1,084 | 1,084 | 0.96 | 0.98 | 97.3 | 2.4 | 99.7 | 1.84 | 0.84 | 1.84 | 0.84 |
| 15 | VH295663 | 4 | DVE | 1,095 | 1,095 | 0.98 | 0.99 | 98.4 | 1.5 | 99.9 | 1.85 | 0.84 | 1.84 | 0.83 |
| 16 | VH295873 | 4 | DVE | 1,020 | 1,020 | 0.97 | 0.98 | 98.2 | 1.7 | 99.9 | 1.79 | 0.82 | 1.79 | 0.82 |
| 17 | VH295316 | 4 | EEL | 1,022 | 1,021 | 0.55 | 0.73 | 71.3 | 26.3 | 97.6 | 1.78 | 0.82 | 1.80 | 0.82 |
| 18 | VH295583 | 4 | EEL | 620 | 618 | 0.67 | 0.79 | 82.0 | 16.7 | 98.7 | 1.52 | 0.76 | 1.54 | 0.74 |
| 19 | VH295680 | 4 | EEL | 297 | 297 | 0.89 | 0.94 | 97.0 | 2.7 | 99.7 | 1.22 | 0.58 | 1.22 | 0.56 |
| 20 | VH295693 | 4 | EEL | 1,285 | 1,281 | 0.54 | 0.72 | 70.8 | 27.1 | 97.9 | 1.78 | 0.80 | 1.80 | 0.80 |
| 21 | VH295754 | 4 | EEL | 1,193 | 1,193 | 0.64 | 0.77 | 79.4 | 19.0 | 98.4 | 1.58 | 0.75 | 1.58 | 0.77 |
| 22 | VH295824 | 4 | EEL | 1,179 | 1,178 | 0.48 | 0.65 | 67.4 | 30.5 | 97.9 | 1.75 | 0.75 | 1.77 | 0.77 |
| 23 | VH295936 | 4 | EEL | 832 | 830 | 0.52 | 0.68 | 69.6 | 26.6 | 96.3 | 1.73 | 0.80 | 1.76 | 0.84 |
| 24 | VH295984 | 4 | EEL | 1,529 | 1,523 | 0.54 | 0.71 | 71.5 | 26.7 | 98.2 | 1.67 | 0.77 | 1.71 | 0.78 |
| 25 | VH296012 | 4 | EEL | 279 | 279 | 0.94 | 0.97 | 97.8 | 2.2 | 100.0 | 1.31 | 0.63 | 1.32 | 0.62 |
| 26 | VH296040 | 4 | EEL | 863 | 863 | 0.62 | 0.78 | 81.1 | 17.7 | 98.8 | 1.47 | 0.73 | 1.45 | 0.70 |
| 27 | VH295316 | 4 | POR | 1,022 | 1,021 | 0.55 | 0.75 | 71.4 | 26.8 | 98.2 | 1.77 | 0.82 | 1.78 | 0.81 |
| 28 | VH295557 | 4 | POR | 1,084 | 1,084 | 0.96 | 0.98 | 97.3 | 2.5 | 99.8 | 1.68 | 0.81 | 1.69 | 0.81 |
| 29 | VH295583 | 4 | POR | 620 | 618 | 0.68 | 0.80 | 82.5 | 16.2 | 98.7 | 1.52 | 0.74 | 1.53 | 0.74 |
| 30 | VH295663 | 4 | POR | 1,095 | 1,095 | 0.97 | 0.98 | 98.3 | 1.6 | 99.9 | 1.67 | 0.79 | 1.66 | 0.78 |
| 31 | VH295680 | 4 | POR | 297 | 297 | 0.89 | 0.94 | 97.0 | 2.7 | 99.7 | 1.21 | 0.57 | 1.21 | 0.56 |
| 32 | VH295693 | 4 | POR | 1,285 | 1,281 | 0.53 | 0.73 | 70.3 | 28.1 | 98.4 | 1.77 | 0.80 | 1.80 | 0.79 |
| 33 | VH295754 | 4 | POR | 1,193 | 1,193 | 0.64 | 0.78 | 78.1 | 20.9 | 99.0 | 1.68 | 0.75 | 1.70 | 0.77 |
| 34 | VH295824 | 4 | POR | 1,179 | 1,178 | 0.50 | 0.68 | 68.6 | 29.7 | 98.3 | 1.78 | 0.74 | 1.81 | 0.77 |
| 35 | VH295873 | 4 | POR | 1,020 | 1,020 | 0.97 | 0.99 | 98.5 | 1.4 | 99.9 | 1.60 | 0.78 | 1.59 | 0.77 |
| 36 | VH295936 | 4 | POR | 832 | 830 | 0.56 | 0.72 | 71.7 | 26.0 | 97.7 | 1.79 | 0.79 | 1.82 | 0.82 |
| 37 | VH295984 | 4 | POR | 1,529 | 1,523 | 0.55 | 0.73 | 71.8 | 26.9 | 98.8 | 1.75 | 0.77 | 1.77 | 0.78 |
| 38 | VH296012 | 4 | POR | 279 | 279 | 0.96 | 0.98 | 98.2 | 1.8 | 100.0 | 1.34 | 0.63 | 1.35 | 0.63 |
| 39 | VH296040 | 4 | POR | 863 | 863 | 0.65 | 0.78 | 81.0 | 17.5 | 98.5 | 1.52 | 0.73 | 1.52 | 0.72 |
| | | **AVERAGE** | | 946 | 945 | 0.72 | 0.82 | 82.9 | 15.7 | 98.6 | 1.49 | 0.77 | 1.50 | 0.77 |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.
– Rater 2 is the backup rater.

*Dimension Key:*

– organization/purpose (POR)
– development/elaboration (DEV)
– evidence/Elaboration (EEL)
– 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 Writing Extended Response**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295266 | 2 | COV | 326 | 325 | 0.73 | 0.84 | 81.8 | 16.6 | 98.5 | 0.95 | 0.84 | 0.98 | 0.85 |
| 2 | VH295271 | 2 | COV | 149 | 149 | 0.93 | 0.97 | 95.3 | 4.7 | 100.0 | 0.88 | 0.83 | 0.93 | 0.85 |
| 3 | VH295309 | 2 | COV | 307 | 307 | 0.76 | 0.87 | 84 | 15.0 | 99.0 | 0.96 | 0.84 | 0.99 | 0.84 |
| 4 | VH295321 | 2 | COV | 465 | 465 | 0.82 | 0.90 | 88.4 | 11.2 | 99.6 | 0.80 | 0.83 | 0.80 | 0.81 |
| 5 | VH295334 | 2 | COV | 476 | 476 | 0.79 | 0.88 | 86.6 | 12.4 | 98.9 | 0.80 | 0.82 | 0.83 | 0.84 |
| 6 | VH295372 | 2 | COV | 545 | 545 | 0.97 | 0.98 | 98.2 | 1.8 | 100.0 | 0.72 | 0.77 | 0.71 | 0.76 |
| 7 | VH295398 | 2 | COV | 598 | 598 | 0.96 | 0.97 | 97.3 | 2.3 | 99.7 | 0.68 | 0.73 | 0.69 | 0.74 |
| 8 | VH295410 | 2 | COV | 296 | 296 | 0.97 | 0.99 | 98.3 | 1.7 | 100.0 | 0.73 | 0.79 | 0.73 | 0.80 |
| 9 | VH295508 | 2 | COV | 269 | 269 | 0.81 | 0.90 | 87.7 | 11.9 | 99.6 | 0.80 | 0.82 | 0.80 | 0.81 |
| 10 | VH295528 | 2 | COV | 659 | 659 | 0.98 | 0.98 | 98.9 | 1.1 | 100.0 | 1.57 | 0.60 | 1.57 | 0.59 |
| 11 | VH295576 | 2 | COV | 658 | 658 | 0.93 | 0.95 | 96.2 | 3.6 | 99.8 | 1.45 | 0.66 | 1.45 | 0.66 |
| 12 | VH295610 | 2 | COV | 556 | 556 | 0.90 | 0.91 | 94.4 | 5.0 | 99.5 | 1.50 | 0.64 | 1.49 | 0.66 |
| 13 | VH295636 | 2 | COV | 337 | 337 | 0.77 | 0.86 | 84.9 | 13.9 | 98.8 | 0.88 | 0.82 | 0.87 | 0.80 |
| 14 | VH295719 | 2 | COV | 215 | 215 | 0.87 | 0.93 | 92.1 | 7.9 | 100.0 | 0.66 | 0.77 | 0.64 | 0.76 |
| 15 | VH295761 | 2 | COV | 659 | 659 | 0.97 | 0.97 | 98.3 | 1.5 | 99.8 | 1.56 | 0.60 | 1.55 | 0.60 |
| 16 | VH295906 | 2 | COV | 781 | 781 | 0.68 | 0.80 | 78.6 | 19.2 | 97.8 | 0.98 | 0.84 | 1.04 | 0.84 |
| 17 | VH295943 | 2 | COV | 249 | 249 | 0.72 | 0.84 | 81.9 | 17.3 | 99.2 | 0.81 | 0.79 | 0.81 | 0.79 |
| 18 | VH296104 | 2 | COV | 607 | 607 | 0.76 | 0.86 | 84.0 | 14.5 | 98.5 | 0.98 | 0.85 | 0.95 | 0.85 |
| 19 | VH296117 | 2 | COV | 254 | 254 | 0.87 | 0.92 | 91.3 | 8.3 | 99.6 | 0.85 | 0.80 | 0.87 | 0.81 |
| 20 | VH295528 | 4 | DVE | 660 | 660 | 0.98 | 0.99 | 98.8 | 1.1 | 99.8 | 1.67 | 0.82 | 1.67 | 0.82 |
| 21 | VH295576 | 4 | DVE | 658 | 658 | 0.90 | 0.94 | 93.3 | 5.5 | 98.8 | 1.86 | 0.89 | 1.87 | 0.90 |
| 22 | VH295610 | 4 | DVE | 556 | 556 | 0.93 | 0.97 | 95.0 | 4.9 | 99.8 | 1.98 | 0.90 | 1.98 | 0.89 |
| 23 | VH295761 | 4 | DVE | 659 | 659 | 0.97 | 0.99 | 98.2 | 1.8 | 100.0 | 1.88 | 0.87 | 1.88 | 0.86 |
| 24 | VH295266 | 4 | EEL | 326 | 325 | 0.66 | 0.83 | 85.2 | 14.5 | 99.7 | 1.37 | 0.67 | 1.38 | 0.70 |
| 25 | VH295271 | 4 | EEL | 149 | 149 | 0.88 | 0.92 | 96.0 | 4.0 | 100.0 | 1.22 | 0.49 | 1.26 | 0.54 |
| 26 | VH295309 | 4 | EEL | 307 | 307 | 0.85 | 0.93 | 93.2 | 6.8 | 100.0 | 1.40 | 0.67 | 1.41 | 0.68 |
| 27 | VH295321 | 4 | EEL | 465 | 465 | 0.72 | 0.84 | 89.9 | 9.9 | 99.8 | 1.29 | 0.59 | 1.28 | 0.58 |
| 28 | VH295334 | 4 | EEL | 476 | 476 | 0.72 | 0.82 | 89.9 | 9.9 | 99.8 | 1.28 | 0.56 | 1.26 | 0.55 |
| 29 | VH295372 | 4 | EEL | 545 | 545 | 0.96 | 0.97 | 98.9 | 1.1 | 100.0 | 1.18 | 0.45 | 1.18 | 0.45 |
| 30 | VH295398 | 4 | EEL | 598 | 598 | 0.98 | 0.99 | 99.5 | 0.5 | 100.0 | 1.15 | 0.44 | 1.14 | 0.43 |
| 31 | VH295410 | 4 | EEL | 296 | 296 | 0.95 | 0.96 | 99.3 | 0.7 | 100.0 | 1.08 | 0.29 | 1.07 | 0.28 |
| 32 | VH295508 | 4 | EEL | 269 | 269 | 0.73 | 0.85 | 90.3 | 9.3 | 99.6 | 1.30 | 0.62 | 1.26 | 0.56 |
| 33 | VH295636 | 4 | EEL | 337 | 337 | 0.69 | 0.78 | 89.0 | 10.4 | 99.4 | 1.23 | 0.53 | 1.28 | 0.54 |
| 34 | VH295719 | 4 | EEL | 215 | 215 | 0.80 | 0.90 | 94.0 | 6.0 | 100.0 | 1.21 | 0.52 | 1.25 | 0.56 |
| 35 | VH295906 | 4 | EEL | 781 | 781 | 0.64 | 0.79 | 83.0 | 16.3 | 99.2 | 1.41 | 0.68 | 1.42 | 0.68 |
| 36 | VH295943 | 4 | EEL | 249 | 249 | 0.71 | 0.81 | 87.6 | 11.6 | 99.2 | 1.34 | 0.60 | 1.36 | 0.65 |
| 37 | VH296104 | 4 | EEL | 607 | 607 | 0.70 | 0.83 | 85.7 | 13.5 | 99.2 | 1.44 | 0.71 | 1.42 | 0.71 |
| 38 | VH296117 | 4 | EEL | 254 | 254 | 0.75 | 0.88 | 91.3 | 8.7 | 100.0 | 1.28 | 0.59 | 1.28 | 0.62 |
| 39 | VH295266 | 4 | POR | 326 | 325 | 0.67 | 0.84 | 85.2 | 14.5 | 99.7 | 1.38 | 0.68 | 1.39 | 0.71 |
| 40 | VH295271 | 4 | POR | 149 | 149 | 0.88 | 0.92 | 96.0 | 4.0 | 100.0 | 1.22 | 0.49 | 1.26 | 0.54 |
| 41 | VH295309 | 4 | POR | 307 | 307 | 0.86 | 0.93 | 93.5 | 6.5 | 100.0 | 1.40 | 0.68 | 1.41 | 0.68 |
| 42 | VH295321 | 4 | POR | 465 | 465 | 0.72 | 0.85 | 89.9 | 10.1 | 100.0 | 1.29 | 0.59 | 1.28 | 0.58 |
| 43 | VH295334 | 4 | POR | 476 | 476 | 0.74 | 0.84 | 90.5 | 9.2 | 99.8 | 1.28 | 0.57 | 1.27 | 0.56 |
| 44 | VH295372 | 4 | POR | 545 | 545 | 0.97 | 0.98 | 99.1 | 0.9 | 100.0 | 1.18 | 0.45 | 1.18 | 0.46 |

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 45 | VH295398 | 4 | POR | 598 | 598 | 0.97 | 0.99 | 99.5 | 0.5 | 100.0 | 1.13 | 0.43 | 1.13 | 0.42 |
| 46 | VH295410 | 4 | POR | 296 | 296 | 0.94 | 0.96 | 99.3 | 0.7 | 100.0 | 1.07 | 0.29 | 1.07 | 0.28 |
| 47 | VH295508 | 4 | POR | 269 | 269 | 0.73 | 0.85 | 90.7 | 8.9 | 99.6 | 1.29 | 0.62 | 1.25 | 0.56 |
| 48 | VH295528 | 4 | POR | 660 | 660 | 0.98 | 0.99 | 98.6 | 1.2 | 99.8 | 1.61 | 0.81 | 1.61 | 0.81 |
| 49 | VH295576 | 4 | POR | 658 | 658 | 0.91 | 0.94 | 93.8 | 5.2 | 98.9 | 1.84 | 0.90 | 1.85 | 0.90 |
| 50 | VH295610 | 4 | POR | 556 | 556 | 0.93 | 0.97 | 95.0 | 4.9 | 99.8 | 1.95 | 0.91 | 1.95 | 0.90 |
| 51 | VH295636 | 4 | POR | 337 | 337 | 0.60 | 0.74 | 86.6 | 12.5 | 99.1 | 1.22 | 0.53 | 1.29 | 0.57 |
| 52 | VH295719 | 4 | POR | 215 | 215 | 0.80 | 0.90 | 94.0 | 6.0 | 100.0 | 1.22 | 0.53 | 1.25 | 0.58 |
| 53 | VH295761 | 4 | POR | 659 | 659 | 0.97 | 0.99 | 98.2 | 1.8 | 100.0 | 1.87 | 0.87 | 1.86 | 0.86 |
| 54 | VH295906 | 4 | POR | 781 | 781 | 0.64 | 0.79 | 82.8 | 16.4 | 99.2 | 1.41 | 0.69 | 1.42 | 0.68 |
| 55 | VH295943 | 4 | POR | 249 | 249 | 0.70 | 0.81 | 87.6 | 11.6 | 99.2 | 1.33 | 0.60 | 1.35 | 0.66 |
| 56 | VH296104 | 4 | POR | 607 | 607 | 0.69 | 0.83 | 85.2 | 14.0 | 99.2 | 1.44 | 0.72 | 1.43 | 0.71 |
| 57 | VH296117 | 4 | POR | 254 | 254 | 0.77 | 0.89 | 92.1 | 7.9 | 100.0 | 1.27 | 0.58 | 1.28 | 0.62 |
| | | **AVERAGE** | | **442** | **442** | **0.83** | **0.90** | **91.8** | **7.8** | **99.6** | **1.26** | **0.67** | **1.26** | **0.68** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

| *Dimension Key:* | |
|---|---|
| – 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 Writing Extended Response**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH295279 | 2 | COV | 1,044 | 1,044 | 0.61 | 0.71 | 79.7 | 19.9 | 99.6 | 1.52 | 0.63 | 1.57 | 0.59 |
| 2 | VH295294 | 2 | COV | 1,316 | 1,316 | 0.59 | 0.69 | 81.7 | 17.9 | 99.6 | 1.66 | 0.56 | 1.66 | 0.56 |
| 3 | VH295301 | 2 | COV | 676 | 676 | 0.96 | 0.97 | 98.4 | 1.6 | 100.0 | 1.68 | 0.54 | 1.68 | 0.54 |
| 4 | VH295330 | 2 | COV | 900 | 900 | 0.67 | 0.74 | 82.8 | 16.7 | 99.4 | 1.54 | 0.61 | 1.56 | 0.60 |
| 5 | VH295357 | 2 | COV | 567 | 567 | 0.61 | 0.75 | 75.1 | 24.0 | 99.1 | 1.21 | 0.74 | 1.19 | 0.75 |
| 6 | VH295386 | 2 | COV | 848 | 848 | 0.54 | 0.66 | 80.1 | 18.9 | 98.9 | 1.65 | 0.59 | 1.67 | 0.57 |
| 7 | VH295465 | 2 | COV | 707 | 707 | 0.56 | 0.70 | 73.6 | 25.3 | 98.9 | 1.32 | 0.73 | 1.35 | 0.70 |
| 8 | VH295486 | 2 | COV | 1,266 | 1,266 | 0.55 | 0.65 | 81.7 | 17.9 | 99.5 | 1.70 | 0.52 | 1.70 | 0.54 |
| 9 | VH295513 | 2 | COV | 909 | 908 | 0.48 | 0.65 | 68.7 | 29.1 | 97.8 | 1.36 | 0.74 | 1.37 | 0.73 |
| 10 | VH295568 | 2 | COV | 745 | 745 | 0.57 | 0.72 | 74.5 | 24.8 | 99.3 | 1.35 | 0.70 | 1.37 | 0.70 |
| 11 | VH295596 | 2 | COV | 643 | 642 | 0.98 | 0.99 | 99.2 | 0.8 | 100.0 | 1.64 | 0.56 | 1.65 | 0.55 |
| 12 | VH295604 | 2 | COV | 1,149 | 1,149 | 0.52 | 0.65 | 78.9 | 20.5 | 99.4 | 1.64 | 0.57 | 1.66 | 0.57 |
| 13 | VH295624 | 2 | COV | 1,479 | 1,479 | 0.48 | 0.61 | 81.5 | 17.8 | 99.3 | 1.74 | 0.52 | 1.75 | 0.51 |
| 14 | VH295768 | 2 | COV | 1,545 | 1,545 | 0.52 | 0.65 | 84.7 | 15.1 | 99.9 | 1.78 | 0.47 | 1.78 | 0.48 |
| 15 | VH295831 | 2 | COV | 809 | 809 | 0.56 | 0.69 | 73.9 | 25.3 | 99.3 | 1.32 | 0.68 | 1.36 | 0.67 |
| 16 | VH295845 | 2 | COV | 1,112 | 1,112 | 0.54 | 0.67 | 80.8 | 18.9 | 99.6 | 1.68 | 0.55 | 1.69 | 0.56 |
| 17 | VH295978 | 2 | COV | 991 | 991 | 0.56 | 0.74 | 73.3 | 26.1 | 99.4 | 1.31 | 0.75 | 1.34 | 0.73 |
| 18 | VH296017 | 2 | COV | 984 | 984 | 0.51 | 0.67 | 71.6 | 27.8 | 99.5 | 1.41 | 0.67 | 1.41 | 0.67 |
| 19 | VH296025 | 2 | COV | 465 | 465 | 0.68 | 0.80 | 79.4 | 20.0 | 99.4 | 1.18 | 0.77 | 1.20 | 0.75 |
| 20 | VH296059 | 2 | COV | 653 | 653 | 0.93 | 0.95 | 96.5 | 3.4 | 99.8 | 1.50 | 0.62 | 1.49 | 0.62 |
| 21 | VH296097 | 2 | COV | 777 | 776 | 0.83 | 0.87 | 91.5 | 8.0 | 99.5 | 1.56 | 0.62 | 1.57 | 0.61 |
| 22 | VH295301 | 4 | DVE | 676 | 676 | 0.98 | 0.99 | 98.5 | 1.3 | 99.9 | 1.95 | 0.91 | 1.95 | 0.91 |
| 23 | VH295596 | 4 | DVE | 643 | 642 | 0.98 | 0.99 | 98.3 | 1.6 | 99.8 | 2.14 | 0.97 | 2.13 | 0.96 |
| 24 | VH296059 | 4 | DVE | 653 | 653 | 0.92 | 0.97 | 94.8 | 5.2 | 100.0 | 1.85 | 0.86 | 1.85 | 0.88 |
| 25 | VH296097 | 4 | DVE | 777 | 776 | 0.87 | 0.93 | 91.0 | 8.0 | 99.0 | 2.13 | 0.93 | 2.13 | 0.94 |
| 26 | VH295279 | 4 | EEL | 1,044 | 1,044 | 0.65 | 0.82 | 77.2 | 22.6 | 99.8 | 1.80 | 0.81 | 1.81 | 0.80 |
| 27 | VH295294 | 4 | EEL | 1,316 | 1,316 | 0.62 | 0.81 | 74.9 | 24.9 | 99.8 | 1.90 | 0.81 | 1.90 | 0.82 |
| 28 | VH295330 | 4 | EEL | 900 | 900 | 0.64 | 0.81 | 77.2 | 22.6 | 99.8 | 1.79 | 0.79 | 1.79 | 0.77 |
| 29 | VH295357 | 4 | EEL | 567 | 567 | 0.66 | 0.75 | 80.6 | 18.7 | 99.3 | 1.58 | 0.65 | 1.58 | 0.66 |
| 30 | VH295386 | 4 | EEL | 848 | 848 | 0.63 | 0.80 | 75.7 | 23.5 | 99.2 | 1.86 | 0.83 | 1.87 | 0.82 |
| 31 | VH295465 | 4 | EEL | 707 | 707 | 0.67 | 0.79 | 80.3 | 18.7 | 99.0 | 1.64 | 0.73 | 1.65 | 0.74 |
| 32 | VH295486 | 4 | EEL | 1,266 | 1,266 | 0.55 | 0.75 | 71.1 | 28.4 | 99.5 | 1.99 | 0.78 | 1.99 | 0.78 |
| 33 | VH295513 | 4 | EEL | 910 | 909 | 0.59 | 0.73 | 75.0 | 23.9 | 98.9 | 1.71 | 0.74 | 1.72 | 0.72 |
| 34 | VH295568 | 4 | EEL | 745 | 745 | 0.60 | 0.75 | 75.2 | 24.6 | 99.7 | 1.75 | 0.71 | 1.76 | 0.73 |
| 35 | VH295604 | 4 | EEL | 1,149 | 1,149 | 0.57 | 0.78 | 71.2 | 28.1 | 99.3 | 1.95 | 0.84 | 1.94 | 0.83 |
| 36 | VH295624 | 4 | EEL | 1,479 | 1,479 | 0.56 | 0.76 | 71.0 | 28.3 | 99.3 | 1.97 | 0.79 | 1.99 | 0.81 |
| 37 | VH295768 | 4 | EEL | 1,545 | 1,545 | 0.58 | 0.79 | 71.5 | 27.8 | 99.3 | 2.15 | 0.85 | 2.17 | 0.84 |
| 38 | VH295831 | 4 | EEL | 809 | 809 | 0.62 | 0.78 | 74.8 | 24.6 | 99.4 | 1.92 | 0.79 | 1.91 | 0.78 |
| 39 | VH295845 | 4 | EEL | 1,112 | 1,112 | 0.62 | 0.78 | 75.4 | 24.2 | 99.6 | 1.91 | 0.77 | 1.90 | 0.76 |
| 40 | VH295978 | 4 | EEL | 991 | 991 | 0.58 | 0.75 | 74.2 | 24.9 | 99.1 | 1.72 | 0.76 | 1.71 | 0.76 |
| 41 | VH296017 | 4 | EEL | 984 | 984 | 0.55 | 0.72 | 71.0 | 27.4 | 98.5 | 1.92 | 0.77 | 1.92 | 0.78 |
| 42 | VH296025 | 4 | EEL | 465 | 465 | 0.75 | 0.86 | 85.4 | 14.4 | 99.8 | 1.59 | 0.74 | 1.57 | 0.72 |
| 43 | VH295279 | 4 | POR | 1,044 | 1,044 | 0.66 | 0.83 | 77.8 | 22.1 | 99.9 | 1.83 | 0.81 | 1.83 | 0.80 |
| 44 | VH295294 | 4 | POR | 1,316 | 1,316 | 0.62 | 0.80 | 75.3 | 24.3 | 99.6 | 1.92 | 0.80 | 1.92 | 0.81 |

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 45 | VH295301 | 4 | POR | 676 | 676 | 0.98 | 0.99 | 98.7 | 1.2 | 99.9 | 1.91 | 0.92 | 1.91 | 0.92 |
| 46 | VH295330 | 4 | POR | 900 | 900 | 0.63 | 0.80 | 76.3 | 23.7 | 100.0 | 1.82 | 0.78 | 1.80 | 0.77 |
| 47 | VH295357 | 4 | POR | 567 | 567 | 0.68 | 0.77 | 81.5 | 18.2 | 99.6 | 1.60 | 0.65 | 1.59 | 0.66 |
| 48 | VH295386 | 4 | POR | 848 | 848 | 0.64 | 0.81 | 76.1 | 23.3 | 99.4 | 1.88 | 0.83 | 1.89 | 0.83 |
| 49 | VH295465 | 4 | POR | 707 | 707 | 0.65 | 0.78 | 79.2 | 20.1 | 99.3 | 1.63 | 0.71 | 1.67 | 0.74 |
| 50 | VH295486 | 4 | POR | 1,266 | 1,266 | 0.55 | 0.75 | 70.5 | 29.1 | 99.6 | 2.00 | 0.79 | 2.01 | 0.79 |
| 51 | VH295513 | 4 | POR | 910 | 909 | 0.56 | 0.72 | 72.9 | 26.1 | 99.0 | 1.71 | 0.74 | 1.73 | 0.73 |
| 52 | VH295568 | 4 | POR | 745 | 745 | 0.60 | 0.75 | 75.0 | 24.6 | 99.6 | 1.77 | 0.72 | 1.78 | 0.74 |
| 53 | VH295596 | 4 | POR | 643 | 642 | 0.97 | 0.99 | 98.0 | 1.9 | 99.8 | 2.11 | 0.97 | 2.10 | 0.97 |
| 54 | VH295604 | 4 | POR | 1,149 | 1,149 | 0.61 | 0.80 | 73.7 | 25.7 | 99.4 | 1.98 | 0.83 | 1.98 | 0.83 |
| 55 | VH295624 | 4 | POR | 1,479 | 1,479 | 0.56 | 0.76 | 71.2 | 28.3 | 99.5 | 1.98 | 0.78 | 2.01 | 0.81 |
| 56 | VH295768 | 4 | POR | 1,545 | 1,545 | 0.58 | 0.79 | 71.6 | 27.8 | 99.4 | 2.18 | 0.86 | 2.18 | 0.84 |
| 57 | VH295831 | 4 | POR | 809 | 809 | 0.64 | 0.80 | 76.4 | 23.1 | 99.5 | 1.93 | 0.79 | 1.91 | 0.78 |
| 58 | VH295845 | 4 | POR | 1,112 | 1,112 | 0.61 | 0.78 | 75.2 | 24.6 | 99.7 | 1.92 | 0.76 | 1.92 | 0.76 |
| 59 | VH295978 | 4 | POR | 991 | 991 | 0.62 | 0.78 | 76.0 | 23.3 | 99.3 | 1.75 | 0.77 | 1.74 | 0.77 |
| 60 | VH296017 | 4 | POR | 984 | 984 | 0.55 | 0.72 | 70.8 | 27.6 | 98.5 | 1.93 | 0.78 | 1.94 | 0.78 |
| 61 | VH296025 | 4 | POR | 465 | 465 | 0.76 | 0.86 | 85.8 | 13.8 | 99.6 | 1.59 | 0.74 | 1.60 | 0.74 |
| 62 | VH296059 | 4 | POR | 653 | 653 | 0.92 | 0.97 | 94.9 | 5.1 | 100.0 | 1.77 | 0.85 | 1.77 | 0.87 |
| 63 | VH296097 | 4 | POR | 777 | 776 | 0.87 | 0.93 | 90.6 | 8.1 | 98.7 | 2.10 | 0.94 | 2.11 | 0.95 |
| | | AVERAGE | | 933 | 933 | 0.66 | 0.79 | 80.0 | 19.4 | 99.4 | 1.75 | 0.74 | 1.76 | 0.74 |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

| *Dimension Key:* | |
|---|---|
| – organization/purpose (POR) | – evidence/Elaboration (EEL) |
| – development/elaboration (DEV) | – convention (COV) |

**Table 8.G.21 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Eleven Writing Extended Response**

| 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 Mean | Rater 1 SD | Rater 2 Mean | Rater 2 SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | VH295245 | 2 | COV | 16,303 | 1,618 | 0.35 | 0.56 | 58.3 | 39.1 | 97.4 | 1.20 | 0.75 | 1.18 | 0.75 |
| 2 | VH295252 | 2 | COV | 14,632 | 1,345 | 0.31 | 0.51 | 57.0 | 39.9 | 96.9 | 1.25 | 0.74 | 1.29 | 0.73 |
| 3 | VH295286 | 2 | COV | 16,736 | 1,636 | 0.31 | 0.53 | 55.4 | 41.6 | 97.0 | 1.20 | 0.76 | 1.19 | 0.75 |
| 4 | VH295365 | 2 | COV | 1,613 | 1,601 | 0.41 | 0.61 | 61.6 | 35.9 | 97.5 | 1.15 | 0.76 | 1.21 | 0.78 |
| 5 | VH295379 | 2 | COV | 1,607 | 1,597 | 0.40 | 0.57 | 62.6 | 32.9 | 95.4 | 1.36 | 0.71 | 1.28 | 0.83 |
| 6 | VH295391 | 2 | COV | 15,744 | 1,556 | 0.31 | 0.51 | 56.4 | 40.2 | 96.6 | 1.22 | 0.75 | 1.22 | 0.74 |
| 7 | VH295473 | 2 | COV | 1,605 | 1,594 | 0.40 | 0.62 | 61.1 | 35.0 | 96.1 | 1.20 | 0.78 | 1.16 | 0.84 |
| 8 | VH295501 | 2 | COV | 1,540 | 1,534 | 0.40 | 0.61 | 60.9 | 35.1 | 96.0 | 1.25 | 0.77 | 1.11 | 0.83 |
| 9 | VH295533 | 2 | COV | 1,587 | 1,581 | 0.40 | 0.61 | 62.5 | 34.2 | 96.6 | 1.30 | 0.74 | 1.31 | 0.83 |
| 10 | VH295550 | 2 | COV | 1,577 | 1,566 | 0.35 | 0.55 | 59.0 | 35.8 | 94.8 | 1.32 | 0.73 | 1.26 | 0.85 |
| 11 | VH295617 | 2 | COV | 1,624 | 1,603 | 0.33 | 0.54 | 55.8 | 40.3 | 96.1 | 1.21 | 0.73 | 1.10 | 0.81 |
| 12 | VH295652 | 2 | COV | 16,573 | 1,636 | 0.35 | 0.56 | 58.7 | 38.3 | 96.9 | 1.25 | 0.75 | 1.22 | 0.76 |
| 13 | VH295700 | 2 | COV | 1,644 | 1,632 | 0.39 | 0.59 | 61.1 | 35.0 | 96.1 | 1.31 | 0.75 | 1.18 | 0.82 |
| 14 | VH295726 | 2 | COV | 16,468 | 1,603 | 0.32 | 0.52 | 56.4 | 40.0 | 96.4 | 1.19 | 0.75 | 1.20 | 0.76 |
| 15 | VH295747 | 2 | COV | 1,622 | 1,610 | 0.37 | 0.60 | 58.3 | 37.8 | 96.0 | 1.22 | 0.77 | 1.04 | 0.84 |
| 16 | VH295803 | 2 | COV | 1,641 | 1,625 | 0.45 | 0.67 | 63.9 | 34.0 | 98.0 | 1.19 | 0.77 | 1.18 | 0.83 |
| 17 | VH295816 | 2 | COV | 15,738 | 1,523 | 0.30 | 0.49 | 55.8 | 40.4 | 96.3 | 1.20 | 0.74 | 1.23 | 0.73 |
| 18 | VH295852 | 2 | COV | 1,675 | 1,663 | 0.39 | 0.60 | 59.4 | 37.2 | 96.5 | 1.17 | 0.76 | 1.06 | 0.83 |
| 19 | VH295884 | 2 | COV | 16,512 | 1,618 | 0.34 | 0.54 | 59.1 | 37.6 | 96.7 | 1.30 | 0.74 | 1.30 | 0.74 |
| 20 | VH295927 | 2 | COV | 1,618 | 1,608 | 0.40 | 0.62 | 60.8 | 36.6 | 97.5 | 1.18 | 0.76 | 1.17 | 0.80 |
| 21 | VH295990 | 2 | COV | 1,614 | 1,604 | 0.41 | 0.60 | 60.8 | 35.5 | 96.4 | 1.13 | 0.76 | 1.12 | 0.83 |
| 22 | VH296004 | 2 | COV | 1,602 | 1,591 | 0.39 | 0.60 | 61.2 | 34.4 | 95.6 | 1.30 | 0.75 | 1.24 | 0.86 |
| 23 | VH296053 | 2 | COV | 16,309 | 1,592 | 0.33 | 0.51 | 57.4 | 38.4 | 95.9 | 1.20 | 0.75 | 1.24 | 0.74 |
| 24 | VH296111 | 2 | COV | 1,597 | 1,578 | 0.34 | 0.55 | 57.5 | 36.8 | 94.4 | 1.21 | 0.77 | 1.26 | 0.85 |
| 25 | VH295245 | 4 | EEL | 16,293 | 1,618 | 0.44 | 0.69 | 60.9 | 34.7 | 95.6 | 2.02 | 0.91 | 2.01 | 0.92 |
| 26 | VH295252 | 4 | EEL | 14,611 | 1,344 | 0.41 | 0.68 | 58.9 | 36.6 | 95.5 | 2.01 | 0.93 | 2.03 | 0.94 |
| 27 | VH295286 | 4 | EEL | 16,735 | 1,636 | 0.41 | 0.68 | 58.6 | 37.4 | 96.0 | 2.02 | 0.94 | 2.02 | 0.93 |
| 28 | VH295365 | 4 | EEL | 1,613 | 1,514 | 0.41 | 0.64 | 61.2 | 37.0 | 98.2 | 1.86 | 0.86 | 1.84 | 0.71 |
| 29 | VH295379 | 4 | EEL | 1,607 | 1,559 | 0.38 | 0.70 | 54.7 | 39.8 | 94.5 | 2.07 | 0.96 | 2.43 | 1.05 |
| 30 | VH295391 | 4 | EEL | 15,741 | 1,556 | 0.42 | 0.68 | 60.5 | 35.5 | 96.1 | 1.94 | 0.91 | 1.98 | 0.89 |
| 31 | VH295473 | 4 | EEL | 1,605 | 1,505 | 0.39 | 0.67 | 56.3 | 38.7 | 95.0 | 2.03 | 0.96 | 2.22 | 0.95 |
| 32 | VH295501 | 4 | EEL | 1,540 | 1,377 | 0.38 | 0.68 | 54.7 | 39.3 | 94.0 | 2.14 | 0.98 | 2.12 | 1.05 |
| 33 | VH295533 | 4 | EEL | 1,586 | 1,549 | 0.46 | 0.72 | 61.4 | 35.1 | 96.5 | 2.02 | 0.97 | 2.19 | 0.92 |
| 34 | VH295550 | 4 | EEL | 1,577 | 1,488 | 0.42 | 0.70 | 58.4 | 36.8 | 95.2 | 2.01 | 0.94 | 2.18 | 1.00 |
| 35 | VH295617 | 4 | EEL | 1,623 | 1,471 | 0.40 | 0.70 | 57.9 | 38.5 | 96.4 | 1.95 | 0.94 | 2.11 | 0.94 |
| 36 | VH295652 | 4 | EEL | 16,570 | 1,636 | 0.38 | 0.68 | 57.0 | 39.1 | 96.1 | 2.01 | 0.93 | 2.00 | 0.93 |
| 37 | VH295700 | 4 | EEL | 1,644 | 1,564 | 0.45 | 0.73 | 60.6 | 37.0 | 97.6 | 2.06 | 0.94 | 2.23 | 0.92 |
| 38 | VH295726 | 4 | EEL | 16,465 | 1,600 | 0.42 | 0.70 | 61.0 | 35.8 | 96.8 | 1.86 | 0.88 | 1.88 | 0.89 |
| 39 | VH295747 | 4 | EEL | 1,622 | 1,447 | 0.41 | 0.70 | 58.8 | 36.8 | 95.6 | 1.90 | 0.94 | 2.04 | 0.97 |
| 40 | VH295803 | 4 | EEL | 1,641 | 1,550 | 0.42 | 0.70 | 58.1 | 37.7 | 95.9 | 2.00 | 0.91 | 2.21 | 0.99 |
| 41 | VH295816 | 4 | EEL | 15,737 | 1,523 | 0.46 | 0.70 | 62.8 | 33.2 | 95.9 | 1.98 | 0.93 | 1.95 | 0.92 |
| 42 | VH295852 | 4 | EEL | 1,675 | 1,582 | 0.46 | 0.70 | 63.1 | 34.9 | 98.0 | 1.96 | 0.90 | 1.99 | 0.80 |
| 43 | VH295884 | 4 | EEL | 16,513 | 1,618 | 0.40 | 0.68 | 57.2 | 38.6 | 95.8 | 2.12 | 0.96 | 2.12 | 0.95 |
| 44 | VH295927 | 4 | EEL | 1,617 | 1,556 | 0.44 | 0.70 | 60.8 | 35.7 | 96.5 | 1.87 | 0.89 | 2.08 | 0.91 |
| 45 | VH295990 | 4 | EEL | 1,614 | 1,502 | 0.40 | 0.69 | 57.9 | 39.1 | 97.0 | 1.94 | 0.97 | 2.07 | 0.86 |
| 46 | VH296004 | 4 | EEL | 1,602 | 1,495 | 0.33 | 0.55 | 54.4 | 38.1 | 92.6 | 2.01 | 0.99 | 1.73 | 0.64 |

| 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 Mean | Rater 1 SD | Rater 2 Mean | Rater 2 SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | VH296053 | 4 | EEL | 16,305 | 1,592 | 0.40 | 0.69 | 57.7 | 38.4 | 96.0 | 2.01 | 0.93 | 2.07 | 0.93 |
| 48 | VH296111 | 4 | EEL | 1,597 | 1,544 | 0.40 | 0.68 | 58.9 | 38.5 | 97.3 | 2.06 | 0.97 | 1.98 | 0.76 |
| 49 | VH295245 | 4 | POR | 16,289 | 1,618 | 0.40 | 0.66 | 58.3 | 37.6 | 96.0 | 2.08 | 0.88 | 2.09 | 0.89 |
| 50 | VH295252 | 4 | POR | 14,547 | 1,337 | 0.37 | 0.65 | 55.9 | 40.1 | 96.0 | 2.12 | 0.90 | 2.12 | 0.90 |
| 51 | VH295286 | 4 | POR | 16,735 | 1,636 | 0.41 | 0.66 | 59.7 | 36.6 | 96.3 | 2.11 | 0.89 | 2.11 | 0.87 |
| 52 | VH295365 | 4 | POR | 1,613 | 1,497 | 0.45 | 0.66 | 63.5 | 34.7 | 98.2 | 1.97 | 0.83 | 2.09 | 0.75 |
| 53 | VH295379 | 4 | POR | 1,607 | 1,568 | 0.45 | 0.72 | 60.7 | 36.4 | 97.1 | 2.22 | 0.93 | 2.30 | 0.95 |
| 54 | VH295391 | 4 | POR | 15,741 | 1,556 | 0.43 | 0.66 | 60.9 | 35.0 | 95.8 | 2.01 | 0.88 | 2.04 | 0.87 |
| 55 | VH295473 | 4 | POR | 1,605 | 1,513 | 0.44 | 0.68 | 61.5 | 35.6 | 97.1 | 2.12 | 0.93 | 2.11 | 0.79 |
| 56 | VH295501 | 4 | POR | 1,540 | 1,320 | 0.37 | 0.66 | 55.2 | 40.4 | 95.6 | 2.15 | 0.94 | 2.29 | 0.97 |
| 57 | VH295533 | 4 | POR | 1,586 | 1,558 | 0.47 | 0.74 | 62.5 | 34.6 | 97.1 | 2.12 | 0.96 | 2.18 | 0.94 |
| 58 | VH295550 | 4 | POR | 1,577 | 1,494 | 0.46 | 0.71 | 62.0 | 34.7 | 96.7 | 2.06 | 0.93 | 2.10 | 0.90 |
| 59 | VH295617 | 4 | POR | 1,623 | 1,451 | 0.42 | 0.67 | 60.0 | 37.6 | 97.6 | 2.07 | 0.89 | 2.14 | 0.84 |
| 60 | VH295652 | 4 | POR | 16,570 | 1,636 | 0.37 | 0.65 | 56.6 | 39.9 | 96.5 | 2.09 | 0.87 | 2.09 | 0.89 |
| 61 | VH295700 | 4 | POR | 1,644 | 1,576 | 0.45 | 0.74 | 61.2 | 36.8 | 98.0 | 2.11 | 0.90 | 2.30 | 0.96 |
| 62 | VH295726 | 4 | POR | 16,464 | 1,600 | 0.41 | 0.67 | 59.7 | 37.3 | 96.9 | 1.99 | 0.85 | 2.03 | 0.88 |
| 63 | VH295747 | 4 | POR | 1,610 | 1,444 | 0.39 | 0.68 | 56.6 | 39.8 | 96.4 | 2.07 | 0.91 | 2.15 | 0.96 |
| 64 | VH295803 | 4 | POR | 1,641 | 1,549 | 0.36 | 0.67 | 52.4 | 40.5 | 92.9 | 2.03 | 0.88 | 2.38 | 1.11 |
| 65 | VH295816 | 4 | POR | 15,737 | 1,523 | 0.43 | 0.67 | 60.8 | 36.3 | 97.1 | 2.07 | 0.88 | 2.06 | 0.86 |
| 66 | VH295852 | 4 | POR | 1,675 | 1,588 | 0.41 | 0.68 | 60.0 | 37.9 | 97.9 | 2.02 | 0.88 | 2.06 | 0.82 |
| 67 | VH295884 | 4 | POR | 16,509 | 1,618 | 0.40 | 0.67 | 58.2 | 38.0 | 96.2 | 2.22 | 0.91 | 2.23 | 0.91 |
| 68 | VH295927 | 4 | POR | 1,617 | 1,565 | 0.44 | 0.69 | 61.5 | 35.5 | 97.0 | 1.99 | 0.87 | 2.10 | 0.88 |
| 69 | VH295990 | 4 | POR | 1,614 | 1,494 | 0.42 | 0.68 | 60.2 | 37.3 | 97.5 | 2.07 | 0.91 | 2.13 | 0.83 |
| 70 | VH296004 | 4 | POR | 1,602 | 1,530 | 0.41 | 0.71 | 57.9 | 37.8 | 95.8 | 2.14 | 0.94 | 2.25 | 1.01 |
| 71 | VH296053 | 4 | POR | 16,304 | 1,592 | 0.44 | 0.68 | 60.6 | 35.2 | 95.8 | 2.07 | 0.89 | 2.11 | 0.92 |
| 72 | VH296111 | 4 | POR | 1,597 | 1,540 | 0.41 | 0.67 | 59.7 | 37.3 | 97.0 | 2.15 | 0.94 | 1.99 | 0.76 |
| | | **AVERAGE** | | **7,047** | **1,552** | **0.40** | **0.64** | **59.1** | **37.2** | **96.3** | **1.77** | **0.86** | **1.80** | **0.87** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

| *Dimension Key:* | |
|---|---|
| – organization/purpose (POR) | – evidence/Elaboration (EEL) |
| – development/elaboration (DEV) | – convention (COV) |

**Table 8.G.22 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Three**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH299060 | 1 | SA | 532 | 532 | 0.79 | 0.79 | 89.3 | 10.7 | 100.0 | 0.52 | 0.50 | 0.53 | 0.50 |
| 2 | VH299173 | 2 | SA | 558 | 558 | 0.67 | 0.84 | 79.7 | 19.7 | 99.5 | 0.67 | 0.82 | 0.73 | 0.83 |
| 3 | VH299297 | 2 | SA | 565 | 565 | 0.88 | 0.95 | 93.6 | 6.4 | 100.0 | 0.54 | 0.79 | 0.56 | 0.81 |
| 4 | VH299378 | 2 | SA | 593 | 593 | 0.84 | 0.94 | 94.1 | 5.6 | 99.7 | 0.40 | 0.76 | 0.38 | 0.73 |
| 5 | VH299416 | 2 | SA | 613 | 613 | 0.86 | 0.92 | 96.2 | 3.3 | 99.5 | 0.22 | 0.57 | 0.23 | 0.58 |
| 6 | VH299632 | 2 | SA | 577 | 577 | 0.88 | 0.90 | 93.6 | 5.9 | 99.5 | 0.50 | 0.65 | 0.47 | 0.62 |
| 7 | VH299781 | 2 | SA | 549 | 549 | 0.89 | 0.92 | 94.9 | 4.9 | 99.8 | 0.40 | 0.63 | 0.37 | 0.59 |
| 8 | VH300060 | 2 | SA | 611 | 611 | 0.62 | 0.79 | 74.6 | 24.9 | 99.5 | 1.22 | 0.80 | 1.02 | 0.77 |
| 9 | VH300063 | 2 | SA | 593 | 593 | 0.87 | 0.94 | 94.3 | 5.1 | 99.3 | 0.47 | 0.77 | 0.48 | 0.79 |
| 10 | VH300478 | 2 | SA | 766 | 766 | 0.65 | 0.81 | 78.7 | 20.4 | 99.1 | 0.69 | 0.81 | 0.68 | 0.78 |
| 11 | VH300485 | 2 | SA | 597 | 597 | 0.74 | 0.82 | 95.0 | 5.0 | 100.0 | 0.12 | 0.38 | 0.13 | 0.37 |
| | | **AVERAGE** | | **596** | **596** | **0.79** | **0.87** | **89.5** | **10.2** | **99.6** | **0.52** | **0.68** | **0.51** | **0.67** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

Short Answer (SA)

**Table 8.G.23 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Four**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH299182 | 2 | SA | 982 | 982 | 0.56 | 0.74 | 89.1 | 9.3 | 98.4 | 0.25 | 0.59 | 0.17 | 0.51 |
| 2 | VH299403 | 2 | SA | 994 | 994 | 0.86 | 0.94 | 94.6 | 5.2 | 99.8 | 0.39 | 0.74 | 0.39 | 0.74 |
| 3 | VH299506 | 2 | SA | 1,067 | 1,067 | 0.83 | 0.88 | 92.9 | 5.5 | 98.4 | 0.41 | 0.72 | 0.40 | 0.71 |
| 4 | VH299508 | 1 | SA | 1,075 | 1,075 | 0.90 | 0.90 | 95.4 | 4.6 | 100.0 | 0.35 | 0.48 | 0.35 | 0.48 |
| 5 | VH299775 | 2 | SA | 1,093 | 1,093 | 0.72 | 0.88 | 82.7 | 16.7 | 99.5 | 0.88 | 0.91 | 0.83 | 0.86 |
| 6 | VH299823 | 2 | SA | 1,133 | 1,133 | 0.72 | 0.84 | 95.4 | 4.5 | 99.9 | 0.11 | 0.40 | 0.11 | 0.38 |
| 7 | VH299934 | 2 | SA | 1,110 | 1,110 | 0.68 | 0.84 | 92.2 | 7.3 | 99.5 | 0.19 | 0.53 | 0.21 | 0.54 |
| 8 | VH300008 | 2 | SA | 940 | 940 | 0.81 | 0.89 | 91.4 | 6.9 | 98.3 | 0.49 | 0.79 | 0.50 | 0.80 |
| 9 | VH300185 | 2 | SA | 1,120 | 1,120 | 0.81 | 0.92 | 88.9 | 11.1 | 100.0 | 0.67 | 0.85 | 0.68 | 0.84 |
| | | **AVERAGE** | | **1,057** | **1,057** | **0.77** | **0.87** | **91.4** | **7.9** | **99.3** | **0.42** | **0.67** | **0.40** | **0.65** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

Short Answer (SA)

**Table 8.G.24 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Five**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH299081 | 3 | SA | 725 | 725 | 0.49 | 0.78 | 73.1 | 23.0 | 96.1 | 0.56 | 0.99 | 0.62 | 0.93 |
| 2 | VH299409 | 2 | SA | 671 | 671 | 0.54 | 0.72 | 71.7 | 27.1 | 98.8 | 0.66 | 0.77 | 0.70 | 0.74 |
| 3 | VH299434 | 2 | SA | 701 | 701 | 0.58 | 0.76 | 73.2 | 25.4 | 98.6 | 0.77 | 0.79 | 0.82 | 0.81 |
| 4 | VH299438 | 2 | SA | 699 | 699 | 0.67 | 0.78 | 88.6 | 10.9 | 99.4 | 0.27 | 0.59 | 0.24 | 0.49 |
| 5 | VH299680 | 1 | SA | 747 | 747 | 0.64 | 0.64 | 90.2 | 9.8 | 100.0 | 0.15 | 0.36 | 0.18 | 0.38 |
| 6 | VH299860 | 1 | SA | 778 | 778 | 0.81 | 0.81 | 95.9 | 4.1 | 100.0 | 0.12 | 0.33 | 0.13 | 0.33 |
| 7 | VH299985 | 2 | SA | 689 | 689 | 0.62 | 0.79 | 74.9 | 24.2 | 99.1 | 0.89 | 0.82 | 0.84 | 0.78 |
| 8 | VH299993 | 2 | SA | 822 | 822 | 0.65 | 0.83 | 80.9 | 18.4 | 99.3 | 0.58 | 0.79 | 0.54 | 0.77 |
| 9 | VH299994 | 2 | SA | 995 | 995 | 0.65 | 0.85 | 85.1 | 14.1 | 99.2 | 0.42 | 0.78 | 0.45 | 0.76 |
| | | **AVERAGE** | | **759** | **759** | **0.63** | **0.77** | **81.5** | **17.4** | **98.9** | **0.49** | **0.69** | **0.50** | **0.67** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

Short Answer (SA)

**Table 8.G.25 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Six**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH288262 | 2 | SA | 2,246 | 2,246 | 0.50 | 0.62 | 72.1 | 27.5 | 99.6 | 0.55 | 0.59 | 0.56 | 0.65 |
| 2 | VH288267 | 2 | SA | 1,311 | 1,311 | 0.42 | 0.50 | 68.6 | 30.5 | 99.1 | 0.62 | 0.62 | 0.38 | 0.50 |
| 3 | VH295677 | 2 | SA | 1,228 | 1,228 | 0.43 | 0.51 | 73.5 | 25.6 | 99.1 | 0.36 | 0.58 | 0.36 | 0.51 |
| 4 | VH295690 | 2 | SA | 1,053 | 1,053 | 0.43 | 0.53 | 76.5 | 22.9 | 99.4 | 0.24 | 0.51 | 0.35 | 0.52 |
| 5 | VH295691 | 2 | SA | 1,052 | 1,052 | 0.51 | 0.71 | 72.6 | 26.7 | 99.3 | 0.61 | 0.74 | 0.44 | 0.67 |
| 6 | VH295751 | 2 | SA | 1,134 | 1,134 | 0.41 | 0.60 | 63.8 | 32.1 | 95.9 | 0.58 | 0.72 | 0.76 | 0.82 |
| 7 | VH295821 | 2 | SA | 1,119 | 1,119 | 0.51 | 0.69 | 73.4 | 25.6 | 98.9 | 0.51 | 0.68 | 0.53 | 0.71 |
| 8 | VH295822 | 2 | SA | 1,123 | 1,123 | 0.53 | 0.70 | 91.0 | 8.1 | 99.1 | 0.17 | 0.51 | 0.11 | 0.36 |
| 9 | VH295871 | 2 | SA | 992 | 992 | 0.63 | 0.82 | 87.3 | 12.4 | 99.7 | 0.29 | 0.61 | 0.29 | 0.62 |
| 10 | VH295934 | 2 | SA | 977 | 977 | 0.40 | 0.59 | 62.2 | 35.0 | 97.2 | 0.64 | 0.72 | 0.82 | 0.75 |
| 11 | VH295983 | 2 | SA | 1,159 | 1,159 | 0.50 | 0.68 | 67.6 | 31.4 | 99.0 | 0.75 | 0.78 | 0.85 | 0.70 |
| 12 | VH296037 | 2 | SA | 1,163 | 1,163 | 0.58 | 0.74 | 78.0 | 21.2 | 99.1 | 0.46 | 0.66 | 0.51 | 0.71 |
| 13 | VH296211 | 2 | SA | 3,318 | 3,318 | 0.41 | 0.51 | 66.9 | 31.5 | 98.4 | 0.64 | 0.64 | 0.49 | 0.59 |
| 14 | VH296308 | 2 | SA | 2,205 | 2,205 | 0.37 | 0.50 | 64.4 | 34.7 | 99.0 | 0.65 | 0.60 | 0.46 | 0.61 |
| 15 | VH296310 | 2 | SA | 1,623 | 1,623 | 0.55 | 0.69 | 72.8 | 26.5 | 99.3 | 0.87 | 0.69 | 0.83 | 0.68 |
| 16 | VH296334 | 2 | SA | 477 | 477 | 0.36 | 0.41 | 70.2 | 28.3 | 98.5 | 0.45 | 0.60 | 0.25 | 0.44 |
| 17 | VH296362 | 2 | SA | 2,144 | 2,144 | 0.36 | 0.52 | 63.9 | 35.2 | 99.1 | 0.65 | 0.65 | 0.37 | 0.56 |
| 18 | VH296443 | 2 | SA | 3,428 | 3,428 | 0.35 | 0.45 | 65.2 | 34.3 | 99.5 | 0.76 | 0.65 | 0.64 | 0.48 |
| 19 | VH296445 | 2 | SA | 1,024 | 1,024 | 0.43 | 0.59 | 66.8 | 31.6 | 98.4 | 0.59 | 0.66 | 0.62 | 0.70 |
| 20 | VH296446 | 2 | SA | 733 | 733 | 0.42 | 0.49 | 68.1 | 31.0 | 99.0 | 0.62 | 0.64 | 0.56 | 0.51 |
| 21 | VH296447 | 2 | SA | 1,432 | 1,432 | 0.54 | 0.60 | 76.3 | 23.7 | 100.0 | 0.64 | 0.57 | 0.73 | 0.52 |
| 22 | VH296451 | 2 | SA | 900 | 900 | 0.50 | 0.53 | 82.2 | 16.9 | 99.1 | 0.29 | 0.52 | 0.19 | 0.39 |
| 23 | VH296454 | 2 | SA | 1,305 | 1,305 | 0.42 | 0.54 | 66.7 | 31.7 | 98.5 | 0.58 | 0.64 | 0.61 | 0.64 |
| 24 | VH296504 | 2 | SA | 940 | 940 | 0.39 | 0.49 | 67.0 | 31.9 | 98.9 | 0.57 | 0.66 | 0.43 | 0.49 |
| 25 | VH296506 | 2 | SA | 1,484 | 1,484 | 0.43 | 0.56 | 67.3 | 30.2 | 97.4 | 0.63 | 0.71 | 0.51 | 0.63 |
| 26 | VH296523 | 2 | SA | 919 | 919 | 0.33 | 0.42 | 65.0 | 34.2 | 99.1 | 0.49 | 0.57 | 0.44 | 0.57 |
| 27 | VH296628 | 2 | SA | 1,077 | 1,077 | 0.64 | 0.75 | 79.4 | 20.3 | 99.7 | 0.62 | 0.68 | 0.52 | 0.63 |
| 28 | VH296674 | 2 | SA | 83 | 83 | 0.52 | 0.59 | 74.7 | 25.3 | 100.0 | 0.55 | 0.55 | 0.47 | 0.57 |
| 29 | VH296767 | 2 | SA | 78 | 78 | 0.61 | 0.67 | 80.8 | 19.2 | 100.0 | 0.44 | 0.55 | 0.40 | 0.54 |
| 30 | VH297147 | 2 | SA | 91 | 91 | 0.50 | 0.65 | 76.9 | 23.1 | 100.0 | 0.35 | 0.58 | 0.38 | 0.57 |
| 31 | VH297407 | 2 | SA | 1,820 | 1,820 | 0.62 | 0.74 | 81.4 | 18.5 | 99.9 | 0.38 | 0.61 | 0.43 | 0.58 |
| 32 | VH295439 | 4 | POR | 912 | 615 | 0.31 | 0.53 | 55.4 | 39.0 | 94.5 | 2.03 | 0.88 | 1.95 | 0.74 |
| 33 | VH295439 | 4 | DVE | 912 | 612 | 0.23 | 0.47 | 46.6 | 43.1 | 89.7 | 2.06 | 0.87 | 1.66 | 0.76 |
| 34 | VH295439 | 2 | COV | 912 | 912 | 0.19 | 0.31 | 42.9 | 42.5 | 85.4 | 1.33 | 0.75 | 0.78 | 0.78 |
| | | **AVERAGE** | | **1,246** | **1,229** | **0.45** | **0.58** | **70.2** | **28.0** | **98.2** | **0.65** | **0.65** | **0.58** | **0.60** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.
– Rater 2 is the backup rater.

| *Dimension Key:* | |
|---|---|
| – organization/purpose (POR) | – Short Answer (SA) |
| – development/elaboration (DEV) | – convention (COV) |

**Table 8.G.26 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Seven**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH279677 | 2 | SA | 921 | 921 | 0.37 | 0.57 | 61.3 | 38.0 | 99.3 | 1.11 | 0.69 | 0.93 | 0.67 |
| 2 | VH280500 | 2 | SA | 516 | 516 | 0.24 | 0.45 | 54.3 | 44.0 | 98.3 | 1.07 | 0.63 | 0.62 | 0.57 |
| 3 | VH295338 | 2 | SA | 778 | 778 | 0.71 | 0.83 | 92.5 | 7.1 | 99.6 | 0.19 | 0.52 | 0.19 | 0.48 |
| 4 | VH297495 | 2 | SA | 3,475 | 3,475 | 0.37 | 0.56 | 60.9 | 37.2 | 98.1 | 0.69 | 0.69 | 0.83 | 0.72 |
| 5 | VH297599 | 2 | SA | 676 | 676 | 0.38 | 0.48 | 67.5 | 32.4 | 99.9 | 0.82 | 0.52 | 0.66 | 0.59 |
| 6 | VH297601 | 2 | SA | 607 | 607 | 0.44 | 0.56 | 70.2 | 29.5 | 99.7 | 0.77 | 0.56 | 0.83 | 0.62 |
| 7 | VH297700 | 2 | SA | 579 | 579 | 0.61 | 0.70 | 79.1 | 20.7 | 99.8 | 0.78 | 0.61 | 0.84 | 0.58 |
| 8 | VH297722 | 2 | SA | 3,598 | 3,598 | 0.35 | 0.48 | 63.6 | 35.4 | 99.1 | 0.75 | 0.66 | 0.76 | 0.55 |
| 9 | VH297723 | 2 | SA | 152 | 152 | 0.60 | 0.62 | 79.6 | 20.4 | 100.0 | 0.57 | 0.54 | 0.60 | 0.51 |
| 10 | VH297730 | 2 | SA | 297 | 297 | 0.70 | 0.76 | 83.8 | 16.2 | 100.0 | 0.64 | 0.58 | 0.67 | 0.58 |
| 11 | VH297739 | 2 | SA | 821 | 821 | 0.49 | 0.63 | 71.9 | 27.5 | 99.4 | 0.58 | 0.64 | 0.47 | 0.61 |
| 12 | VH297772 | 2 | SA | 3,473 | 3,473 | 0.34 | 0.46 | 62.6 | 34.4 | 97.0 | 0.51 | 0.62 | 0.61 | 0.67 |
| 13 | VH297773 | 2 | SA | 621 | 621 | 0.43 | 0.58 | 66.7 | 32.4 | 99.0 | 0.69 | 0.68 | 0.64 | 0.63 |
| 14 | VH297840 | 2 | SA | 669 | 669 | 0.56 | 0.63 | 76.4 | 23.6 | 100.0 | 0.56 | 0.59 | 0.65 | 0.54 |
| 15 | VH297882 | 2 | SA | 343 | 343 | 0.42 | 0.56 | 67.6 | 31.5 | 99.1 | 0.62 | 0.65 | 0.47 | 0.59 |
| 16 | VH298258 | 2 | SA | 59 | 59 | 0.74 | 0.81 | 84.7 | 15.3 | 100.0 | 0.61 | 0.62 | 0.76 | 0.65 |
| 17 | VH298382 | 2 | SA | 3,671 | 3,671 | 0.53 | 0.64 | 77.0 | 22.6 | 99.5 | 0.49 | 0.64 | 0.32 | 0.50 |
| 18 | VH298573 | 2 | SA | 57 | 57 | 0.41 | 0.52 | 66.7 | 29.8 | 96.5 | 0.39 | 0.59 | 0.65 | 0.72 |
| 19 | VH298602 | 2 | SA | 56 | 56 | 0.62 | 0.67 | 85.7 | 12.5 | 98.2 | 0.20 | 0.44 | 0.36 | 0.62 |
| **AVERAGE** | | | | **1,125** | **1,125** | **0.49** | **0.61** | **72.2** | **26.9** | **99.1** | **0.63** | **0.60** | **0.62** | **0.60** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

Short Answer (SA)

**Table 8.G.27 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Eight**

| 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mean | SD | Mean | SD |
| 1 | VH279615 | 2 | SA | 1,060 | 1,060 | 0.29 | 0.43 | 56.7 | 38.2 | 94.9 | 0.78 | 0.71 | 0.38 | 0.60 |
| 2 | VH279674 | 2 | SA | 931 | 931 | 0.27 | 0.43 | 56.9 | 40.7 | 97.6 | 1.06 | 0.63 | 0.76 | 0.63 |
| 3 | VH280208 | 2 | SA | 2,711 | 2,711 | 0.50 | 0.61 | 73.9 | 25.7 | 99.6 | 0.88 | 0.62 | 0.95 | 0.57 |
| 4 | VH280233 | 2 | SA | 3,631 | 3,631 | 0.56 | 0.70 | 73.0 | 26.5 | 99.6 | 0.76 | 0.69 | 0.78 | 0.68 |
| 5 | VH280240 | 2 | SA | 1,160 | 1,160 | 0.56 | 0.59 | 77.4 | 22.1 | 99.5 | 0.64 | 0.56 | 0.72 | 0.51 |
| 6 | VH280246 | 2 | SA | 696 | 696 | 0.56 | 0.60 | 78.6 | 21.4 | 100.0 | 0.66 | 0.56 | 0.75 | 0.47 |
| 7 | VH280252 | 2 | SA | 115 | 115 | 0.27 | 0.47 | 57.4 | 41.7 | 99.1 | 0.77 | 0.73 | 0.48 | 0.50 |
| 8 | VH280255 | 2 | SA | 3,559 | 3,559 | 0.27 | 0.42 | 54.6 | 44.5 | 99.1 | 0.85 | 0.57 | 0.47 | 0.61 |
| 9 | VH280276 | 2 | SA | 1,320 | 1,320 | 0.40 | 0.55 | 65.9 | 33.5 | 99.4 | 0.76 | 0.63 | 0.87 | 0.63 |
| 10 | VH280507 | 2 | SA | 473 | 473 | 0.30 | 0.35 | 66.4 | 31.3 | 97.7 | 0.48 | 0.62 | 0.28 | 0.45 |
| 11 | VH280871 | 2 | SA | 971 | 971 | 0.14 | 0.27 | 51.4 | 43.5 | 94.9 | 0.69 | 0.70 | 0.23 | 0.42 |
| 12 | VH281238 | 2 | SA | 7,398 | 7,398 | 0.46 | 0.55 | 69.7 | 30.3 | 99.9 | 0.56 | 0.64 | 0.66 | 0.51 |
| 13 | VH281341 | 2 | SA | 68 | 68 | 0.64 | 0.76 | 82.4 | 17.6 | 100.0 | 0.40 | 0.65 | 0.43 | 0.58 |
| 14 | VH281698 | 2 | SA | 59 | 59 | 0.55 | 0.67 | 74.6 | 25.4 | 100.0 | 0.59 | 0.62 | 0.64 | 0.64 |
| 15 | VH281717 | 2 | SA | 199 | 199 | 0.59 | 0.75 | 75.4 | 24.6 | 100.0 | 0.72 | 0.75 | 0.58 | 0.63 |
| 16 | VH282298 | 2 | SA | 2,750 | 2,750 | 0.59 | 0.71 | 81.2 | 18.6 | 99.8 | 0.36 | 0.61 | 0.36 | 0.55 |
| 17 | VH282579 | 2 | SA | 1,406 | 1,406 | 0.63 | 0.74 | 87.8 | 11.9 | 99.8 | 0.26 | 0.54 | 0.21 | 0.44 |
| 18 | VH295843 | 2 | SA | 658 | 658 | 0.38 | 0.63 | 62.3 | 33.7 | 96.0 | 0.56 | 0.70 | 0.77 | 0.91 |
| | | **AVERAGE** | | **1,620** | **1,620** | **0.44** | **0.57** | **69.2** | **29.5** | **98.7** | **0.65** | **0.64** | **0.57** | **0.57** |

**Notes and Legend:**

– Numbers indicate students who received valid ratings from Rater 1.

– Rater 2 is the backup rater.

Short Answer (SA)

# Appendix 8.H: Analyses in Support of Validity Evidence

**Table 8.H.1 Total 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 | 117,200 | 142.02 | 80.91 | 3.09 | 913.82 | 24.09 | 56.49 | 84.84 | 126.04 | 181.70 | 246.43 | 411.65 |
| | Q 2 | 118,488 | 180.29 | 84.48 | 14.20 | 1127.66 | 53.30 | 90.49 | 120.86 | 164.62 | 221.80 | 289.09 | 455.28 |
| | Q 3 | 117,146 | 197.08 | 85.85 | 19.90 | 1526.46 | 68.28 | 106.86 | 137.15 | 180.71 | 238.34 | 306.81 | 481.35 |
| | Q 4 | 118,545 | 200.76 | 83.75 | 31.89 | 1129.17 | 77.05 | 113.92 | 142.81 | 184.46 | 239.32 | 306.42 | 482.01 |
| 4 | Q 1 | 114,839 | 157.77 | 87.40 | 3.70 | 1239.02 | 28.31 | 65.32 | 96.14 | 140.93 | 200.59 | 269.68 | 441.09 |
| | Q 2 | 115,611 | 196.62 | 90.34 | 18.87 | 1410.34 | 61.67 | 101.82 | 133.57 | 179.28 | 240.02 | 311.99 | 490.70 |
| | Q 3 | 114,564 | 208.96 | 90.74 | 27.48 | 1390.22 | 75.78 | 115.14 | 146.26 | 191.46 | 250.86 | 322.91 | 511.17 |
| | Q 4 | 116,482 | 211.36 | 86.94 | 31.35 | 1159.45 | 84.65 | 121.88 | 151.52 | 193.92 | 251.26 | 321.15 | 504.06 |
| 5 | Q 1 | 114,277 | 163.83 | 86.73 | 6.31 | 1116.78 | 32.24 | 72.98 | 103.76 | 147.25 | 205.21 | 274.41 | 450.63 |
| | Q 2 | 114,074 | 198.26 | 87.80 | 22.79 | 1232.83 | 67.64 | 106.60 | 137.10 | 181.18 | 239.91 | 309.55 | 491.79 |
| | Q 3 | 115,848 | 206.81 | 87.30 | 32.24 | 1400.63 | 77.79 | 116.58 | 146.45 | 189.67 | 247.67 | 316.70 | 499.55 |
| | Q 4 | 114,763 | 209.33 | 85.10 | 43.17 | 1380.63 | 85.38 | 122.88 | 151.09 | 192.09 | 247.78 | 315.61 | 500.16 |
| 6 | Q 1 | 112,743 | 166.98 | 87.98 | 4.03 | 1254.83 | 32.23 | 74.66 | 106.72 | 150.69 | 207.90 | 277.68 | 462.12 |
| | Q 2 | 113,493 | 206.86 | 91.00 | 22.00 | 1398.93 | 70.75 | 112.55 | 144.18 | 189.69 | 249.27 | 320.03 | 511.35 |
| | Q 3 | 114,339 | 221.36 | 92.03 | 41.40 | 1472.99 | 85.70 | 126.75 | 158.31 | 203.45 | 263.60 | 335.51 | 535.38 |
| | Q 4 | 114,528 | 229.35 | 91.94 | 18.20 | 1794.79 | 96.14 | 136.95 | 167.75 | 211.21 | 269.05 | 340.74 | 544.72 |
| 7 | Q 1 | 111,319 | 145.84 | 76.20 | 3.68 | 1062.20 | 28.26 | 65.16 | 93.44 | 132.39 | 182.01 | 241.09 | 397.08 |
| | Q 2 | 111,844 | 178.20 | 77.47 | 7.91 | 1256.21 | 60.62 | 97.77 | 125.21 | 163.84 | 214.33 | 274.96 | 435.12 |
| | Q 3 | 112,459 | 191.89 | 76.10 | 24.60 | 1110.40 | 76.21 | 112.68 | 140.10 | 177.62 | 227.24 | 286.28 | 444.70 |
| | Q 4 | 112,732 | 205.04 | 76.19 | 41.39 | 1815.18 | 90.17 | 127.41 | 154.23 | 190.86 | 238.83 | 298.07 | 464.00 |
| 8 | Q 1 | 112,416 | 146.00 | 76.55 | 3.20 | 1393.06 | 25.20 | 63.52 | 93.23 | 133.15 | 183.81 | 242.62 | 393.69 |
| | Q 2 | 112,256 | 183.11 | 77.84 | 19.18 | 1167.10 | 62.82 | 100.96 | 129.62 | 169.04 | 220.58 | 280.23 | 440.63 |
| | Q 3 | 112,728 | 199.46 | 78.17 | 31.38 | 1491.51 | 79.96 | 118.31 | 146.69 | 185.23 | 235.66 | 295.57 | 460.54 |
| | Q 4 | 112,724 | 214.26 | 78.35 | 44.00 | 1307.94 | 94.56 | 133.77 | 161.79 | 199.38 | 249.66 | 310.76 | 476.36 |
| 11 | Q 1 | 104,325 | 121.10 | 70.64 | 2.08 | 1025.39 | 10.66 | 42.22 | 70.83 | 110.53 | 158.29 | 210.14 | 342.10 |
| | Q 2 | 104,535 | 169.44 | 71.83 | 17.52 | 1618.30 | 52.55 | 91.07 | 120.06 | 158.64 | 204.72 | 259.65 | 400.77 |
| | Q 3 | 106,004 | 188.64 | 72.26 | 22.94 | 1323.37 | 71.98 | 111.52 | 140.24 | 176.60 | 222.36 | 278.88 | 427.68 |
| | Q 4 | 105,359 | 195.82 | 69.03 | 36.20 | 1162.60 | 87.73 | 125.55 | 151.11 | 183.50 | 224.67 | 279.84 | 433.85 |

**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 | 116,353 | 89.38 | 47.40 | 3.41 | 720.64 | 20.61 | 41.77 | 57.48 | 79.51 | 110.02 | 148.30 | 253.42 |
| | Q 2 | 117,965 | 104.48 | 49.73 | 8.99 | 700.88 | 36.48 | 55.42 | 70.75 | 93.46 | 125.59 | 166.49 | 277.52 |
| | Q 3 | 118,854 | 109.84 | 49.92 | 13.40 | 819.63 | 40.82 | 60.04 | 75.61 | 98.97 | 131.51 | 172.58 | 281.13 |
| | Q 4 | 119,112 | 113.08 | 50.00 | 19.88 | 780.06 | 44.20 | 63.69 | 79.06 | 102.19 | 134.45 | 175.28 | 286.43 |
| 4 | Q 1 | 113,870 | 89.21 | 46.80 | 4.12 | 909.90 | 20.33 | 42.56 | 58.27 | 79.78 | 109.02 | 146.13 | 249.74 |
| | Q 2 | 115,102 | 101.10 | 48.53 | 9.11 | 713.89 | 35.93 | 54.33 | 68.76 | 90.04 | 120.71 | 160.36 | 271.85 |
| | Q 3 | 116,890 | 107.90 | 50.26 | 15.86 | 971.73 | 40.50 | 59.21 | 74.15 | 96.68 | 128.35 | 169.63 | 283.46 |
| | Q 4 | 116,670 | 117.62 | 52.96 | 18.51 | 784.50 | 45.90 | 65.98 | 81.93 | 105.80 | 139.64 | 182.99 | 306.73 |
| 5 | Q 1 | 113,911 | 106.49 | 56.17 | 3.90 | 905.57 | 22.47 | 49.81 | 69.35 | 95.58 | 130.63 | 174.94 | 300.94 |
| | Q 2 | 114,117 | 122.85 | 58.75 | 9.92 | 947.46 | 41.15 | 65.07 | 83.33 | 110.40 | 147.32 | 194.65 | 327.33 |
| | Q 3 | 116,490 | 133.89 | 61.45 | 15.56 | 1052.73 | 48.81 | 73.05 | 92.33 | 120.70 | 159.55 | 209.92 | 346.40 |
| | Q 4 | 115,241 | 151.21 | 65.92 | 25.80 | 1179.56 | 58.89 | 85.53 | 106.72 | 137.16 | 179.40 | 233.15 | 379.71 |
| 6 | Q 1 | 113,626 | 110.16 | 54.26 | 4.10 | 838.68 | 22.90 | 53.13 | 74.25 | 101.02 | 135.02 | 175.90 | 293.63 |
| | Q 2 | 113,272 | 128.60 | 54.36 | 16.51 | 1127.69 | 48.32 | 73.26 | 91.90 | 117.76 | 152.67 | 196.03 | 314.25 |
| | Q 3 | 114,003 | 135.48 | 55.93 | 28.12 | 919.82 | 54.93 | 79.07 | 97.63 | 123.95 | 159.95 | 204.94 | 326.04 |
| | Q 4 | 114,998 | 144.22 | 59.28 | 28.66 | 934.45 | 60.59 | 85.41 | 104.58 | 132.09 | 169.14 | 216.45 | 350.94 |
| 7 | Q 1 | 111,787 | 91.51 | 45.75 | 3.17 | 959.78 | 18.01 | 42.80 | 60.93 | 84.22 | 113.21 | 147.10 | 240.98 |
| | Q 2 | 112,170 | 107.45 | 46.13 | 8.16 | 943.81 | 37.71 | 60.28 | 76.55 | 98.72 | 128.06 | 163.56 | 263.51 |
| | Q 3 | 112,326 | 116.80 | 48.31 | 14.33 | 1143.03 | 46.68 | 68.15 | 84.39 | 107.10 | 138.15 | 175.88 | 281.93 |
| | Q 4 | 112,678 | 128.46 | 49.79 | 28.48 | 1166.55 | 55.17 | 78.04 | 94.97 | 118.80 | 150.67 | 188.84 | 297.01 |
| 8 | Q 1 | 112,369 | 94.50 | 49.44 | 2.80 | 870.58 | 15.17 | 41.38 | 60.91 | 86.52 | 118.33 | 155.25 | 256.66 |
| | Q 2 | 112,179 | 115.23 | 50.57 | 6.05 | 988.99 | 38.14 | 62.59 | 80.88 | 105.92 | 138.88 | 177.76 | 283.70 |
| | Q 3 | 113,240 | 131.13 | 54.46 | 17.59 | 792.05 | 49.58 | 75.06 | 94.12 | 120.55 | 155.97 | 198.87 | 314.84 |
| | Q 4 | 112,754 | 149.25 | 59.39 | 29.95 | 1422.57 | 62.87 | 89.66 | 109.72 | 137.80 | 174.87 | 220.67 | 351.85 |
| 11 | Q 1 | 103,306 | 70.60 | 42.76 | 1.83 | 845.00 | 7.16 | 23.49 | 40.64 | 63.71 | 91.90 | 124.17 | 210.57 |
| | Q 2 | 105,193 | 92.84 | 43.58 | 4.08 | 758.27 | 23.40 | 46.74 | 63.43 | 85.74 | 113.32 | 146.09 | 237.59 |
| | Q 3 | 104,741 | 109.97 | 45.24 | 6.93 | 772.78 | 38.28 | 62.32 | 79.33 | 102.42 | 131.23 | 165.62 | 261.41 |
| | Q 4 | 104,441 | 131.43 | 46.75 | 19.60 | 911.35 | 55.47 | 82.45 | 100.71 | 123.88 | 152.51 | 187.89 | 286.86 |

**Table 8.H.3 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 | 117,200 | 68.69 | 37.43 | 2.00 | 638.49 | 13.46 | 29.34 | 42.93 | 61.89 | 86.28 | 115.41 | 192.18 |
| | Q 2 | 118,488 | 92.39 | 41.14 | 6.95 | 682.62 | 30.31 | 49.75 | 64.41 | 85.04 | 111.35 | 142.63 | 229.63 |
| | Q 3 | 117,146 | 102.09 | 41.32 | 14.41 | 639.13 | 40.33 | 59.54 | 74.19 | 94.50 | 120.72 | 152.34 | 242.42 |
| | Q 4 | 118,545 | 100.26 | 39.01 | 18.77 | 690.05 | 43.63 | 61.35 | 74.28 | 92.65 | 117.26 | 146.63 | 236.40 |
| 4 | Q 1 | 114,839 | 77.95 | 40.41 | 3.01 | 955.98 | 15.78 | 35.27 | 50.60 | 70.85 | 96.85 | 128.26 | 208.98 |
| | Q 2 | 115,611 | 99.92 | 42.87 | 1.10 | 771.21 | 34.83 | 55.71 | 71.06 | 92.16 | 119.74 | 152.00 | 242.60 |
| | Q 3 | 114,564 | 106.60 | 42.65 | 16.71 | 985.01 | 43.20 | 63.30 | 78.04 | 98.67 | 125.55 | 157.94 | 252.13 |
| | Q 4 | 116,482 | 103.56 | 39.95 | 2.09 | 836.07 | 45.75 | 63.49 | 76.95 | 95.88 | 121.08 | 151.24 | 240.44 |
| 5 | Q 1 | 114,277 | 81.57 | 39.87 | 0.15 | 565.18 | 17.66 | 39.36 | 55.05 | 74.89 | 100.21 | 130.67 | 214.47 |
| | Q 2 | 114,074 | 99.06 | 40.74 | 1.82 | 657.76 | 37.34 | 57.39 | 71.77 | 91.46 | 117.29 | 148.43 | 239.40 |
| | Q 3 | 115,848 | 102.61 | 39.71 | 16.11 | 747.86 | 43.62 | 62.33 | 75.90 | 95.16 | 120.20 | 150.36 | 238.74 |
| | Q 4 | 114,763 | 99.22 | 37.73 | 2.92 | 731.23 | 44.68 | 61.55 | 74.13 | 91.85 | 115.38 | 144.53 | 231.60 |
| 6 | Q 1 | 112,743 | 89.07 | 44.19 | 0.23 | 948.79 | 17.73 | 41.61 | 59.59 | 82.41 | 109.95 | 142.77 | 234.53 |
| | Q 2 | 113,493 | 109.40 | 45.40 | 2.47 | 1040.49 | 38.66 | 62.21 | 78.90 | 101.68 | 130.37 | 164.30 | 260.42 |
| | Q 3 | 114,339 | 114.95 | 44.53 | 17.52 | 779.50 | 47.43 | 69.10 | 84.90 | 106.79 | 135.34 | 169.03 | 267.54 |
| | Q 4 | 114,528 | 112.74 | 42.07 | 11.89 | 698.96 | 50.61 | 70.13 | 84.59 | 104.98 | 131.25 | 163.24 | 257.88 |
| 7 | Q 1 | 111,319 | 77.95 | 38.82 | 0.92 | 1003.92 | 14.27 | 35.84 | 51.94 | 72.31 | 96.77 | 125.18 | 202.11 |
| | Q 2 | 111,844 | 93.17 | 38.36 | 0.75 | 813.63 | 31.77 | 53.36 | 67.61 | 86.56 | 111.03 | 139.83 | 221.08 |
| | Q 3 | 112,459 | 97.16 | 36.01 | 2.79 | 685.90 | 41.04 | 59.82 | 73.03 | 90.79 | 113.85 | 140.58 | 218.20 |
| | Q 4 | 112,732 | 98.02 | 33.92 | 8.92 | 725.10 | 45.82 | 63.40 | 75.58 | 92.04 | 113.18 | 138.35 | 213.95 |
| 8 | Q 1 | 112,416 | 78.28 | 40.05 | 1.04 | 869.59 | 12.14 | 34.33 | 51.54 | 72.57 | 97.88 | 127.67 | 205.45 |
| | Q 2 | 112,256 | 95.61 | 38.94 | 7.83 | 906.57 | 32.57 | 54.51 | 69.43 | 89.17 | 114.33 | 143.34 | 222.90 |
| | Q 3 | 112,728 | 102.17 | 37.83 | 6.18 | 1091.59 | 43.02 | 62.95 | 76.80 | 95.48 | 119.84 | 148.39 | 228.43 |
| | Q 4 | 112,724 | 104.43 | 36.23 | 4.38 | 763.99 | 48.52 | 67.14 | 80.24 | 97.89 | 120.86 | 148.47 | 226.60 |
| 11 | Q 1 | 104,325 | 66.86 | 39.40 | 0.21 | 630.54 | 5.53 | 21.12 | 39.15 | 62.26 | 87.65 | 115.33 | 190.67 |
| | Q 2 | 104,535 | 89.23 | 36.57 | 3.14 | 515.24 | 26.90 | 49.42 | 64.94 | 84.09 | 106.87 | 133.68 | 208.99 |
| | Q 3 | 106,004 | 94.97 | 34.16 | 3.50 | 607.48 | 38.24 | 58.82 | 72.43 | 89.78 | 110.73 | 136.12 | 209.34 |
| | Q 4 | 105,359 | 93.84 | 30.51 | 4.12 | 595.91 | 44.85 | 62.79 | 74.27 | 88.86 | 106.88 | 129.51 | 198.34 |

**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 | 116,353 | 54.90 | 29.62 | 2.42 | 413.85 | 12.32 | 25.41 | 35.20 | 48.74 | 67.34 | 91.10 | 157.77 |
| | Q 2 | 117,965 | 65.83 | 31.91 | 4.15 | 520.88 | 23.34 | 35.24 | 44.56 | 58.51 | 78.63 | 105.00 | 178.54 |
| | Q 3 | 118,854 | 70.29 | 32.74 | 1.81 | 453.92 | 26.57 | 38.52 | 48.22 | 62.76 | 83.62 | 110.84 | 185.31 |
| | Q 4 | 119,112 | 74.15 | 33.74 | 6.34 | 608.14 | 29.20 | 41.56 | 51.53 | 66.51 | 87.99 | 115.50 | 192.95 |
| 4 | Q 1 | 113,870 | 56.47 | 30.26 | 1.25 | 568.62 | 12.24 | 26.52 | 36.71 | 50.34 | 68.90 | 92.96 | 161.89 |
| | Q 2 | 115,102 | 65.30 | 32.29 | 3.36 | 584.12 | 23.07 | 34.96 | 44.16 | 57.87 | 77.63 | 103.95 | 180.42 |
| | Q 3 | 116,890 | 71.97 | 34.37 | 0.23 | 735.53 | 27.11 | 39.41 | 49.25 | 64.07 | 85.48 | 113.41 | 192.32 |
| | Q 4 | 116,670 | 83.20 | 38.68 | 5.01 | 711.81 | 32.16 | 46.18 | 57.41 | 74.31 | 98.66 | 130.18 | 220.64 |
| 5 | Q 1 | 113,911 | 61.94 | 33.24 | 1.76 | 756.06 | 12.30 | 28.67 | 40.29 | 55.54 | 75.65 | 101.94 | 177.47 |
| | Q 2 | 114,117 | 71.81 | 34.28 | 5.02 | 631.13 | 24.34 | 38.58 | 49.09 | 64.39 | 85.59 | 113.22 | 191.26 |
| | Q 3 | 116,490 | 79.61 | 36.23 | 7.33 | 699.20 | 29.97 | 44.28 | 55.41 | 71.69 | 94.41 | 123.98 | 204.67 |
| | Q 4 | 115,241 | 92.41 | 39.51 | 14.00 | 981.34 | 37.55 | 53.37 | 65.79 | 83.91 | 109.27 | 141.47 | 228.08 |
| 6 | Q 1 | 113,626 | 70.73 | 35.87 | 0.39 | 573.21 | 13.05 | 32.68 | 47.10 | 64.90 | 87.28 | 113.99 | 190.33 |
| | Q 2 | 113,272 | 82.64 | 35.38 | 4.29 | 747.13 | 30.25 | 46.84 | 58.87 | 75.65 | 98.31 | 126.17 | 202.49 |
| | Q 3 | 114,003 | 86.54 | 35.94 | 1.52 | 815.81 | 35.07 | 50.65 | 62.45 | 79.26 | 102.23 | 130.42 | 209.35 |
| | Q 4 | 114,998 | 92.10 | 37.33 | 17.72 | 649.27 | 38.65 | 54.70 | 67.03 | 84.63 | 108.19 | 137.44 | 219.73 |
| 7 | Q 1 | 111,787 | 67.80 | 34.93 | 1.97 | 861.05 | 10.84 | 29.83 | 44.53 | 62.69 | 84.67 | 110.22 | 179.84 |
| | Q 2 | 112,170 | 80.15 | 34.43 | 5.82 | 870.94 | 26.58 | 44.72 | 57.23 | 73.99 | 95.65 | 122.18 | 195.45 |
| | Q 3 | 112,326 | 87.37 | 35.75 | 11.31 | 936.38 | 34.40 | 51.18 | 63.46 | 80.44 | 103.35 | 130.97 | 208.36 |
| | Q 4 | 112,678 | 96.50 | 37.01 | 12.90 | 896.91 | 41.43 | 59.07 | 71.87 | 89.36 | 112.91 | 141.45 | 221.10 |
| 8 | Q 1 | 112,369 | 65.86 | 35.33 | 1.73 | 645.31 | 8.81 | 27.13 | 42.01 | 60.74 | 83.10 | 108.94 | 180.63 |
| | Q 2 | 112,179 | 80.65 | 35.31 | 3.77 | 811.68 | 25.38 | 43.62 | 56.93 | 74.42 | 97.03 | 124.18 | 198.03 |
| | Q 3 | 113,240 | 91.76 | 37.51 | 13.60 | 592.77 | 34.30 | 53.14 | 66.48 | 84.83 | 108.90 | 138.03 | 218.90 |
| | Q 4 | 112,754 | 104.14 | 40.77 | 1.99 | 973.51 | 43.77 | 63.03 | 77.02 | 96.31 | 122.13 | 153.36 | 241.80 |
| 11 | Q 1 | 103,306 | 48.68 | 30.03 | 1.00 | 403.12 | 4.65 | 14.76 | 27.35 | 44.33 | 64.22 | 85.91 | 146.34 |
| | Q 2 | 105,193 | 64.41 | 29.95 | 0.23 | 467.63 | 15.16 | 32.33 | 44.36 | 59.98 | 78.70 | 100.17 | 162.08 |
| | Q 3 | 104,741 | 75.66 | 30.64 | 0.28 | 555.52 | 25.69 | 43.29 | 55.25 | 70.76 | 90.02 | 112.39 | 178.06 |
| | Q 4 | 104,441 | 92.40 | 33.03 | 10.56 | 596.21 | 38.31 | 57.96 | 71.08 | 87.35 | 106.81 | 131.59 | 205.16 |

**Table 8.H.5 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 | 41,687 | 72.18 | 55.97 | 0.12 | 592.23 | 4.51 | 17.84 | 32.29 | 57.86 | 96.71 | 144.14 | 269.14 |
| | | | Q 2 | 42,377 | 86.65 | 57.61 | 0.18 | 597.02 | 11.69 | 28.83 | 45.68 | 73.31 | 113.41 | 160.22 | 281.87 |
| | | | Q 3 | 42,247 | 93.49 | 57.31 | 0.09 | 794.44 | 15.96 | 35.44 | 52.98 | 80.89 | 119.83 | 167.25 | 285.27 |
| | | | Q 4 | 42,161 | 99.51 | 56.05 | 1.51 | 613.23 | 21.51 | 42.24 | 60.17 | 87.75 | 125.84 | 170.42 | 290.46 |
| | PT2 | 5 | Q 1 | 41,934 | 73.82 | 56.98 | 0.19 | 862.47 | 4.53 | 18.04 | 33.04 | 59.54 | 99.73 | 147.86 | 268.47 |
| | | | Q 2 | 42,139 | 87.81 | 57.46 | 0.10 | 921.81 | 10.89 | 28.95 | 46.59 | 75.47 | 114.51 | 162.34 | 280.52 |
| | | | Q 3 | 41,699 | 94.02 | 57.54 | 0.92 | 724.25 | 16.00 | 35.61 | 53.21 | 81.76 | 120.76 | 165.89 | 288.92 |
| | | | Q 4 | 42,459 | 99.02 | 56.53 | 0.54 | 841.01 | 21.15 | 42.01 | 59.72 | 87.54 | 124.61 | 168.30 | 290.42 |
| | PT3 | 4 | Q 1 | 33,293 | 74.19 | 57.33 | 0.12 | 783.16 | 4.62 | 18.01 | 32.50 | 59.91 | 100.53 | 147.86 | 274.77 |
| | | | Q 2 | 33,976 | 89.49 | 60.03 | 0.29 | 1199.75 | 11.43 | 28.76 | 46.53 | 76.66 | 117.11 | 165.79 | 290.33 |
| | | | Q 3 | 33,379 | 97.90 | 59.94 | 0.24 | 766.97 | 16.36 | 36.27 | 55.23 | 85.55 | 126.35 | 174.27 | 303.78 |
| | | | Q 4 | 34,028 | 103.63 | 58.17 | 0.21 | 746.16 | 22.41 | 44.07 | 62.77 | 92.08 | 130.44 | 176.82 | 299.44 |
| 4 | PT1 | 4 | Q 1 | 24,114 | 81.03 | 60.93 | 0.66 | 885.51 | 5.84 | 20.81 | 37.17 | 66.26 | 109.05 | 158.59 | 287.59 |
| | | | Q 2 | 24,182 | 97.34 | 61.42 | 0.24 | 749.02 | 14.24 | 35.12 | 53.71 | 84.55 | 126.44 | 174.33 | 299.98 |
| | | | Q 3 | 24,161 | 102.81 | 60.16 | 0.21 | 885.02 | 21.04 | 41.71 | 60.81 | 90.68 | 130.37 | 177.91 | 308.63 |
| | | | Q 4 | 24,558 | 107.31 | 57.73 | 0.22 | 690.50 | 27.00 | 49.08 | 67.46 | 95.96 | 132.87 | 177.83 | 302.43 |
| | PT2 | 5 | Q 1 | 30,390 | 84.01 | 62.75 | 0.36 | 815.58 | 5.97 | 22.02 | 39.19 | 69.32 | 112.77 | 163.15 | 293.28 |
| | | | Q 2 | 30,082 | 102.71 | 64.71 | 0.55 | 771.72 | 15.43 | 36.97 | 56.56 | 88.46 | 133.11 | 185.51 | 323.17 |
| | | | Q 3 | 30,483 | 109.10 | 64.29 | 1.29 | 877.46 | 20.85 | 44.46 | 64.81 | 95.78 | 137.57 | 189.41 | 324.22 |
| | | | Q 4 | 30,788 | 115.94 | 61.52 | 0.24 | 805.94 | 28.74 | 52.99 | 73.30 | 103.79 | 144.12 | 193.33 | 327.29 |
| | PT3 | 5 | Q 1 | 30,236 | 79.16 | 61.06 | 0.18 | 680.66 | 5.28 | 19.97 | 36.03 | 63.92 | 105.56 | 156.20 | 294.06 |
| | | | Q 2 | 30,230 | 96.13 | 61.99 | 1.02 | 761.51 | 14.39 | 34.24 | 52.76 | 82.31 | 123.50 | 174.87 | 316.17 |
| | | | Q 3 | 30,215 | 101.47 | 60.83 | 2.86 | 759.18 | 19.50 | 40.74 | 59.78 | 88.21 | 128.12 | 177.12 | 314.15 |
| | | | Q 4 | 30,692 | 107.20 | 58.61 | 0.95 | 743.47 | 26.63 | 48.50 | 66.86 | 94.13 | 133.15 | 180.48 | 310.61 |
| | PT4 | 5 | Q 1 | 30,068 | 75.38 | 55.83 | 0.15 | 675.26 | 4.93 | 19.67 | 34.50 | 61.42 | 102.44 | 149.29 | 257.35 |
| | | | Q 2 | 30,489 | 90.80 | 57.05 | 0.50 | 741.25 | 13.64 | 32.33 | 49.76 | 77.54 | 119.24 | 165.74 | 274.68 |
| | | | Q 3 | 30,143 | 96.04 | 56.86 | 1.76 | 699.35 | 18.29 | 38.59 | 55.83 | 83.15 | 123.19 | 167.91 | 290.95 |
| | | | Q 4 | 30,665 | 100.37 | 53.89 | 1.49 | 689.56 | 24.63 | 45.76 | 62.61 | 88.74 | 125.45 | 168.81 | 284.52 |

| 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 | 28,594 | 79.51 | 57.21 | 0.17 | 640.02 | 6.29 | 22.52 | 38.70 | 65.74 | 105.23 | 155.18 | 271.69 |
| | | | Q 2 | 28,472 | 95.45 | 56.93 | 0.26 | 686.44 | 17.13 | 37.06 | 54.79 | 82.93 | 122.62 | 169.82 | 284.24 |
| | | | Q 3 | 28,730 | 99.44 | 56.31 | 0.23 | 732.51 | 20.42 | 41.90 | 59.96 | 86.97 | 126.15 | 172.34 | 284.19 |
| | | | Q 4 | 28,926 | 105.24 | 55.93 | 1.01 | 711.82 | 26.00 | 48.73 | 66.53 | 93.42 | 130.74 | 175.81 | 296.89 |
| | PT2 | 5 | Q 1 | 28,526 | 84.83 | 61.37 | 0.10 | 909.65 | 5.81 | 23.89 | 41.17 | 70.39 | 112.69 | 163.08 | 290.50 |
| | | | Q 2 | 28,632 | 103.70 | 62.17 | 0.12 | 800.51 | 17.33 | 40.09 | 59.86 | 90.42 | 132.94 | 183.52 | 307.18 |
| | | | Q 3 | 28,977 | 110.34 | 62.45 | 1.62 | 1028.76 | 23.05 | 47.12 | 67.21 | 97.10 | 139.05 | 187.89 | 319.01 |
| | | | Q 4 | 28,783 | 118.50 | 62.42 | 1.88 | 1266.90 | 30.81 | 55.85 | 76.31 | 105.88 | 145.81 | 193.58 | 330.55 |
| | PT3 | 5 | Q 1 | 28,320 | 83.69 | 61.69 | 0.09 | 716.50 | 6.07 | 23.51 | 40.27 | 69.13 | 111.01 | 160.19 | 300.66 |
| | | | Q 2 | 29,004 | 101.11 | 62.54 | 0.65 | 1121.06 | 17.22 | 38.42 | 57.78 | 87.74 | 128.41 | 177.63 | 323.21 |
| | | | Q 3 | 28,586 | 105.77 | 60.43 | 0.41 | 722.26 | 23.11 | 44.95 | 64.34 | 92.56 | 132.73 | 181.23 | 316.78 |
| | | | Q 4 | 28,885 | 110.89 | 58.35 | 1.64 | 703.86 | 29.13 | 52.75 | 71.41 | 98.39 | 136.41 | 182.95 | 310.12 |
| | PT4 | 5 | Q 1 | 28,455 | 80.69 | 57.05 | 0.16 | 542.41 | 6.56 | 24.19 | 40.29 | 66.86 | 106.58 | 153.51 | 280.21 |
| | | | Q 2 | 28,725 | 96.36 | 57.67 | 0.24 | 581.10 | 16.92 | 37.40 | 55.66 | 83.84 | 123.39 | 169.55 | 294.05 |
| | | | Q 3 | 28,419 | 101.18 | 56.25 | 0.40 | 806.86 | 21.84 | 43.54 | 62.23 | 89.79 | 126.87 | 171.26 | 292.85 |
| | | | Q 4 | 28,928 | 106.05 | 54.80 | 1.08 | 763.25 | 28.08 | 50.34 | 68.77 | 95.42 | 130.22 | 173.27 | 293.03 |
| 6 | PT1 | 5 | Q 1 | 40,543 | 78.06 | 56.82 | 0.19 | 704.28 | 4.98 | 22.05 | 38.86 | 64.39 | 102.58 | 150.80 | 273.28 |
| | | | Q 2 | 40,620 | 97.51 | 57.68 | 0.40 | 802.15 | 16.56 | 39.38 | 57.71 | 85.07 | 123.70 | 170.15 | 292.94 |
| | | | Q 3 | 40,518 | 107.44 | 58.40 | 0.99 | 730.68 | 25.06 | 48.62 | 67.43 | 95.32 | 133.65 | 179.55 | 308.56 |
| | | | Q 4 | 41,118 | 119.13 | 61.34 | 0.04 | 1095.84 | 32.33 | 58.52 | 78.37 | 107.07 | 144.81 | 192.27 | 332.13 |
| | PT2 | 5 | Q 1 | 40,485 | 79.00 | 59.06 | 0.10 | 1009.45 | 4.95 | 22.16 | 39.03 | 65.18 | 102.79 | 150.41 | 293.73 |
| | | | Q 2 | 40,487 | 98.59 | 61.44 | 0.31 | 1076.65 | 16.63 | 39.43 | 57.66 | 85.35 | 124.18 | 171.38 | 312.76 |
| | | | Q 3 | 40,397 | 107.26 | 61.49 | 1.08 | 1075.15 | 24.07 | 47.53 | 66.39 | 93.86 | 132.16 | 180.88 | 323.32 |
| | | | Q 4 | 40,804 | 116.83 | 61.69 | 0.21 | 1315.83 | 32.21 | 56.74 | 76.19 | 103.89 | 142.02 | 189.61 | 330.97 |
| | PT3 | 4 | Q 1 | 32,485 | 76.69 | 57.27 | 0.31 | 678.27 | 5.12 | 21.84 | 37.62 | 62.34 | 100.04 | 148.63 | 280.47 |
| | | | Q 2 | 32,152 | 96.31 | 60.12 | 0.06 | 793.39 | 16.18 | 37.49 | 55.12 | 82.47 | 122.83 | 170.83 | 304.81 |
| | | | Q 3 | 32,894 | 104.12 | 59.57 | 0.50 | 754.52 | 22.40 | 45.16 | 63.37 | 91.06 | 130.22 | 177.12 | 307.53 |
| | | | Q 4 | 32,600 | 113.07 | 59.63 | 2.60 | 1009.24 | 31.62 | 54.87 | 73.41 | 100.10 | 137.77 | 184.36 | 317.17 |

| 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 | 29,319 | 69.55 | 51.30 | 0.12 | 544.95 | 3.50 | 18.45 | 33.75 | 57.56 | 92.16 | 133.92 | 252.33 |
| | | | Q 2 | 29,635 | 87.41 | 52.19 | 0.65 | 855.36 | 13.42 | 34.14 | 51.71 | 76.53 | 111.20 | 152.12 | 265.37 |
| | | | Q 3 | 29,561 | 98.63 | 53.13 | 0.17 | 691.72 | 20.56 | 44.58 | 62.45 | 87.79 | 123.35 | 164.15 | 277.59 |
| | | | Q 4 | 29,668 | 110.48 | 53.45 | 0.15 | 706.20 | 30.10 | 56.66 | 74.90 | 99.69 | 134.42 | 175.48 | 293.58 |
| | PT2 | 4 | Q 1 | 23,481 | 68.37 | 52.29 | 0.13 | 592.77 | 4.35 | 19.43 | 33.95 | 56.40 | 87.04 | 129.77 | 262.31 |
| | | | Q 2 | 23,463 | 84.66 | 52.28 | 0.73 | 903.16 | 14.57 | 34.07 | 50.03 | 72.98 | 105.44 | 147.44 | 272.97 |
| | | | Q 3 | 23,375 | 92.65 | 49.20 | 0.69 | 629.75 | 21.99 | 43.15 | 59.54 | 82.45 | 113.73 | 153.97 | 262.34 |
| | | | Q 4 | 23,727 | 105.28 | 49.43 | 0.06 | 657.14 | 31.32 | 54.91 | 71.97 | 95.77 | 126.76 | 165.79 | 273.23 |
| | PT3 | 5 | Q 1 | 29,332 | 71.48 | 51.58 | 0.06 | 796.01 | 4.41 | 20.08 | 35.44 | 59.79 | 93.87 | 136.69 | 247.55 |
| | | | Q 2 | 29,456 | 88.52 | 53.36 | 0.14 | 790.31 | 13.67 | 34.92 | 52.36 | 77.42 | 112.55 | 153.36 | 265.43 |
| | | | Q 3 | 29,558 | 97.65 | 51.97 | 1.23 | 817.15 | 21.76 | 44.78 | 62.37 | 87.26 | 121.33 | 160.82 | 270.85 |
| | | | Q 4 | 29,540 | 109.68 | 54.65 | 0.04 | 865.88 | 31.01 | 56.27 | 74.28 | 98.55 | 132.47 | 173.62 | 302.60 |
| | PT4 | 5 | Q 1 | 29,257 | 62.20 | 48.19 | 0.29 | 841.83 | 3.29 | 16.11 | 29.33 | 50.90 | 81.48 | 120.92 | 233.61 |
| | | | Q 2 | 29,584 | 79.75 | 49.62 | 0.22 | 599.04 | 11.44 | 30.28 | 46.04 | 68.92 | 100.68 | 141.33 | 252.72 |
| | | | Q 3 | 29,513 | 89.62 | 50.17 | 0.46 | 781.85 | 18.65 | 39.81 | 56.30 | 79.22 | 110.76 | 150.99 | 262.25 |
| | | | Q 4 | 29,885 | 102.14 | 50.45 | 4.36 | 1115.31 | 29.36 | 52.06 | 68.99 | 92.29 | 123.67 | 162.36 | 274.51 |
| 8 | PT1 | 5 | Q 1 | 26,697 | 64.72 | 48.60 | 0.31 | 579.65 | 3.15 | 17.14 | 31.55 | 53.73 | 84.88 | 124.92 | 240.35 |
| | | | Q 2 | 26,517 | 83.59 | 49.37 | 0.24 | 620.35 | 13.75 | 33.89 | 49.97 | 73.36 | 105.61 | 144.27 | 255.82 |
| | | | Q 3 | 26,949 | 91.89 | 48.74 | 0.87 | 769.92 | 20.95 | 42.56 | 59.22 | 81.91 | 113.33 | 151.34 | 255.47 |
| | | | Q 4 | 27,111 | 104.15 | 49.79 | 0.45 | 852.73 | 30.36 | 54.14 | 71.49 | 94.44 | 126.11 | 164.79 | 273.21 |
| | PT2 | 5 | Q 1 | 26,742 | 70.79 | 49.82 | 0.21 | 798.52 | 4.38 | 20.11 | 36.08 | 60.18 | 92.69 | 133.55 | 239.37 |
| | | | Q 2 | 26,571 | 90.61 | 51.05 | 0.39 | 711.27 | 15.54 | 37.94 | 55.78 | 80.67 | 114.50 | 153.74 | 262.97 |
| | | | Q 3 | 26,869 | 100.59 | 50.39 | 1.19 | 794.94 | 23.80 | 48.30 | 66.74 | 91.10 | 124.23 | 162.17 | 269.63 |
| | | | Q 4 | 27,039 | 113.53 | 50.99 | 5.73 | 899.59 | 35.00 | 61.30 | 79.77 | 104.23 | 136.73 | 174.82 | 285.60 |
| | PT3 | 5 | Q 1 | 26,530 | 66.92 | 49.26 | 0.33 | 809.59 | 3.73 | 18.39 | 33.41 | 56.15 | 87.74 | 128.22 | 231.35 |
| | | | Q 2 | 26,643 | 85.79 | 50.48 | 0.08 | 870.42 | 13.47 | 34.90 | 51.61 | 75.76 | 108.00 | 147.35 | 265.41 |
| | | | Q 3 | 26,955 | 95.38 | 51.10 | 0.16 | 700.32 | 21.53 | 44.37 | 61.32 | 85.11 | 117.54 | 156.96 | 273.31 |
| | | | Q 4 | 26,932 | 108.06 | 52.20 | 0.15 | 787.37 | 31.82 | 55.90 | 73.29 | 97.19 | 130.76 | 172.42 | 286.69 |
| | PT4 | 4 | Q 1 | 21,288 | 69.08 | 50.41 | 0.15 | 589.46 | 3.07 | 18.11 | 34.37 | 58.20 | 90.70 | 132.18 | 238.61 |
| | | | Q 2 | 21,407 | 91.97 | 54.70 | 0.39 | 678.34 | 14.85 | 36.67 | 54.76 | 80.83 | 116.39 | 159.88 | 281.87 |
| | | | Q 3 | 21,532 | 103.61 | 55.98 | 0.22 | 749.24 | 22.72 | 48.36 | 66.96 | 92.23 | 127.15 | 169.60 | 304.04 |
| | | | Q 4 | 21,546 | 115.60 | 55.97 | 1.47 | 646.21 | 34.54 | 59.95 | 78.54 | 104.24 | 139.76 | 182.83 | 314.91 |
| | PT5 | 2 | Q 1 | 10,564 | 66.42 | 49.54 | 0.16 | 613.53 | 3.48 | 17.54 | 32.15 | 55.74 | 86.40 | 128.52 | 243.64 |
| | | | Q 2 | 10,732 | 84.71 | 50.08 | 0.12 | 558.99 | 11.86 | 33.06 | 49.97 | 74.52 | 106.80 | 149.46 | 255.49 |

| 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 | 10,713 | 95.43 | 51.13 | 0.10 | 733.50 | 20.76 | 42.87 | 61.27 | 84.68 | 117.85 | 160.39 | 269.15 |
| | | | Q 4 | 10,787 | 104.48 | 50.43 | 0.11 | 599.27 | 29.49 | 52.83 | 70.59 | 93.95 | 127.55 | 166.49 | 271.31 |
| 11 | PT1 | 5 | Q 1 | 21,965 | 55.50 | 44.58 | 0.18 | 587.84 | 1.27 | 9.66 | 23.25 | 46.29 | 77.03 | 108.95 | 210.62 |
| | | | Q 2 | 22,280 | 83.17 | 49.30 | 0.10 | 586.07 | 7.49 | 30.75 | 49.45 | 75.32 | 105.45 | 142.76 | 251.23 |
| | | | Q 3 | 22,165 | 99.04 | 52.43 | 0.43 | 869.14 | 16.88 | 45.37 | 65.39 | 90.34 | 121.47 | 160.80 | 278.99 |
| | | | Q 4 | 22,199 | 109.60 | 50.77 | 0.73 | 716.64 | 33.27 | 59.49 | 77.25 | 99.80 | 129.77 | 169.15 | 295.40 |
| | PT2 | 4 | Q 1 | 17,194 | 48.00 | 37.70 | 0.03 | 345.46 | 1.01 | 8.00 | 20.40 | 40.29 | 66.47 | 95.14 | 178.68 |
| | | | Q 2 | 17,422 | 74.34 | 43.06 | 0.05 | 806.45 | 7.08 | 28.54 | 45.14 | 67.87 | 94.25 | 126.22 | 217.03 |
| | | | Q 3 | 17,297 | 87.80 | 44.17 | 0.05 | 625.00 | 16.09 | 41.47 | 58.84 | 81.34 | 105.81 | 141.49 | 239.82 |
| | | | Q 4 | 17,341 | 94.87 | 44.40 | 0.08 | 607.12 | 27.04 | 50.74 | 67.36 | 87.38 | 110.38 | 146.13 | 251.64 |
| | PT3 | 5 | Q 1 | 22,078 | 55.47 | 44.77 | 0.08 | 588.91 | 1.20 | 9.66 | 22.88 | 45.53 | 77.12 | 112.06 | 204.00 |
| | | | Q 2 | 22,021 | 80.89 | 47.26 | 0.15 | 1375.38 | 8.05 | 30.61 | 48.97 | 73.77 | 103.01 | 137.52 | 234.35 |
| | | | Q 3 | 22,049 | 93.40 | 47.42 | 0.29 | 765.65 | 18.19 | 43.78 | 62.30 | 85.78 | 113.80 | 150.57 | 254.98 |
| | | | Q 4 | 22,326 | 100.14 | 45.09 | 0.46 | 872.64 | 29.76 | 54.65 | 72.01 | 92.75 | 117.45 | 152.64 | 254.22 |
| | PT4 | 5 | Q 1 | 21,765 | 53.84 | 42.31 | 0.06 | 467.44 | 1.32 | 9.64 | 22.85 | 44.90 | 74.37 | 106.42 | 195.00 |
| | | | Q 2 | 21,992 | 78.31 | 45.85 | 0.09 | 556.71 | 7.36 | 29.04 | 46.98 | 70.90 | 100.13 | 134.77 | 230.29 |
| | | | Q 3 | 21,775 | 91.27 | 47.40 | 0.12 | 713.72 | 16.06 | 42.19 | 59.76 | 83.53 | 111.98 | 148.81 | 255.96 |
| | | | Q 4 | 22,154 | 100.43 | 47.37 | 0.40 | 836.02 | 28.02 | 53.49 | 70.60 | 92.25 | 118.79 | 154.36 | 273.71 |
| | PT5 | 5 | Q 1 | 21,539 | 57.46 | 44.34 | 0.08 | 851.83 | 1.44 | 11.12 | 25.06 | 48.15 | 79.13 | 113.65 | 202.33 |
| | | | Q 2 | 21,545 | 83.52 | 48.50 | 0.17 | 694.46 | 8.48 | 31.54 | 50.06 | 75.91 | 105.62 | 144.53 | 241.33 |
| | | | Q 3 | 21,289 | 95.70 | 49.24 | 0.05 | 603.89 | 16.28 | 43.73 | 63.52 | 87.52 | 117.39 | 156.28 | 261.05 |
| | | | Q 4 | 21,827 | 103.17 | 47.68 | 0.38 | 712.82 | 29.12 | 55.58 | 73.18 | 94.75 | 122.32 | 159.11 | 279.83 |

**Table 8.H.6 PT Testing Time (in Minutes) at Each Ability Level, Mathematics**

| | | | | Descriptive Statistics | | | | | Percentile Points | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | PT Set | Number of Items | Ability Level | N | Mean | SD | Min | Max | 1 | 10 | 25 | 50 | 75 | 90 | 99 |
| 3 | PT1 | 4 | Q 1 | 26,293 | 31.54 | 23.34 | 0.06 | 371.65 | 2.92 | 10.24 | 16.18 | 25.70 | 40.01 | 59.89 | 115.19 |
| | | | Q 2 | 26,052 | 36.22 | 24.34 | 0.06 | 411.59 | 5.39 | 13.77 | 20.48 | 30.48 | 45.17 | 64.81 | 125.40 |
| | | | Q 3 | 26,280 | 37.52 | 23.47 | 0.06 | 464.25 | 6.91 | 15.65 | 22.26 | 31.99 | 46.54 | 65.00 | 120.51 |
| | | | Q 4 | 26,684 | 36.00 | 21.43 | 0.05 | 406.90 | 7.64 | 16.25 | 22.17 | 31.17 | 44.08 | 60.66 | 111.82 |
| | PT2 | 6 | Q 1 | 39,188 | 30.74 | 21.51 | 0.05 | 371.37 | 3.12 | 10.69 | 16.80 | 25.67 | 38.77 | 56.29 | 107.68 |
| | | | Q 2 | 39,136 | 33.49 | 21.26 | 0.05 | 344.81 | 5.79 | 13.68 | 19.49 | 28.39 | 41.39 | 59.22 | 109.20 |
| | | | Q 3 | 39,494 | 34.34 | 21.31 | 0.05 | 542.06 | 6.65 | 14.39 | 20.32 | 29.37 | 42.57 | 60.31 | 108.17 |
| | | | Q 4 | 39,400 | 33.77 | 20.05 | 0.06 | 478.34 | 7.51 | 15.02 | 20.55 | 29.19 | 41.61 | 57.88 | 105.67 |
| | PT3 | 4 | Q 1 | 25,976 | 39.83 | 27.55 | 0.10 | 565.98 | 3.42 | 13.50 | 21.88 | 33.76 | 50.61 | 73.09 | 139.27 |
| | | | Q 2 | 25,894 | 45.30 | 27.01 | 0.05 | 402.88 | 6.95 | 19.57 | 27.44 | 39.33 | 55.90 | 78.11 | 142.04 |
| | | | Q 3 | 26,558 | 45.55 | 25.38 | 0.06 | 302.84 | 8.41 | 21.19 | 28.88 | 39.88 | 55.80 | 76.68 | 134.79 |
| | | | Q 4 | 26,202 | 45.38 | 23.94 | 0.08 | 383.29 | 10.20 | 22.29 | 29.47 | 40.18 | 55.20 | 74.45 | 130.62 |
| | PT4 | 4 | Q 1 | 26,139 | 38.39 | 27.71 | 0.04 | 391.42 | 3.56 | 12.93 | 20.70 | 31.69 | 48.63 | 70.59 | 139.21 |
| | | | Q 2 | 26,287 | 42.74 | 27.87 | 0.10 | 406.66 | 6.68 | 17.60 | 24.89 | 36.11 | 52.92 | 75.14 | 142.13 |
| | | | Q 3 | 26,175 | 43.15 | 26.36 | 0.05 | 380.15 | 8.13 | 18.47 | 25.84 | 37.02 | 53.24 | 74.76 | 137.82 |
| | | | Q 4 | 26,526 | 42.37 | 24.60 | 0.06 | 389.37 | 8.84 | 19.17 | 26.24 | 36.54 | 51.81 | 72.49 | 129.38 |
| 4 | PT1 | 6 | Q 1 | 36,388 | 35.41 | 24.51 | 0.06 | 495.43 | 2.90 | 12.44 | 19.81 | 30.11 | 44.66 | 63.64 | 122.37 |
| | | | Q 2 | 36,068 | 39.31 | 24.07 | 0.06 | 435.75 | 5.79 | 16.94 | 23.76 | 33.93 | 48.61 | 67.65 | 126.01 |
| | | | Q 3 | 36,896 | 40.60 | 23.68 | 0.06 | 418.14 | 7.69 | 18.34 | 25.12 | 35.36 | 49.88 | 68.60 | 126.28 |
| | | | Q 4 | 36,659 | 39.99 | 22.58 | 0.07 | 473.30 | 8.07 | 18.42 | 25.11 | 35.03 | 48.86 | 67.42 | 122.83 |
| | PT2 | 5 | Q 1 | 30,387 | 32.40 | 22.25 | 0.05 | 459.98 | 3.28 | 11.56 | 17.91 | 27.23 | 40.66 | 59.03 | 111.35 |
| | | | Q 2 | 30,049 | 34.95 | 21.74 | 0.04 | 304.35 | 5.43 | 14.63 | 20.66 | 29.70 | 43.27 | 61.64 | 112.59 |
| | | | Q 3 | 30,572 | 35.10 | 21.24 | 0.04 | 295.70 | 6.65 | 15.32 | 21.31 | 30.01 | 43.08 | 60.79 | 110.34 |
| | | | Q 4 | 30,827 | 34.46 | 20.09 | 0.12 | 379.67 | 8.08 | 15.85 | 21.60 | 29.82 | 41.79 | 57.67 | 107.89 |
| | PT3 | 4 | Q 1 | 24,190 | 32.24 | 23.34 | 0.03 | 501.32 | 2.92 | 11.15 | 17.51 | 26.78 | 40.37 | 59.02 | 115.96 |
| | | | Q 2 | 24,193 | 34.76 | 22.46 | 0.05 | 315.36 | 6.25 | 14.57 | 20.31 | 29.15 | 42.83 | 61.36 | 116.93 |
| | | | Q 3 | 24,513 | 33.67 | 20.71 | 0.07 | 295.42 | 6.95 | 14.41 | 19.88 | 28.51 | 41.89 | 59.09 | 107.46 |
| | | | Q 4 | 24,547 | 31.01 | 19.11 | 0.04 | 300.48 | 6.90 | 13.17 | 18.29 | 26.31 | 38.44 | 54.66 | 97.84 |
| | PT4 | 4 | Q 1 | 24,193 | 29.85 | 20.98 | 0.07 | 403.05 | 2.84 | 10.46 | 16.30 | 24.84 | 37.44 | 54.98 | 104.97 |
| | | | Q 2 | 24,146 | 32.50 | 21.45 | 0.04 | 352.15 | 5.47 | 13.10 | 18.59 | 27.20 | 40.17 | 58.11 | 111.26 |
| | | | Q 3 | 24,430 | 32.06 | 22.15 | 0.09 | 831.70 | 6.06 | 12.98 | 18.18 | 26.55 | 39.23 | 57.10 | 112.72 |
| | | | Q 4 | 24,474 | 29.74 | 19.70 | 0.10 | 259.34 | 6.26 | 12.20 | 16.90 | 24.74 | 36.60 | 52.88 | 100.42 |

| | | | | Descriptive Statistics | | | | | Percentile Points | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | PT Set | Number of Items | Ability Level | N | Mean | SD | Min | Max | 1 | 10 | 25 | 50 | 75 | 90 | 99 |
| 5 | PT1 | 4 | Q 1 | 30,466 | 44.37 | 29.47 | 0.04 | 532.25 | 3.26 | 15.28 | 25.22 | 38.26 | 56.57 | 79.20 | 146.78 |
| | | | Q 2 | 30,723 | 52.16 | 31.27 | 0.05 | 440.84 | 6.42 | 22.22 | 31.97 | 45.75 | 64.65 | 88.27 | 163.10 |
| | | | Q 3 | 30,467 | 56.16 | 33.00 | 0.05 | 504.28 | 7.61 | 24.69 | 34.87 | 49.15 | 69.16 | 94.96 | 171.53 |
| | | | Q 4 | 30,916 | 61.93 | 34.92 | 0.09 | 536.43 | 9.91 | 28.91 | 39.55 | 54.79 | 75.64 | 102.33 | 186.89 |
| | PT2 | 3 | Q 1 | 22,765 | 32.83 | 21.95 | 0.05 | 306.78 | 3.50 | 11.97 | 18.46 | 27.90 | 41.25 | 58.80 | 111.08 |
| | | | Q 2 | 23,040 | 36.74 | 23.04 | 0.06 | 344.97 | 5.20 | 15.13 | 21.45 | 31.36 | 45.98 | 64.37 | 116.73 |
| | | | Q 3 | 22,724 | 37.33 | 22.81 | 0.05 | 305.34 | 6.60 | 15.99 | 22.36 | 31.96 | 46.52 | 64.33 | 117.91 |
| | | | Q 4 | 23,257 | 36.82 | 21.61 | 0.09 | 336.46 | 7.23 | 16.43 | 22.61 | 31.74 | 45.58 | 62.59 | 114.24 |
| | PT3 | 4 | Q 1 | 30,594 | 45.49 | 32.78 | 0.05 | 607.38 | 3.55 | 15.29 | 24.58 | 37.96 | 57.42 | 83.01 | 164.09 |
| | | | Q 2 | 30,745 | 53.62 | 36.09 | 0.06 | 708.62 | 6.79 | 21.16 | 30.77 | 45.26 | 66.15 | 94.11 | 185.92 |
| | | | Q 3 | 30,601 | 58.00 | 36.89 | 0.06 | 462.27 | 7.43 | 23.51 | 34.12 | 49.67 | 71.55 | 101.18 | 191.92 |
| | | | Q 4 | 30,754 | 66.98 | 39.98 | 0.06 | 847.35 | 10.27 | 29.35 | 41.23 | 58.07 | 81.70 | 114.59 | 211.92 |
| | PT4 | 4 | Q 1 | 30,385 | 52.04 | 32.41 | 0.05 | 646.61 | 4.38 | 19.17 | 30.91 | 45.92 | 65.61 | 91.13 | 165.31 |
| | | | Q 2 | 30,603 | 58.01 | 33.16 | 0.05 | 469.06 | 8.37 | 25.61 | 36.02 | 51.24 | 71.92 | 98.15 | 173.09 |
| | | | Q 3 | 30,908 | 61.60 | 34.32 | 0.08 | 428.56 | 9.65 | 28.25 | 39.03 | 54.49 | 75.78 | 103.14 | 178.46 |
| | | | Q 4 | 30,811 | 64.40 | 35.06 | 0.05 | 471.13 | 10.08 | 30.77 | 41.38 | 56.93 | 78.74 | 106.63 | 187.29 |
| 6 | PT1 | 6 | Q 1 | 37,861 | 38.80 | 24.99 | 0.05 | 343.71 | 3.07 | 13.61 | 22.57 | 33.96 | 49.29 | 68.05 | 127.04 |
| | | | Q 2 | 37,844 | 45.06 | 25.62 | 0.04 | 358.66 | 6.99 | 20.13 | 28.41 | 39.85 | 55.36 | 75.78 | 132.67 |
| | | | Q 3 | 38,227 | 49.53 | 28.87 | 0.07 | 431.75 | 9.36 | 22.72 | 31.10 | 43.16 | 60.50 | 82.96 | 152.91 |
| | | | Q 4 | 38,291 | 58.49 | 37.70 | 0.04 | 634.23 | 12.13 | 26.22 | 35.34 | 49.31 | 70.29 | 99.50 | 200.78 |
| | PT2 | 6 | Q 1 | 37,841 | 41.03 | 25.92 | 0.05 | 432.24 | 3.24 | 14.85 | 24.32 | 36.22 | 52.12 | 71.35 | 130.11 |
| | | | Q 2 | 37,990 | 48.31 | 26.22 | 0.06 | 380.56 | 7.35 | 22.54 | 31.18 | 43.30 | 59.49 | 79.14 | 139.40 |
| | | | Q 3 | 37,586 | 50.39 | 25.90 | 0.09 | 398.38 | 10.03 | 24.95 | 33.38 | 45.38 | 61.25 | 81.10 | 141.29 |
| | | | Q 4 | 38,271 | 49.56 | 25.54 | 0.05 | 650.87 | 11.20 | 25.08 | 32.78 | 44.37 | 60.22 | 79.75 | 137.64 |
| | PT3 | 6 | Q 1 | 37,925 | 38.45 | 26.28 | 0.05 | 657.61 | 2.77 | 13.48 | 21.93 | 33.10 | 48.25 | 67.97 | 132.30 |
| | | | Q 2 | 37,515 | 44.61 | 27.31 | 0.07 | 450.50 | 6.81 | 19.30 | 27.11 | 38.51 | 54.59 | 76.18 | 145.65 |
| | | | Q 3 | 38,081 | 46.86 | 28.04 | 0.06 | 546.32 | 9.11 | 20.85 | 28.69 | 40.49 | 57.13 | 80.13 | 149.81 |
| | | | Q 4 | 38,467 | 48.31 | 27.39 | 0.05 | 415.97 | 11.06 | 22.96 | 30.67 | 42.05 | 58.32 | 80.66 | 148.99 |

| 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 | 6 | Q 1 | 41,930 | 22.35 | 16.47 | 0.06 | 318.02 | 1.74 | 7.41 | 11.94 | 18.61 | 28.14 | 40.87 | 82.67 |
| | | | Q 2 | 42,008 | 25.25 | 17.39 | 0.05 | 309.29 | 4.10 | 9.36 | 13.88 | 21.11 | 31.47 | 45.57 | 88.32 |
| | | | Q 3 | 41,973 | 26.42 | 18.36 | 0.05 | 269.25 | 4.53 | 9.32 | 14.13 | 22.27 | 33.37 | 47.72 | 92.00 |
| | | | Q 4 | 42,596 | 28.37 | 19.83 | 0.04 | 256.72 | 4.44 | 8.28 | 13.60 | 24.53 | 37.38 | 52.44 | 95.42 |
| | PT2 | 6 | Q 1 | 41,952 | 26.90 | 19.36 | 0.05 | 367.21 | 2.09 | 8.35 | 14.18 | 22.70 | 34.33 | 49.54 | 97.72 |
| | | | Q 2 | 42,089 | 31.26 | 20.31 | 0.05 | 305.37 | 4.05 | 12.10 | 18.18 | 26.78 | 38.92 | 54.77 | 106.14 |
| | | | Q 3 | 41,975 | 34.45 | 21.53 | 0.05 | 446.17 | 5.69 | 14.41 | 20.63 | 29.67 | 42.54 | 59.54 | 111.58 |
| | | | Q 4 | 42,372 | 38.92 | 21.65 | 0.05 | 397.73 | 8.36 | 18.23 | 24.78 | 34.38 | 47.68 | 64.59 | 112.99 |
| | PT3 | 4 | Q 1 | 27,981 | 20.99 | 15.05 | 0.04 | 278.62 | 1.55 | 6.62 | 11.44 | 17.72 | 26.27 | 38.82 | 75.35 |
| | | | Q 2 | 27,776 | 24.40 | 14.90 | 0.05 | 227.87 | 3.56 | 10.27 | 14.85 | 21.13 | 30.06 | 42.12 | 78.91 |
| | | | Q 3 | 28,136 | 26.62 | 15.24 | 0.07 | 241.79 | 5.71 | 12.43 | 16.83 | 23.20 | 32.15 | 44.95 | 81.07 |
| | | | Q 4 | 28,173 | 26.68 | 14.52 | 0.04 | 445.19 | 7.30 | 13.32 | 17.45 | 23.52 | 32.02 | 43.71 | 76.93 |
| 8 | PT1 | 6 | Q 1 | 37,173 | 22.28 | 16.32 | 0.06 | 264.25 | 1.29 | 6.26 | 11.47 | 18.80 | 28.62 | 42.14 | 79.61 |
| | | | Q 2 | 37,376 | 25.94 | 16.85 | 0.05 | 303.17 | 3.13 | 9.94 | 15.01 | 22.16 | 32.49 | 46.04 | 85.88 |
| | | | Q 3 | 37,443 | 29.36 | 18.06 | 0.06 | 250.75 | 4.98 | 12.36 | 17.66 | 25.28 | 36.24 | 50.90 | 94.70 |
| | | | Q 4 | 37,617 | 32.33 | 17.80 | 0.07 | 271.45 | 7.85 | 15.32 | 20.56 | 28.42 | 39.46 | 53.79 | 96.43 |
| | PT2 | 6 | Q 1 | 37,429 | 29.66 | 21.60 | 0.05 | 697.31 | 1.58 | 8.73 | 15.75 | 25.24 | 38.40 | 54.82 | 102.32 |
| | | | Q 2 | 37,324 | 36.94 | 22.26 | 0.07 | 340.22 | 4.50 | 14.97 | 22.27 | 32.35 | 46.43 | 64.00 | 112.51 |
| | | | Q 3 | 37,577 | 42.83 | 25.08 | 0.05 | 345.47 | 7.52 | 18.76 | 26.28 | 37.33 | 53.30 | 72.55 | 131.86 |
| | | | Q 4 | 37,978 | 50.42 | 27.28 | 0.11 | 838.08 | 10.68 | 24.21 | 32.68 | 45.10 | 61.66 | 81.78 | 144.71 |
| | PT3 | 6 | Q 1 | 37,379 | 34.12 | 24.13 | 0.04 | 664.33 | 2.16 | 10.58 | 18.27 | 29.05 | 43.70 | 62.74 | 119.73 |
| | | | Q 2 | 37,894 | 41.15 | 25.64 | 0.05 | 370.52 | 4.97 | 16.54 | 24.49 | 35.71 | 51.57 | 71.40 | 131.88 |
| | | | Q 3 | 37,404 | 46.11 | 26.86 | 0.04 | 362.24 | 7.21 | 20.25 | 28.39 | 40.43 | 57.19 | 78.00 | 142.06 |
| | | | Q 4 | 37,948 | 51.55 | 28.89 | 0.04 | 491.21 | 10.77 | 24.61 | 33.16 | 45.50 | 62.90 | 83.62 | 157.38 |
| 11 | PT1 | 2 | Q 1 | 12,203 | 25.68 | 21.22 | 0.05 | 289.68 | 1.02 | 4.74 | 10.93 | 20.91 | 34.67 | 50.74 | 104.27 |
| | | | Q 2 | 12,178 | 35.52 | 22.31 | 0.11 | 299.01 | 2.45 | 12.82 | 20.92 | 31.53 | 44.63 | 61.39 | 115.30 |
| | | | Q 3 | 12,304 | 42.46 | 23.12 | 0.06 | 293.48 | 5.74 | 19.54 | 27.67 | 38.12 | 51.98 | 69.73 | 123.11 |
| | | | Q 4 | 12,351 | 46.53 | 21.71 | 0.10 | 336.16 | 10.45 | 24.86 | 32.32 | 42.84 | 55.92 | 72.49 | 119.95 |
| | PT2 | 5 | Q 1 | 30,547 | 22.69 | 19.01 | 0.06 | 259.13 | 0.83 | 4.03 | 9.57 | 18.56 | 30.29 | 45.10 | 92.71 |
| | | | Q 2 | 30,646 | 29.01 | 20.01 | 0.04 | 244.66 | 1.64 | 8.96 | 15.87 | 25.07 | 37.13 | 52.57 | 98.37 |
| | | | Q 3 | 30,647 | 35.33 | 20.94 | 0.05 | 453.46 | 3.46 | 14.02 | 21.39 | 31.70 | 44.41 | 60.35 | 105.96 |
| | | | Q 4 | 30,925 | 39.47 | 19.59 | 0.03 | 251.06 | 8.35 | 19.78 | 26.55 | 35.86 | 48.12 | 62.86 | 104.83 |
| | PT3 | 4 | Q 1 | 24,164 | 17.99 | 16.01 | 0.07 | 581.76 | 0.75 | 3.75 | 7.93 | 14.32 | 23.17 | 35.61 | 75.74 |

| | | | | Descriptive Statistics | | | | | Percentile Points | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | PT Set | Number of Items | Ability Level | N | Mean | SD | Min | Max | 1 | 10 | 25 | 50 | 75 | 90 | 99 |
| | PT4 | 6 | Q 2 | 24,303 | 22.50 | 16.45 | 0.05 | 258.70 | 1.95 | 7.41 | 12.04 | 18.84 | 28.35 | 41.07 | 83.35 |
| | | | Q 3 | 24,401 | 27.08 | 17.86 | 0.08 | 258.04 | 2.93 | 10.46 | 15.74 | 23.30 | 33.61 | 47.45 | 90.76 |
| | | | Q 4 | 24,313 | 31.24 | 17.36 | 0.05 | 343.81 | 5.44 | 14.90 | 20.30 | 27.72 | 38.06 | 51.20 | 90.48 |
| | | | Q 1 | 37,056 | 22.68 | 18.76 | 0.04 | 356.87 | 0.89 | 4.21 | 9.70 | 18.67 | 30.40 | 44.93 | 88.04 |
| | | | Q 2 | 36,860 | 29.64 | 20.36 | 0.04 | 420.69 | 2.20 | 9.58 | 16.34 | 25.51 | 37.93 | 53.32 | 99.11 |
| | | | Q 3 | 37,291 | 35.31 | 21.13 | 0.06 | 355.75 | 4.39 | 14.23 | 21.49 | 31.20 | 44.32 | 60.36 | 105.93 |
| | | | Q 4 | 37,492 | 41.19 | 21.02 | 0.08 | 345.80 | 7.17 | 20.03 | 27.47 | 37.49 | 50.19 | 66.36 | 113.20 |

# Appendix 8.I: Correlations between Content Areas

**Table 8.I.1 Correlations for Gender**

| Grade | Content | Male | | Female | | Gender Unknown | |
|---|---|---|---|---|---|---|---|
| 3 | ELA | **241,579** | 0.81 | **231,095** | 0.81 | **0** | – |
| | Mathematics | 240,663 | **242,453** | 230,259 | **231,808** | 0 | **0** |
| 4 | ELA | **235,607** | 0.82 | **227,072** | 0.81 | **0** | – |
| | Mathematics | 234,736 | **236,459** | 226,358 | **227,896** | 0 | **0** |
| 5 | ELA | **234,937** | 0.82 | **225,253** | 0.81 | **0** | – |
| | Mathematics | 234,024 | **235,661** | 224,544 | **225,956** | 0 | **0** |
| 6 | ELA | **232,916** | 0.82 | **223,405** | 0.82 | **0** | – |
| | Mathematics | 231,683 | **233,513** | 222,465 | **224,037** | 0 | **0** |
| 7 | ELA | **229,040** | 0.81 | **220,674** | 0.81 | **0** | – |
| | Mathematics | 227,235 | **229,411** | 219,158 | **220,984** | 0 | **0** |
| 8 | ELA | **230,130** | 0.8 | **221,055** | 0.79 | **0** | – |
| | Mathematics | 228,201 | **230,528** | 219,386 | **221,437** | 0 | **0** |
| 11 | ELA | **214,145** | 0.76 | **207,953** | 0.75 | **0** | – |
| | Mathematics | 209,105 | **213,078** | 202,999 | **206,430** | 0 | **0** |

**Table 8.I.2 Correlations for Primary Ethnicity**

| Grade | Content | American Indian or Alaska Native | | Asian | | Native Hawaiian or Pacific Islander | | Filipino | |
|---|---|---|---|---|---|---|---|---|---|
| 3 | ELA | **2,539** | 0.77 | **40,783** | 0.8 | **2,220** | 0.78 | **10,743** | 0.77 |
| | Mathematics | 2,518 | **2,534** | 40,699 | **41,359** | 2,212 | **2,226** | 10,713 | **10,857** |
| 4 | ELA | **2,453** | 0.79 | **41,102** | 0.8 | **2,288** | 0.76 | **11,154** | 0.78 |
| | Mathematics | 2,436 | **2,445** | 41,006 | **41,644** | 2,274 | **2,282** | 11,135 | **11,281** |
| 5 | ELA | **2,520** | 0.76 | **42,200** | 0.8 | **2,393** | 0.77 | **11,783** | 0.78 |
| | Mathematics | 2,501 | **2,512** | 42,124 | **42,721** | 2,383 | **2,395** | 11,754 | **11,863** |
| 6 | ELA | **2,503** | 0.78 | **41,789** | 0.81 | **2,302** | 0.78 | **12,432** | 0.8 |
| | Mathematics | 2,483 | **2,499** | 41,722 | **42,238** | 2,291 | **2,303** | 12,393 | **12,522** |
| 7 | ELA | **2,677** | 0.76 | **40,461** | 0.8 | **2,334** | 0.77 | **12,457** | 0.79 |
| | Mathematics | 2,650 | **2,677** | 40,363 | **40,909** | 2,315 | **2,336** | 12,412 | **12,553** |
| 8 | ELA | **2,599** | 0.76 | **40,680** | 0.78 | **2,307** | 0.76 | **12,955** | 0.77 |
| | Mathematics | 2,560 | **2,587** | 40,568 | **41,144** | 2,287 | **2,314** | 12,902 | **13,056** |
| 11 | ELA | **2,616** | 0.73 | **38,752** | 0.74 | **2,384** | 0.73 | **13,834** | 0.73 |
| | Mathematics | 2,507 | **2,564** | 38,232 | **38,858** | 2,311 | **2,353** | 13,582 | **13,759** |

**Table 8.I.3 Correlations for Primary Ethnicity**

| Grade | Content | Hispanic or Latino | | Black or African American | | White | | Two or More Races | |
|---|---|---|---|---|---|---|---|---|---|
| 3 | ELA | **261,805** | 0.76 | **26,422** | 0.77 | **109,827** | 0.79 | **18,335** | 0.81 |
| | Mathematics | 260,936 | **262,614** | 26,263 | **26,412** | 109,336 | **109,930** | 18,245 | **18,329** |
| 4 | ELA | **252,924** | 0.76 | **25,989** | 0.77 | **109,959** | 0.79 | **16,810** | 0.81 |
| | Mathematics | 252,187 | **253,901** | 25,833 | **25,961** | 109,490 | **110,018** | 16,733 | **16,823** |
| 5 | ELA | **247,031** | 0.76 | **26,397** | 0.77 | **112,354** | 0.79 | **15,512** | 0.81 |
| | Mathematics | 246,315 | **247,961** | 26,190 | **26,313** | 111,859 | **112,328** | 15,442 | **15,524** |
| 6 | ELA | **243,545** | 0.77 | **26,412** | 0.78 | **112,650** | 0.8 | **14,688** | 0.82 |
| | Mathematics | 242,411 | **244,197** | 26,174 | **26,403** | 112,145 | **112,760** | 14,529 | **14,628** |
| 7 | ELA | **240,370** | 0.75 | **26,880** | 0.76 | **111,022** | 0.79 | **13,513** | 0.81 |
| | Mathematics | 238,564 | **240,803** | 26,505 | **26,779** | 110,174 | **110,818** | 13,410 | **13,520** |
| 8 | ELA | **239,613** | 0.75 | **27,826** | 0.75 | **112,317** | 0.77 | **12,888** | 0.8 |
| | Mathematics | 237,686 | **240,142** | 27,424 | **27,679** | 111,404 | **112,176** | 12,756 | **12,867** |
| 11 | ELA | **218,563** | 0.71 | **25,437** | 0.72 | **109,078** | 0.74 | **11,434** | 0.76 |
| | Mathematics | 213,395 | **217,296** | 24,528 | **25,221** | 106,435 | **108,155** | 11,114 | **11,302** |

**Table 8.I.4 Correlations for English Fluency**

| Grade | Content | English only | | Initially fluent English proficient | | English learner | | Reclassified fluent English proficient | |
|---|---|---|---|---|---|---|---|---|---|
| 3 | ELA | **270,859** | 0.81 | **18,156** | 0.8 | **151,300** | 0.73 | **31,105** | 0.7 |
| | Mathematics | 269,712 | **270,479** | 18,115 | **18,145** | 150,822 | **152,869** | 31,039 | **31,071** |
| 4 | ELA | **261,576** | 0.81 | **18,135** | 0.8 | **119,955** | 0.69 | **61,924** | 0.71 |
| | Mathematics | 260,518 | **261,276** | 18,102 | **18,138** | 119,580 | **121,552** | 61,819 | **61,906** |
| 5 | ELA | **257,606** | 0.81 | **20,247** | 0.8 | **100,271** | 0.66 | **81,074** | 0.72 |
| | Mathematics | 256,500 | **257,186** | 20,204 | **20,240** | 99,936 | **101,743** | 80,945 | **81,073** |
| 6 | ELA | **253,400** | 0.82 | **21,514** | 0.82 | **76,222** | 0.66 | **104,197** | 0.74 |
| | Mathematics | 252,068 | **253,077** | 21,443 | **21,525** | 75,782 | **77,512** | 103,886 | **104,131** |
| 7 | ELA | **247,158** | 0.81 | **20,546** | 0.81 | **65,610** | 0.6 | **115,338** | 0.74 |
| | Mathematics | 245,156 | **246,482** | 20,426 | **20,494** | 65,009 | **66,871** | 114,764 | **115,108** |
| 8 | ELA | **246,538** | 0.8 | **21,005** | 0.8 | **58,124** | 0.59 | **124,566** | 0.73 |
| | Mathematics | 244,341 | **245,902** | 20,876 | **20,999** | 57,571 | **59,383** | 123,871 | **124,423** |
| 11 | ELA | **232,541** | 0.76 | **36,086** | 0.76 | **39,506** | 0.51 | **113,058** | 0.69 |
| | Mathematics | 226,616 | **230,317** | 35,402 | **35,882** | 38,205 | **39,778** | 111,014 | **112,487** |

**Table 8.I.5 Correlations for English Fluency**

| Grade | Content | To be determined | | English proficiency Unknown | |
|---|---|---|---|---|---|
| 3 | ELA | **246** | 0.75 | **1,008** | 0.76 |
| | Mathematics | 241 | **377** | 993 | **1,320** |
| 4 | ELA | **219** | 0.77 | **870** | 0.77 |
| | Mathematics | 215 | **318** | 860 | **1,165** |
| 5 | ELA | **210** | 0.81 | **782** | 0.81 |
| | Mathematics | 208 | **310** | 775 | **1,065** |
| 6 | ELA | **255** | 0.81 | **733** | 0.81 |
| | Mathematics | 252 | **340** | 717 | **965** |
| 7 | ELA | **223** | 0.79 | **839** | 0.75 |
| | Mathematics | 215 | **321** | 823 | **1,119** |
| 8 | ELA | **170** | 0.69 | **782** | 0.72 |
| | Mathematics | 169 | **241** | 759 | **1,017** |
| 11 | ELA | **182** | 0.77 | **725** | 0.65 |
| | Mathematics | 172 | **192** | 695 | **852** |

**Table 8.I.6 Correlations for Economic Status**

| Grade | Content | Not Economically Disa dvantaged | | Economically disadvantaged | | Unknown Economic Status | |
|---|---|---|---|---|---|---|---|
| 3 | ELA | **178,053** | 0.79 | **294,621** | 0.75 | **0** | – |
| | Mathematics | 177,352 | **178,749** | 293,570 | **295,512** | 0 | **0** |
| 4 | ELA | **176,935** | 0.79 | **285,744** | 0.76 | **0** | – |
| | Mathematics | 176,332 | **177,633** | 284,762 | **286,722** | 0 | **0** |
| 5 | ELA | **180,361** | 0.79 | **279,829** | 0.76 | **0** | – |
| | Mathematics | 179,753 | **180,891** | 278,815 | **280,726** | 0 | **0** |
| 6 | ELA | **180,506** | 0.81 | **275,815** | 0.77 | **0** | – |
| | Mathematics | 179,717 | **180,948** | 274,431 | **276,602** | 0 | **0** |
| 7 | ELA | **179,378** | 0.8 | **270,336** | 0.75 | **0** | – |
| | Mathematics | 178,259 | **179,604** | 268,134 | **270,791** | 0 | **0** |
| 8 | ELA | **183,537** | 0.78 | **267,648** | 0.75 | **0** | – |
| | Mathematics | 182,241 | **183,747** | 265,346 | **268,218** | 0 | **0** |
| 11 | ELA | **190,559** | 0.76 | **231,539** | 0.71 | **0** | – |
| | Mathematics | 186,262 | **189,172** | 225,842 | **230,336** | 0 | **0** |

**Table 8.I.7 Correlations for Special Education Services**

| Grade | Content | No special services | | Special services | | Special Ed Unknown | |
|---|---|---|---|---|---|---|---|
| **3** | ELA | **427,704** | 0.8 | **44,970** | 0.76 | **0** | – |
| | Mathematics | 426,287 | **429,419** | 44,635 | **44,842** | 0 | **0** |
| **4** | ELA | **413,847** | 0.8 | **48,832** | 0.76 | **0** | – |
| | Mathematics | 412,599 | **415,621** | 48,495 | **48,734** | 0 | **0** |
| **5** | ELA | **409,614** | 0.79 | **50,576** | 0.75 | **0** | – |
| | Mathematics | 408,384 | **411,190** | 50,184 | **50,427** | 0 | **0** |
| **6** | ELA | **408,809** | 0.8 | **47,512** | 0.73 | **0** | – |
| | Mathematics | 407,156 | **410,182** | 46,992 | **47,368** | 0 | **0** |
| **7** | ELA | **404,545** | 0.79 | **45,169** | 0.69 | **0** | – |
| | Mathematics | 401,841 | **405,401** | 44,552 | **44,994** | 0 | **0** |
| **8** | ELA | **406,809** | 0.78 | **44,376** | 0.69 | **0** | – |
| | Mathematics | 403,862 | **407,729** | 43,725 | **44,236** | 0 | **0** |
| **11** | ELA | **387,756** | 0.74 | **34,342** | 0.61 | **0** | – |
| | Mathematics | 379,121 | **385,593** | 32,983 | **33,915** | 0 | **0** |

**Table 8.I.8 Correlations for Migrant Status**

| Grade | Content | Change school or LEA | | Remain in the same school or LEA | | Migrant status unknown | |
|---|---|---|---|---|---|---|---|
| **3** | ELA | **4,649** | 0.71 | **468,025** | 0.8 | **0** | – |
| | Mathematics | 4,639 | **4,717** | 466,283 | **469,544** | 0 | **0** |
| **4** | ELA | **4,496** | 0.72 | **458,183** | 0.81 | **0** | – |
| | Mathematics | 4,485 | **4,532** | 456,609 | **459,823** | 0 | **0** |
| **5** | ELA | **4,465** | 0.74 | **455,725** | 0.81 | **0** | – |
| | Mathematics | 4,454 | **4,513** | 454,114 | **457,104** | 0 | **0** |
| **6** | ELA | **3,929** | 0.73 | **452,392** | 0.82 | **0** | – |
| | Mathematics | 3,916 | **3,979** | 450,232 | **453,571** | 0 | **0** |
| **7** | ELA | **3,749** | 0.72 | **445,965** | 0.81 | **0** | – |
| | Mathematics | 3,727 | **3,813** | 442,666 | **446,582** | 0 | **0** |
| **8** | ELA | **3,896** | 0.72 | **447,289** | 0.79 | **0** | – |
| | Mathematics | 3,880 | **3,951** | 443,707 | **448,014** | 0 | **0** |
| **11** | ELA | **3,375** | 0.66 | **418,723** | 0.76 | **0** | – |
| | Mathematics | 3,310 | **3,376** | 408,794 | **416,132** | 0 | **0** |

# 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, 2015). 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, 2015).

## 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 19.

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, 2015); and
2. the simulation study conducted prior to the 2014–15 CAASPP operational administration that is described in *Chapter 4: Test Assembly* on page 77 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 82.

### 9.3.1.2 Paper-Pencil Forms

Test forms and response booklets received from the Smarter Balanced Assessment Consortium are carefully reviewed by the CDE and 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 2014–15 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 eSKM[1] scoring system 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 collects and scores individual students' responses. The scores from the two systems are then compared for the purpose of internal quality control. Students' scores are reported when the two parallel systems produce identical results. The two scoring systems independently apply the same methods, scoring algorithms and specifications.

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 *Student Test Scores* on page 113 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.

## 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.

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 which 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

[1] The eSKM system produces the ETS scores of record.

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 Chapter 8 on page 294.

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 294.

## 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 126.

## 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. 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 performance 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: Paper-Pencil Versions of Smarter Balanced Summative Assessments

## 10.1. 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 which also 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 2,300 students across California in 2014–15. There were more than 500 students who took the English language arts/literacy (ELA) and mathematics paper-pencil tests in grades three through five. For all other tests, there were fewer.

Paper-pencil versions were available with prior permission from the California Department of Education (CDE) only.

## 10.2. Test Window

The window for 2014–15 testing was the same as for the online tests: approximately February 18 through June 15, 2015. 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).

## 10.3. Test Assembly

Paper-pencil versions are composed of performance task (PT) items, which are based on a classroom-based activity (refer to section 1.3.2 *Performance Tasks* for more details), and items that are not based on performance task (non-PT) items. During the test development process, efforts were made to ensure that paper-pencil test items and online test items were comparable. 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).

## 10.4. Test Administration

The *2015 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Paper-Pencil Test Administration Manual* (CDE, 2015a) provides an overview of the Summative Assessment administration and supplements the *2015 CAASPP Online Test Administration Manual* (CDE, 2015b). 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 CAASPP Paper-Pencil Testing Test Administration Manual* (CDE, 2015c) provides additional information about the responsibilities of LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators. See section *5.4 Procedures to Maintain Standardization* on page 87 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 80, for more information on procedures followed in 2014–15.

## 10.5. Universal Tools, Designated Supports, and Accommodations

Consistent with the online tests, designated supports, accommodations (section *2.4 Universal Tools, Designated Supports and Accommodations* on page 13) and unlisted resources (section *2.4.3 Unlisted Resources* on page 15) are assigned to individual students based on student needs. Appendix 10.A, which starts on page 512, 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.

## 10.6. 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).

### 10.6.1 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 section *7.4.1 Total Test Scores* on page 113 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.

### 10.6.2 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.

### 10.6.3 Final Calibration

For tests in which any unmodified item is rejected as an anchor, a final calibration is conducted using the approach described in section 10.6.1, except that the parameters of all rejected anchor items are freely estimated. Parameters of the modified items are also 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.

## 10.7. 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.

### 10.7.1 Total Score Distributions and Achievement Levels

Summary statistics that describe student performance on each test are presented in Table 10.1. 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. 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 10.2.

**Table 10.1 Mean and Standard Deviation of Total Theta and Scale Scores of Paper-Pencil Summative Assessments**

| | | | Scale Score | | Theta Score | |
|---|---|---|---|---|---|---|
| Content Area | Grade | No. of Students | Mean | Std Dev. | Mean | SD |
| ELA | 3 | 669 | 2410 | 95 | –1.13 | 1.08 |
| | 4 | 626 | 2467 | 96 | –0.48 | 1.10 |
| | 5 | 538 | 2507 | 98 | –0.02 | 1.14 |
| | 6 | 216 | 2508 | 104 | –0.01 | 1.21 |
| | 7 | 97 | 2556 | 114 | 0.56 | 1.33 |
| | 8 | 69 | 2471 | 98 | –0.43 | 1.15 |
| | 11 | 20 | 2571 | 148 | 0.74 | 1.72 |
| Mathematics | 3 | 682 | 2402 | 74 | –1.42 | 0.93 |
| | 4 | 642 | 2454 | 74 | –0.76 | 0.93 |
| | 5 | 546 | 2487 | 79 | –0.35 | 1.00 |
| | 6 | 227 | 2509 | 99 | –0.07 | 1.25 |
| | 7 | 105 | 2551 | 114 | 0.45 | 1.44 |
| | 8 | 79 | 2470 | 95 | –0.57 | 1.19 |
| | 11 | 17 | 2554 | 121 | 0.50 | 1.53 |

**Table 10.2 Percentages and Counts of Students in Achievement Levels for CAASPP Paper-pencil Summative Assessments**

| | | Standard Not Met | | Standard Nearly Met | | Standard Met | | Standard Exceeded | | Standard Met/ Exceeded | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | % | N | % | N | % | N | % | N | % |
| ELA | 3 | 223 | 33% | 153 | 23% | 153 | 23% | 140 | 21% | 293 | 44% |
| | 4 | 184 | 29% | 137 | 22% | 146 | 23% | 159 | 25% | 305 | 49% |
| | 5 | 119 | 22% | 125 | 23% | 172 | 32% | 122 | 23% | 294 | 55% |
| | 6 | 71 | 33% | 52 | 24% | 63 | 29% | 30 | 14% | 93 | 43% |
| | 7 | 23 | 24% | 21 | 22% | 34 | 35% | 19 | 20% | 53 | 55% |
| | 8 | 43 | 62% | 15 | 22% | 8 | 12% | 3 | 4% | 11 | 16% |
| | 11 | 5 | 25% | 3 | 15% | 8 | 40% | 4 | 20% | 12 | 60% |

| Content Area | Grade | Standard Not Met | | Standard Nearly Met | | Standard Met | | Standard Exceeded | | Standard Met/ Exceeded | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % |
| Mathematics | 3 | 254 | 37% | 208 | 30% | 170 | 25% | 50 | 7% | 220 | 32% |
| | 4 | 171 | 27% | 248 | 39% | 170 | 26% | 53 | 8% | 223 | 35% |
| | 5 | 180 | 33% | 208 | 38% | 88 | 16% | 70 | 13% | 158 | 29% |
| | 6 | 73 | 32% | 76 | 33% | 51 | 22% | 27 | 12% | 78 | 34% |
| | 7 | 24 | 23% | 31 | 30% | 23 | 22% | 27 | 26% | 50 | 48% |
| | 8 | 51 | 65% | 22 | 28% | 2 | 3% | 4 | 5% | 6 | 8% |
| | 11 | 5 | 29% | 8 | 47% | 4 | 24% | 0 | 0% | 4 | 24% |

* May not exactly match the sum of percent proficient and percent advanced due to rounding

Detailed score distribution information is available in Appendix 10.B, which starts on page 540. Table 10.B.1 and Table 10.B.2 show the estimated distributions of theta scores for each test. Table 10.B.3 and Table 10.B.4 present selected percentiles of the ELA and mathematics scale score distributions. Table 10.B.5 through Table 10.B.18 present frequency distributions of scale scores for each test.

### 10.7.2 Claim Score Distributions and Achievement Levels

Table 10.C.1 through Table 10.C.4 in Appendix 10.C starting on page 568 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 achievement level as well as the percentage of students in that claim achievement level are reported in Table 10.C.5 through Table 10.C.8. Note that the percentage is shown as a hyphen when there are no students in an achievement level for a claim.

### 10.7.3 Group Scores

Statistics summarizing student performance by content area and grade for selected demographic groups of students are provided in Appendix 10.D starting on page 572 in Table 10.D.1 through Table 10.D.14 for each test, and for each test claim in Table 10.D.15 through Table 10.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 an achievement level for a claim.

## 10.8. 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.

### 10.8.1 IRT Parameter Values

Parameter estimates for the 2014–15 CAASPP Smarter Balanced operational items of the paper-pencil versions were obtained using the procedure described in section 10.6 *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 10.E.1 through Table 10.E.14 in Appendix 10.E (which starts on page 642) 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 10.E.15 through Table 10.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 10.E.29 and Table 10.E.30 show the distributions of *a*-values of non-PT items in each test across 10 intervals. Table 10.E.31 and Table 10.E.32 present the distributions of non-PT items across 16 intervals of *b*-values. The mode of each distribution is highlighted. Table 10.E.33 and Table 10.E.34 show the distribution of *a*-values for the PT items. Table 10.E.35 and Table 10.E.36 show the distribution of *b*-values for the PT items. Parameter values of all PT items are presented in Table 10.E.37 through Table 10.E.50.

### 10.8.2 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 Section 8.5.2 *Marginal Reliability* on page 279 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 10.3 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 10.3 Summary Statistics for Scale Scores and Theta Scores, Reliabilities, and SEMs**

| | | | | Scale Score | | | Theta Score | | |
|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | No. of Students | Reliab | Mean | SD | SEM | Mean | SD | SEM |
| ELA | 3 | 654 | 0.91 | 2414 | 86 | 25 | –1.09 | 1.00 | 0.29 |
| | 4 | 613 | 0.91 | 2469 | 88 | 26 | –0.46 | 1.02 | 0.30 |
| | 5 | 521 | 0.91 | 2507 | 89 | 27 | –0.01 | 1.04 | 0.31 |
| | 6 | 212 | 0.91 | 2506 | 99 | 29 | –0.03 | 1.16 | 0.34 |
| | 7 | 93 | 0.92 | 2559 | 105 | 30 | 0.59 | 1.22 | 0.35 |
| | 8 | 65 | 0.88 | 2482 | 90 | 31 | –0.30 | 1.05 | 0.36 |
| | 11 | 16 | 0.88 | 2609 | 89 | 30 | 1.17 | 1.04 | 0.36 |
| Mathematics | 3 | 665 | 0.91 | 2407 | 67 | 21 | –1.37 | 0.84 | 0.26 |
| | 4 | 634 | 0.89 | 2457 | 69 | 23 | –0.73 | 0.87 | 0.29 |
| | 5 | 540 | 0.88 | 2488 | 75 | 26 | –0.34 | 0.95 | 0.33 |
| | 6 | 218 | 0.87 | 2520 | 83 | 30 | 0.07 | 1.05 | 0.37 |
| | 7 | 101 | 0.90 | 2557 | 101 | 33 | 0.54 | 1.28 | 0.41 |
| | 8 | 74 | 0.67 | 2483 | 81 | 47 | –0.40 | 1.02 | 0.59 |
| | 11 | 16 | 0.82 | 2572 | 102 | 43 | 0.71 | 1.28 | 0.55 |

Intercorrelations, reliability estimates and theta-based SEMs for the claims are presented in Table 10.F.1 through Table 10.F.14 in Appendix 10.F starting on page 653. 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 10.F.15 through Table 10.F.23 present the overall test reliabilities for subgroups defined by student gender, economic status, provision of special services, English-language fluency, primary ethnicity, and migrant status. Table 10.F.24 and Table 10.F.29 present the reliabilities for the subgroups based on primary ethnicity within economic status.

The next set of tables, Table 10.F.30 through Table 10.F.99, present the claim-level reliabilities for the subgroups. Table 10.F.30 through Table 10.F.44 present the claim-level reliabilities for the subgroups based on gender, economic status, and migrant status. Table 10.F.45 through Table 10.F.57 show the same analyses for the subgroups based on provision of special services and English-language fluency. Table 10.F.58 through Table 10.F.71 present results for the subgroups based on primary ethnicity of the students. The last set of tables, Table 10.F.72 through Table 10.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.”

### 10.8.3 CSEM Distributions

This subsection presents CSEM distributions for the total test scores, and the mean CSEM for each performance level. Table 10.4 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 10.4 Scale Score CSEM at Performance-level Cut Points**

| | | Standard Nearly Met | | Standard Met | | Standard Exceeded | |
|---|---|---|---|---|---|---|---|
| **Content Area** | **Grade** | **Min SS** | **CSEM** | **Min SS** | **CSEM** | **Min SS** | **CSEM** |
| ELA | 3 | 2367 | 23 | 2432 | 21 | 2490 | 23 |
| | 4 | N/A | N/A | 2473 | 24 | 2533 | 25 |
| | 5 | 2442 | 24 | 2502 | 25 | 2582 | 27 |
| | 6 | 2457 | 26 | N/A | N/A | N/A | N/A |
| | 7 | N/A | N/A | 2552 | 27 | N/A | N/A |
| | 8 | N/A | N/A | N/A | N/A | 2668 | 28 |
| Mathematics | 3 | 2381 | 18 | 2436 | 19 | 2501 | 22 |
| | 4 | 2411 | 22 | 2485 | 20 | 2549 | 22 |
| | 5 | 2455 | 24 | 2528 | 22 | 2579 | 23 |
| | 6 | 2473 | 26 | N/A | N/A | N/A | N/A |
| | 7 | N/A | N/A | N/A | N/A | 2635 | 19 |
| | 8 | 2504 | 39 | N/A | N/A | N/A | N/A |

Table 10.5 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 10.5 Average CSEM of Scale Scores in Each Performance Level**

| Content Area | Grade | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded |
|---|---|---|---|---|---|
| ELA | 3 | 28 | 22 | 22 | 26 |
| | 4 | 27 | 24 | 24 | 28 |
| | 5 | 28 | 24 | 26 | 29 |
| | 6 | 31 | 26 | 27 | 32 |
| | 7 | 33 | 27 | 28 | 32 |
| | 8 | 32 | 27 | 27 | 29 |
| | 11 | 37 | 28 | 28 | 33 |
| Mathematics | 3 | 21 | 18 | 20 | 25 |
| | 4 | 26 | 21 | 20 | 27 |
| | 5 | 31 | 23 | 22 | 26 |
| | 6 | 41 | 21 | 19 | 21 |
| | 7 | 52 | 26 | 20 | 20 |
| | 8 | 52 | 34 | 29 | 28 |
| | 11 | 62 | 36 | 30 | N/A |

Scale score CSEM distributions are shown in Table 10.G.1 through Table 10.G.14 of Appendix 10.G starting on page 681. The plots of the CSEMs conditional for scale scores are also presented in this appendix, in Figure 10.G.1 through Figure 10.G.14. 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.

### 10.8.4 Correlations between Content Area Test Scores

Table 10.6 provides the correlations between scores on the 2015 CAASPP ELA and mathematics paper-pencil tests and the numbers of students on which these correlations are based. Sample sizes for individual tests are shown in bold font on the diagonals of the correlation matrices; the numbers of students on which the correlations are based are shown on the lower left. 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 10.6 Correlations between Content Areas for All Students**

| Grade | Content | All Students | |
|---|---|---|---|
| 3 | ELA | **669** | 0.78 |
| | Mathematics | 667 | **682** |
| 4 | ELA | **626** | 0.71 |
| | Mathematics | 625 | **642** |
| 5 | ELA | **538** | 0.74 |
| | Mathematics | 535 | **546** |

| Grade | Content | All Students | |
|---|---|---|---|
| 6 | ELA | **216** | 0.76 |
| | Mathematics | 212 | **227** |
| 7 | ELA | **97** | 0.78 |
| | Mathematics | 93 | **105** |
| 8 | ELA | **69** | 0.59 |
| | Mathematics | 63 | **79** |
| 11 | ELA | **20** | 0.77 |
| | Mathematics | 17 | **17** |

***Note*:** Sample sizes in tests are in **bold** font.

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# Appendix 10.A: Special Services Summaries for Paper-Pencil Tests

**Table 10.A.1 Special Services Summary for ELA, 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** | | | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 1 | 0.19 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 11 | 1.64 | 12 | 1.92 | 7 | 1.30 | 6 | 2.78 |
| Non-Embedded Supports—Large Print | 3 | 0.45 | 5 | 0.80 | 4 | 0.74 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 13 | 1.94 | 12 | 1.92 | 9 | 1.67 | 9 | 4.17 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 16 | 2.39 | 20 | 3.19 | 14 | 2.60 | 9 | 4.17 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 17 | 2.54 | 19 | 3.04 | 17 | 3.16 | 8 | 3.70 |
| Non-Embedded Supports—Separate Setting | 8 | 1.20 | 8 | 1.28 | 10 | 1.86 | 19 | 8.80 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 1 | 0.19 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 30 | 4.48 | 39 | 6.23 | 28 | 5.20 | 22 | 10.19 |
| Desiginated support or accommodation is in Section 504 plan | 3 | 0.45 | 0 | 0.00 | 0 | 0.00 | 1 | 0.46 |

**Table 10.A.2 Special Services Summary for ELA, Grades Seven through Eleven—All Tested**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 1 | 1.03 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 4 | 4.12 | 7 | 10.14 | 10 | 50.00 |
| Non-Embedded Supports—Large Print | 1 | 1.03 | 2 | 2.90 | 1 | 5.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 3 | 3.09 | 10 | 14.49 | 5 | 25.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 5 | 5.15 | 2 | 2.90 | 7 | 35.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 2 | 2.90 | 1 | 5.00 |
| Non-Embedded Supports—Separate Setting | 3 | 3.09 | 3 | 4.35 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 8 | 8.25 | 12 | 17.39 | 15 | 75.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 1 | 1.45 | 0 | 0.00 |

**Table 10.A.3 Special Services Summary for ELA, Grades Three through Six—Students Not in Special Education**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 1 | 0.17 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 1 | 0.19 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 3 | 0.51 | 0 | 0.00 | 0 | 0.00 | 2 | 1.12 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 5 | 0.85 | 1 | 0.19 | 1 | 0.21 | 1 | 0.56 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 6 | 1.03 | 0 | 0.00 | 1 | 0.21 | 1 | 0.56 |
| Non-Embedded Supports—Separate Setting | 3 | 0.51 | 0 | 0.00 | 1 | 0.21 | 3 | 1.69 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 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 | 3 | 0.51 | 0 | 0.00 | 0 | 0.00 | 1 | 0.56 |

**Table 10.A.4 Special Services Summary for ELA, Grades Seven through Eleven—Students Not in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 1 | 1.18 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 1 | 2.08 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 2 | 2.35 | 1 | 2.08 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 1 | 2.08 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 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 | 1 | 2.08 | 0 | 0.00 |

**Table 10.A.5 Special Services Summary for ELA, Grades Three through Six—Students in Special Education**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 1 | 1.39 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 10 | 11.90 | 12 | 13.48 | 7 | 9.72 | 6 | 15.79 |
| Non-Embedded Supports—Large Print | 3 | 3.57 | 4 | 4.49 | 4 | 5.56 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 10 | 11.90 | 12 | 13.48 | 9 | 12.50 | 7 | 18.42 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 11 | 13.10 | 19 | 21.35 | 13 | 18.06 | 8 | 21.05 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 11 | 13.10 | 19 | 21.35 | 16 | 22.22 | 7 | 18.42 |
| Non-Embedded Supports—Separate Setting | 5 | 5.95 | 8 | 8.99 | 9 | 12.50 | 16 | 42.11 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 1 | 1.39 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 30 | 35.71 | 39 | 43.82 | 28 | 38.89 | 22 | 57.89 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.6 Special Services Summary for ELA, Grades Seven through Eleven—Students in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 1 | 8.33 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 3 | 25.00 | 7 | 33.33 | 10 | 62.50 |
| Non-Embedded Supports—Large Print | 1 | 8.33 | 2 | 9.52 | 1 | 6.25 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 3 | 25.00 | 9 | 42.86 | 5 | 31.25 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 3 | 25.00 | 1 | 4.76 | 7 | 43.75 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 2 | 9.52 | 1 | 6.25 |
| Non-Embedded Supports—Separate Setting | 3 | 25.00 | 2 | 9.52 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 8 | 66.67 | 12 | 57.14 | 15 | 93.75 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.7 Special Services Summary for ELA, 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 |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 1 | 0.21 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 7 | 1.19 | 6 | 1.10 | 6 | 1.25 | 1 | 0.57 |
| Non-Embedded Supports—Large Print | 3 | 0.51 | 5 | 0.92 | 3 | 0.63 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 10 | 1.69 | 9 | 1.65 | 8 | 1.67 | 8 | 4.60 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 16 | 2.71 | 19 | 3.48 | 11 | 2.29 | 8 | 4.60 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 16 | 2.71 | 17 | 3.11 | 14 | 2.92 | 6 | 3.45 |
| Non-Embedded Supports—Separate Setting | 7 | 1.19 | 7 | 1.28 | 9 | 1.88 | 17 | 9.77 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 1 | 0.21 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 27 | 4.58 | 32 | 5.86 | 23 | 4.79 | 15 | 8.62 |
| Designated support or accommodation is in Section 504 plan | 3 | 0.51 | 0 | 0.00 | 0 | 0.00 | 1 | 0.57 |

**Table 10.A.8 Special Services Summary for ELA, Grades Seven through Eleven—English-Only Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 1 | 1.28 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 1 | 1.28 | 4 | 6.90 | 9 | 47.37 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 1 | 1.72 | 1 | 5.26 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 1 | 1.28 | 7 | 12.07 | 5 | 26.32 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 5 | 6.41 | 2 | 3.45 | 7 | 36.84 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 2 | 3.45 | 1 | 5.26 |
| Non-Embedded Supports—Separate Setting | 3 | 3.85 | 3 | 5.17 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 4 | 5.13 | 8 | 13.79 | 14 | 73.68 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 1 | 1.72 | 0 | 0.00 |

**Table 10.A.9 Special Services Summary for ELA, Grades Three through Six—Initially Fluent English Proficient (I-FEP) Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 0 | 0.00 | 1 | 16.67 | 0 | 0.00 | 1 | 100.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 0 | 0.00 | 1 | 16.67 | 0 | 0.00 | 1 | 100.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.10 Special Services Summary for ELA, Grades Seven through Eleven—I-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 1 | 50.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 1 | 50.00 | 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 10.A.11 Special Services Summary for ELA, 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** | | | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 4 | 6.15 | 3 | 5.36 | 1 | 2.44 | 2 | 8.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 3 | 4.62 | 2 | 3.57 | 1 | 2.44 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 1 | 1.79 | 3 | 7.32 | 1 | 4.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 1 | 1.54 | 1 | 1.79 | 3 | 7.32 | 2 | 8.00 |
| Non-Embedded Supports—Separate Setting | 1 | 1.54 | 1 | 1.79 | 1 | 2.44 | 2 | 8.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 3 | 4.62 | 4 | 7.14 | 4 | 9.76 | 4 | 16.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.12 Special Services Summary for ELA, Grades Seven through Eleven—EL Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 1 | 7.69 | 1 | 11.11 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 1 | 7.69 | 1 | 11.11 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 1 | 7.69 | 2 | 22.22 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 2 | 15.38 | 2 | 22.22 | 0 | 0.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.13 Special Services Summary for ELA, Grades Three through Six—Reclassified Fluent English Proficient (R-FEP) Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 0 | 0.00 | 2 | 14.29 | 0 | 0.00 | 2 | 12.50 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 1 | 6.67 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 1 | 7.14 | 0 | 0.00 | 1 | 6.25 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 1 | 7.14 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 0 | 0.00 | 2 | 14.29 | 1 | 6.67 | 2 | 12.50 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.14 Special Services Summary for ELA, Grades Seven through Eleven—R-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 2 | 66.67 | 2 | 100.00 | 1 | 100.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 1 | 50.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 1 | 33.33 | 2 | 100.00 | 1 | 100.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.15 Special Services Summary for Mathematics, 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** | | | | | | | | |
| Non-Embedded Supports—Abacus | 2 | 0.29 | 0 | 0.00 | 1 | 0.18 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 1 | 0.15 | 0 | 0.00 | 1 | 0.18 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 9 | 1.32 | 12 | 1.87 | 7 | 1.28 | 7 | 3.08 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 4 | 1.76 |
| Non-Embedded Supports—Large Print | 5 | 0.73 | 5 | 0.78 | 4 | 0.73 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 7 | 1.09 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 17 | 2.49 | 21 | 3.27 | 16 | 2.93 | 9 | 3.96 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 24 | 3.52 | 21 | 3.27 | 12 | 2.20 | 12 | 5.29 |
| Non-Embedded Supports—Scribe | 10 | 1.47 | 14 | 2.18 | 10 | 1.83 | 9 | 3.96 |
| Non-Embedded Supports—Separate Setting | 9 | 1.32 | 16 | 2.49 | 10 | 1.83 | 23 | 10.13 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 31 | 4.55 | 43 | 6.70 | 32 | 5.86 | 24 | 10.57 |
| Designated support or accommodation is in Section 504 plan | 2 | 0.29 | 1 | 0.16 | 0 | 0.00 | 1 | 0.44 |

**Table 10.A.16 Special Services Summary for Mathematics, Grades Seven through Eleven—All Tested**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 1 | 0.95 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 5 | 4.76 | 10 | 12.66 | 9 | 52.94 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 2 | 2.53 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 1 | 1.27 | 1 | 5.88 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 5 | 4.76 | 0 | 0.00 | 4 | 23.53 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 2 | 2.53 | 1 | 5.88 |
| Non-Embedded Supports—Scribe | 3 | 2.86 | 8 | 10.13 | 5 | 29.41 |
| Non-Embedded Supports—Separate Setting | 4 | 3.81 | 3 | 3.80 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 8 | 7.62 | 13 | 16.46 | 11 | 64.71 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 1 | 1.27 | 0 | 0.00 |

**Table 10.A.17 Special Services Summary for Mathematics, Grades Three through Six—Students Not in Special Education**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 1 | 0.17 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 2 | 1.04 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 1 | 0.18 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 6 | 1.00 | 1 | 0.18 | 1 | 0.21 | 1 | 0.52 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 9 | 1.51 | 4 | 0.72 | 1 | 0.21 | 4 | 2.08 |
| Non-Embedded Supports—Scribe | 1 | 0.17 | 1 | 0.18 | 0 | 0.00 | 2 | 1.04 |
| Non-Embedded Supports—Separate Setting | 5 | 0.84 | 2 | 0.36 | 1 | 0.21 | 6 | 3.13 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 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 | 2 | 0.33 | 1 | 0.18 | 0 | 0.00 | 1 | 0.52 |

**Table 10.A.18 Special Services Summary for Mathematics, Grades Seven through Eleven—Students Not in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 2 | 2.13 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 1 | 1.06 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 1 | 1.72 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 1 | 1.72 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 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 | 1 | 1.72 | 0 | 0.00 |

**Table 10.A.19 Special Services Summary for Mathematics, Grades Three through Six—Students in Special Education**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Abacus | 2 | 2.38 | 0 | 0.00 | 1 | 1.37 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 1 | 1.19 | 0 | 0.00 | 1 | 1.37 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 8 | 9.52 | 12 | 13.33 | 7 | 9.59 | 7 | 20.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 2 | 5.71 |
| Non-Embedded Supports—Large Print | 5 | 5.95 | 4 | 4.44 | 4 | 5.48 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 7 | 7.78 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 11 | 13.10 | 20 | 22.22 | 15 | 20.55 | 8 | 22.86 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 15 | 17.86 | 17 | 18.89 | 11 | 15.07 | 8 | 22.86 |
| Non-Embedded Supports—Scribe | 9 | 10.71 | 13 | 14.44 | 10 | 13.70 | 7 | 20.00 |
| Non-Embedded Supports—Separate Setting | 4 | 4.76 | 14 | 15.56 | 9 | 12.33 | 17 | 48.57 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 31 | 36.90 | 43 | 47.78 | 32 | 43.84 | 24 | 68.57 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.20 Special Services Summary for Mathematics, Grades Seven through Eleven—Students in Special Education**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 1 | 9.09 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 3 | 27.27 | 10 | 47.62 | 9 | 69.23 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 2 | 9.52 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 1 | 4.76 | 1 | 7.69 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 4 | 36.36 | 0 | 0.00 | 4 | 30.77 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 2 | 9.52 | 1 | 7.69 |
| Non-Embedded Supports—Scribe | 3 | 27.27 | 7 | 33.33 | 5 | 38.46 |
| Non-Embedded Supports—Separate Setting | 4 | 36.36 | 2 | 9.52 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 8 | 72.73 | 13 | 61.90 | 11 | 84.62 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.21 Special Services Summary for Mathematics, 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 |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Abacus | 2 | 0.34 | 0 | 0.00 | 1 | 0.21 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 1 | 0.21 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 7 | 1.19 | 6 | 1.10 | 6 | 1.25 | 2 | 1.16 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 4 | 2.33 |
| Non-Embedded Supports—Large Print | 3 | 0.51 | 5 | 0.91 | 3 | 0.63 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 7 | 1.28 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 17 | 2.88 | 20 | 3.66 | 13 | 2.71 | 8 | 4.65 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 20 | 3.39 | 19 | 3.47 | 11 | 2.30 | 8 | 4.65 |
| Non-Embedded Supports—Scribe | 7 | 1.19 | 10 | 1.83 | 9 | 1.88 | 8 | 4.65 |
| Non-Embedded Supports—Separate Setting | 8 | 1.36 | 15 | 2.74 | 9 | 1.88 | 19 | 11.05 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 28 | 4.75 | 36 | 6.58 | 27 | 5.64 | 17 | 9.88 |
| Designated support or accommodation is in Section 504 plan | 2 | 0.34 | 1 | 0.18 | 0 | 0.00 | 1 | 0.58 |

**Table 10.A.22 Special Services Summary for Mathematics, Grades Seven through Eleven—English-Only Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 1 | 1.32 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 2 | 2.63 | 6 | 10.71 | 8 | 50.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 2 | 3.57 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 1 | 6.25 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 5 | 6.58 | 0 | 0.00 | 4 | 25.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 2 | 3.57 | 1 | 6.25 |
| Non-Embedded Supports—Scribe | 1 | 1.32 | 6 | 10.71 | 5 | 31.25 |
| Non-Embedded Supports—Separate Setting | 4 | 5.26 | 3 | 5.36 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 5 | 6.58 | 8 | 14.29 | 10 | 62.50 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 1 | 1.79 | 0 | 0.00 |

**Table 10.A.23 Special Services Summary for Mathematics, Grades Three through Six—I-FEP Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 0 | 0.00 | 1 | 16.67 | 0 | 0.00 | 1 | 100.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 0 | 0.00 | 1 | 16.67 | 0 | 0.00 | 1 | 100.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.24 Special Services Summary for Mathematics, Grades Seven through Eleven—I-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 1 | 50.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 1 | 50.00 | 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 10.A.25 Special Services Summary for Mathematics, 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** | | | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 1 | 1.32 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 2 | 2.63 | 3 | 4.23 | 1 | 2.00 | 2 | 5.26 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 2 | 2.63 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 1 | 1.41 | 3 | 6.00 | 1 | 2.63 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 4 | 5.26 | 1 | 1.41 | 1 | 2.00 | 4 | 10.53 |
| Non-Embedded Supports—Scribe | 3 | 3.95 | 3 | 4.23 | 1 | 2.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 1 | 1.32 | 1 | 1.41 | 1 | 2.00 | 4 | 10.53 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 3 | 3.95 | 4 | 5.63 | 4 | 8.00 | 4 | 10.53 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.26 Special Services Summary for Mathematics, Grades Seven through Eleven—EL Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 1 | 4.55 | 1 | 5.26 | 0 | 0.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 1 | 5.26 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 1 | 4.55 | 2 | 10.53 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 1 | 4.55 | 2 | 10.53 | 0 | 0.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.27 Special Services Summary for Mathematics, Grades Three through Six—R-FEP Students**

| | Grade 3 | Pct. of Total | Grade 4 | Pct. of Total | Grade 5 | Pct. of Total | Grade 6 | Pct. of Total |
|---|---|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 0 | 0.00 | 2 | 14.29 | 0 | 0.00 | 2 | 12.50 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 1 | 6.67 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 1 | 7.14 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 1 | 7.14 | 0 | 0.00 | 1 | 6.25 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 0 | 0.00 | 2 | 14.29 | 1 | 6.67 | 2 | 12.50 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

**Table 10.A.28 Special Services Summary for Mathematics, Grades Seven through Eleven—R-FEP Students**

| | Grade 7 | Pct. of Total | Grade 8 | Pct. of Total | Grade 11 | Pct. of Total |
|---|---|---|---|---|---|---|
| **Accommodations** | | | | | | |
| Non-Embedded Supports—Abacus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Alternate Response Options | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—American Sign Language | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Braille | 2 | 50.00 | 3 | 100.00 | 1 | 100.00 |
| Non-Embedded Supports—Calculator | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Large Print | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Print on Demand | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Text-to-Speech | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Designated Supports** | | | | | | |
| Non-Embedded Supports—Administration of the test at the most beneficial time of day | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Contrast | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Color Overlay | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Magnification | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Noise Buffers | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Read Aloud | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Scribe | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Separate Setting | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Special Lighting or Acoustics | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translated Test Directions | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Translations (Glossary) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| **Individualized Aid** | | | | | | |
| Non-Embedded Supports—Bilingual Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—English Dictionary | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Individualized Aid (non-specific) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Mathematics Tools | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Non-Embedded Supports—Multiplication Table | N/A | N/A | N/A | N/A | N/A | N/A |
| Non-Embedded Supports—Thesaurus | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Designated support or accommodation is in IEP | 1 | 25.00 | 3 | 100.00 | 1 | 100.00 |
| Designated support or accommodation is in Section 504 plan | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |

# Appendix 10.B: Score Distributions for Paper-Pencil Tests

**Table 10.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] | 15 | 8 | 9 | – | – | – | – |
| (-3.5,-3.0] | 9 | 3 | 2 | 2 | – | – | – |
| (-3.0,–2.5] | 35 | 10 | 2 | 4 | 4 | 4 | – |
| (–2.5,–2.0] | 94 | 25 | 14 | 3 | 2 | 2 | 3 |
| (–2.0,–1.5] | 106 | 62 | 24 | 12 | 1 | 6 | – |
| (–1.5,–1.0] | 98 | 94 | 47 | 27 | 2 | 8 | 1 |
| (–1.0,–0.5] | 109 | 98 | 67 | 33 | 10 | 12 | – |
| (–0.5,0.0] | 102 | 112 | 95 | 24 | 13 | 16 | 1 |
| (0.0,0.5] | 61 | 87 | 105 | 30 | 12 | 6 | 1 |
| (0.5,1.0] | 25 | 70 | 70 | 34 | 11 | 9 | 5 |
| (1.0,1.5] | 14 | 43 | 58 | 24 | 16 | 2 | 1 |
| (1.5,2.0] | – | 14 | 30 | 14 | 13 | 2 | 4 |
| (2.0,2.5] | – | – | 15 | 6 | 5 | 1 | 2 |
| (2.5,3.0] | – | – | – | 3 | 8 | 1 | 1 |
| (3.0,3.5] | – | – | – | – | – | – | 1 |

**Table 10.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] | 14 | – | – | – | – | – | – |
| (–4.0,–3.5] | 5 | 6 | 4 | 9 | – | – | – |
| (–3.5,–3.0] | 15 | 1 | 1 | | 4 | 5 | – |
| (–3.0,–2.5] | 44 | 15 | 4 | 2 | | | 1 |
| (–2.5,–2.0] | 92 | 31 | 15 | 5 | 4 | 4 | 1 |
| (–2.0,-1.5] | 141 | 74 | 34 | 6 | 4 | 8 | – |
| (-1.5,-1.0] | 151 | 135 | 75 | 23 | 2 | 7 | 1 |
| (-1.0,–0.5] | 115 | 127 | 113 | 30 | 8 | 15 | 1 |
| (–0.5,0.0] | 70 | 120 | 106 | 29 | 11 | 16 | 1 |
| (0.0,0.5] | 28 | 84 | 94 | 48 | 18 | 14 | |
| (0.5,1.0] | 6 | 30 | 55 | 39 | 16 | 5 | 6 |
| (1.0,1.5] | 1 | 14 | 25 | 15 | 11 | 1 | 2 |
| (1.5,2.0] | – | 5 | 13 | 14 | 15 | 2 | 1 |
| (2.0,2.5] | – | – | 7 | 5 | 5 | 1 | 3 |
| (2.5,3.0] | – | – | – | 2 | 5 | 1 | – |
| (3.0,3.5] | – | – | – | – | 2 | – | – |

**Table 10.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 | 2114 | 2131 | 2201 | 2255 | 2258 | 2288 | 2299 |
| p10 | 2298 | 2350 | 2386 | 2381 | 2424 | 2340 | 2299 |
| p20 | 2330 | 2389 | 2432 | 2419 | 2465 | 2386 | 2434 |
| p30 | 2356 | 2418 | 2464 | 2446 | 2503 | 2425 | 2560 |
| p40 | 2384 | 2445 | 2490 | 2474 | 2528 | 2453 | 2580 |
| p50 | 2413 | 2468 | 2515 | 2510 | 2571 | 2466 | 2587 |
| p60 | 2443 | 2497 | 2534 | 2541 | 2604 | 2483 | 2641 |
| p70 | 2465 | 2521 | 2556 | 2573 | 2626 | 2516 | 2656 |
| p80 | 2491 | 2553 | 2592 | 2600 | 2647 | 2556 | 2686 |
| p90 | 2527 | 2591 | 2628 | 2646 | 2697 | 2591 | 2725 |
| p99 | 2611 | 2662 | 2701 | 2724 | 2745 | 2728 | 2795 |

**Table 10.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 | 2189 | 2204 | 2284 | 2235 | 2250 | 2265 | 2280 |
| p10 | 2313 | 2364 | 2390 | 2397 | 2384 | 2346 | 2343 |
| p20 | 2345 | 2396 | 2424 | 2437 | 2471 | 2394 | 2456 |
| p30 | 2368 | 2417 | 2447 | 2466 | 2510 | 2432 | 2559 |
| p40 | 2387 | 2435 | 2466 | 2504 | 2532 | 2452 | 2564 |
| p50 | 2406 | 2455 | 2486 | 2529 | 2559 | 2476 | 2584 |
| p60 | 2423 | 2474 | 2505 | 2545 | 2587 | 2498 | 2592 |
| p70 | 2444 | 2495 | 2525 | 2558 | 2625 | 2516 | 2612 |
| p80 | 2467 | 2516 | 2547 | 2582 | 2652 | 2545 | 2647 |
| p90 | 2491 | 2543 | 2587 | 2619 | 2675 | 2579 | 2690 |
| p99 | 2572 | 2631 | 2686 | 2695 | 2766 | 2713 | 2712 |

**Table 10.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] | 12 | 12 | 2% | 2% |
| [2120, 2129] | – | – | – | – |
| [2130, 2139] | – | – | – | – |
| [2140, 2149] | – | – | – | – |
| [2150, 2159] | 1 | 13 | 0% | 2% |
| [2160, 2169] | – | – | – | – |
| [2170, 2179] | – | – | – | – |
| [2180, 2189] | – | – | – | – |
| [2190, 2199] | 1 | 14 | 0% | 2% |
| [2200, 2209] | 2 | 16 | 0% | 2% |
| [2210, 2219] | 1 | 17 | 0% | 3% |
| [2220, 2229] | 1 | 18 | 0% | 3% |
| [2230, 2239] | 6 | 24 | 1% | 4% |
| [2240, 2249] | 1 | 25 | 0% | 4% |
| [2250, 2259] | 2 | 27 | 0% | 4% |
| [2260, 2269] | 6 | 33 | 1% | 5% |
| [2270, 2279] | 12 | 45 | 2% | 7% |
| [2280, 2289] | 8 | 53 | 1% | 8% |
| [2290, 2299] | 15 | 68 | 2% | 10% |
| [2300, 2309] | 21 | 89 | 3% | 13% |
| [2310, 2319] | 19 | 108 | 3% | 16% |
| [2320, 2329] | 25 | 133 | 4% | 20% |
| [2330, 2339] | 26 | 159 | 4% | 24% |
| [2340, 2349] | 21 | 180 | 3% | 27% |
| [2350, 2359] | 25 | 205 | 4% | 31% |
| [2360, 2369] | 28 | 233 | 4% | 35% |
| [2370, 2379] | 27 | 260 | 4% | 39% |
| [2380, 2389] | 18 | 278 | 3% | 42% |
| [2390, 2399] | 26 | 304 | 4% | 45% |
| [2400, 2409] | 26 | 330 | 4% | 49% |
| [2410, 2419] | 20 | 350 | 3% | 52% |
| [2420, 2429] | 21 | 371 | 3% | 55% |
| [2430, 2439] | 20 | 391 | 3% | 58% |
| [2440, 2449] | 30 | 421 | 4% | 63% |
| [2450, 2459] | 32 | 453 | 5% | 68% |
| [2460, 2469] | 28 | 481 | 4% | 72% |
| [2470, 2479] | 23 | 504 | 3% | 75% |
| [2480, 2489] | 25 | 529 | 4% | 79% |
| [2490, 2499] | 24 | 553 | 4% | 83% |
| [2500, 2509] | 19 | 572 | 3% | 86% |
| [2510, 2519] | 15 | 587 | 2% | 88% |
| [2520, 2529] | 20 | 607 | 3% | 91% |
| [2530, 2539] | 10 | 617 | 1% | 92% |
| [2540, 2549] | 11 | 628 | 2% | 94% |
| [2550, 2559] | 9 | 637 | 1% | 95% |
| [2560, 2569] | 5 | 642 | 1% | 96% |
| [2570, 2579] | 8 | 650 | 1% | 97% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2580, 2589] | 4 | 654 | 1% | 98% |
| [2590, 2599] | 5 | 659 | 1% | 99% |
| [2600, 2609] | 3 | 662 | 0% | 99% |
| [2610, 2619] | 4 | 666 | 1% | 100% |
| [2620, 2623] | 3 | 669 | 0% | 100% |

**Table 10.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] | 7 | 7 | 1% | 1% |
| [2140, 2149] | – | – | – | – |
| [2150, 2159] | – | – | – | – |
| [2160, 2169] | – | – | – | – |
| [2170, 2179] | – | – | – | – |
| [2180, 2189] | – | – | – | – |
| [2190, 2199] | 1 | 8 | 0% | 1% |
| [2200, 2209] | – | – | – | – |
| [2210, 2219] | – | – | – | – |
| [2220, 2229] | – | – | – | – |
| [2230, 2239] | – | – | – | – |
| [2240, 2249] | 2 | 10 | 0% | 2% |
| [2250, 2259] | 2 | 12 | 0% | 2% |
| [2260, 2269] | 1 | 13 | 0% | 2% |
| [2270, 2279] | 4 | 17 | 1% | 3% |
| [2280, 2289] | 1 | 18 | 0% | 3% |
| [2290, 2299] | 4 | 22 | 1% | 4% |
| [2300, 2309] | 2 | 24 | 0% | 4% |
| [2310, 2319] | 9 | 33 | 1% | 5% |
| [2320, 2329] | 7 | 40 | 1% | 6% |
| [2330, 2339] | 11 | 51 | 2% | 8% |
| [2340, 2349] | 11 | 62 | 2% | 10% |
| [2350, 2359] | 15 | 77 | 2% | 12% |
| [2360, 2369] | 18 | 95 | 3% | 15% |
| [2370, 2379] | 13 | 108 | 2% | 17% |
| [2380, 2389] | 19 | 127 | 3% | 20% |
| [2390, 2399] | 24 | 151 | 4% | 24% |
| [2400, 2409] | 24 | 175 | 4% | 28% |
| [2410, 2419] | 16 | 191 | 3% | 31% |
| [2420, 2429] | 32 | 223 | 5% | 36% |
| [2430, 2439] | 19 | 242 | 3% | 39% |
| [2440, 2449] | 21 | 263 | 3% | 42% |
| [2450, 2459] | 26 | 289 | 4% | 46% |
| [2460, 2469] | 26 | 315 | 4% | 50% |
| [2470, 2479] | 23 | 338 | 4% | 54% |
| [2480, 2489] | 15 | 353 | 2% | 56% |
| [2490, 2499] | 36 | 389 | 6% | 62% |
| [2500, 2509] | 26 | 415 | 4% | 66% |
| [2510, 2519] | 20 | 435 | 3% | 69% |
| [2520, 2529] | 23 | 458 | 4% | 73% |
| [2530, 2539] | 15 | 473 | 2% | 76% |
| [2540, 2549] | 20 | 493 | 3% | 79% |
| [2550, 2559] | 18 | 511 | 3% | 82% |
| [2560, 2569] | 22 | 533 | 4% | 85% |
| [2570, 2579] | 18 | 551 | 3% | 88% |
| [2580, 2589] | 10 | 561 | 2% | 90% |
| [2590, 2599] | 14 | 575 | 2% | 92% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2600, 2609] | 14 | 589 | 2% | 94% |
| [2610, 2619] | 8 | 597 | 1% | 95% |
| [2620, 2629] | 10 | 607 | 2% | 97% |
| [2630, 2639] | 5 | 612 | 1% | 98% |
| [2640, 2649] | 4 | 616 | 1% | 98% |
| [2650, 2659] | 3 | 619 | 0% | 99% |
| [2660, 2663] | 7 | 626 | 1% | 100% |

**Table 10.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] | 9 | 9 | 2% | 2% |
| [2210, 2219] | – | – | – | – |
| [2220, 2229] | 1 | 10 | 0% | 2% |
| [2230, 2239] | 1 | 11 | 0% | 2% |
| [2240, 2249] | – | – | – | – |
| [2250, 2259] | – | – | – | – |
| [2260, 2269] | – | – | – | – |
| [2270, 2279] | – | – | – | – |
| [2280, 2289] | 2 | 13 | 0% | 2% |
| [2290, 2299] | 1 | 14 | 0% | 3% |
| [2300, 2309] | 3 | 17 | 1% | 3% |
| [2310, 2319] | 4 | 21 | 1% | 4% |
| [2320, 2329] | 2 | 23 | 0% | 4% |
| [2330, 2339] | 4 | 27 | 1% | 5% |
| [2340, 2349] | 6 | 33 | 1% | 6% |
| [2350, 2359] | 8 | 41 | 1% | 8% |
| [2360, 2369] | 6 | 47 | 1% | 9% |
| [2370, 2379] | 4 | 51 | 1% | 9% |
| [2380, 2389] | 5 | 56 | 1% | 10% |
| [2390, 2399] | 8 | 64 | 1% | 12% |
| [2400, 2409] | 15 | 79 | 3% | 15% |
| [2410, 2419] | 15 | 94 | 3% | 17% |
| [2420, 2429] | 12 | 106 | 2% | 20% |
| [2430, 2439] | 12 | 118 | 2% | 22% |
| [2440, 2449] | 18 | 136 | 3% | 25% |
| [2450, 2459] | 20 | 156 | 4% | 29% |
| [2460, 2469] | 18 | 174 | 3% | 32% |
| [2470, 2479] | 21 | 195 | 4% | 36% |
| [2480, 2489] | 19 | 214 | 4% | 40% |
| [2490, 2499] | 21 | 235 | 4% | 44% |
| [2500, 2509] | 25 | 260 | 5% | 48% |
| [2510, 2519] | 19 | 279 | 4% | 52% |
| [2520, 2529] | 30 | 309 | 6% | 57% |
| [2530, 2539] | 28 | 337 | 5% | 63% |
| [2540, 2549] | 23 | 360 | 4% | 67% |
| [2550, 2559] | 18 | 378 | 3% | 70% |
| [2560, 2569] | 16 | 394 | 3% | 73% |
| [2570, 2579] | 19 | 413 | 4% | 77% |
| [2580, 2589] | 15 | 428 | 3% | 80% |
| [2590, 2599] | 16 | 444 | 3% | 83% |
| [2600, 2609] | 17 | 461 | 3% | 86% |
| [2610, 2619] | 13 | 474 | 2% | 88% |
| [2620, 2629] | 14 | 488 | 3% | 91% |
| [2630, 2639] | 5 | 493 | 1% | 92% |
| [2640, 2649] | 11 | 504 | 2% | 94% |
| [2650, 2659] | 7 | 511 | 1% | 95% |
| [2660, 2669] | 8 | 519 | 1% | 96% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2670, 2679] | 4 | 523 | 1% | 97% |
| [2680, 2689] | 4 | 527 | 1% | 98% |
| [2690, 2699] | 1 | 528 | 0% | 98% |
| [2700, 2701] | 10 | 538 | 2% | 100% |

**Table 10.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] | 1 | 1 | 0% | 0% |
| [2220, 2229] | 1 | 2 | 0% | 1% |
| [2230, 2239] | – | – | – | – |
| [2240, 2249] | – | – | – | – |
| [2250, 2259] | 2 | 4 | 1% | 2% |
| [2260, 2269] | – | – | – | – |
| [2270, 2279] | – | – | – | – |
| [2280, 2289] | 2 | 6 | 1% | 3% |
| [2290, 2299] | – | – | – | – |
| [2300, 2309] | 2 | 8 | 1% | 4% |
| [2310, 2319] | – | – | – | – |
| [2320, 2329] | – | – | – | – |
| [2330, 2339] | 1 | 9 | 0% | 4% |
| [2340, 2349] | 2 | 11 | 1% | 5% |
| [2350, 2359] | 2 | 13 | 1% | 6% |
| [2360, 2369] | 5 | 18 | 2% | 8% |
| [2370, 2379] | 3 | 21 | 1% | 10% |
| [2380, 2389] | 8 | 29 | 4% | 13% |
| [2390, 2399] | 6 | 35 | 3% | 16% |
| [2400, 2409] | 3 | 38 | 1% | 18% |
| [2410, 2419] | 6 | 44 | 3% | 20% |
| [2420, 2429] | 8 | 52 | 4% | 24% |
| [2430, 2439] | 6 | 58 | 3% | 27% |
| [2440, 2449] | 10 | 68 | 5% | 31% |
| [2450, 2459] | 8 | 76 | 4% | 35% |
| [2460, 2469] | 7 | 83 | 3% | 38% |
| [2470, 2479] | 4 | 87 | 2% | 40% |
| [2480, 2489] | 3 | 90 | 1% | 42% |
| [2490, 2499] | 8 | 98 | 4% | 45% |
| [2500, 2509] | 10 | 108 | 5% | 50% |
| [2510, 2519] | 12 | 120 | 6% | 56% |
| [2520, 2529] | 3 | 123 | 1% | 57% |
| [2530, 2539] | 6 | 129 | 3% | 60% |
| [2540, 2549] | 3 | 132 | 1% | 61% |
| [2550, 2559] | 8 | 140 | 4% | 65% |
| [2560, 2569] | 7 | 147 | 3% | 68% |
| [2570, 2579] | 10 | 157 | 5% | 73% |
| [2580, 2589] | 8 | 165 | 4% | 76% |
| [2590, 2599] | 7 | 172 | 3% | 80% |
| [2600, 2609] | 7 | 179 | 3% | 83% |
| [2610, 2619] | 7 | 186 | 3% | 86% |
| [2620, 2629] | 5 | 191 | 2% | 88% |
| [2630, 2639] | 2 | 193 | 1% | 89% |
| [2640, 2649] | 5 | 198 | 2% | 92% |
| [2650, 2659] | 6 | 204 | 3% | 94% |
| [2660, 2669] | 1 | 205 | 0% | 95% |
| [2670, 2679] | 2 | 207 | 1% | 96% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2680, 2689] | 2 | 209 | 1% | 97% |
| [2690, 2699] | – | – | – | – |
| [2700, 2709] | 3 | 212 | 1% | 98% |
| [2710, 2719] | 1 | 213 | 0% | 99% |
| [2720, 2724] | 3 | 216 | 1% | 100% |

**Table 10.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] | 2 | 2 | 2% | 2% |
| [2260, 2269] | – | – | – | – |
| [2270, 2279] | 1 | 3 | 1% | 3% |
| [2280, 2289] | – | – | – | – |
| [2290, 2299] | 1 | 4 | 1% | 4% |
| [2300, 2309] | 1 | 5 | 1% | 5% |
| [2310, 2319] | – | – | – | – |
| [2320, 2329] | 1 | 6 | 1% | 6% |
| [2330, 2339] | – | – | – | – |
| [2340, 2349] | – | – | – | – |
| [2350, 2359] | – | – | – | – |
| [2360, 2369] | 1 | 7 | 1% | 7% |
| [2370, 2379] | – | – | – | – |
| [2380, 2389] | – | – | – | – |
| [2390, 2399] | 1 | 8 | 1% | 8% |
| [2400, 2409] | | | | |
| [2410, 2419] | 1 | 9 | 1% | 9% |
| [2420, 2429] | 2 | 11 | 2% | 11% |
| [2430, 2439] | 1 | 12 | 1% | 12% |
| [2440, 2449] | 2 | 14 | 2% | 14% |
| [2450, 2459] | 3 | 17 | 3% | 18% |
| [2460, 2469] | 5 | 22 | 5% | 23% |
| [2470, 2479] | 1 | 23 | 1% | 24% |
| [2480, 2489] | 1 | 24 | 1% | 25% |
| [2490, 2499] | 2 | 26 | 2% | 27% |
| [2500, 2509] | 7 | 33 | 7% | 34% |
| [2510, 2519] | 2 | 35 | 2% | 36% |
| [2520, 2529] | 5 | 40 | 5% | 41% |
| [2530, 2539] | 3 | 43 | 3% | 44% |
| [2540, 2549] | 1 | 44 | 1% | 45% |
| [2550, 2559] | 1 | 45 | 1% | 46% |
| [2560, 2569] | 3 | 48 | 3% | 49% |
| [2570, 2579] | 2 | 50 | 2% | 52% |
| [2580, 2589] | 2 | 52 | 2% | 54% |
| [2590, 2599] | 6 | 58 | 6% | 60% |
| [2600, 2609] | 5 | 63 | 5% | 65% |
| [2610, 2619] | 4 | 67 | 4% | 69% |
| [2620, 2629] | 2 | 69 | 2% | 71% |
| [2630, 2639] | 4 | 73 | 4% | 75% |
| [2640, 2649] | 5 | 78 | 5% | 80% |
| [2650, 2659] | 3 | 81 | 3% | 84% |
| [2660, 2669] | 2 | 83 | 2% | 86% |
| [2670, 2679] | 1 | 84 | 1% | 87% |
| [2680, 2689] | 3 | 87 | 3% | 90% |
| [2690, 2699] | 1 | 88 | 1% | 91% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2700, 2709] | – | – | – | – |
| [2710, 2719] | 1 | 89 | 1% | 92% |
| [2720, 2729] | – | – | – | – |
| [2730, 2739] | 6 | 95 | 6% | 98% |
| [2740, 2745] | 2 | 97 | 2% | 100% |

**Table 10.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] | 4 | 4 | 6% | 6% |
| [2290, 2299] | – | – | – | – |
| [2300, 2309] | – | – | – | – |
| [2310, 2319] | – | – | – | – |
| [2320, 2329] | 1 | 5 | 1% | 7% |
| [2330, 2339] | 1 | 6 | 1% | 9% |
| [2340, 2349] | 2 | 8 | 3% | 12% |
| [2350, 2359] | 3 | 11 | 4% | 16% |
| [2360, 2369] | 1 | 12 | 1% | 17% |
| [2370, 2379] | – | – | – | – |
| [2380, 2389] | 2 | 14 | 3% | 20% |
| [2390, 2399] | 2 | 16 | 3% | 23% |
| [2400, 2409] | 1 | 17 | 1% | 25% |
| [2410, 2419] | 3 | 20 | 4% | 29% |
| [2420, 2429] | 1 | 21 | 1% | 30% |
| [2430, 2439] | 2 | 23 | 3% | 33% |
| [2440, 2449] | 3 | 26 | 4% | 38% |
| [2450, 2459] | 5 | 31 | 7% | 45% |
| [2460, 2469] | 7 | 38 | 10% | 55% |
| [2470, 2479] | 2 | 40 | 3% | 58% |
| [2480, 2489] | 5 | 45 | 7% | 65% |
| [2490, 2499] | 2 | 47 | 3% | 68% |
| [2500, 2509] | 1 | 48 | 1% | 70% |
| [2510, 2519] | 1 | 49 | 1% | 71% |
| [2520, 2529] | 1 | 50 | 1% | 72% |
| [2530, 2539] | 2 | 52 | 3% | 75% |
| [2540, 2549] | 2 | 54 | 3% | 78% |
| [2550, 2559] | 2 | 56 | 3% | 81% |
| [2560, 2569] | 2 | 58 | 3% | 84% |
| [2570, 2579] | 1 | 59 | 1% | 86% |
| [2580, 2589] | 3 | 62 | 4% | 90% |
| [2590, 2599] | 2 | 64 | 3% | 93% |
| [2600, 2609] | 1 | 65 | 1% | 94% |
| [2610, 2619] | – | – | – | – |
| [2620, 2629] | – | – | – | – |
| [2630, 2639] | – | – | – | – |
| [2640, 2649] | – | – | – | – |
| [2650, 2659] | – | – | – | – |
| [2660, 2669] | 2 | 67 | 3% | 97% |
| [2670, 2679] | – | – | – | – |
| [2680, 2689] | – | – | – | – |
| [2690, 2699] | – | – | – | – |
| [2700, 2709] | 1 | 68 | 1% | 99% |
| [2710, 2719] | – | – | – | – |
| [2720, 2729] | 1 | 69 | 1% | 100% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2730, 2739] | – | – | – | – |
| [2740, 2749] | – | – | – | – |
| [2750, 2759] | – | – | – | – |
| [2760, 2769] | – | – | – | – |

**Table 10.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] | 3 | 3 | 15% | 15% |
| [2300, 2309] | – | – | – | – |
| [2310, 2319] | – | – | – | – |
| [2320, 2329] | – | – | – | – |
| [2330, 2339] | – | – | – | – |
| [2340, 2349] | – | – | – | – |
| [2350, 2359] | – | – | – | – |
| [2360, 2369] | – | – | – | – |
| [2370, 2379] | – | – | – | – |
| [2380, 2389] | – | – | – | – |
| [2390, 2399] | 1 | 4 | 5% | 20% |
| [2400, 2409] | – | – | – | – |
| [2410, 2419] | – | – | – | – |
| [2420, 2429] | – | – | – | – |
| [2430, 2439] | – | – | – | – |
| [2440, 2449] | – | – | – | – |
| [2450, 2459] | – | – | – | – |
| [2460, 2469] | – | – | – | – |
| [2470, 2479] | 1 | 5 | 5% | 25% |
| [2480, 2489] | – | – | – | – |
| [2490, 2499] | – | – | – | – |
| [2500, 2509] | – | – | – | – |
| [2510, 2519] | – | – | – | – |
| [2520, 2529] | – | – | – | – |
| [2530, 2539] | – | – | – | – |
| [2540, 2549] | 1 | 6 | 5% | 30% |
| [2550, 2559] | – | – | – | – |
| [2560, 2569] | – | – | – | – |
| [2570, 2579] | 2 | 8 | 10% | 40% |
| [2580, 2589] | 3 | 11 | 15% | 55% |
| [2590, 2599] | – | – | – | – |
| [2600, 2609] | – | – | – | – |
| [2610, 2619] | – | – | – | – |
| [2620, 2629] | – | – | – | – |
| [2630, 2639] | 1 | 12 | 5% | 60% |
| [2640, 2649] | 1 | 13 | 5% | 65% |
| [2650, 2659] | 1 | 14 | 5% | 70% |
| [2660, 2669] | 1 | 15 | 5% | 75% |
| [2670, 2679] | 1 | 16 | 5% | 80% |
| [2680, 2689] | – | – | – | – |
| [2690, 2699] | 2 | 18 | 10% | 90% |
| [2700, 2709] | – | – | – | – |
| [2710, 2719] | – | – | – | – |
| [2720, 2729] | – | – | – | – |
| [2730, 2739] | – | – | – | – |
| [2740, 2749] | – | – | – | – |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2750, 2759] | 1 | 19 | 5% | 95% |
| [2760, 2769] | – | – | – | – |
| [2770, 2779] | – | – | – | – |
| [2780, 2789] | – | – | – | – |
| [2790, 2795] | 1 | 20 | 5% | 100% |

**Table 10.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] | 16 | 16 | 2% | 2% |
| [2190, 2199] | – | – | – | – |
| [2200, 2209] | 2 | 18 | 0% | 3% |
| [2210, 2219] | – | – | – | – |
| [2220, 2229] | 2 | 20 | 0% | 3% |
| [2230, 2239] | 3 | 23 | 0% | 3% |
| [2240, 2249] | 1 | 24 | 0% | 4% |
| [2250, 2259] | 6 | 30 | 1% | 4% |
| [2260, 2269] | 3 | 33 | 0% | 5% |
| [2270, 2279] | 2 | 35 | 0% | 5% |
| [2280, 2289] | 5 | 40 | 1% | 6% |
| [2290, 2299] | 8 | 48 | 1% | 7% |
| [2300, 2309] | 14 | 62 | 2% | 9% |
| [2310, 2319] | 18 | 80 | 3% | 12% |
| [2320, 2329] | 16 | 96 | 2% | 14% |
| [2330, 2339] | 27 | 123 | 4% | 18% |
| [2340, 2349] | 28 | 151 | 4% | 22% |
| [2350, 2359] | 22 | 173 | 3% | 25% |
| [2360, 2369] | 40 | 213 | 6% | 31% |
| [2370, 2379] | 37 | 250 | 5% | 37% |
| [2380, 2389] | 31 | 281 | 5% | 41% |
| [2390, 2399] | 33 | 314 | 5% | 46% |
| [2400, 2409] | 41 | 355 | 6% | 52% |
| [2410, 2419] | 43 | 398 | 6% | 58% |
| [2420, 2429] | 40 | 438 | 6% | 64% |
| [2430, 2439] | 34 | 472 | 5% | 69% |
| [2440, 2449] | 26 | 498 | 4% | 73% |
| [2450, 2459] | 29 | 527 | 4% | 77% |
| [2460, 2469] | 28 | 555 | 4% | 81% |
| [2470, 2479] | 29 | 584 | 4% | 86% |
| [2480, 2489] | 26 | 610 | 4% | 89% |
| [2490, 2499] | 21 | 631 | 3% | 93% |
| [2500, 2509] | 6 | 637 | 1% | 93% |
| [2510, 2519] | 14 | 651 | 2% | 95% |
| [2520, 2529] | 15 | 666 | 2% | 98% |
| [2530, 2539] | 5 | 671 | 1% | 98% |
| [2540, 2549] | 3 | 674 | 0% | 99% |
| [2550, 2559] | 1 | 675 | 0% | 99% |
| [2560, 2569] | – | – | – | – |
| [2570, 2579] | 3 | 678 | 0% | 99% |
| [2580, 2589] | 2 | 680 | 0% | 100% |
| [2590, 2599] | 1 | 681 | 0% | 100% |
| [2600, 2609] | – | – | – | – |
| [2610, 2619] | – | – | – | – |
| [2620, 2621] | 1 | 682 | 0% | 100% |

**Table 10.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] | 7 | 7 | 1% | 1% |
| [2210, 2219] | – | – | – | – |
| [2220, 2229] | – | – | – | – |
| [2230, 2239] | – | – | – | – |
| [2240, 2249] | – | – | – | – |
| [2250, 2259] | – | – | – | – |
| [2260, 2269] | – | – | – | – |
| [2270, 2279] | 2 | 9 | 0% | 1% |
| [2280, 2289] | – | – | – | – |
| [2290, 2299] | 4 | 13 | 1% | 2% |
| [2300, 2309] | 5 | 18 | 1% | 3% |
| [2310, 2319] | 4 | 22 | 1% | 3% |
| [2320, 2329] | 4 | 26 | 1% | 4% |
| [2330, 2339] | 6 | 32 | 1% | 5% |
| [2340, 2349] | 12 | 44 | 2% | 7% |
| [2350, 2359] | 15 | 59 | 2% | 9% |
| [2360, 2369] | 9 | 68 | 1% | 11% |
| [2370, 2379] | 23 | 91 | 4% | 14% |
| [2380, 2389] | 20 | 111 | 3% | 17% |
| [2390, 2399] | 27 | 138 | 4% | 21% |
| [2400, 2409] | 28 | 166 | 4% | 26% |
| [2410, 2419] | 37 | 203 | 6% | 32% |
| [2420, 2429] | 33 | 236 | 5% | 37% |
| [2430, 2439] | 36 | 272 | 6% | 42% |
| [2440, 2449] | 33 | 305 | 5% | 48% |
| [2450, 2459] | 30 | 335 | 5% | 52% |
| [2460, 2469] | 39 | 374 | 6% | 58% |
| [2470, 2479] | 36 | 410 | 6% | 64% |
| [2480, 2489] | 24 | 434 | 4% | 68% |
| [2490, 2499] | 29 | 463 | 5% | 72% |
| [2500, 2509] | 33 | 496 | 5% | 77% |
| [2510, 2519] | 26 | 522 | 4% | 81% |
| [2520, 2529] | 31 | 553 | 5% | 86% |
| [2530, 2539] | 15 | 568 | 2% | 88% |
| [2540, 2549] | 22 | 590 | 3% | 92% |
| [2550, 2559] | 9 | 599 | 1% | 93% |
| [2560, 2569] | 8 | 607 | 1% | 95% |
| [2570, 2579] | 5 | 612 | 1% | 95% |
| [2580, 2589] | 9 | 621 | 1% | 97% |
| [2590, 2599] | 3 | 624 | 0% | 97% |
| [2600, 2609] | 4 | 628 | 1% | 98% |
| [2610, 2619] | 4 | 632 | 1% | 98% |
| [2620, 2629] | 3 | 635 | 0% | 99% |
| [2630, 2639] | 4 | 639 | 1% | 100% |
| [2640, 2649] | 1 | 640 | 0% | 100% |
| [2650, 2659] | 2 | 642 | 0% | 100% |

**Table 10.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] | 4 | 4 | 1% | 1% |
| [2220, 2229] | – | – | – | – |
| [2230, 2239] | – | – | – | – |
| [2240, 2249] | – | – | – | – |
| [2250, 2259] | 1 | 5 | 0% | 1% |
| [2260, 2269] | – | – | – | – |
| [2270, 2279] | – | – | – | – |
| [2280, 2289] | 1 | 6 | 0% | 1% |
| [2290, 2299] | – | – | – | – |
| [2300, 2309] | 2 | 8 | 0% | 1% |
| [2310, 2319] | 1 | 9 | 0% | 2% |
| [2320, 2329] | 5 | 14 | 1% | 3% |
| [2330, 2339] | 1 | 15 | 0% | 3% |
| [2340, 2349] | 7 | 22 | 1% | 4% |
| [2350, 2359] | 4 | 26 | 1% | 5% |
| [2360, 2369] | 6 | 32 | 1% | 6% |
| [2370, 2379] | 8 | 40 | 1% | 7% |
| [2380, 2389] | 14 | 54 | 3% | 10% |
| [2390, 2399] | 8 | 62 | 1% | 11% |
| [2400, 2409] | 16 | 78 | 3% | 14% |
| [2410, 2419] | 21 | 99 | 4% | 18% |
| [2420, 2429] | 21 | 120 | 4% | 22% |
| [2430, 2439] | 23 | 143 | 4% | 26% |
| [2440, 2449] | 27 | 170 | 5% | 31% |
| [2450, 2459] | 23 | 193 | 4% | 35% |
| [2460, 2469] | 35 | 228 | 6% | 42% |
| [2470, 2479] | 31 | 259 | 6% | 47% |
| [2480, 2489] | 27 | 286 | 5% | 52% |
| [2490, 2499] | 30 | 316 | 5% | 58% |
| [2500, 2509] | 22 | 338 | 4% | 62% |
| [2510, 2519] | 28 | 366 | 5% | 67% |
| [2520, 2529] | 27 | 393 | 5% | 72% |
| [2530, 2539] | 22 | 415 | 4% | 76% |
| [2540, 2549] | 23 | 438 | 4% | 80% |
| [2550, 2559] | 15 | 453 | 3% | 83% |
| [2560, 2569] | 13 | 466 | 2% | 85% |
| [2570, 2579] | 12 | 478 | 2% | 88% |
| [2580, 2589] | 17 | 495 | 3% | 91% |
| [2590, 2599] | 9 | 504 | 2% | 92% |
| [2600, 2609] | 5 | 509 | 1% | 93% |
| [2610, 2619] | 7 | 516 | 1% | 95% |
| [2620, 2629] | 9 | 525 | 2% | 96% |
| [2630, 2639] | 6 | 531 | 1% | 97% |
| [2640, 2649] | 2 | 533 | 0% | 98% |
| [2650, 2659] | 3 | 536 | 1% | 98% |
| [2660, 2669] | 2 | 538 | 0% | 99% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2670, 2679] | 2 | 540 | 0% | 99% |
| [2680, 2689] | 3 | 543 | 1% | 99% |
| [2690, 2699] | 1 | 544 | 0% | 100% |
| [2700, 2700] | 2 | 546 | 0% | 100% |

**Table 10.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] | 9 | 9 | 4% | 4% |
| [2240, 2249] | – | – | – | – |
| [2250, 2259] | – | – | – | – |
| [2260, 2269] | – | – | – | – |
| [2270, 2279] | – | – | – | – |
| [2280, 2289] | – | – | – | – |
| [2290, 2299] | – | – | – | – |
| [2300, 2309] | – | – | – | – |
| [2310, 2319] | 2 | 11 | 1% | 5% |
| [2320, 2329] | – | – | – | – |
| [2330, 2339] | 5 | 16 | 2% | 7% |
| [2340, 2349] | – | – | – | – |
| [2350, 2359] | 1 | 17 | 0% | 7% |
| [2360, 2369] | 1 | 18 | 0% | 8% |
| [2370, 2379] | 3 | 21 | 1% | 9% |
| [2380, 2389] | – | – | – | – |
| [2390, 2399] | 3 | 24 | 1% | 11% |
| [2400, 2409] | 7 | 31 | 3% | 14% |
| [2410, 2419] | 6 | 37 | 3% | 16% |
| [2420, 2429] | 5 | 42 | 2% | 19% |
| [2430, 2439] | 6 | 48 | 3% | 21% |
| [2440, 2449] | 5 | 53 | 2% | 23% |
| [2450, 2459] | 9 | 62 | 4% | 27% |
| [2460, 2469] | 10 | 72 | 4% | 32% |
| [2470, 2479] | 4 | 76 | 2% | 33% |
| [2480, 2489] | 6 | 82 | 3% | 36% |
| [2490, 2499] | 8 | 90 | 4% | 40% |
| [2500, 2509] | 8 | 98 | 4% | 43% |
| [2510, 2519] | 8 | 106 | 4% | 47% |
| [2520, 2529] | 11 | 117 | 5% | 52% |
| [2530, 2539] | 11 | 128 | 5% | 56% |
| [2540, 2549] | 18 | 146 | 8% | 64% |
| [2550, 2559] | 13 | 159 | 6% | 70% |
| [2560, 2569] | 10 | 169 | 4% | 74% |
| [2570, 2579] | 10 | 179 | 4% | 79% |
| [2580, 2589] | 7 | 186 | 3% | 82% |
| [2590, 2599] | 9 | 195 | 4% | 86% |
| [2600, 2609] | 5 | 200 | 2% | 88% |
| [2610, 2619] | 5 | 205 | 2% | 90% |
| [2620, 2629] | 1 | 206 | 0% | 91% |
| [2630, 2639] | 3 | 209 | 1% | 92% |
| [2640, 2649] | 5 | 214 | 2% | 94% |
| [2650, 2659] | 2 | 216 | 1% | 95% |
| [2660, 2669] | 2 | 218 | 1% | 96% |
| [2670, 2679] | 3 | 221 | 1% | 97% |
| [2680, 2689] | 2 | 223 | 1% | 98% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2690, 2699] | 2 | 225 | 1% | 99% |
| [2700, 2709] | – | – | – | – |
| [2710, 2719] | 1 | 226 | 0% | 100% |
| [2720, 2729] | 1 | 227 | 0% | 100% |
| [2730, 2739] | – | – | – | – |
| [2740, 2748] | – | – | – | – |

**Table 10.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] | 3 | 3 | 3% | 3% |
| [2260, 2269] | – | – | – | – |
| [2270, 2279] | 1 | 4 | 1% | 4% |
| [2280, 2289] | – | – | – | – |
| [2290, 2299] | – | – | – | – |
| [2300, 2309] | – | – | – | – |
| [2310, 2319] | – | – | – | – |
| [2320, 2329] | – | – | – | – |
| [2330, 2339] | 2 | 6 | 2% | 6% |
| [2340, 2349] | 1 | 7 | 1% | 7% |
| [2350, 2359] | 1 | 8 | 1% | 8% |
| [2360, 2369] | 1 | 9 | 1% | 9% |
| [2370, 2379] | 1 | 10 | 1% | 10% |
| [2380, 2389] | 2 | 12 | 2% | 11% |
| [2390, 2399] | – | – | – | – |
| [2400, 2409] | 1 | 13 | 1% | 12% |
| [2410, 2419] | – | – | – | – |
| [2420, 2429] | – | – | – | – |
| [2430, 2439] | 2 | 15 | 2% | 14% |
| [2440, 2449] | 2 | 17 | 2% | 16% |
| [2450, 2459] | 3 | 20 | 3% | 19% |
| [2460, 2469] | 1 | 21 | 1% | 20% |
| [2470, 2479] | 2 | 23 | 2% | 22% |
| [2480, 2489] | 1 | 24 | 1% | 23% |
| [2490, 2499] | 4 | 28 | 4% | 27% |
| [2500, 2509] | 3 | 31 | 3% | 30% |
| [2510, 2519] | 5 | 36 | 5% | 34% |
| [2520, 2529] | 3 | 39 | 3% | 37% |
| [2530, 2539] | 7 | 46 | 7% | 44% |
| [2540, 2549] | 3 | 49 | 3% | 47% |
| [2550, 2559] | 4 | 53 | 4% | 50% |
| [2560, 2569] | 3 | 56 | 3% | 53% |
| [2570, 2579] | 3 | 59 | 3% | 56% |
| [2580, 2589] | 7 | 66 | 7% | 63% |
| [2590, 2599] | 3 | 69 | 3% | 66% |
| [2600, 2609] | 1 | 70 | 1% | 67% |
| [2610, 2619] | 1 | 71 | 1% | 68% |
| [2620, 2629] | 5 | 76 | 5% | 72% |
| [2630, 2639] | 4 | 80 | 4% | 76% |
| [2640, 2649] | 2 | 82 | 2% | 78% |
| [2650, 2659] | 7 | 89 | 7% | 85% |
| [2660, 2669] | 3 | 92 | 3% | 88% |
| [2670, 2679] | 3 | 95 | 3% | 90% |
| [2680, 2689] | 3 | 98 | 3% | 93% |
| [2690, 2699] | – | – | – | – |
| [2700, 2709] | – | – | – | – |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2710, 2719] | – | – | – | – |
| [2720, 2729] | 5 | 103 | 5% | 98% |
| [2730, 2739] | – | – | – | – |
| [2740, 2749] | – | – | – | – |
| [2750, 2759] | – | – | – | – |
| [2760, 2769] | 1 | 104 | 1% | 99% |
| [2770, 2778] | 1 | 105 | 1% | 100% |

**Table 10.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] | 5 | 5 | 6% | 6% |
| [2270, 2279] | – | – | – | – |
| [2280, 2289] | – | – | – | – |
| [2290, 2299] | – | – | – | – |
| [2300, 2309] | – | – | – | – |
| [2310, 2319] | – | – | – | – |
| [2320, 2329] | 1 | 6 | 1% | 8% |
| [2330, 2339] | 1 | 7 | 1% | 9% |
| [2340, 2349] | 1 | 8 | 1% | 10% |
| [2350, 2359] | 1 | 9 | 1% | 11% |
| [2360, 2369] | – | – | – | – |
| [2370, 2379] | 4 | 13 | 5% | 16% |
| [2380, 2389] | 2 | 15 | 3% | 19% |
| [2390, 2399] | 2 | 17 | 3% | 22% |
| [2400, 2409] | 3 | 20 | 4% | 25% |
| [2410, 2419] | 2 | 22 | 3% | 28% |
| [2420, 2429] | 1 | 23 | 1% | 29% |
| [2430, 2439] | 2 | 25 | 3% | 32% |
| [2440, 2449] | 5 | 30 | 6% | 38% |
| [2450, 2459] | 4 | 34 | 5% | 43% |
| [2460, 2469] | 3 | 37 | 4% | 47% |
| [2470, 2479] | 4 | 41 | 5% | 52% |
| [2480, 2489] | 2 | 43 | 3% | 54% |
| [2490, 2499] | 6 | 49 | 8% | 62% |
| [2500, 2509] | 4 | 53 | 5% | 67% |
| [2510, 2519] | 4 | 57 | 5% | 72% |
| [2520, 2529] | 4 | 61 | 5% | 77% |
| [2530, 2539] | 2 | 63 | 3% | 80% |
| [2540, 2549] | 4 | 67 | 5% | 85% |
| [2550, 2559] | 3 | 70 | 4% | 89% |
| [2560, 2569] | 1 | 71 | 1% | 90% |
| [2570, 2579] | 1 | 72 | 1% | 91% |
| [2580, 2589] | 2 | 74 | 3% | 94% |
| [2590, 2599] | – | – | – | – |
| [2600, 2609] | – | – | – | – |
| [2610, 2619] | 1 | 75 | 1% | 95% |
| [2620, 2629] | – | – | – | – |
| [2630, 2639] | – | – | – | – |
| [2640, 2649] | – | – | – | – |
| [2650, 2659] | – | – | – | – |
| [2660, 2669] | 2 | 77 | 3% | 97% |
| [2670, 2679] | 1 | 78 | 1% | 99% |
| [2680, 2689] | – | – | – | – |
| [2690, 2699] | – | – | – | – |
| [2700, 2709] | – | – | – | – |
| [2710, 2719] | 1 | 79 | 1% | 100% |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2720, 2729] | – | – | – | – |
| [2730, 2739] | – | – | – | – |
| [2740, 2749] | – | – | – | – |
| [2750, 2759] | – | – | – | – |
| [2760, 2769] | – | – | – | – |
| [2770, 2779] | – | – | – | – |
| [2780, 2789] | – | – | – | – |
| [2790, 2799] | – | – | – | – |
| [2800, 2802] | – | – | – | – |

**Table 10.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 | 6% | 6% |
| [2290, 2299] | – | – | – | – |
| [2300, 2309] | – | – | – | – |
| [2310, 2319] | – | – | – | – |
| [2320, 2329] | – | – | – | – |
| [2330, 2339] | – | – | – | – |
| [2340, 2349] | 1 | 2 | 6% | 12% |
| [2350, 2359] | – | – | – | – |
| [2360, 2369] | – | – | – | – |
| [2370, 2379] | – | – | – | – |
| [2380, 2389] | – | – | – | – |
| [2390, 2399] | – | – | – | – |
| [2400, 2409] | 1 | 3 | 6% | 18% |
| [2410, 2419] | – | – | – | – |
| [2420, 2429] | – | – | – | – |
| [2430, 2439] | – | – | – | – |
| [2440, 2449] | – | – | – | – |
| [2450, 2459] | 1 | 4 | 6% | 24% |
| [2460, 2469] | – | – | – | – |
| [2470, 2479] | – | – | – | – |
| [2480, 2489] | – | – | – | – |
| [2490, 2499] | – | – | – | – |
| [2500, 2509] | – | – | – | – |
| [2510, 2519] | 1 | 5 | 6% | 29% |
| [2520, 2529] | – | – | – | – |
| [2530, 2539] | – | – | – | – |
| [2540, 2549] | – | – | – | – |
| [2550, 2559] | 1 | 6 | 6% | 35% |
| [2560, 2569] | 1 | 7 | 6% | 41% |
| [2570, 2579] | 1 | 8 | 6% | 47% |
| [2580, 2589] | 2 | 10 | 12% | 59% |
| [2590, 2599] | 1 | 11 | 6% | 65% |
| [2600, 2609] | – | – | – | – |
| [2610, 2619] | 2 | 13 | 12% | 76% |
| [2620, 2629] | – | – | – | – |
| [2630, 2639] | – | – | – | – |
| [2640, 2649] | 1 | 14 | 6% | 82% |
| [2650, 2659] | – | – | – | – |
| [2660, 2669] | – | – | – | – |
| [2670, 2679] | – | – | – | – |
| [2680, 2689] | – | – | – | – |
| [2690, 2699] | 2 | 16 | 12% | 94% |
| [2700, 2709] | – | – | – | – |
| [2710, 2719] | 1 | 17 | 6% | 100% |
| [2720, 2729] | – | – | – | – |
| [2730, 2739] | – | – | – | – |

| Scale Score | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [2740, 2749] | – | – | – | – |
| [2750, 2759] | – | – | – | – |
| [2760, 2769] | – | – | – | – |
| [2770, 2779] | – | – | – | – |
| [2780, 2789] | – | – | – | – |
| [2790, 2799] | – | – | – | – |
| [2800, 2809] | – | – | – | – |
| [2810, 2819] | – | – | – | – |
| [2820, 2829] | – | – | – | – |
| [2830, 2839] | – | – | – | – |
| [2840, 2849] | – | – | – | – |
| [2850, 2859] | – | – | – | – |
| [2860, 2862] | – | – | – | – |

# Appendix 10.C: Claim Scores for Paper-Pencil Tests

**Table 10.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 | 669 | 2,419 | 92 | –1.10 | 1.16 |
| | 4 | 20 | 626 | 2,475 | 91 | –0.44 | 1.13 |
| | 5 | 19 | 538 | 2,525 | 95 | 0.14 | 1.18 |
| | 6 | 21 | 216 | 2,521 | 108 | 0.13 | 1.27 |
| | 7 | 20 | 97 | 2,572 | 115 | 0.66 | 1.41 |
| | 8 | 21 | 69 | 2,507 | 105 | –0.17 | 1.33 |
| | 11 | 19 | 20 | 2,621 | 124 | 0.93 | 1.79 |
| Mathematics | 3 | 20 | 682 | 2,403 | 74 | –1.49 | 1.01 |
| | 4 | 21 | 642 | 2,447 | 74 | –0.89 | 0.98 |
| | 5 | 20 | 546 | 2,474 | 81 | –0.55 | 1.05 |
| | 6 | 19 | 227 | 2,514 | 104 | –0.01 | 1.30 |
| | 7 | 20 | 105 | 2,555 | 105 | 0.43 | 1.40 |
| | 8 | 20 | 79 | 2,480 | 99 | –0.53 | 1.33 |
| | 11 | 21 | 17 | 2,529 | 114 | 0.17 | 1.44 |

***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 10.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 | 669 | 2,389 | 113 | –1.45 | 1.38 |
| | 4 | 12 | 626 | 2,453 | 115 | –0.69 | 1.38 |
| | 5 | 12 | 538 | 2,499 | 113 | –0.15 | 1.38 |
| | 6 | 12 | 216 | 2,503 | 130 | –0.11 | 1.56 |
| | 7 | 12 | 97 | 2,576 | 118 | 0.68 | 1.49 |
| | 8 | 12 | 69 | 2,452 | 108 | –0.77 | 1.30 |
| | 11 | 12 | 20 | 2,603 | 133 | 0.75 | 1.83 |
| Mathematics | 3 | 12 | 682 | 2,415 | 83 | –1.32 | 1.11 |
| | 4 | 10 | 642 | 2,471 | 90 | –0.58 | 1.17 |
| | 5 | 11 | 546 | 2,506 | 96 | –0.13 | 1.25 |
| | 6 | 11 | 227 | 2,472 | 150 | –0.55 | 1.88 |
| | 7 | 11 | 105 | 2,520 | 164 | –0.04 | 2.11 |
| | 8 | 10 | 79 | 2,483 | 123 | –0.57 | 1.64 |
| | 11 | 11 | 17 | 2,581 | 144 | 0.83 | 1.81 |

***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 10.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 | 669 | 2,434 | 127 | –0.87 | 1.48 |
| | 4 | 9 | 626 | 2,489 | 114 | –0.23 | 1.33 |
| | 5 | 9 | 538 | 2,522 | 103 | 0.16 | 1.20 |
| | 6 | 8 | 216 | 2,516 | 112 | 0.11 | 1.31 |
| | 7 | 9 | 97 | 2,569 | 137 | 0.71 | 1.60 |
| | 8 | 9 | 69 | 2,486 | 125 | –0.26 | 1.46 |
| | 11 | 9 | 20 | 2,590 | 154 | 0.95 | 1.79 |
| Mathematics | 3 | 9 | 682 | 2,392 | 101 | –1.61 | 1.31 |
| | 4 | 10 | 642 | 2,456 | 99 | –0.77 | 1.29 |
| | 5 | 10 | 546 | 2,486 | 102 | –0.40 | 1.32 |
| | 6 | 10 | 227 | 2,472 | 146 | –0.56 | 1.85 |
| | 7 | 10 | 105 | 2,554 | 139 | 0.38 | 1.84 |
| | 8 | 9 | 79 | 2,447 | 124 | –0.94 | 1.60 |
| | 11 | 10 | 17 | 2,552 | 152 | 0.47 | 1.92 |

***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 10.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 | 669 | 2403 | 128 | -1.30 | 1.55 |
| | 4 | 9 | 626 | 2461 | 126 | –0.62 | 1.54 |
| | 5 | 11 | 538 | 2494 | 119 | –0.22 | 1.44 |
| | 6 | 11 | 216 | 2490 | 126 | –0.24 | 1.49 |
| | 7 | 10 | 97 | 2516 | 120 | 0.00 | 1.47 |
| | 8 | 10 | 69 | 2481 | 106 | –0.45 | 1.31 |
| | 11 | 10 | 20 | 2601 | 122 | 0.73 | 1.72 |

***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 10.C.5 Percentages of Examinees in Achievement Levels for Claim 1 of Paper-pencil Tests**

| Content Area | Grade | Standard Not Met | | Standard Nearly Met | | Standard Met | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| ELA | 3 | 238 | 36% | 270 | 41% | 148 | 23% |
| | 4 | 160 | 26% | 265 | 43% | 194 | 31% |
| | 5 | 98 | 18% | 251 | 47% | 181 | 34% |
| | 6 | 75 | 35% | 82 | 38% | 57 | 27% |
| | 7 | 23 | 24% | 35 | 37% | 36 | 38% |
| | 8 | 30 | 46% | 28 | 43% | 7 | 11% |
| | 11 | 2 | 11% | 8 | 44% | 8 | 44% |
| Mathematics | 3 | 304 | 48% | 264 | 42% | 66 | 10% |
| | 4 | 324 | 51% | 223 | 35% | 84 | 13% |
| | 5 | 307 | 57% | 172 | 32% | 59 | 11% |
| | 6 | 97 | 43% | 91 | 41% | 36 | 16% |
| | 7 | 29 | 29% | 41 | 41% | 31 | 31% |
| | 8 | 45 | 62% | 24 | 33% | 4 | 5% |
| | 11 | 10 | 59% | 7 | 41% | 0 | – |

**Table 10.C.6 Percentages of Examinees in Achievement Levels for Claim 2 of Paper-pencil Tests**

| Content Area | Grade | Standard Not Met | | Standard Nearly Met | | Standard Met | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| ELA | 3 | 240 | 37% | 305 | 46% | 111 | 17% |
| | 4 | 217 | 35% | 288 | 47% | 112 | 18% |
| | 5 | 149 | 28% | 241 | 45% | 140 | 26% |
| | 6 | 77 | 36% | 102 | 48% | 34 | 16% |
| | 7 | 17 | 18% | 41 | 44% | 36 | 38% |
| | 8 | 43 | 66% | 19 | 29% | 3 | 5% |
| | 11 | 3 | 17% | 9 | 50% | 6 | 33% |
| Mathematics | 3 | 250 | 37% | 286 | 43% | 131 | 20% |
| | 4 | 164 | 26% | 375 | 59% | 93 | 15% |
| | 5 | 161 | 30% | 281 | 52% | 100 | 18% |
| | 6 | 84 | 37% | 105 | 47% | 36 | 16% |
| | 7 | 23 | 23% | 44 | 44% | 34 | 34% |
| | 8 | 15 | 21% | 56 | 77% | 2 | 3% |
| | 11 | 2 | 12% | 12 | 71% | 3 | 18% |

**Table 10.C.7 Percentages of Examinees in Achievement Levels for Claim 3 of Paper-pencil Tests**

| Content Area | Grade | Standard Not Met | | Standard Nearly Met | | Standard Met | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| ELA | 3 | 64 | 10% | 425 | 65% | 160 | 25% |
| | 4 | 73 | 12% | 405 | 66% | 135 | 22% |
| | 5 | 51 | 10% | 391 | 74% | 84 | 16% |
| | 6 | 41 | 20% | 156 | 74% | 13 | 6% |
| | 7 | 16 | 17% | 58 | 62% | 19 | 20% |
| | 8 | 11 | 18% | 49 | 79% | 2 | 3% |
| | 11 | 3 | 19% | 11 | 69% | 2 | 13% |
| Mathematics | 3 | 98 | 15% | 494 | 74% | 74 | 11% |
| | 4 | 156 | 25% | 370 | 59% | 106 | 17% |
| | 5 | 141 | 26% | 341 | 63% | 57 | 11% |
| | 6 | 56 | 25% | 136 | 60% | 34 | 15% |
| | 7 | 10 | 10% | 57 | 56% | 34 | 34% |
| | 8 | 19 | 25% | 54 | 71% | 3 | 4% |
| | 11 | 3 | 18% | 10 | 59% | 4 | 24% |

**Table 10.C.8 Percentages of Examinees in Achievement Levels for Claim 4 of Paper-pencil Tests**

| Content Area | Grade | Standard Not Met | | Standard Nearly Met | | Standard Met | |
|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % |
| ELA | 3 | 222 | 34% | 282 | 43% | 151 | 23% |
| | 4 | 139 | 23% | 347 | 56% | 130 | 21% |
| | 5 | 127 | 24% | 280 | 53% | 123 | 23% |
| | 6 | 62 | 29% | 120 | 56% | 31 | 15% |
| | 7 | 18 | 19% | 62 | 66% | 14 | 15% |
| | 8 | 25 | 38% | 37 | 57% | 3 | 5% |
| | 11 | 2 | 11% | 11 | 61% | 5 | 28% |

# Appendix 10.D: Demographic Summary for Paper-Pencil Tests

**Table 10.D.1 Demographic Summary for Paper-pencil Tests—ELA, Grade Three**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 669 | 2,410 | 95 | 33% | 23% | 23% | 21% | 44% |
| Male | 351 | 2,399 | 90 | 36% | 24% | 26% | 15% | 40% |
| Female | 318 | 2,422 | 99 | 31% | 21% | 20% | 28% | 48% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – |
| Asian American | 15 | 2,420 | 79 | 27% | 27% | 20% | 27% | 47% |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – |
| Hispanic | 191 | 2,391 | 87 | 46% | 19% | 19% | 16% | 35% |
| African American | 22 | 2,405 | 64 | 18% | 55% | 23% | 5% | 27% |
| White | 382 | 2,420 | 100 | 28% | 23% | 24% | 25% | 49% |
| Two or more races | 40 | 2,421 | 103 | 28% | 18% | 38% | 18% | 55% |
| English only | 590 | 2,414 | 96 | 31% | 23% | 24% | 22% | 46% |
| Initially Fluent English Proficient | 7 | – | – | – | – | – | – | – |
| English Learner | 65 | 2,362 | 70 | 58% | 23% | 12% | 6% | 18% |
| Reclassified Fluent English Proficient | 5 | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 2 | – | – | – | – | – | – | – |
| No special education services | 585 | 2,414 | 96 | 31% | 23% | 24% | 22% | 46% |
| Special education services | 84 | 2,379 | 84 | 49% | 24% | 15% | 12% | 27% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 398 | 2,421 | 95 | 29% | 23% | 23% | 25% | 48% |
| Economically disadvantaged | 271 | 2,393 | 92 | 40% | 23% | 22% | 15% | 37% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4 | – | – | – | – | – | – | – |
| Not migrant | 665 | 2,410 | 95 | 33% | 23% | 23% | 21% | 44% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – |
| Hispanic | 74 | 2,420 | 81 | 35% | 16% | 26% | 23% | 49% |
| African American | 7 | – | – | – | – | – | – | – |
| White | 279 | 2,423 | 99 | 27% | 24% | 23% | 26% | 49% |
| Two or more races | 22 | 2,423 | 119 | 32% | 14% | 32% | 23% | 55% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – |
| Asian American | 5 | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 5 | – | – | – | – | – | – | – |
| Hispanic | 117 | 2,373 | 86 | 53% | 21% | 15% | 11% | 26% |
| African American | 15 | 2,397 | 63 | 20% | 53% | 27% | – | 27% |
| White | 103 | 2,412 | 104 | 31% | 19% | 26% | 23% | 50% |
| Two or more races | 18 | 2,418 | 83 | 22% | 22% | 44% | 11% | 56% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.2 Demographic Summary for Paper-pencil Tests—ELA, Grade Four**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 626 | 2,467 | 96 | 29% | 22% | 23% | 25% | 49% |
| Male | 292 | 2,454 | 92 | 35% | 22% | 25% | 19% | 43% |
| Female | 334 | 2,478 | 98 | 25% | 22% | 22% | 31% | 53% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 13 | 2,405 | 84 | 46% | 38% | 8% | 8% | 15% |
| Asian American | 20 | 2,474 | 78 | 20% | 25% | 45% | 10% | 55% |
| Pacific Islander | 4 | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – |
| Hispanic | 153 | 2,438 | 92 | 44% | 22% | 17% | 18% | 35% |
| African American | 35 | 2,437 | 90 | 40% | 29% | 20% | 11% | 31% |
| White | 363 | 2,481 | 97 | 23% | 21% | 25% | 31% | 56% |
| Two or more races | 35 | 2,502 | 77 | 14% | 17% | 34% | 34% | 69% |
| English only | 546 | 2,471 | 96 | 27% | 21% | 25% | 27% | 52% |
| Initially Fluent English Proficient | 6 | – | – | – | – | – | – | – |
| English Learner | 56 | 2,411 | 82 | 54% | 30% | 7% | 9% | 16% |
| Reclassified Fluent English Proficient | 14 | 2,510 | 76 | 14% | 21% | 21% | 43% | 64% |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 4 | – | – | – | – | – | – | – |
| No special education services | 537 | 2,474 | 94 | 26% | 22% | 25% | 27% | 52% |
| Special education services | 89 | 2,425 | 99 | 48% | 24% | 13% | 15% | 28% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 358 | 2,485 | 96 | 23% | 20% | 25% | 32% | 58% |
| Economically disadvantaged | 268 | 2,442 | 91 | 38% | 25% | 21% | 16% | 37% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 2 | – | – | – | – | – | – | – |
| Not migrant | 624 | 2,467 | 96 | 29% | 22% | 23% | 25% | 49% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 13 | 2,444 | 70 | 31% | 31% | 38% | – | 38% |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – |
| Hispanic | 56 | 2,462 | 103 | 36% | 18% | 18% | 29% | 46% |
| African American | 13 | 2,465 | 110 | 31% | 23% | 23% | 23% | 46% |
| White | 245 | 2,492 | 95 | 19% | 20% | 26% | 35% | 61% |
| Two or more races | 22 | 2,517 | 69 | 14% | 9% | 36% | 41% | 77% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 9 | – | – | – | – | – | – | – |
| Asian American | 7 | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 97 | 2,424 | 83 | 48% | 24% | 16% | 11% | 28% |
| African American | 22 | 2,421 | 74 | 45% | 32% | 18% | 5% | 23% |
| White | 118 | 2,457 | 96 | 32% | 23% | 24% | 21% | 45% |
| Two or More Races | 13 | 2,477 | 87 | 15% | 31% | 31% | 23% | 54% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.3 Demographic Summary for Paper-pencil Tests—ELA, Grade Five**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 538 | 2,507 | 98 | 22% | 23% | 32% | 23% | 55% |
| Male | 272 | 2,496 | 90 | 26% | 26% | 30% | 18% | 48% |
| Female | 266 | 2,518 | 105 | 18% | 20% | 34% | 27% | 61% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 9 | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 9 | – | – | – | – | – | – | – |
| Hispanic | 127 | 2,468 | 98 | 37% | 23% | 32% | 9% | 40% |
| African American | 32 | 2,475 | 63 | 28% | 38% | 31% | 3% | 34% |
| White | 312 | 2,523 | 98 | 16% | 22% | 33% | 29% | 62% |
| Two or more races | 37 | 2,533 | 92 | 16% | 24% | 24% | 35% | 59% |
| English only | 480 | 2,514 | 95 | 20% | 23% | 33% | 25% | 58% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – |
| English Learner | 41 | 2,415 | 86 | 54% | 34% | 12% | – | 12% |
| Reclassified Fluent English Proficient | 15 | 2,510 | 108 | 20% | 13% | 47% | 20% | 67% |
| To be determined | 0 | – | – | – | – | – | – | – |
| English profiency unknown | 0 | – | – | – | – | – | – | – |
| No special education services | 466 | 2,516 | 94 | 18% | 24% | 33% | 25% | 58% |
| Special education services | 72 | 2,446 | 105 | 47% | 21% | 24% | 8% | 32% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 296 | 2,523 | 91 | 16% | 24% | 31% | 29% | 60% |
| Economically disadvantaged | 242 | 2,487 | 103 | 29% | 22% | 33% | 15% | 48% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 6 | – | – | – | – | – | – | – |
| Not migrant | 532 | 2,508 | 98 | 21% | 24% | 32% | 23% | 55% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – |
| Asian American | 6 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – |
| Hispanic | 48 | 2,500 | 90 | 23% | 27% | 33% | 17% | 50% |
| African American | 11 | 2,506 | 52 | 9% | 36% | 45% | 9% | 55% |
| White | 199 | 2,530 | 93 | 15% | 23% | 30% | 33% | 63% |
| Two or more races | 24 | 2,521 | 97 | 21% | 25% | 25% | 29% | 54% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 8 | – | – | – | – | – | – | – |
| Asian American | 4 | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – |
| Hispanic | 79 | 2,448 | 98 | 46% | 20% | 30% | 4% | 34% |
| African American | 21 | 2,459 | 63 | 38% | 38% | 24% | – | 24% |
| White | 113 | 2,510 | 105 | 19% | 22% | 38% | 21% | 59% |
| Two or more races | 13 | 2,556 | 80 | 8% | 23% | 23% | 46% | 69% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.4 Demographic Summary for Paper-pencil Tests—ELA, Grade Six**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 216 | 2,508 | 104 | 33% | 24% | 29% | 14% | 43% |
| Male | 103 | 2,504 | 97 | 33% | 30% | 22% | 15% | 37% |
| Female | 113 | 2,511 | 110 | 33% | 19% | 35% | 13% | 49% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – |
| Asian American | 3 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – |
| Hispanic | 67 | 2,475 | 98 | 42% | 28% | 24% | 6% | 30% |
| African American | 20 | 2,489 | 112 | 45% | 15% | 30% | 10% | 40% |
| White | 107 | 2,531 | 101 | 25% | 23% | 32% | 20% | 51% |
| Two or more races | 7 | – | – | – | – | – | – | – |
| English only | 174 | 2,521 | 101 | 29% | 24% | 32% | 16% | 48% |
| Initially Fluent English Proficient | 1 | – | – | – | – | – | – | – |
| English Learner | 25 | 2,401 | 83 | 80% | 12% | 8% | – | 8% |
| Reclassified Fluent English Proficient | 16 | 2,531 | 67 | 6% | 50% | 31% | 13% | 44% |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – |
| No special education services | 178 | 2,520 | 101 | 29% | 22% | 33% | 16% | 49% |
| Special education services | 38 | 2,449 | 97 | 53% | 32% | 11% | 5% | 16% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 90 | 2,525 | 105 | 26% | 26% | 31% | 18% | 49% |
| Economically disadvantaged | 126 | 2,495 | 101 | 38% | 23% | 28% | 11% | 39% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 4 | – | – | – | – | – | – | – |
| Not migrant | 212 | 2,510 | 102 | 32% | 24% | 30% | 14% | 44% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 12 | 2,543 | 87 | 17% | 17% | 58% | 8% | 67% |
| African American | 4 | – | – | – | – | – | – | – |
| White | 60 | 2,525 | 106 | 27% | 27% | 27% | 20% | 47% |
| Two or more races | 7 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 55 | 2,461 | 94 | 47% | 31% | 16% | 5% | 22% |
| African American | 16 | 2,507 | 99 | 44% | 6% | 38% | 13% | 50% |
| White | 47 | 2,538 | 94 | 23% | 19% | 38% | 19% | 57% |
| Two or more races | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.5 Demographic Summary for Paper-pencil Tests—ELA, Grade Seven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 97 | 2,556 | 114 | 24% | 22% | 35% | 20% | 55% |
| Male | 40 | 2,508 | 126 | 45% | 15% | 23% | 18% | 40% |
| Female | 57 | 2,590 | 93 | 9% | 26% | 44% | 21% | 65% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 3 | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 19 | 2,486 | 101 | 58% | 21% | 16% | 5% | 21% |
| African American | 23 | 2,591 | 107 | 4% | 30% | 39% | 26% | 65% |
| White | 50 | 2,564 | 112 | 20% | 20% | 40% | 20% | 60% |
| Two or more races | 1 | – | – | – | – | – | – | – |
| English only | 78 | 2,577 | 106 | 14% | 23% | 40% | 23% | 63% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – |
| English Learner | 13 | 2,446 | 91 | 77% | 15% | 8% | – | 8% |
| Reclassified Fluent English Proficient | 3 | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 1 | – | – | – | – | – | – | – |
| No special education services | 85 | 2,568 | 113 | 20% | 21% | 36% | 22% | 59% |
| Special education services | 12 | 2,475 | 97 | 50% | 25% | 25% | – | 25% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 43 | 2,579 | 111 | 14% | 21% | 37% | 28% | 65% |
| Economically disadvantaged | 54 | 2,539 | 115 | 31% | 22% | 33% | 13% | 46% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 1 | – | – | – | – | – | – | – |
| Not migrant | 96 | 2,557 | 115 | 23% | 22% | 35% | 20% | 55% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 2 | – | – | – | – | – | – | – |
| African American | 9 | – | – | – | – | – | – | – |
| White | 29 | 2,584 | 112 | 14% | 14% | 45% | 28% | 72% |
| Two or more races | 1 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 17 | 2,487 | 106 | 59% | 18% | 18% | 6% | 24% |
| African American | 14 | 2,587 | 114 | 7% | 21% | 50% | 21% | 71% |
| White | 21 | 2,536 | 109 | 29% | 29% | 33% | 10% | 43% |
| Two or more races | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.6 Demographic Summary for Paper-pencil Tests—ELA, Grade Eight**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 69 | 2,471 | 98 | 62% | 22% | 12% | 4% | 16% |
| Male | 40 | 2,470 | 101 | 63% | 25% | 8% | 5% | 13% |
| Female | 29 | 2,472 | 96 | 62% | 17% | 17% | 3% | 21% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 22 | 2,460 | 90 | 68% | 18% | 14% | – | 14% |
| African American | 1 | – | – | – | – | – | – | – |
| White | 38 | 2,477 | 112 | 55% | 24% | 13% | 8% | 21% |
| Two or more races | 1 | – | – | – | – | – | – | – |
| English only | 58 | 2,473 | 101 | 59% | 24% | 12% | 5% | 17% |
| Initially Fluent English Proficient | 0 | – | – | – | – | – | – | – |
| English Learner | 9 | – | – | – | – | – | – | – |
| Reclassified Fluent English Proficient | 2 | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – |
| No special education services | 48 | 2,489 | 91 | 56% | 25% | 13% | 6% | 19% |
| Special education services | 21 | 2,430 | 105 | 76% | 14% | 10% | – | 10% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 27 | 2,471 | 95 | 59% | 30% | 7% | 4% | 11% |
| Economically disadvantaged | 42 | 2,471 | 101 | 64% | 17% | 14% | 5% | 19% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 1 | – | – | – | – | – | – | – |
| Not migrant | 68 | 2,471 | 99 | 62% | 22% | 12% | 4% | 16% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 1 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 22 | 2,478 | 96 | 55% | 32% | 9% | 5% | 14% |
| Two or more races | 0 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 3 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 21 | 2,469 | 83 | 67% | 19% | 14% | – | 14% |
| African American | 1 | – | – | – | – | – | – | – |
| White | 16 | 2,476 | 134 | 56% | 13% | 19% | 13% | 31% |
| Two or more races | 1 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.7 Demographic Summary for Paper-pencil Tests—ELA, Grade Eleven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 20 | 2,571 | 148 | 25% | 15% | 40% | 20% | 60% |
| Male | 11 | 2,554 | 141 | 27% | 9% | 45% | 18% | 64% |
| Female | 9 | – | – | – | – | – | – | – |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 8 | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – |
| White | 7 | – | – | – | – | – | – | – |
| Two or more races | 3 | – | – | – | – | – | – | – |
| English only | 19 | 2,562 | 145 | 26% | 16% | 42% | 16% | 58% |
| Initially Fluent English Proficent | 0 | – | – | – | – | – | – | – |
| English Learner | 0 | – | – | – | – | – | – | – |
| Reclassified Fluent English Proficient | 1 | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – |
| No special education services | 4 | – | – | – | – | – | – | – |
| Special education services | 16 | 2,541 | 148 | 31% | 19% | 31% | 19% | 50% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 10 | – | – | – | – | – | – | – |
| Economically disadvantaged | 10 | – | – | – | – | – | – | – |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 0 | – | – | – | – | – | – | – |
| Not migrant | 20 | 2,571 | 148 | 25% | 15% | 40% | 20% | 60% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 3 | – | – | – | – | – | – | – |
| Two or more races | 2 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – |
| White | 4 | – | – | – | – | – | – | – |
| Two or more races | 1 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.8 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Three**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 682 | 2,402 | 74 | 37% | 31% | 25% | 7% | 32% |
| Male | 357 | 2,401 | 72 | 38% | 32% | 25% | 6% | 31% |
| Female | 325 | 2,403 | 77 | 37% | 29% | 25% | 9% | 34% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – |
| Asian American | 15 | 2,420 | 80 | 27% | 40% | 13% | 20% | 33% |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – |
| Hispanic | 203 | 2,381 | 71 | 50% | 27% | 22% | 1% | 23% |
| African American | 22 | 2,391 | 76 | 45% | 36% | 14% | 5% | 18% |
| White | 382 | 2,412 | 73 | 31% | 31% | 27% | 10% | 37% |
| Two or more races | 41 | 2,420 | 77 | 24% | 34% | 29% | 12% | 41% |
| English only | 590 | 2,407 | 74 | 34% | 32% | 26% | 8% | 34% |
| Initially Fluent English Proficient | 7 | – | – | – | – | – | – | – |
| English Learner | 76 | 2,363 | 69 | 64% | 20% | 14% | 1% | 16% |
| Reclassified Fluent English Proficient | 5 | – | – | – | – | – | – | – |
| To be determined | 1 | – | – | – | – | – | – | – |
| English proficiency unknown | 3 | – | – | – | – | – | – | – |
| No special education services | 598 | 2,405 | 75 | 35% | 31% | 26% | 8% | 34% |
| Special education services | 84 | 2,378 | 64 | 55% | 27% | 14% | 4% | 18% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 402 | 2,411 | 72 | 32% | 31% | 28% | 9% | 37% |
| Economically disadvantaged | 280 | 2,388 | 76 | 45% | 29% | 21% | 5% | 26% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 5 | – | – | – | – | – | – | – |
| Not migrant | 677 | 2,402 | 74 | 37% | 30% | 25% | 7% | 33% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – |
| Hispanic | 76 | 2,400 | 64 | 39% | 26% | 34% | – | 34% |
| African American | 7 | – | – | – | – | – | – | – |
| White | 280 | 2,415 | 73 | 30% | 32% | 28% | 11% | 38% |
| Two or more races | 23 | 2,412 | 90 | 30% | 35% | 17% | 17% | 35% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – |
| Asian American | 5 | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 5 | – | – | – | – | – | – | – |
| Hispanic | 127 | 2,371 | 73 | 56% | 28% | 15% | 2% | 17% |
| African American | 15 | 2,379 | 84 | 47% | 40% | 7% | 7% | 13% |
| White | 102 | 2,404 | 75 | 35% | 29% | 26% | 9% | 35% |
| Two or more races | 18 | 2,431 | 58 | 17% | 33% | 44% | 6% | 50% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.9 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Four**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 642 | 2,454 | 74 | 27% | 39% | 26% | 8% | 35% |
| Male | 300 | 2,453 | 71 | 25% | 41% | 27% | 7% | 34% |
| Female | 342 | 2,455 | 77 | 28% | 37% | 26% | 9% | 35% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 12 | 2,419 | 56 | 42% | 50% | 8% | – | 8% |
| Asian American | 21 | 2,479 | 71 | 14% | 43% | 24% | 19% | 43% |
| Pacific Islander | 4 | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – |
| Hispanic | 168 | 2,434 | 74 | 40% | 32% | 23% | 6% | 29% |
| African American | 35 | 2,442 | 72 | 40% | 26% | 29% | 6% | 34% |
| White | 364 | 2,462 | 73 | 21% | 42% | 29% | 8% | 37% |
| Two or more races | 35 | 2,480 | 67 | 11% | 46% | 26% | 17% | 43% |
| English only | 547 | 2,458 | 73 | 24% | 39% | 28% | 8% | 36% |
| Initially Fluent English Proficient | 6 | – | – | – | – | – | – | – |
| English Learner | 71 | 2,415 | 63 | 48% | 37% | 15% | – | 15% |
| Reclassified Fluent English Proficient | 14 | 2,494 | 84 | 14% | 36% | 14% | 36% | 50% |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 4 | – | – | – | – | – | – | – |
| No special education services | 552 | 2,460 | 72 | 24% | 39% | 28% | 9% | 38% |
| Special education services | 90 | 2,419 | 80 | 46% | 37% | 16% | 2% | 18% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 363 | 2,468 | 73 | 18% | 41% | 31% | 10% | 41% |
| Economically disadvantaged | 279 | 2,437 | 72 | 37% | 36% | 20% | 6% | 27% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 5 | – | – | – | – | – | – | – |
| Not migrant | 637 | 2,455 | 74 | 27% | 39% | 27% | 8% | 35% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 14 | 2,463 | 51 | 14% | 57% | 21% | 7% | 29% |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – |
| Hispanic | 60 | 2,453 | 79 | 28% | 33% | 28% | 10% | 38% |
| African American | 13 | 2,457 | 78 | 31% | 31% | 23% | 15% | 38% |
| White | 245 | 2,470 | 73 | 17% | 42% | 32% | 9% | 42% |
| Two or more races | 22 | 2,488 | 55 | 5% | 45% | 36% | 14% | 50% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 8 | – | – | – | – | – | – | – |
| Asian American | 7 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 108 | 2,423 | 70 | 46% | 31% | 19% | 4% | 23% |
| African American | 22 | 2,434 | 68 | 45% | 23% | 32% | – | 32% |
| White | 119 | 2,444 | 69 | 29% | 44% | 22% | 5% | 27% |
| Two or more races | 13 | 2,467 | 84 | 23% | 46% | 8% | 23% | 31% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.10 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Five**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 546 | 2,487 | 79 | 33% | 38% | 16% | 13% | 29% |
| Male | 277 | 2,492 | 77 | 32% | 37% | 16% | 14% | 31% |
| Female | 269 | 2,482 | 81 | 34% | 39% | 16% | 11% | 27% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 9 | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 9 | – | – | – | – | – | – | – |
| Hispanic | 135 | 2,455 | 75 | 50% | 38% | 7% | 6% | 13% |
| African American | 32 | 2,453 | 45 | 41% | 56% | 3% | – | 3% |
| White | 312 | 2,501 | 81 | 28% | 35% | 21% | 17% | 37% |
| Two or more races | 37 | 2,516 | 70 | 22% | 35% | 24% | 19% | 43% |
| English only | 479 | 2,494 | 77 | 29% | 40% | 18% | 14% | 31% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – |
| English Learner | 50 | 2,423 | 74 | 70% | 22% | 6% | 2% | 8% |
| Reclassified Fluent English Proficient | 15 | 2,481 | 68 | 47% | 33% | 7% | 13% | 20% |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – |
| No special education services | 473 | 2,494 | 78 | 29% | 39% | 17% | 14% | 31% |
| Special education services | 73 | 2,444 | 74 | 56% | 30% | 10% | 4% | 14% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 299 | 2,502 | 79 | 26% | 37% | 20% | 17% | 37% |
| Economically disadvantaged | 247 | 2,470 | 76 | 42% | 39% | 12% | 7% | 19% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 7 | – | – | – | – | – | – | – |
| Not migrant | 539 | 2,488 | 79 | 32% | 38% | 16% | 13% | 29% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – |
| Asian American | 6 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – |
| Hispanic | 51 | 2,479 | 75 | 35% | 45% | 10% | 10% | 20% |
| African American | 11 | 2,459 | 26 | 27% | 73% | – | – | – |
| White | 199 | 2,508 | 82 | 24% | 34% | 22% | 20% | 42% |
| Two or more races | 24 | 2,524 | 75 | 25% | 21% | 29% | 25% | 54% |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 8 | – | – | – | – | – | – | – |
| Asian American | 4 | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – |
| Hispanic | 84 | 2,441 | 71 | 58% | 33% | 5% | 4% | 8% |
| African American | 21 | 2,450 | 53 | 48% | 48% | 5% | – | 5% |
| White | 113 | 2,488 | 77 | 34% | 38% | 18% | 11% | 28% |
| Two or more races | 13 | 2,501 | 60 | 15% | 62% | 15% | 8% | 23% |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.11 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Six**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 227 | 2,509 | 99 | 32% | 33% | 22% | 12% | 34% |
| Male | 110 | 2,502 | 101 | 37% | 31% | 22% | 10% | 32% |
| Female | 117 | 2,515 | 96 | 27% | 36% | 23% | 14% | 37% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – |
| Asian American | 3 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – |
| Hispanic | 79 | 2,477 | 92 | 49% | 30% | 15% | 5% | 20% |
| African American | 19 | 2,496 | 77 | 37% | 32% | 32% | – | 32% |
| White | 107 | 2,532 | 96 | 20% | 37% | 26% | 17% | 43% |
| Two or more races | 7 | – | – | – | – | – | – | – |
| English only | 172 | 2,522 | 98 | 26% | 34% | 26% | 15% | 40% |
| Initially Fluent English Proficient | 1 | – | – | – | – | – | – | – |
| English Learner | 38 | 2,437 | 82 | 68% | 24% | 5% | 3% | 8% |
| Reclassified Fluent English Proficient | 16 | 2,539 | 67 | 13% | 50% | 31% | 6% | 38% |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – |
| No special education services | 192 | 2,517 | 98 | 28% | 34% | 25% | 13% | 38% |
| Special education services | 35 | 2,468 | 93 | 57% | 29% | 9% | 6% | 14% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 91 | 2,536 | 99 | 19% | 36% | 24% | 21% | 45% |
| Economically disadvantaged | 136 | 2,491 | 95 | 41% | 32% | 21% | 6% | 27% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 6 | – | – | – | – | – | – | – |
| Not migrant | 221 | 2,512 | 97 | 32% | 33% | 23% | 12% | 35% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 14 | 2,544 | 79 | 14% | 36% | 36% | 14% | 50% |
| African American | 3 | – | – | – | – | – | – | – |
| White | 60 | 2,532 | 100 | 20% | 38% | 22% | 20% | 42% |
| Two or more races | 7 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 65 | 2,463 | 89 | 57% | 29% | 11% | 3% | 14% |
| African American | 16 | 2,487 | 79 | 44% | 31% | 25% | – | 25% |
| White | 47 | 2,532 | 92 | 19% | 36% | 32% | 13% | 45% |
| Two or more races | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.12 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Seven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 105 | 2,551 | 114 | 23% | 30% | 22% | 26% | 48% |
| Male | 44 | 2,522 | 140 | 34% | 23% | 18% | 25% | 43% |
| Female | 61 | 2,572 | 87 | 15% | 34% | 25% | 26% | 51% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 3 | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 29 | 2,457 | 98 | 59% | 31% | 7% | 3% | 10% |
| African American | 21 | 2,583 | 64 | 5% | 43% | 24% | 29% | 52% |
| White | 50 | 2,585 | 113 | 12% | 24% | 28% | 36% | 64% |
| Two or more races | 1 | – | – | – | – | – | – | – |
| English only | 76 | 2,584 | 102 | 11% | 28% | 28% | 34% | 62% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – |
| English Learner | 22 | 2,439 | 86 | 64% | 36% | – | – | – |
| Reclassified Fluent English Proficient | 4 | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 1 | – | – | – | – | – | – | – |
| No special education services | 94 | 2,553 | 117 | 23% | 28% | 21% | 28% | 49% |
| Special education services | 11 | 2,533 | 83 | 18% | 45% | 27% | 9% | 36% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 42 | 2,597 | 105 | 7% | 21% | 33% | 38% | 71% |
| Economically disadvantaged | 63 | 2,520 | 110 | 33% | 35% | 14% | 17% | 32% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3 | – | – | – | – | – | – | – |
| Not migrant | 102 | 2,555 | 111 | 22% | 29% | 23% | 26% | 49% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 3 | – | – | – | – | – | – | – |
| African American | 8 | – | – | – | – | – | – | – |
| White | 28 | 2,612 | 112 | 7% | 14% | 36% | 43% | 79% |
| Two or more races | 1 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 26 | 2,454 | 99 | 62% | 31% | 4% | 4% | 8% |
| African American | 13 | 2,581 | 65 | 8% | 46% | 23% | 23% | 46% |
| White | 22 | 2,550 | 106 | 18% | 36% | 18% | 27% | 45% |
| Two or more races | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.13 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eight**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 79 | 2,470 | 95 | 65% | 28% | 3% | 5% | 8% |
| Male | 48 | 2,481 | 94 | 67% | 23% | 2% | 8% | 10% |
| Female | 31 | 2,452 | 94 | 61% | 35% | 3% | – | 3% |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 4 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 32 | 2,454 | 73 | 81% | 19% | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 38 | 2,489 | 111 | 50% | 34% | 5% | 11% | 16% |
| Two or more races | 2 | – | – | – | – | – | – | – |
| English only | 56 | 2,473 | 102 | 61% | 29% | 4% | 7% | 11% |
| Initially Fluent English Proficient | 0 | – | – | – | – | – | – | – |
| English Learner | 19 | 2,447 | 75 | 84% | 16% | – | – | – |
| Reclassified Fluent English Proficient | 3 | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 1 | – | – | – | – | – | – | – |
| No special education services | 58 | 2,479 | 90 | 60% | 31% | 3% | 5% | 9% |
| Special education services | 21 | 2,443 | 104 | 76% | 19% | – | 5% | 5% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 30 | 2,485 | 93 | 53% | 37% | 3% | 7% | 10% |
| Economically disadvantaged | 49 | 2,460 | 95 | 71% | 22% | 2% | 4% | 6% |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 3 | – | – | – | – | – | – | – |
| Not migrant | 76 | 2,470 | 96 | 63% | 29% | 3% | 5% | 8% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 21 | 2,480 | 106 | 57% | 29% | 5% | 10% | 14% |
| Two or more races | 1 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 3 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 28 | 2,449 | 72 | 86% | 14% | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 17 | 2,500 | 118 | 41% | 41% | 6% | 12% | 18% |
| Two or more races | 1 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.14 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eleven**

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| All valid scores | 17 | 2,554 | 121 | 29% | 47% | 24% | – | 24% |
| Male | 9 | – | – | – | – | – | – | – |
| Female | 8 | – | – | – | – | – | – | – |
| Gender unknown | 0 | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 7 | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – |
| White | 6 | – | – | – | – | – | – | – |
| Two or more races | 2 | – | – | – | – | – | – | – |
| English only | 16 | 2,553 | 125 | 31% | 44% | 25% | – | 25% |
| Initially Fluent English Proficient | 0 | – | – | – | – | – | – | – |
| English Learner | 0 | – | – | – | – | – | – | – |
| Reclassified Fluent English Proficient | 1 | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – |
| No special education services | 4 | – | – | – | – | – | – | – |
| Special education services | 13 | 2,524 | 120 | 38% | 54% | 8% | – | 8% |
| Special education unknown | 0 | – | – | – | – | – | – | – |
| Not economically disadvantaged | 8 | – | – | – | – | – | – | – |
| Economically disadvantaged | 9 | – | – | – | – | – | – | – |
| Unknown economic status | 0 | – | – | – | – | – | – | – |
| Migrant | 0 | – | – | – | – | – | – | – |
| Not migrant | 17 | 2,554 | 121 | 29% | 47% | 24% | – | 24% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 2 | – | – | – | – | – | – | – |
| Two or more races | 1 | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Tested | Mean Scale Score | SD of Scale Scores | Standard Not Met | Standard Nearly Met | Standard Met | Standard Exceeded | Standard Met/Exceeded |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 3 | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – |
| White | 4 | – | – | – | – | – | – | – |
| Two or more races | 1 | – | – | – | – | – | – | – |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – |

**Table 10.D.15 Ethnicity Summary by Economic Status for Claims—ELA, Grade Three**

| | | | | 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 | | |
| | 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 |
| All valid scores | 669 | 2,410 | 95 | 36% | 41% | 23% | 37% | 46% | 17% | 10% | 65% | 25% | 34% | 43% | 23% |
| Male | 351 | 2,399 | 90 | 39% | 45% | 17% | 42% | 47% | 12% | 11% | 68% | 21% | 35% | 47% | 19% |
| Female | 318 | 2,422 | 99 | 33% | 37% | 29% | 31% | 46% | 23% | 9% | 62% | 29% | 33% | 39% | 28% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 15 | 2,420 | 79 | 27% | 53% | 20% | 33% | 53% | 13% | 13% | 67% | 20% | 27% | 40% | 33% |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 191 | 2,391 | 87 | 48% | 36% | 16% | 44% | 42% | 14% | 15% | 71% | 15% | 41% | 42% | 17% |
| African American | 22 | 2,405 | 64 | 32% | 59% | 9% | 36% | 55% | 9% | 5% | 73% | 23% | 41% | 45% | 14% |
| White | 382 | 2,420 | 100 | 30% | 43% | 27% | 33% | 47% | 19% | 8% | 60% | 32% | 30% | 44% | 26% |
| Two or more races | 40 | 2,421 | 103 | 28% | 49% | 23% | 28% | 51% | 21% | 5% | 74% | 21% | 31% | 36% | 33% |
| English only | 590 | 2,414 | 96 | 34% | 42% | 24% | 35% | 47% | 18% | 9% | 64% | 27% | 32% | 43% | 25% |
| Initially Fluent English Proficient | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 65 | 2,362 | 70 | 60% | 31% | 9% | 57% | 37% | 6% | 21% | 74% | 5% | 55% | 38% | 6% |
| Reclassified Fluent English Proficient | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 585 | 2,414 | 96 | 34% | 42% | 25% | 35% | 48% | 18% | 9% | 64% | 26% | 32% | 43% | 24% |
| Special education services | 84 | 2,379 | 84 | 55% | 36% | 8% | 51% | 37% | 12% | 13% | 73% | 13% | 46% | 41% | 13% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 398 | 2,421 | 95 | 31% | 43% | 26% | 32% | 48% | 20% | 8% | 62% | 30% | 30% | 43% | 27% |
| Economically disadvantaged | 271 | 2,393 | 92 | 44% | 38% | 18% | 43% | 44% | 13% | 13% | 70% | 17% | 40% | 42% | 17% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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 |
| Migrant | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 665 | 2,410 | 95 | 36% | 41% | 23% | 36% | 47% | 17% | 10% | 65% | 25% | 34% | 43% | 23% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 74 | 2,420 | 81 | 32% | 42% | 26% | 38% | 39% | 23% | 8% | 70% | 22% | 32% | 46% | 22% |
| African American | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 279 | 2,423 | 99 | 29% | 44% | 27% | 31% | 50% | 19% | 8% | 58% | 34% | 28% | 44% | 27% |
| Two or more races | 22 | 2,423 | 119 | 33% | 43% | 24% | 24% | 52% | 24% | 5% | 81% | 14% | 29% | 24% | 48% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 5 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 117 | 2,373 | 86 | 59% | 32% | 9% | 48% | 43% | 9% | 19% | 71% | 10% | 47% | 39% | 15% |
| African American | 15 | 2,397 | 63 | 27% | 67% | 7% | 40% | 53% | 7% | – | 80% | 20% | 47% | 40% | 13% |
| White | 103 | 2,412 | 104 | 33% | 38% | 29% | 41% | 40% | 19% | 8% | 66% | 26% | 34% | 43% | 22% |
| Two or more races | 18 | 2,418 | 83 | 22% | 56% | 22% | 33% | 50% | 17% | 6% | 67% | 28% | 33% | 50% | 17% |

| | | | | 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 | | |
| | 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—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.16 Ethnicity Summary by Economic Status for Claims—ELA, Grade Four**

| | | | | 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 | | |
| | 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 |
| All valid scores | 626 | 2,467 | 96 | 26% | 43% | 31% | 35% | 47% | 18% | 12% | 66% | 22% | 23% | 56% | 21% |
| Male | 292 | 2,454 | 92 | 31% | 41% | 28% | 40% | 48% | 11% | 13% | 67% | 19% | 25% | 60% | 16% |
| Female | 334 | 2,478 | 98 | 21% | 44% | 35% | 30% | 45% | 24% | 11% | 65% | 24% | 21% | 53% | 26% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 13 | 2,405 | 84 | 31% | 54% | 15% | 38% | 62% | – | 25% | 75% | – | 58% | 33% | 8% |
| Asian American | 20 | 2,474 | 78 | 20% | 50% | 30% | 25% | 60% | 15% | 25% | 65% | 10% | 10% | 75% | 15% |
| Pacific Islander | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 153 | 2,438 | 92 | 39% | 38% | 23% | 45% | 41% | 14% | 21% | 67% | 12% | 31% | 55% | 14% |
| African American | 35 | 2,437 | 90 | 34% | 51% | 14% | 51% | 34% | 14% | 20% | 71% | 9% | 26% | 66% | 9% |
| White | 363 | 2,481 | 97 | 20% | 44% | 36% | 31% | 49% | 20% | 7% | 64% | 29% | 19% | 54% | 27% |
| Two or more races | 35 | 2,502 | 77 | 17% | 40% | 43% | 20% | 57% | 23% | – | 74% | 26% | 11% | 71% | 17% |
| English only | 546 | 2,471 | 96 | 23% | 44% | 33% | 34% | 47% | 19% | 10% | 66% | 23% | 22% | 56% | 22% |
| Initially Fluent English Proficient | 6 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 56 | 2,411 | 82 | 54% | 38% | 9% | 54% | 41% | 5% | 27% | 63% | 11% | 34% | 57% | 9% |
| Reclassified Fluent English Proficient | 14 | 2,510 | 76 | 14% | 29% | 57% | 7% | 57% | 36% | 8% | 54% | 38% | 7% | 71% | 21% |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 537 | 2,474 | 94 | 23% | 44% | 33% | 33% | 48% | 19% | 10% | 67% | 23% | 21% | 56% | 22% |
| Special education services | 89 | 2,425 | 99 | 44% | 36% | 20% | 51% | 36% | 13% | 24% | 61% | 15% | 30% | 57% | 13% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 358 | 2,485 | 96 | 21% | 40% | 39% | 27% | 50% | 23% | 9% | 64% | 28% | 19% | 54% | 27% |
| Economically disadvantaged | 268 | 2,442 | 91 | 32% | 47% | 21% | 46% | 42% | 12% | 16% | 69% | 15% | 27% | 60% | 13% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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 |
| Migrant | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 624 | 2,467 | 96 | 26% | 43% | 31% | 35% | 47% | 18% | 12% | 66% | 22% | 23% | 56% | 21% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 13 | 2,444 | 70 | 31% | 46% | 23% | 38% | 62% | – | 38% | 54% | 8% | 15% | 77% | 8% |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 56 | 2,462 | 103 | 31% | 33% | 36% | 40% | 36% | 24% | 15% | 62% | 24% | 25% | 51% | 24% |
| African American | 13 | 2,465 | 110 | 23% | 46% | 31% | 38% | 38% | 23% | 8% | 77% | 15% | 31% | 54% | 15% |
| White | 245 | 2,492 | 95 | 18% | 42% | 41% | 24% | 52% | 23% | 7% | 63% | 30% | 17% | 52% | 31% |
| Two or more races | 22 | 2,517 | 69 | 14% | 36% | 50% | 9% | 59% | 32% | – | 73% | 27% | 14% | 64% | 23% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 9 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 97 | 2,424 | 83 | 44% | 40% | 15% | 47% | 43% | 9% | 25% | 70% | 5% | 34% | 58% | 8% |
| African American | 22 | 2,421 | 74 | 41% | 55% | 5% | 59% | 32% | 9% | 27% | 68% | 5% | 23% | 73% | 5% |
| White | 118 | 2,457 | 96 | 23% | 50% | 27% | 45% | 42% | 13% | 9% | 66% | 25% | 23% | 59% | 18% |
| Two or more races | 13 | 2,477 | 87 | 23% | 46% | 31% | 38% | 54% | 8% | – | 77% | 23% | 8% | 85% | 8% |

| | | | | 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 | | |
| | 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—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.17 Ethnicity Summary by Economic Status for Claims—ELA, Grade Five**

| | | | | 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 | | |
| | 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 |
| All valid scores | 538 | 2,507 | 98 | 18% | 47% | 34% | 28% | 45% | 26% | 10% | 74% | 16% | 24% | 53% | 23% |
| Male | 272 | 2,496 | 90 | 22% | 48% | 30% | 34% | 46% | 19% | 12% | 70% | 17% | 27% | 53% | 20% |
| Female | 266 | 2,518 | 105 | 15% | 47% | 39% | 22% | 45% | 34% | 7% | 79% | 14% | 21% | 52% | 27% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 9 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 9 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 127 | 2,468 | 98 | 31% | 48% | 21% | 44% | 43% | 13% | 19% | 69% | 12% | 38% | 47% | 15% |
| African American | 32 | 2,475 | 63 | 28% | 53% | 19% | 34% | 66% | – | 13% | 88% | – | 44% | 50% | 6% |
| White | 312 | 2,523 | 98 | 12% | 47% | 40% | 22% | 44% | 34% | 5% | 76% | 19% | 16% | 58% | 26% |
| Two or more races | 37 | 2,533 | 92 | 19% | 35% | 46% | 22% | 41% | 38% | 3% | 78% | 19% | 22% | 49% | 30% |
| English only | 480 | 2,514 | 95 | 17% | 47% | 37% | 25% | 47% | 28% | 8% | 75% | 17% | 21% | 56% | 23% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 41 | 2,415 | 86 | 41% | 56% | 2% | 66% | 32% | 2% | 37% | 61% | 2% | 66% | 27% | 7% |
| Reclassified Fluent English Proficient | 15 | 2,510 | 108 | 7% | 50% | 43% | 14% | 50% | 36% | – | 86% | 14% | 21% | 21% | 57% |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 466 | 2,516 | 94 | 16% | 47% | 37% | 24% | 48% | 28% | 7% | 76% | 17% | 21% | 54% | 25% |
| Special education services | 72 | 2,446 | 105 | 38% | 49% | 13% | 55% | 29% | 16% | 28% | 65% | 7% | 41% | 45% | 14% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 296 | 2,523 | 91 | 14% | 45% | 41% | 23% | 47% | 30% | 6% | 75% | 19% | 18% | 57% | 25% |
| Economically disadvantaged | 242 | 2,487 | 103 | 24% | 50% | 25% | 34% | 44% | 22% | 14% | 74% | 12% | 31% | 48% | 21% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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 |
| Migrant | 6 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 532 | 2,508 | 98 | 18% | 48% | 35% | 27% | 46% | 27% | 9% | 74% | 16% | 23% | 53% | 23% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 6 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 48 | 2,500 | 90 | 17% | 50% | 33% | 31% | 50% | 19% | 13% | 73% | 15% | 23% | 60% | 17% |
| African American | 11 | 2,506 | 52 | 18% | 55% | 27% | 18% | 82% | – | 9% | 91% | – | 27% | 64% | 9% |
| White | 199 | 2,530 | 93 | 11% | 45% | 44% | 21% | 43% | 36% | 4% | 75% | 21% | 15% | 58% | 28% |
| Two or more races | 24 | 2,521 | 97 | 29% | 29% | 42% | 21% | 50% | 29% | 4% | 79% | 17% | 25% | 58% | 17% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 8 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 79 | 2,448 | 98 | 40% | 47% | 13% | 51% | 38% | 10% | 23% | 67% | 10% | 47% | 38% | 14% |
| African American | 21 | 2,459 | 63 | 33% | 52% | 14% | 43% | 57% | – | 14% | 86% | – | 52% | 43% | 5% |
| White | 113 | 2,510 | 105 | 15% | 51% | 34% | 23% | 47% | 30% | 8% | 76% | 16% | 17% | 60% | 23% |
| Two or more races | 13 | 2,556 | 80 | – | 46% | 54% | 23% | 23% | 54% | – | 77% | 23% | 15% | 31% | 54% |

| | | | | 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 | | |
| | 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—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.18 Ethnicity Summary by Economic Status for Claims—ELA, Grade Six**

| | | | | 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 | | |
| | 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 |
| All valid scores | 216 | 2,508 | 104 | 35% | 38% | 27% | 36% | 48% | 16% | 20% | 74% | 6% | 29% | 56% | 15% |
| Male | 103 | 2,504 | 97 | 36% | 37% | 27% | 41% | 48% | 12% | 17% | 75% | 8% | 31% | 54% | 15% |
| Female | 113 | 2,511 | 110 | 34% | 40% | 26% | 32% | 48% | 20% | 22% | 74% | 5% | 27% | 58% | 15% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 3 | 2,450 | 147 | 33% | 67% | – | 33% | 67% | – | 33% | 67% | – | 33% | 67% | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 67 | 2,475 | 98 | 47% | 35% | 18% | 45% | 45% | 9% | 25% | 72% | 3% | 42% | 53% | 5% |
| African American | 20 | 2,489 | 112 | 32% | 53% | 16% | 47% | 47% | 5% | 26% | 74% | – | 37% | 53% | 11% |
| White | 107 | 2,531 | 101 | 29% | 36% | 35% | 28% | 50% | 22% | 14% | 77% | 9% | 18% | 59% | 23% |
| Two or more races | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English only | 174 | 2,521 | 101 | 31% | 40% | 29% | 31% | 50% | 19% | 17% | 77% | 7% | 25% | 57% | 18% |
| Initially Fluent English Proficient | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 25 | 2,401 | 83 | 83% | 8% | 8% | 88% | 13% | – | 46% | 54% | – | 63% | 38% | – |
| Reclassified Fluent English Proficient | 16 | 2,531 | 67 | 13% | 63% | 25% | 19% | 75% | 6% | 13% | 81% | 6% | 19% | 81% | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 178 | 2,520 | 101 | 32% | 38% | 30% | 31% | 50% | 19% | 17% | 76% | 7% | 26% | 58% | 16% |
| Special education services | 38 | 2,449 | 97 | 50% | 39% | 11% | 61% | 36% | 3% | 31% | 66% | 3% | 44% | 50% | 6% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 90 | 2,525 | 105 | 27% | 43% | 30% | 27% | 50% | 23% | 13% | 80% | 7% | 22% | 58% | 20% |
| Economically disadvantaged | 126 | 2,495 | 101 | 41% | 35% | 24% | 42% | 46% | 11% | 24% | 70% | 6% | 34% | 55% | 10% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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 |
| Migrant | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 212 | 2,510 | 102 | 34% | 39% | 27% | 35% | 49% | 16% | 19% | 75% | 6% | 28% | 57% | 15% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 12 | 2,543 | 87 | 8% | 67% | 25% | 17% | 67% | 17% | – | 100% | – | 17% | 67% | 17% |
| African American | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 60 | 2,525 | 106 | 32% | 35% | 33% | 27% | 49% | 24% | 16% | 78% | 7% | 22% | 54% | 24% |
| Two or more races | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 55 | 2,461 | 94 | 56% | 28% | 17% | 52% | 41% | 7% | 30% | 67% | 4% | 48% | 50% | 2% |
| African American | 16 | 2,507 | 99 | 38% | 44% | 19% | 44% | 50% | 6% | 31% | 69% | – | 38% | 50% | 13% |
| White | 47 | 2,538 | 94 | 26% | 38% | 36% | 30% | 51% | 19% | 13% | 76% | 11% | 13% | 66% | 21% |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.19 Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven**

| | | | | 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 | | |
| | 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 |
| All valid scores | 97 | 2,556 | 114 | 24% | 37% | 38% | 18% | 44% | 38% | 17% | 62% | 20% | 19% | 66% | 15% |
| Male | 40 | 2,508 | 126 | 30% | 41% | 30% | 32% | 46% | 22% | 32% | 54% | 14% | 30% | 54% | 16% |
| Female | 57 | 2,590 | 93 | 21% | 35% | 44% | 9% | 42% | 49% | 7% | 68% | 25% | 12% | 74% | 14% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 19 | 2,486 | 101 | 53% | 32% | 16% | 47% | 37% | 16% | 44% | 50% | 6% | 37% | 63% | – |
| African American | 23 | 2,591 | 107 | 23% | 23% | 55% | – | 45% | 55% | 9% | 55% | 36% | 5% | 59% | 36% |
| White | 50 | 2,564 | 112 | 15% | 48% | 38% | 15% | 46% | 40% | 10% | 71% | 19% | 19% | 73% | 8% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English only | 78 | 2,577 | 106 | 18% | 38% | 43% | 11% | 46% | 43% | 11% | 67% | 22% | 14% | 67% | 18% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 13 | 2,446 | 91 | 69% | 23% | 8% | 62% | 31% | 8% | 58% | 42% | – | 46% | 54% | – |
| Reclassified Fluent English Proficient | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 85 | 2,568 | 113 | 22% | 36% | 42% | 16% | 43% | 41% | 16% | 63% | 22% | 16% | 67% | 17% |
| Special education services | 12 | 2,475 | 97 | 45% | 45% | 9% | 36% | 45% | 18% | 30% | 60% | 10% | 45% | 55% | – |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 43 | 2,579 | 111 | 19% | 36% | 45% | 12% | 48% | 40% | 12% | 60% | 29% | 24% | 57% | 19% |
| Economically disadvantaged | 54 | 2,539 | 115 | 29% | 38% | 33% | 23% | 40% | 37% | 22% | 65% | 14% | 15% | 73% | 12% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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 |
| Migrant | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 96 | 2,557 | 115 | 24% | 38% | 39% | 17% | 44% | 39% | 17% | 62% | 21% | 19% | 66% | 15% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 9 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 29 | 2,584 | 112 | 11% | 46% | 43% | 11% | 46% | 43% | 7% | 68% | 25% | 25% | 61% | 14% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 17 | 2,487 | 106 | 53% | 29% | 18% | 47% | 35% | 18% | 44% | 50% | 6% | 35% | 65% | – |
| African American | 14 | 2,587 | 114 | 15% | 31% | 54% | – | 38% | 62% | 8% | 62% | 31% | – | 62% | 38% |
| White | 21 | 2,536 | 109 | 20% | 50% | 30% | 20% | 45% | 35% | 15% | 75% | 10% | 10% | 90% | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.20 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight**

| | | | | 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 | | |
| | 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 |
| All valid scores | 69 | 2,471 | 98 | 46% | 43% | 11% | 66% | 29% | 5% | 18% | 79% | 3% | 38% | 57% | 5% |
| Male | 40 | 2,470 | 101 | 46% | 41% | 14% | 70% | 24% | 5% | 22% | 75% | 3% | 32% | 62% | 5% |
| Female | 29 | 2,472 | 96 | 46% | 46% | 7% | 61% | 36% | 4% | 12% | 85% | 4% | 46% | 50% | 4% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 22 | 2,460 | 90 | 52% | 43% | 5% | 67% | 29% | 5% | 33% | 62% | 5% | 38% | 57% | 5% |
| African American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 38 | 2,477 | 112 | 43% | 40% | 17% | 60% | 34% | 6% | 6% | 91% | 3% | 46% | 49% | 6% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English only | 58 | 2,473 | 101 | 43% | 46% | 11% | 65% | 31% | 4% | 10% | 86% | 4% | 37% | 59% | 4% |
| Initially Fluent English Proficient | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 9 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Reclassified Fluent English Proficient | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 48 | 2,489 | 91 | 41% | 46% | 13% | 63% | 33% | 4% | 7% | 91% | 2% | 37% | 59% | 4% |
| Special education services | 21 | 2,430 | 105 | 58% | 37% | 5% | 74% | 21% | 5% | 44% | 50% | 6% | 42% | 53% | 5% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 27 | 2,471 | 95 | 44% | 52% | 4% | 60% | 40% | – | 9% | 87% | 4% | 36% | 64% | – |
| Economically disadvantaged | 42 | 2,471 | 101 | 48% | 38% | 15% | 70% | 23% | 8% | 23% | 74% | 3% | 40% | 53% | 8% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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 |
| Migrant | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 68 | 2,471 | 99 | 45% | 44% | 11% | 67% | 28% | 5% | 16% | 80% | 3% | 38% | 58% | 5% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 22 | 2,478 | 96 | 43% | 52% | 5% | 57% | 43% | – | 10% | 85% | 5% | 43% | 57% | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 21 | 2,469 | 83 | 52% | 43% | 5% | 67% | 29% | 5% | 33% | 62% | 5% | 38% | 57% | 5% |
| African American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 16 | 2,476 | 134 | 43% | 21% | 36% | 64% | 21% | 14% | – | 100% | – | 50% | 36% | 14% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.21 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven**

| | | | | 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 | | |
| | 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 |
| All valid scores | 20 | 2,571 | 148 | 11% | 44% | 44% | 17% | 50% | 33% | 19% | 69% | 13% | 11% | 61% | 28% |
| Male | 11 | 2,554 | 141 | – | 67% | 33% | 11% | 67% | 22% | – | 100% | – | 11% | 67% | 22% |
| Female | 9 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 8 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 7 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English only | 19 | 2,562 | 145 | 12% | 47% | 41% | 18% | 53% | 29% | 20% | 73% | 7% | 12% | 65% | 24% |
| Initially Fluent English Proficient | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Reclassified Fluent English Proficient | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Special education services | 16 | 2,541 | 148 | 14% | 57% | 29% | 14% | 57% | 29% | 25% | 67% | 8% | 14% | 57% | 29% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Economically disadvantaged | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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 |
| Migrant | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 20 | 2,571 | 148 | 11% | 44% | 44% | 17% | 50% | 33% | 19% | 69% | 13% | 11% | 61% | 28% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 3 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 4 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | 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 | | |
| | 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—Unknown Economic Status** | | | | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.22 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| All valid scores | 682 | 2,402 | 74 | 48% | 42% | 10% | 37% | 43% | 20% | 15% | 74% | 11% |
| Male | 357 | 2,401 | 72 | 49% | 42% | 9% | 36% | 46% | 18% | 14% | 75% | 11% |
| Female | 325 | 2,403 | 77 | 46% | 42% | 12% | 39% | 40% | 22% | 15% | 73% | 12% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 15 | 2,420 | 80 | 27% | 53% | 20% | 33% | 40% | 27% | – | 80% | 20% |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 203 | 2,381 | 71 | 57% | 38% | 5% | 52% | 36% | 13% | 22% | 74% | 5% |
| African American | 22 | 2,391 | 76 | 53% | 32% | 16% | 33% | 57% | 10% | 5% | 86% | 10% |
| White | 382 | 2,412 | 73 | 43% | 43% | 13% | 31% | 46% | 23% | 12% | 75% | 13% |
| Two or more races | 41 | 2,420 | 77 | 43% | 49% | 8% | 20% | 48% | 33% | 15% | 68% | 18% |
| English only | 590 | 2,407 | 74 | 46% | 43% | 11% | 34% | 45% | 21% | 13% | 75% | 12% |
| Initially Fluent English Proficient | 7 | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 76 | 2,363 | 69 | 71% | 23% | 7% | 67% | 25% | 8% | 27% | 71% | 3% |
| Reclassified Fluent English Proficient | 5 | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 1 | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 3 | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 598 | 2,405 | 75 | 45% | 44% | 11% | 35% | 44% | 21% | 14% | 74% | 12% |
| Special education services | 84 | 2,378 | 64 | 68% | 27% | 5% | 52% | 37% | 11% | 19% | 73% | 7% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 402 | 2,411 | 72 | 44% | 45% | 11% | 31% | 44% | 25% | 12% | 77% | 11% |
| Economically disadvantaged | 280 | 2,388 | 76 | 53% | 37% | 9% | 46% | 41% | 12% | 18% | 71% | 11% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| Migrant | 5 | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 677 | 2,402 | 74 | 48% | 42% | 10% | 37% | 43% | 20% | 15% | 74% | 11% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 76 | 2,400 | 64 | 50% | 46% | 4% | 39% | 40% | 21% | 19% | 77% | 4% |
| African American | 7 | – | – | – | – | – | – | – | – | – | – | – |
| White | 280 | 2,415 | 73 | 42% | 45% | 13% | 30% | 44% | 26% | 11% | 77% | 12% |
| Two or more races | 23 | 2,412 | 90 | 50% | 40% | 10% | 23% | 45% | 32% | 14% | 64% | 23% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 5 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 5 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 127 | 2,371 | 73 | 61% | 34% | 5% | 59% | 34% | 7% | 23% | 72% | 5% |
| African American | 15 | 2,379 | 84 | 50% | 42% | 8% | 43% | 43% | 14% | 7% | 79% | 14% |
| White | 102 | 2,404 | 75 | 47% | 38% | 15% | 34% | 54% | 12% | 13% | 70% | 16% |
| Two or more races | 18 | 2,431 | 58 | 35% | 59% | 6% | 17% | 50% | 33% | 17% | 72% | 11% |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.23 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| All valid scores | 642 | 2,454 | 74 | 51% | 35% | 13% | 26% | 59% | 15% | 25% | 59% | 17% |
| Male | 300 | 2,453 | 71 | 50% | 38% | 12% | 27% | 60% | 13% | 25% | 61% | 14% |
| Female | 342 | 2,455 | 77 | 52% | 33% | 15% | 25% | 59% | 16% | 24% | 57% | 19% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 12 | 2,419 | 56 | 58% | 33% | 8% | 42% | 58% | – | 42% | 50% | 8% |
| Asian American | 21 | 2,479 | 71 | 38% | 33% | 29% | 14% | 76% | 10% | 14% | 57% | 29% |
| Pacific Islander | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 168 | 2,434 | 74 | 63% | 27% | 10% | 40% | 52% | 8% | 34% | 55% | 11% |
| African American | 35 | 2,442 | 72 | 53% | 26% | 21% | 43% | 49% | 9% | 37% | 57% | 6% |
| White | 364 | 2,462 | 73 | 48% | 40% | 13% | 20% | 61% | 19% | 21% | 61% | 19% |
| Two or more races | 35 | 2,480 | 67 | 40% | 40% | 20% | 6% | 74% | 20% | 11% | 63% | 26% |
| English only | 547 | 2,458 | 73 | 49% | 37% | 14% | 23% | 61% | 16% | 23% | 60% | 17% |
| Initially Fluent English Proficient | 6 | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 71 | 2,415 | 63 | 73% | 24% | 3% | 50% | 49% | 1% | 41% | 51% | 7% |
| Reclassified Fluent English Proficient | 14 | 2,494 | 84 | 36% | 29% | 36% | 14% | 71% | 14% | 14% | 43% | 43% |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 4 | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 552 | 2,460 | 72 | 49% | 36% | 15% | 25% | 59% | 16% | 23% | 59% | 18% |
| Special education services | 90 | 2,419 | 80 | 66% | 31% | 4% | 35% | 60% | 5% | 37% | 56% | 7% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 363 | 2,468 | 73 | 44% | 40% | 16% | 18% | 63% | 19% | 18% | 62% | 20% |
| Economically disadvantaged | 279 | 2,437 | 72 | 61% | 29% | 10% | 36% | 55% | 9% | 33% | 55% | 12% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| Migrant | 5 | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 637 | 2,455 | 74 | 51% | 35% | 13% | 26% | 60% | 15% | 25% | 59% | 17% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 14 | 2,463 | 51 | 50% | 43% | 7% | 14% | 86% | – | 14% | 71% | 14% |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 3 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 60 | 2,453 | 79 | 51% | 32% | 17% | 29% | 63% | 8% | 24% | 63% | 14% |
| African American | 13 | 2,457 | 78 | 46% | 23% | 31% | 31% | 54% | 15% | 31% | 62% | 8% |
| White | 245 | 2,470 | 73 | 44% | 42% | 15% | 17% | 60% | 23% | 18% | 61% | 22% |
| Two or more races | 22 | 2,488 | 55 | 32% | 50% | 18% | 5% | 73% | 23% | 5% | 68% | 27% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 8 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 7 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 108 | 2,423 | 70 | 70% | 24% | 6% | 47% | 46% | 7% | 39% | 50% | 10% |
| African American | 22 | 2,434 | 68 | 57% | 29% | 14% | 50% | 45% | 5% | 41% | 55% | 5% |
| White | 119 | 2,444 | 69 | 56% | 35% | 9% | 26% | 63% | 11% | 28% | 60% | 12% |
| Two or more races | 13 | 2,467 | 84 | 54% | 23% | 23% | 8% | 77% | 15% | 23% | 54% | 23% |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.24 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| All valid scores | 546 | 2,487 | 79 | 57% | 32% | 11% | 30% | 52% | 18% | 26% | 63% | 11% |
| Male | 277 | 2,492 | 77 | 53% | 33% | 13% | 28% | 52% | 20% | 27% | 63% | 10% |
| Female | 269 | 2,482 | 81 | 61% | 31% | 8% | 31% | 52% | 17% | 25% | 64% | 11% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 9 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 10 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 9 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 135 | 2,455 | 75 | 71% | 24% | 5% | 47% | 47% | 6% | 43% | 49% | 7% |
| African American | 32 | 2,453 | 45 | 84% | 16% | – | 47% | 53% | – | 41% | 59% | – |
| White | 312 | 2,501 | 81 | 50% | 36% | 14% | 22% | 53% | 25% | 20% | 67% | 13% |
| Two or more races | 37 | 2,516 | 70 | 41% | 38% | 22% | 22% | 51% | 27% | 8% | 78% | 14% |
| English only | 479 | 2,494 | 77 | 54% | 33% | 12% | 26% | 54% | 20% | 23% | 66% | 11% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 50 | 2,423 | 74 | 82% | 16% | 2% | 66% | 32% | 2% | 58% | 38% | 4% |
| Reclassified Fluent English Proficient | 15 | 2,481 | 68 | 60% | 33% | 7% | 33% | 53% | 13% | 27% | 67% | 7% |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 473 | 2,494 | 78 | 54% | 34% | 12% | 27% | 53% | 20% | 24% | 64% | 12% |
| Special education services | 73 | 2,444 | 74 | 80% | 18% | 1% | 46% | 46% | 8% | 42% | 56% | 1% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 299 | 2,502 | 79 | 49% | 35% | 16% | 22% | 53% | 25% | 21% | 65% | 14% |
| Economically disadvantaged | 247 | 2,470 | 76 | 67% | 28% | 5% | 39% | 51% | 11% | 33% | 61% | 6% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| Migrant | 7 | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 539 | 2,488 | 79 | 57% | 32% | 11% | 29% | 52% | 19% | 25% | 64% | 11% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 6 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 7 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 51 | 2,479 | 75 | 65% | 25% | 10% | 31% | 59% | 10% | 29% | 59% | 12% |
| African American | 11 | 2,459 | 26 | 91% | 9% | – | 36% | 64% | – | 55% | 45% | – |
| White | 199 | 2,508 | 82 | 44% | 39% | 17% | 19% | 51% | 30% | 18% | 65% | 16% |
| Two or more races | 24 | 2,524 | 75 | 29% | 46% | 25% | 25% | 38% | 38% | 13% | 71% | 17% |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 8 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 84 | 2,441 | 71 | 76% | 23% | 1% | 56% | 40% | 4% | 52% | 43% | 5% |
| African American | 21 | 2,450 | 53 | 81% | 19% | – | 52% | 48% | – | 33% | 67% | – |
| White | 113 | 2,488 | 77 | 60% | 32% | 8% | 27% | 56% | 17% | 23% | 69% | 8% |
| Two or more races | 13 | 2,501 | 60 | 62% | 23% | 15% | 15% | 77% | 8% | – | 92% | 8% |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.25 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| All valid scores | 227 | 2,509 | 99 | 43% | 41% | 16% | 37% | 47% | 16% | 25% | 60% | 15% |
| Male | 110 | 2,502 | 101 | 47% | 39% | 14% | 41% | 45% | 14% | 25% | 60% | 15% |
| Female | 117 | 2,515 | 96 | 40% | 42% | 18% | 34% | 48% | 18% | 25% | 60% | 15% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 10 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 3 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 79 | 2,477 | 92 | 58% | 33% | 9% | 55% | 38% | 6% | 37% | 56% | 8% |
| African American | 19 | 2,496 | 77 | 47% | 47% | 5% | 37% | 63% | – | 26% | 68% | 5% |
| White | 107 | 2,532 | 96 | 32% | 46% | 22% | 25% | 54% | 21% | 17% | 60% | 23% |
| Two or more races | 7 | – | – | – | – | – | – | – | – | – | – | – |
| English only | 172 | 2,522 | 98 | 38% | 43% | 19% | 31% | 50% | 19% | 19% | 63% | 18% |
| Initially Fluent English Proficient | 1 | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 38 | 2,437 | 82 | 79% | 18% | 3% | 76% | 21% | 3% | 53% | 45% | 3% |
| Reclassified Fluent English Proficient | 16 | 2,539 | 67 | 20% | 67% | 13% | 13% | 73% | 13% | 19% | 69% | 13% |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 192 | 2,517 | 98 | 39% | 44% | 17% | 33% | 51% | 16% | 23% | 60% | 17% |
| Special education services | 35 | 2,468 | 93 | 66% | 23% | 11% | 60% | 26% | 14% | 34% | 60% | 6% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 91 | 2,536 | 99 | 31% | 43% | 26% | 26% | 49% | 26% | 14% | 67% | 19% |
| Economically disadvantaged | 136 | 2,491 | 95 | 51% | 39% | 10% | 45% | 45% | 10% | 32% | 56% | 13% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| Migrant | 6 | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 221 | 2,512 | 97 | 43% | 40% | 17% | 37% | 47% | 16% | 24% | 61% | 15% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 14 | 2,544 | 79 | 29% | 43% | 29% | 21% | 57% | 21% | 21% | 64% | 14% |
| African American | 3 | – | – | – | – | – | – | – | – | – | – | – |
| White | 60 | 2,532 | 100 | 32% | 42% | 25% | 25% | 51% | 24% | 14% | 66% | 20% |
| Two or more races | 7 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 6 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 65 | 2,463 | 89 | 64% | 31% | 5% | 63% | 34% | 3% | 40% | 54% | 6% |
| African American | 16 | 2,487 | 79 | 56% | 38% | 6% | 38% | 63% | – | 25% | 69% | 6% |
| White | 47 | 2,532 | 92 | 33% | 50% | 17% | 26% | 57% | 17% | 21% | 53% | 26% |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.26 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| All valid scores | 105 | 2,551 | 114 | 29% | 41% | 31% | 23% | 44% | 34% | 10% | 56% | 34% |
| Male | 44 | 2,522 | 140 | 39% | 32% | 29% | 29% | 39% | 32% | 10% | 56% | 34% |
| Female | 61 | 2,572 | 87 | 22% | 47% | 32% | 18% | 47% | 35% | 10% | 57% | 33% |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 3 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 29 | 2,457 | 98 | 62% | 35% | 4% | 50% | 46% | 4% | 27% | 62% | 12% |
| African American | 21 | 2,583 | 64 | 5% | 57% | 38% | 10% | 57% | 33% | – | 62% | 38% |
| White | 50 | 2,585 | 113 | 22% | 39% | 39% | 16% | 37% | 47% | 4% | 55% | 41% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – |
| English only | 76 | 2,584 | 102 | 16% | 43% | 41% | 14% | 43% | 43% | 4% | 55% | 41% |
| Initially Fluent English Proficient | 2 | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 22 | 2,439 | 86 | 71% | 29% | – | 57% | 43% | – | 33% | 62% | 5% |
| Reclassified Fluent English Proficient | 4 | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 1 | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 94 | 2,553 | 117 | 26% | 41% | 33% | 23% | 42% | 35% | 8% | 59% | 33% |
| Special education services | 11 | 2,533 | 83 | 50% | 40% | 10% | 20% | 60% | 20% | 30% | 30% | 40% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 42 | 2,597 | 105 | 15% | 44% | 41% | 10% | 37% | 54% | 7% | 44% | 49% |
| Economically disadvantaged | 63 | 2,520 | 110 | 38% | 38% | 23% | 32% | 48% | 20% | 12% | 65% | 23% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| Migrant | 3 | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 102 | 2,555 | 111 | 28% | 41% | 32% | 22% | 43% | 35% | 9% | 56% | 35% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 3 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 8 | – | – | – | – | – | – | – | – | – | – | – |
| White | 28 | 2,612 | 112 | 11% | 44% | 44% | 7% | 30% | 63% | 4% | 41% | 56% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 26 | 2,454 | 99 | 65% | 30% | 4% | 48% | 48% | 4% | 26% | 61% | 13% |
| African American | 13 | 2,581 | 65 | – | 69% | 31% | 15% | 54% | 31% | – | 62% | 38% |
| White | 22 | 2,550 | 106 | 36% | 32% | 32% | 27% | 45% | 27% | 5% | 73% | 23% |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.27 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| All valid scores | 79 | 2,470 | 95 | 62% | 33% | 5% | 21% | 77% | 3% | 25% | 71% | 4% |
| Male | 48 | 2,481 | 94 | 66% | 25% | 9% | 14% | 82% | 5% | 20% | 74% | 7% |
| Female | 31 | 2,452 | 94 | 55% | 45% | – | 31% | 69% | – | 33% | 67% | – |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 32 | 2,454 | 73 | 81% | 19% | – | 23% | 77% | – | 31% | 69% | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 38 | 2,489 | 111 | 44% | 44% | 12% | 18% | 76% | 6% | 14% | 77% | 9% |
| Two or more races | 2 | – | – | – | – | – | – | – | – | – | – | – |
| English only | 56 | 2,473 | 102 | 56% | 36% | 8% | 16% | 80% | 4% | 19% | 75% | 6% |
| Initially Fluent English Proficient | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 19 | 2,447 | 75 | 84% | 16% | – | 32% | 68% | – | 37% | 63% | – |
| Reclassified Fluent English Proficient | 3 | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 1 | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 58 | 2,479 | 90 | 60% | 35% | 5% | 22% | 76% | 2% | 21% | 75% | 4% |
| Special education services | 21 | 2,443 | 104 | 67% | 28% | 6% | 17% | 78% | 6% | 35% | 60% | 5% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 30 | 2,485 | 93 | 50% | 43% | 7% | 18% | 79% | 4% | 21% | 76% | 3% |
| Economically disadvantaged | 49 | 2,460 | 95 | 69% | 27% | 4% | 22% | 76% | 2% | 28% | 68% | 4% |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| Migrant | 3 | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 76 | 2,470 | 96 | 60% | 34% | 6% | 21% | 76% | 3% | 25% | 71% | 4% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 21 | 2,480 | 106 | 55% | 35% | 10% | 15% | 80% | 5% | 20% | 75% | 5% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 3 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 28 | 2,449 | 72 | 86% | 14% | – | 21% | 79% | – | 36% | 64% | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 17 | 2,500 | 118 | 29% | 57% | 14% | 21% | 71% | 7% | 7% | 80% | 13% |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

**Table 10.D.28 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven**

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| All valid scores | 17 | 2,554 | 121 | 59% | 41% | – | 12% | 71% | 18% | 18% | 59% | 24% |
| Male | 9 | – | – | – | – | – | – | – | – | – | – | – |
| Female | 8 | – | – | – | – | – | – | – | – | – | – | – |
| Gender unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 7 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – | – | – | – | – |
| White | 6 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 2 | – | – | – | – | – | – | – | – | – | – | – |
| English only | 16 | 2,553 | 125 | 63% | 38% | – | 13% | 69% | 19% | 19% | 56% | 25% |
| Initially Fluent English Proficient | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English Learner | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Reclassified Fluent English Proficient | 1 | – | – | – | – | – | – | – | – | – | – | – |
| To be determined | 0 | – | – | – | – | – | – | – | – | – | – | – |
| English proficiency unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| No special education services | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Special education services | 13 | 2,524 | 120 | 69% | 31% | – | 15% | 62% | 23% | 23% | 69% | 8% |
| Special education unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not economically disadvantaged | 8 | – | – | – | – | – | – | – | – | – | – | – |
| Economically disadvantaged | 9 | – | – | – | – | – | – | – | – | – | – | – |
| Unknown economic status | 0 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| Migrant | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Not migrant | 17 | 2,554 | 121 | 59% | 41% | – | 12% | 71% | 18% | 18% | 59% | 24% |
| Migrant status unknown | 0 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Not Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 1 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 4 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 2 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – |
| **Primary Ethnicity—Economically Disadvantaged** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 3 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 1 | – | – | – | – | – | – | – | – | – | – | – |
| White | 4 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 1 | – | – | – | – | – | – | – | – | – | – | – |

| | | | | Percent in Performance Level Claim 1 | | | Percent in Performance Level Claim 2 | | | Percent in Performance Level Claim 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard | | | Standard | | | 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 |
| **Primary Ethnicity—Unknown Economic Status** | | | | | | | | | | | | |
| American Indian | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Asian American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Pacific Islander | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Filipino | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Hispanic | 0 | – | – | – | – | – | – | – | – | – | – | – |
| African American | 0 | – | – | – | – | – | – | – | – | – | – | – |
| White | 0 | – | – | – | – | – | – | – | – | – | – | – |
| Two or more races | 0 | – | – | – | – | – | – | – | – | – | – | – |

# Appendix 10.E: IRT Parameter Estimates

**Table 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.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 10.E.29 Distribution of IRT *a*-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 |
|---|---|---|---|---|---|---|---|
| 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 10.E.30 Distribution of IRT *a*-values for Non-PT Items—Mathematics, All Grades**

| IRT *b*-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 10.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 10.E.32 Distribution of IRT *b*-values for Non-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 | 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 10.E.33 Distribution of IRT *a*-values for PT—ELA, All Grades**

| IRT *b*-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 10.E.34 Distribution of IRT *a*-values for PT—Mathematics, All Grades**

| IRT *b*-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 10.E.35 Distribution of IRT *b*-values for PT—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 10.E.36 Distribution of IRT *b*-values for PT—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 10.E.37 PT Item Statistics—ELA, Grade Three**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH315611 | 4 | 0.52 | –0.39 | 2.59, 0.69, –0.73, –2.55 |
| VH315632 | 2 | 0.67 | –1.04 | 0.85, –0.85 |
| 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 | – |

**Table 10.E.38 PT Item Statistics—ELA, Grade Four**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295957 | 3 | 0.55 | –0.96 | 2.1, 0.11, –2.21 |
| VH295958 | 2 | 0.56 | –1.42 | 0.35, –0.35 |
| VH295954 | 2 | 0.59 | 0.91 | 0.2, –0.2 |
| VH295959 | 2 | 0.61 | 0.53 | 0.55, –0.55 |

**Table 10.E.39 PT Item Statistics—ELA, Grade Five**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295811 | 4 | 0.59 | –0.48 | 1.61, 2.05, –0.51, –3.15 |
| VH295812 | 2 | 0.68 | –1.08 | 1.12, –1.12 |
| VH295807 | 2 | 0.62 | 0.58 | 1, –1 |
| VH295808 | 2 | 0.57 | 0.76 | 0.32, –0.32 |
| VH303290 | 1 | 0.48 | 4.14 | – |

**Table 10.E.40 PT Item Statistics—ELA, Grade Six**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295937 | 4 | 0.52 | 0.33 | 2.86, 1.36, –1.14, –3.08 |
| VH295938 | 2 | 0.41 | –0.78 | –0.06, 0.06 |
| VH303079 | 1 | 0.65 | –0.42 | – |
| VH295934 | 2 | 0.48 | 0.54 | 0.57, –0.57 |
| VH295935 | 2 | 0.50 | 1.66 | 0.36, –0.36 |

**Table 10.E.41 PT Item Statistics—ELA, Grade Seven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295399 | 3 | 0.90 | 0.35 | 1.91, –0.13, –1.79 |
| VH295400 | 2 | 0.82 | –0.34 | 0.24, –0.24 |
| VH295397 | 2 | 0.64 | 0.86 | 1.09, –1.09 |
| VH295401 | 2 | 0.53 | 1.14 | 0.51, –0.51 |

**Table 10.E.42 PT Item Statistics—ELA, Grade Eight**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295295 | 4 | 0.69 | 0.71 | 2.39, 1.15, –1.01, –2.53 |
| VH295296 | 2 | 0.73 | –0.98 | 0.11, –0.11 |
| VH295291 | 2 | 0.69 | 1.74 | 0.88, –0.88 |
| VH295293 | 1 | 0.51 | 3.57 | – |

**Table 10.E.43 PT Item Statistics—ELA, Grade Eleven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH295618 | 4 | 0.56 | 1.72 | 2.2, 0.84, –0.99, –2.04 |
| VH295619 | 2 | 0.61 | 1.13 | 0.09, –0.09 |
| VH295615 | 2 | 0.64 | 2.12 | 0.27, –0.27 |
| VH295620 | 2 | 0.41 | 1.40 | 0.04, –0.04 |

**Table 10.E.44 PT Item Statistics—Mathematics, Grade Three**

| Item ID | Score Points | 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 | 0.10, –0.10 |

**Table 10.E.45 PT Item Statistics—Mathematics, Grade Four**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH303281 | 1 | 0.71 | –1.46 | – |
| VH310718 | 2 | 0.43 | 0.92 | –2.59, 2.59 |
| 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 |

**Table 10.E.46 PT Item Statistics—Mathematics, Grade Five**

| Item ID | Score Points | 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 | –0.30, 0.30 |
| 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 10.E.47 PT Item Statistics—Mathematics, Grade Six**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| 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 10.E.48 PT Item Statistics—Mathematics, Grade Seven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH310947 | 1 | 0.83 | 0.31 | – |
| VH310950 | 1 | 0.96 | 1.12 | – |
| VH299212 | 1 | 1.68 | 2.54 | – |
| VH303301 | 2 | 0.77 | 2.42 | 0.10, –0.10 |
| VH303302 | 1 | 0.99 | 1.73 | – |
| VH299227 | 2 | 0.53 | 3.75 | 1.14, –1.14 |

**Table 10.E.49 PT Item Statistics—Mathematics, Grade Eight**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| VH300080 | 1 | 0.70 | 1.14 | – |
| VH300081 | 2 | 0.78 | 2.95 | –0.02, 0.02 |
| VH303305 | 1 | 0.75 | 2.14 | – |
| VH303306 | 1 | 0.86 | 2.31 | – |
| VH300085 | 2 | 0.47 | 0.51 | –0.32, 0.32 |

**Table 10.E.50 PT Item Statistics—Mathematics, Grade Eleven**

| Item ID | Score Points | A | B | D |
|---|---|---|---|---|
| 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 |
| VH311067 | 1 | 0.31 | 11.00 | – |

# Appendix 10.F: Reliability Analyses for Paper-Pencil Tests

**Table 10.F.1 Reliabilities of Claims and Intercorrelations for ELA, Grade Three**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | 4 | Reliab | SEM |
|---|---|---|---|---|---|---|---|
| Claim 1 | 19 | 1.00 | . | . | . | 0.77 | 0.48 |
| Claim 2 | 12 | 0.69 | 1.00 | . | . | 0.72 | 0.64 |
| Claim 3 | 9 | 0.60 | 0.55 | 1.00 | . | 0.43 | 0.79 |
| Claim 4 | 11 | 0.68 | 0.68 | 0.58 | 1.00 | 0.68 | 0.67 |

**Table 10.F.2 Reliabilities of Claims and Intercorrelations for ELA, Grade Four**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | 4 | Reliab | SEM |
|---|---|---|---|---|---|---|---|
| Claim 1 | 20 | 1.00 | . | . | . | 0.79 | 0.46 |
| Claim 2 | 12 | 0.71 | 1.00 | . | . | 0.71 | 0.65 |
| Claim 3 | 9 | 0.63 | 0.57 | 1.00 | . | 0.44 | 0.82 |
| Claim 4 | 9 | 0.68 | 0.68 | 0.58 | 1.00 | 0.61 | 0.75 |

**Table 10.F.3 Reliabilities of Claims and Intercorrelations for ELA, Grade Five**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | 4 | Reliab | SEM |
|---|---|---|---|---|---|---|---|
| Claim 1 | 19 | 1.00 | . | . | . | 0.74 | 0.50 |
| Claim 2 | 12 | 0.73 | 1.00 | . | . | 0.76 | 0.59 |
| Claim 3 | 9 | 0.59 | 0.54 | 1.00 | . | 0.33 | 0.85 |
| Claim 4 | 11 | 0.70 | 0.67 | 0.58 | 1.00 | 0.58 | 0.74 |

**Table 10.F.4 Reliabilities of Claims and Intercorrelations for ELA, Grade Six**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | 4 | Reliab | SEM |
|---|---|---|---|---|---|---|---|
| Claim 1 | 21 | 1.00 | . | . | . | 0.81 | 0.53 |
| Claim 2 | 12 | 0.74 | 1.00 | . | . | 0.72 | 0.73 |
| Claim 3 | 8 | 0.62 | 0.53 | 1.00 | . | 0.36 | 0.92 |
| Claim 4 | 11 | 0.73 | 0.73 | 0.46 | 1.00 | 0.59 | 0.82 |

**Table 10.F.5 Reliabilities of Claims and Intercorrelations for ELA, Grade Seven**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | 4 | Reliab | SEM |
|---|---|---|---|---|---|---|---|
| Claim 1 | 20 | 1.00 | . | . | . | 0.77 | 0.54 |
| Claim 2 | 12 | 0.75 | 1.00 | . | . | 0.67 | 0.64 |
| Claim 3 | 9 | 0.60 | 0.60 | 1.00 | . | 0.47 | 0.93 |
| Claim 4 | 10 | 0.68 | 0.65 | 0.48 | 1.00 | 0.39 | 0.93 |

**Table 10.F.6 Reliabilities of Claims and Intercorrelations for ELA, Grade Eight**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | 4 | Reliab | SEM |
|---|---|---|---|---|---|---|---|
| Claim 1 | 21 | 1.00 | . | . | . | 0.73 | 0.60 |
| Claim 2 | 12 | 0.63 | 1.00 | . | . | 0.72 | 0.60 |
| Claim 3 | 9 | 0.44 | 0.40 | 1.00 | . | 0.15 | 1.17 |
| Claim 4 | 10 | 0.50 | 0.65 | 0.33 | 1.00 | 0.33 | 0.86 |

**Table 10.F.7 Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | 4 | Reliab | SEM |
|---|---|---|---|---|---|---|---|
| Claim 1 | 19 | 1.00 | . | . | . | 0.69 | 0.60 |
| Claim 2 | 12 | 0.71 | 1.00 | . | . | 0.64 | 0.69 |
| Claim 3 | 9 | 0.88 | 0.68 | 1.00 | . | 0.01 | 1.09 |
| Claim 4 | 10 | 0.70 | 0.77 | 0.86 | 1.00 | 0.64 | 0.85 |

**Table 10.F.8 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three**

| Claim | N of Items | Intercorrelation 1 | 2 | 3 | Reliab | SEM |
|---|---|---|---|---|---|---|
| Claim 1 | 20 | 1.00 | . | . | 0.80 | 0.40 |
| Claim 2 | 12 | 0.71 | 1.00 | . | 0.77 | 0.46 |
| Claim 3 | 9 | 0.59 | 0.58 | 1.00 | 0.25 | 0.63 |

**Table 10.F.9 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four**

| | | Intercorrelation | | | | |
|---|---|---|---|---|---|---|
| Claim | N of Items | 1 | 2 | 3 | Reliab | SEM |
| Claim 1 | 21 | 1.00 | . | . | 0.81 | 0.40 |
| Claim 2 | 10 | 0.65 | 1.00 | . | 0.59 | 0.65 |
| Claim 3 | 10 | 0.66 | 0.65 | 1.00 | 0.56 | 0.63 |

**Table 10.F.10 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five**

| | | Intercorrelation | | | | |
|---|---|---|---|---|---|---|
| Claim | N of Items | 1 | 2 | 3 | Reliab | SEM |
| Claim 1 | 20 | 1.00 | . | . | 0.74 | 0.49 |
| Claim 2 | 11 | 0.70 | 1.00 | . | 0.69 | 0.62 |
| Claim 3 | 10 | 0.63 | 0.65 | 1.00 | 0.43 | 0.79 |

**Table 10.F.11 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six**

| | | Intercorrelation | | | | |
|---|---|---|---|---|---|---|
| Claim | N of Items | 1 | 2 | 3 | Reliab | SEM |
| Claim 1 | 19 | 1.00 | . | . | 0.76 | 0.47 |
| Claim 2 | 11 | 0.78 | 1.00 | . | 0.62 | 0.52 |
| Claim 3 | 10 | 0.66 | 0.61 | 1.00 | 0.27 | 0.67 |

**Table 10.F.12 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven**

| | | Intercorrelation | | | | |
|---|---|---|---|---|---|---|
| Claim | N of Items | 1 | 2 | 3 | Reliab | SEM |
| Claim 1 | 20 | 1.00 | . | . | 0.80 | 0.53 |
| Claim 2 | 11 | 0.77 | 1.00 | . | 0.70 | 0.55 |
| Claim 3 | 10 | 0.67 | 0.66 | 1.00 | 0.51 | 0.84 |

**Table 10.F.13 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight**

| | | Intercorrelation | | | | |
|---|---|---|---|---|---|---|
| Claim | N of Items | 1 | 2 | 3 | Reliab | SEM |
| Claim 1 | 20 | 1.00 | . | . | 0.56 | 0.75 |
| Claim 2 | 10 | 0.36 | 1.00 | . | N/A | N/A |
| Claim 3 | 9 | 0.34 | 0.30 | 1.00 | N/A | N/A |

**Table 10.F.14 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven**

| | | Intercorrelation | | | | |
|---|---|---|---|---|---|---|
| Claim | N of Items | 1 | 2 | 3 | Reliab | SEM |
| Claim 1 | 21 | 1.00 | . | . | 0.65 | 0.73 |
| Claim 2 | 11 | 0.65 | 1.00 | . | 0.40 | 0.93 |
| Claim 3 | 10 | 0.69 | 0.48 | 1.00 | N/A | N/A |

**Table 10.F.15 Reliabilities and SEMs for Paper-pencil Tests by Gender**

| | | Male | | | Female | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 351 | 0.60 | 0.65 | 315 | 0.63 | 0.68 |
| | 4 | 290 | 0.72 | 0.55 | 330 | 0.72 | 0.59 |
| | 5 | 268 | 0.90 | 0.31 | 253 | 0.91 | 0.32 |
| | 6 | 103 | 0.91 | 0.33 | 110 | 0.91 | 0.36 |
| | 7 | 38 | 0.93 | 0.36 | 55 | 0.90 | 0.34 |
| | 8 | 37 | 0.88 | 0.36 | 28 | 0.88 | 0.36 |
| | 11 | 9 | – | – | – | – | – |
| Mathematics | 3 | 350 | 0.90 | 0.26 | 317 | 0.90 | 0.27 |
| | 4 | 298 | 0.89 | 0.29 | 337 | 0.90 | 0.29 |
| | 5 | 274 | 0.88 | 0.33 | 266 | 0.88 | 0.34 |
| | 6 | 105 | 0.87 | 0.38 | 113 | 0.87 | 0.37 |
| | 7 | 41 | 0.90 | 0.50 | 60 | 0.90 | 0.34 |
| | 8 | 46 | 0.71 | 0.57 | 28 | 0.58 | 0.61 |
| | 11 | 9 | – | – | – | – | – |

**Table 10.F.16 Reliabilities and SEMs for Paper-pencil Tests by Economic Status**

| | | Not Econ. Disadvantaged | | | Econ. Disdavantaged | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 395 | 0.58 | 0.69 | 271 | 0.66 | 0.61 |
| | 4 | 352 | 0.72 | 0.57 | 268 | 0.70 | 0.57 |
| | 5 | 287 | 0.90 | 0.31 | 234 | 0.92 | 0.32 |
| | 6 | 88 | 0.91 | 0.36 | 125 | 0.91 | 0.34 |
| | 7 | 40 | 0.91 | 0.34 | 53 | 0.92 | 0.35 |
| | 8 | 25 | 0.87 | 0.35 | 40 | 0.89 | 0.36 |
| | 11 | 7 | – | – | 9 | – | – |
| Mathematics | 3 | 393 | 0.90 | 0.26 | 274 | 0.91 | 0.27 |
| | 4 | 358 | 0.89 | 0.28 | 277 | 0.89 | 0.30 |
| | 5 | 295 | 0.88 | 0.32 | 245 | 0.86 | 0.34 |
| | 6 | 87 | 0.90 | 0.30 | 131 | 0.84 | 0.42 |
| | 7 | 40 | 0.91 | 0.33 | 61 | 0.87 | 0.46 |
| | 8 | 28 | 0.67 | 0.53 | 46 | 0.65 | 0.62 |
| | 11 | 8 | – | – | 8 | – | – |

**Table 10.F.17 Reliabilities and SEMs for Paper-pencil Tests by Special Services**

| | | No Special Services | | | Special Services | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 582 | 0.61 | 0.67 | 84 | 0.65 | 0.57 |
| | 4 | 531 | 0.78 | 0.50 | 89 | 0.36 | 0.89 |
| | 5 | 452 | 0.90 | 0.31 | 69 | 0.91 | 0.32 |
| | 6 | 175 | 0.91 | 0.34 | 38 | 0.87 | 0.40 |
| | 7 | 81 | 0.91 | 0.34 | 12 | 0.90 | 0.35 |
| | 8 | 46 | 0.87 | 0.34 | 19 | 0.88 | 0.39 |
| | 11 | 3 | – | – | 13 | 0.90 | 0.36 |
| Mathematics | 3 | 584 | 0.90 | 0.26 | 83 | 0.89 | 0.26 |
| | 4 | 548 | 0.89 | 0.29 | 87 | 0.87 | 0.30 |
| | 5 | 468 | 0.88 | 0.33 | 72 | 0.83 | 0.36 |
| | 6 | 185 | 0.88 | 0.37 | 33 | 0.81 | 0.42 |
| | 7 | 90 | 0.90 | 0.41 | 11 | 0.86 | 0.39 |
| | 8 | 55 | 0.65 | 0.57 | 19 | 0.69 | 0.64 |
| | 11 | 4 | – | – | 12 | 0.78 | 0.59 |

**Table 10.F.18 Reliabilities and SEMs for Paper-pencil Tests by English–Language Fluency**

| | | English Only | | | Initially Desig. Fluent | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 587 | 0.58 | 0.69 | 7 | – | – |
| | 4 | 540 | 0.69 | 0.60 | 6 | – | – |
| | 5 | 464 | 0.90 | 0.31 | 2 | – | – |
| | 6 | 171 | 0.91 | 0.34 | 1 | – | – |
| | 7 | 74 | 0.90 | 0.34 | 2 | – | – |
| | 8 | 54 | 0.89 | 0.36 | 0 | – | – |
| | 11 | 15 | 0.87 | 0.35 | 0 | – | – |
| Mathematics | 3 | 577 | 0.90 | 0.26 | 7 | – | – |
| | 4 | 540 | 0.89 | 0.28 | 6 | – | – |
| | 5 | 473 | 0.87 | 0.32 | 2 | – | – |
| | 6 | 165 | 0.88 | 0.34 | 1 | – | – |
| | 7 | 73 | 0.90 | 0.33 | 2 | – | – |
| | 8 | 52 | 0.72 | 0.58 | 0 | – | – |
| | 11 | 15 | 0.83 | 0.55 | 0 | – | – |

**Table 10.F.19 Reliabilities and SEMs for Paper-pencil Tests by English–Language Fluency (continued)**

| | | English Learner | | | Redesignated Fluent | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 65 | 0.86 | 0.31 | 5 | – | – |
| | 4 | 56 | 0.89 | 0.31 | 14 | 0.88 | 0.30 |
| | 5 | 41 | 0.89 | 0.33 | 14 | 0.85 | 0.30 |
| | 6 | 25 | 0.83 | 0.40 | 16 | 0.83 | 0.32 |
| | 7 | 13 | 0.87 | 0.38 | 3 | – | – |
| | 8 | 9 | – | – | 2 | – | – |
| | 11 | 0 | – | – | 1 | – | – |
| Mathematics | 3 | 74 | 0.89 | 0.27 | 5 | – | – |
| | 4 | 71 | 0.85 | 0.31 | 14 | 0.92 | 0.30 |
| | 5 | 50 | 0.81 | 0.41 | 15 | 0.86 | 0.32 |
| | 6 | 36 | 0.65 | 0.51 | 16 | 0.83 | 0.35 |
| | 7 | 21 | 0.59 | 0.62 | 4 | – | - |
| | 8 | 18 | 0.36 | 0.63 | 3 | – | - |
| | 11 | 0 | – | – | 1 | – | - |

**Table 10.F.20 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity**

| | | American Indian | | | Asian | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 10 | – | – | 15 | 0.90 | 0.28 |
| | 4 | 13 | 0.89 | 0.32 | 20 | 0.89 | 0.30 |
| | 5 | 9 | – | – | 10 | – | – |
| | 6 | 10 | – | – | 3 | – | – |
| | 7 | 0 | – | – | 3 | – | – |
| | 8 | 4 | – | – | 2 | – | – |
| | 11 | 0 | – | – | 1 | – | – |
| Mathematics | 3 | 10 | – | – | 15 | 0.93 | 0.27 |
| | 4 | 12 | 0.82 | 0.29 | 21 | 0.90 | 0.28 |
| | 5 | 9 | – | – | 10 | – | – |
| | 6 | 10 | – | – | 2 | – | – |
| | 7 | 0 | – | – | 3 | – | – |
| | 8 | 4 | – | – | 2 | – | – |
| | 11 | 0 | – | – | 1 | – | – |

**Table 10.F.21 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (continued)**

| | | Pacific Islander | | | Filipino | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 2 | – | – | 7 | – | – |
| | 4 | 4 | – | – | 3 | – | – |
| | 5 | 2 | – | – | 9 | – | – |
| | 6 | 0 | – | – | 2 | – | – |
| | 7 | 1 | – | – | 0 | – | – |
| | 8 | 0 | – | – | 1 | – | – |
| | 11 | 0 | – | – | 0 | – | – |
| Mathematics | 3 | 2 | – | – | 7 | – | – |
| | 4 | 4 | – | – | 3 | – | – |
| | 5 | 2 | – | – | 9 | – | – |
| | 6 | 0 | – | – | 2 | – | – |
| | 7 | 1 | – | – | 0 | – | – |
| | 8 | 0 | – | – | 1 | – | – |
| | 11 | 0 | – | – | 0 | – | – |

**Table 10.F.22 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (continued)**

| | | Hispanic | | | African American | | | White | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 191 | 0.81 | 0.44 | 22 | 0.86 | 0.28 | 380 | 0.52 | 0.77 |
| | 4 | 153 | 0.80 | 0.48 | 35 | 0.91 | 0.31 | 357 | 0.62 | 0.66 |
| | 5 | 125 | 0.92 | 0.32 | 32 | 0.84 | 0.29 | 297 | 0.90 | 0.31 |
| | 6 | 67 | 0.90 | 0.35 | 20 | 0.90 | 0.41 | 104 | 0.91 | 0.34 |
| | 7 | 19 | 0.90 | 0.36 | 22 | 0.87 | 0.34 | 47 | 0.91 | 0.34 |
| | 8 | 21 | 0.86 | 0.37 | 1 | – | – | 35 | 0.91 | 0.36 |
| | 11 | 7 | – | – | 1 | – | – | 5 | – | – |
| Mathematics | 3 | 200 | 0.90 | 0.27 | 22 | 0.86 | 0.33 | 371 | 0.90 | 0.26 |
| | 4 | 167 | 0.89 | 0.30 | 35 | 0.90 | 0.29 | 358 | 0.88 | 0.28 |
| | 5 | 135 | 0.85 | 0.36 | 32 | 0.66 | 0.33 | 306 | 0.88 | 0.32 |
| | 6 | 77 | 0.81 | 0.46 | 19 | 0.80 | 0.43 | 102 | 0.90 | 0.29 |
| | 7 | 28 | 0.74 | 0.59 | 21 | 0.87 | 0.30 | 47 | 0.91 | 0.33 |
| | 8 | 31 | 0.43 | 0.62 | 0 | - | - | 34 | 0.75 | 0.52 |
| | 11 | 7 | - | - | 0 | - | - | 6 | - | - |

**Table 10.F.23 Reliabilities and SEMs for Paper-pencil Tests by Migrant Status**

| | | Migrant | | | Non–migrant | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 4 | – | – | 662 | 0.61 | 0.66 |
| | 4 | 2 | – | – | 618 | 0.72 | 0.57 |
| | 5 | 6 | – | – | 515 | 0.91 | 0.31 |
| | 6 | 4 | – | – | 209 | 0.91 | 0.35 |
| | 7 | 1 | – | – | 92 | 0.92 | 0.35 |
| | 8 | 1 | – | – | 64 | 0.88 | 0.36 |
| | 11 | 0 | – | – | 16 | 0.88 | 0.36 |
| Mathematics | 3 | 4 | – | – | 663 | 0.90 | 0.26 |
| | 4 | 5 | – | – | 630 | 0.89 | 0.29 |
| | 5 | 7 | – | – | 533 | 0.88 | 0.33 |
| | 6 | 5 | – | – | 213 | 0.87 | 0.36 |
| | 7 | 2 | – | – | 99 | 0.90 | 0.41 |
| | 8 | 3 | – | – | 71 | 0.68 | 0.59 |
| | 11 | 0 | – | – | 16 | 0.82 | 0.55 |

**Table 10.F.24 Reliabilities and SEMs for Paper–pencil Tests by Primary Ethnicity for Not Economically Disadvantaged**

| | | American Indian | | | Asian | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 4 | – | – | 10 | – | – |
| | 4 | 4 | – | – | 13 | 0.87 | 0.29 |
| | 5 | 1 | – | – | 6 | – | – |
| | 6 | 4 | – | – | 2 | – | – |
| | 7 | 0 | – | – | 2 | – | – |
| | 8 | 1 | – | – | 2 | – | – |
| | 11 | 0 | – | – | 1 | – | – |
| Mathematics | 3 | 4 | – | – | 10 | – | – |
| | 4 | 4 | – | – | 14 | 0.83 | 0.27 |
| | 5 | 1 | – | – | 6 | – | – |
| | 6 | 4 | – | – | 2 | – | – |
| | 7 | 0 | – | – | 2 | – | – |
| | 8 | 1 | – | – | 2 | – | – |
| | 11 | 0 | – | – | 1 | – | – |

**Table 10.F.25 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued)**

| | | Pacific Islander | | | Filipino | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 0 | – | – | 2 | – | – |
| | 4 | 2 | – | – | 3 | – | – |
| | 5 | 0 | – | – | 7 | – | – |
| | 6 | 0 | – | – | 1 | – | – |
| | 7 | 0 | – | – | 0 | – | – |
| | 8 | 0 | – | – | 1 | – | – |
| | 11 | 0 | – | – | 0 | – | – |
| Mathematics | 3 | 0 | – | – | 2 | – | – |
| | 4 | 2 | – | – | 3 | – | – |
| | 5 | 0 | – | – | 7 | – | – |
| | 6 | 0 | – | – | 1 | – | – |
| | 7 | 0 | – | – | 0 | – | – |
| | 8 | 0 | – | – | 1 | – | – |
| | 11 | 0 | – | – | 0 | – | – |

**Table 10.F.26 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued)**

| | | Hispanic | | | African American | | | White | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 74 | 0.91 | 0.29 | 7 | – | – | 277 | 0.52 | 0.76 |
| | 4 | 56 | 0.66 | 0.68 | 13 | 0.94 | 0.32 | 239 | 0.68 | 0.59 |
| | 5 | 47 | 0.91 | 0.31 | 11 | 0.76 | 0.29 | 191 | 0.89 | 0.31 |
| | 6 | 12 | 0.89 | 0.33 | 4 | – | – | 58 | 0.92 | 0.34 |
| | 7 | 2 | – | – | 9 | – | – | 26 | 0.89 | 0.34 |
| | 8 | 0 | – | – | 0 | – | – | 21 | 0.88 | 0.35 |
| | 11 | 4 | – | – | 0 | – | – | 1 | – | – |
| Mathematics | 3 | 76 | 0.89 | 0.26 | 7 | – | – | 272 | 0.90 | 0.25 |
| | 4 | 59 | 0.90 | 0.29 | 13 | 0.91 | 0.29 | 241 | 0.88 | 0.28 |
| | 5 | 51 | 0.87 | 0.34 | 11 | 0.13 | 0.31 | 195 | 0.88 | 0.32 |
| | 6 | 14 | 0.90 | 0.31 | 3 | – | – | 57 | 0.91 | 0.29 |
| | 7 | 3 | – | – | 8 | – | – | 26 | 0.91 | 0.31 |
| | 8 | 4 | – | – | 0 | – | – | 19 | 0.73 | 0.54 |
| | 11 | 4 | – | – | 0 | – | – | 2 | – | – |

**Table 10.F.27 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged**

| | | American Indian | | | Asian | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 6 | – | – | 5 | – | – |
| | 4 | 9 | – | – | 7 | – | – |
| | 5 | 8 | – | – | 4 | – | – |
| | 6 | 6 | – | – | 1 | – | – |
| | 7 | 0 | – | – | 1 | – | – |
| | 8 | 3 | – | – | 0 | – | – |
| | 11 | 0 | – | – | 0 | – | – |
| Mathematics | 3 | 6 | – | – | 5 | – | – |
| | 4 | 8 | – | – | 7 | – | – |
| | 5 | 8 | – | – | 4 | – | – |
| | 6 | 6 | – | – | 0 | – | – |
| | 7 | 0 | – | – | 1 | – | – |
| | 8 | 3 | – | – | 0 | – | – |
| | 11 | 0 | – | – | 0 | – | – |

**Table 10.F.28 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued)**

| | | Pacific Islander | | | Filipino | | |
|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 2 | – | – | 5 | – | – |
| | 4 | 2 | – | – | 0 | – | – |
| | 5 | 2 | – | – | 2 | – | – |
| | 6 | 0 | – | – | 1 | – | – |
| | 7 | 1 | – | – | 0 | – | – |
| | 8 | 0 | – | – | 0 | – | – |
| | 11 | 0 | – | – | 0 | – | – |
| Mathematics | 3 | 2 | – | – | 5 | – | – |
| | 4 | 2 | – | – | 0 | – | – |
| | 5 | 2 | – | – | 2 | – | – |
| | 6 | 0 | – | – | 1 | – | – |
| | 7 | 1 | – | – | 0 | – | – |
| | 8 | 0 | – | – | 0 | – | – |
| | 11 | 0 | – | – | 0 | – | – |

**Table 10.F.29 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued)**

| | | Hispanic | | | African American | | | White | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Content Area | Grade | N | Reliab | SEM | N | Reliab | SEM | N | Reliab | SEM |
| ELA | 3 | 117 | 0.73 | 0.51 | 15 | 0.86 | 0.28 | 103 | 0.52 | 0.81 |
| | 4 | 97 | 0.90 | 0.31 | 22 | 0.88 | 0.30 | 118 | 0.47 | 0.79 |
| | 5 | 78 | 0.91 | 0.32 | 21 | 0.84 | 0.29 | 106 | 0.90 | 0.32 |
| | 6 | 55 | 0.90 | 0.36 | 16 | 0.92 | 0.33 | 46 | 0.90 | 0.33 |
| | 7 | 17 | 0.91 | 0.37 | 13 | 0.81 | 0.33 | 21 | 0.93 | 0.35 |
| | 8 | 21 | 0.86 | 0.37 | 1 | – | – | 14 | 0.93 | 0.36 |
| | 11 | 3 | – | – | 1 | – | – | 4 | – | – |
| Mathematics | 3 | 124 | 0.90 | 0.27 | 15 | 0.86 | 0.37 | 99 | 0.90 | 0.26 |
| | 4 | 108 | 0.88 | 0.31 | 22 | 0.88 | 0.29 | 117 | 0.87 | 0.28 |
| | 5 | 84 | 0.82 | 0.38 | 21 | 0.74 | 0.34 | 111 | 0.87 | 0.32 |
| | 6 | 63 | 0.76 | 0.49 | 16 | 0.79 | 0.46 | 45 | 0.89 | 0.29 |
| | 7 | 25 | 0.73 | 0.60 | 13 | 0.87 | 0.30 | 21 | 0.89 | 0.35 |
| | 8 | 27 | 0.37 | 0.63 | 0 | – | – | 15 | 0.79 | 0.49 |
| | 11 | 3 | – | – | 0 | – | – | 4 | – | – |

**Table 10.F.30 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Three**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.76 | 0.47 | 0.78 | 0.49 | 0.76 | 0.47 | 0.77 | 0.49 | 0.73 | 0.51 | 0.77 | 0.48 |
| Claim 2 | 12 | 0.70 | 0.65 | 0.73 | 0.63 | 0.72 | 0.62 | 0.70 | 0.67 | 0.64 | 1.07 | 0.71 | 0.64 |
| Claim 3 | 9 | 0.39 | 0.79 | 0.46 | 0.80 | 0.42 | 0.79 | 0.39 | 0.81 | N/A | N/A | 0.43 | 0.79 |
| Claim 4 | 11 | 0.66 | 0.66 | 0.70 | 0.67 | 0.69 | 0.66 | 0.67 | 0.68 | 0.81 | 0.78 | 0.68 | 0.67 |

**Table 10.F.31 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Four**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.80 | 0.47 | 0.79 | 0.46 | 0.79 | 0.46 | 0.78 | 0.47 | N/A | N/A | 0.79 | 0.46 |
| Claim 2 | 12 | 0.70 | 0.64 | 0.71 | 0.66 | 0.69 | 0.66 | 0.71 | 0.64 | 0.83 | 0.63 | 0.71 | 0.65 |
| Claim 3 | 9 | 0.44 | 0.82 | 0.44 | 0.83 | 0.39 | 0.82 | 0.45 | 0.83 | 0.43 | 0.81 | 0.44 | 0.82 |
| Claim 4 | 9 | 0.60 | 0.75 | 0.62 | 0.75 | 0.63 | 0.75 | 0.54 | 0.76 | 0.46 | 0.68 | 0.61 | 0.75 |

**Table 10.F.32 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Five**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.74 | 0.49 | 0.73 | 0.50 | 0.73 | 0.50 | 0.74 | 0.50 | 0.39 | 0.49 | 0.74 | 0.50 |
| Claim 2 | 12 | 0.75 | 0.58 | 0.75 | 0.61 | 0.74 | 0.60 | 0.77 | 0.58 | 0.70 | 0.58 | 0.75 | 0.59 |
| Claim 3 | 9 | 0.37 | 0.85 | 0.29 | 0.85 | 0.28 | 0.85 | 0.38 | 0.85 | 0.39 | 0.84 | 0.33 | 0.85 |
| Claim 4 | 11 | 0.58 | 0.75 | 0.58 | 0.73 | 0.56 | 0.73 | 0.59 | 0.76 | 0.67 | 0.80 | 0.58 | 0.74 |

**Table 10.F.33 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Six**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.82 | 0.53 | 0.80 | 0.53 | 0.79 | 0.52 | 0.81 | 0.54 | 0.52 | 0.77 | 0.80 | 0.53 |
| Claim 2 | 12 | 0.72 | 0.72 | 0.70 | 0.74 | 0.73 | 0.75 | 0.71 | 0.71 | 0.09 | 0.65 | 0.72 | 0.73 |
| Claim 3 | 8 | 0.32 | 0.92 | 0.40 | 0.93 | 0.29 | 0.92 | 0.40 | 0.93 | 0.52 | 1.08 | 0.35 | 0.92 |
| Claim 4 | 11 | 0.60 | 0.83 | 0.58 | 0.81 | 0.61 | 0.80 | 0.56 | 0.84 | 0.57 | 0.94 | 0.59 | 0.82 |

**Table 10.F.34 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Seven**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.78 | 0.54 | 0.77 | 0.53 | 0.79 | 0.54 | 0.76 | 0.53 | N/A | N/A | 0.77 | 0.54 |
| Claim 2 | 12 | 0.73 | 0.66 | 0.46 | 0.62 | 0.62 | 0.64 | 0.69 | 0.63 | N/A | N/A | 0.66 | 0.64 |
| Claim 3 | 9 | 0.61 | 0.97 | 0.23 | 0.91 | 0.37 | 0.93 | 0.52 | 0.94 | N/A | N/A | 0.47 | 0.94 |
| Claim 4 | 10 | 0.42 | 0.97 | 0.36 | 0.89 | 0.42 | 0.94 | 0.38 | 0.92 | N/A | N/A | 0.39 | 0.92 |

**Table 10.F.35 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Eight**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.74 | 0.59 | 0.73 | 0.60 | 0.71 | 0.59 | 0.75 | 0.61 | N/A | N/A | 0.73 | 0.60 |
| Claim 2 | 12 | 0.70 | 0.59 | 0.75 | 0.61 | 0.68 | 0.63 | 0.74 | 0.58 | N/A | N/A | 0.72 | 0.60 |
| Claim 3 | 9 | 0.21 | 1.17 | 0.10 | 1.18 | 0.17 | 1.13 | 0.13 | 1.20 | – | – | 0.15 | 1.17 |
| Claim 4 | 10 | 0.36 | 0.82 | 0.30 | 0.92 | 0.34 | 0.91 | 0.34 | 0.83 | N/A | N/A | 0.34 | 0.86 |

**Table 10.F.36 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Eleven**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.40 | 0.56 | 0.79 | 0.65 | 0.54 | 0.57 | 0.77 | 0.63 | – | – | 0.69 | 0.60 |
| Claim 2 | 12 | 0.59 | 0.67 | 0.73 | 0.71 | 0.55 | 0.66 | 0.58 | 0.71 | – | – | 0.64 | 0.69 |
| Claim 3 | 9 | N/A | N/A | 0.17 | 1.02 | N/A | N/A | N/A | N/A | – | – | 0.01 | 1.09 |
| Claim 4 | 10 | 0.61 | 0.81 | 0.69 | 0.89 | 0.50 | 0.73 | 0.69 | 0.93 | – | – | 0.64 | 0.85 |

**Table 10.F.37 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Three**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.80 | 0.40 | 0.79 | 0.41 | 0.78 | 0.41 | 0.81 | 0.40 | 0.86 | 0.44 | 0.79 | 0.40 |
| Claim 2 | 12 | 0.76 | 0.45 | 0.78 | 0.47 | 0.77 | 0.45 | 0.76 | 0.47 | 0.75 | 0.55 | 0.77 | 0.46 |
| Claim 3 | 9 | 0.24 | 0.64 | 0.26 | 0.63 | 0.24 | 0.62 | 0.26 | 0.64 | N/A | N/A | 0.25 | 0.63 |

**Table 10.F.38 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Four**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.80 | 0.39 | 0.82 | 0.40 | 0.80 | 0.38 | 0.80 | 0.41 | 0.80 | 0.38 | 0.81 | 0.40 |
| Claim 2 | 10 | 0.57 | 0.65 | 0.60 | 0.66 | 0.57 | 0.66 | 0.55 | 0.65 | 0.11 | 0.70 | 0.58 | 0.65 |
| Claim 3 | 10 | 0.53 | 0.63 | 0.58 | 0.64 | 0.57 | 0.61 | 0.50 | 0.66 | 0.69 | 0.67 | 0.56 | 0.63 |

**Table 10.F.39 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Five**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.75 | 0.49 | 0.72 | 0.49 | 0.76 | 0.47 | 0.67 | 0.50 | 0.67 | 0.72 | 0.74 | 0.48 |
| Claim 2 | 11 | 0.68 | 0.61 | 0.69 | 0.63 | 0.69 | 0.60 | 0.66 | 0.64 | 0.19 | 0.70 | 0.69 | 0.62 |
| Claim 3 | 10 | 0.44 | 0.79 | 0.41 | 0.79 | 0.47 | 0.76 | 0.34 | 0.83 | N/A | N/A | 0.43 | 0.79 |

**Table 10.F.40 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Six**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.76 | 0.47 | 0.76 | 0.46 | 0.76 | 0.43 | 0.73 | 0.49 | 0.71 | 0.67 | 0.76 | 0.46 |
| Claim 2 | 11 | 0.62 | 0.53 | 0.62 | 0.51 | 0.69 | 0.51 | 0.49 | 0.53 | 0.75 | 0.55 | 0.62 | 0.52 |
| Claim 3 | 10 | 0.29 | 0.67 | 0.26 | 0.66 | 0.39 | 0.64 | 0.13 | 0.69 | 0.79 | 0.75 | 0.27 | 0.67 |

**Table 10.F.41 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Seven**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.82 | 0.61 | 0.77 | 0.47 | 0.79 | 0.45 | 0.78 | 0.57 | 0.57 | 0.48 | 0.80 | 0.53 |
| Claim 2 | 11 | 0.71 | 0.52 | 0.70 | 0.57 | 0.76 | 0.53 | 0.57 | 0.57 | N/A | N/A | 0.70 | 0.55 |
| Claim 3 | 10 | 0.54 | 0.84 | 0.49 | 0.84 | 0.59 | 0.73 | 0.42 | 0.90 | N/A | N/A | 0.51 | 0.82 |

**Table 10.F.42 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Eight**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.61 | 0.76 | 0.45 | 0.75 | 0.58 | 0.71 | 0.55 | 0.78 | N/A | N/A | 0.57 | 0.76 |
| Claim 2 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Claim 3 | 9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

**Table 10.F.43 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Eleven**

| | | Male | | Female | | Not Econ. Dis | | Econ. Dis | | Migrant | | Non-migrant | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.61 | 0.69 | 0.72 | 0.77 | 0.45 | 0.64 | 0.71 | 0.80 | – | – | 0.65 | 0.73 |
| Claim 2 | 11 | 0.08 | 0.71 | N/A | N/A | 0.43 | 0.88 | 0.43 | 0.97 | – | – | 0.40 | 0.93 |
| Claim 3 | 10 | 0.24 | 1.10 | N/A | N/A | 0.03 | 1.14 | 0.11 | 1.07 | – | – | N/A | N/A |

**Table 10.F.44 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Three**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.77 | 0.48 | 0.74 | 0.48 | 0.77 | 0.48 | 0.76 | 0.56 | 0.72 | 0.50 | N/A | N/A |
| Claim 2 | 12 | 0.72 | 0.63 | 0.70 | 0.68 | 0.72 | 0.63 | 0.57 | 0.54 | 0.63 | 0.72 | 0.46 | 0.54 |
| Claim 3 | 9 | 0.43 | 0.79 | 0.41 | 0.81 | 0.42 | 0.79 | 0.42 | 0.76 | 0.04 | 0.87 | 0.41 | 0.75 |
| Claim 4 | 11 | 0.69 | 0.66 | 0.63 | 0.69 | 0.69 | 0.66 | 0.46 | 0.57 | 0.51 | 0.73 | 0.75 | 0.66 |

**Table 10.F.45 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Four**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.79 | 0.46 | 0.78 | 0.46 | 0.79 | 0.46 | 0.86 | 0.47 | 0.75 | 0.50 | 0.76 | 0.44 |
| Claim 2 | 12 | 0.70 | 0.65 | 0.72 | 0.64 | 0.70 | 0.65 | 0.68 | 0.77 | 0.71 | 0.64 | 0.29 | 0.69 |
| Claim 3 | 9 | 0.40 | 0.81 | 0.55 | 0.87 | 0.41 | 0.82 | 0.24 | 0.78 | 0.51 | 0.87 | 0.53 | 0.91 |
| Claim 4 | 9 | 0.61 | 0.75 | 0.59 | 0.76 | 0.62 | 0.75 | 0.71 | 0.73 | 0.53 | 0.77 | 0.42 | 0.69 |

**Table 10.F.46 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Five**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.72 | 0.50 | 0.74 | 0.50 | 0.73 | 0.50 | N/A | N/A | 0.67 | 0.54 | 0.66 | 0.48 |
| Claim 2 | 12 | 0.75 | 0.60 | 0.78 | 0.56 | 0.74 | 0.60 | 0.14 | 0.53 | 0.78 | 0.56 | 0.52 | 0.61 |
| Claim 3 | 9 | 0.29 | 0.85 | 0.40 | 0.85 | 0.29 | 0.85 | 0.11 | 0.82 | 0.32 | 0.87 | 0.25 | 0.84 |
| Claim 4 | 11 | 0.58 | 0.73 | 0.52 | 0.79 | 0.57 | 0.74 | N/A | N/A | 0.40 | 0.81 | 0.63 | 0.72 |

**Table 10.F.47 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Six**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.81 | 0.53 | 0.69 | 0.55 | 0.81 | 0.53 | N/A | N/A | 0.65 | 0.59 | 0.75 | 0.51 |
| Claim 2 | 12 | 0.70 | 0.74 | 0.68 | 0.70 | 0.71 | 0.74 | N/A | N/A | 0.33 | 0.69 | 0.46 | 0.72 |
| Claim 3 | 8 | 0.36 | 0.93 | 0.40 | 0.91 | 0.33 | 0.92 | – | – | 0.25 | 0.93 | 0.27 | 0.93 |
| Claim 4 | 11 | 0.59 | 0.80 | 0.52 | 0.91 | 0.60 | 0.81 | N/A | N/A | 0.25 | 0.94 | 0.45 | 0.75 |

**Table 10.F.48 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Seven**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.77 | 0.53 | 0.71 | 0.54 | 0.77 | 0.54 | 0.56 | 0.53 | 0.65 | 0.54 | N/A | N/A |
| Claim 2 | 12 | 0.67 | 0.64 | 0.58 | 0.61 | 0.61 | 0.64 | N/A | N/A | 0.60 | 0.63 | N/A | N/A |
| Claim 3 | 9 | 0.44 | 0.94 | 0.60 | 0.91 | 0.36 | 0.93 | N/A | N/A | 0.37 | 0.91 | 0.71 | 0.91 |
| Claim 4 | 10 | 0.40 | 0.90 | 0.09 | 1.07 | 0.39 | 0.89 | N/A | N/A | 0.10 | 1.10 | 0.18 | 0.81 |

**Table 10.F.49 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Eight**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.73 | 0.58 | 0.72 | 0.65 | 0.74 | 0.59 | – | – | 0.19 | 0.67 | 0.87 | 0.50 |
| Claim 2 | 12 | 0.71 | 0.59 | 0.74 | 0.62 | 0.73 | 0.60 | – | – | 0.42 | 0.58 | 0.90 | 0.60 |
| Claim 3 | 9 | 0.02 | 1.10 | 0.21 | 1.35 | 0.20 | 1.17 | – | – | N/A | N/A | N/A | N/A |
| Claim 4 | 10 | 0.26 | 0.83 | 0.46 | 0.93 | 0.30 | 0.87 | – | – | 0.01 | 0.85 | 0.80 | 0.78 |

**Table 10.F.50 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Eleven**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | N/A | N/A | 0.66 | 0.58 | 0.70 | 0.60 | – | – | – | – | N/A | N/A |
| Claim 2 | 12 | 0.77 | 0.69 | 0.64 | 0.69 | 0.64 | 0.69 | – | – | – | – | – | – |
| Claim 3 | 9 | N/A | N/A | N/A | N/A | 0.01 | 1.09 | – | – | – | – | – | – |
| Claim 4 | 10 | 0.33 | 0.74 | 0.66 | 0.88 | 0.64 | 0.85 | – | – | – | – | N/A | N/A |

**Table 10.F.51 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Three**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.79 | 0.41 | 0.79 | 0.37 | 0.79 | 0.41 | 0.80 | 0.43 | 0.81 | 0.39 | 0.51 | 0.36 |
| Claim 2 | 12 | 0.76 | 0.46 | 0.76 | 0.49 | 0.77 | 0.46 | 0.78 | 0.44 | 0.70 | 0.47 | 0.41 | 0.39 |
| Claim 3 | 9 | 0.28 | 0.63 | N/A | N/A | 0.28 | 0.63 | N/A | N/A | N/A | N/A | 0.25 | 0.53 |

**Table 10.F.52 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Four**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.80 | 0.39 | 0.79 | 0.43 | 0.80 | 0.39 | 0.79 | 0.39 | 0.76 | 0.42 | 0.89 | 0.43 |
| Claim 2 | 10 | 0.59 | 0.65 | 0.53 | 0.64 | 0.58 | 0.65 | 0.77 | 0.70 | 0.42 | 0.66 | 0.27 | 0.61 |
| Claim 3 | 10 | 0.56 | 0.63 | 0.44 | 0.67 | 0.56 | 0.62 | 0.47 | 0.51 | 0.42 | 0.73 | 0.53 | 0.57 |

**Table 10.F.53 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Five**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.74 | 0.48 | 0.63 | 0.53 | 0.73 | 0.47 | 0.89 | 0.48 | 0.58 | 0.61 | 0.78 | 0.50 |
| Claim 2 | 11 | 0.69 | 0.61 | 0.61 | 0.68 | 0.68 | 0.61 | 0.79 | 0.59 | 0.50 | 0.72 | 0.70 | 0.63 |
| Claim 3 | 10 | 0.44 | 0.78 | 0.28 | 0.87 | 0.43 | 0.78 | 0.07 | 0.69 | 0.16 | 0.94 | 0.19 | 0.74 |

**Table 10.F.54 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Six**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.77 | 0.46 | 0.70 | 0.50 | 0.77 | 0.45 | N/A | N/A | 0.53 | 0.57 | 0.70 | 0.43 |
| Claim 2 | 11 | 0.62 | 0.51 | 0.61 | 0.58 | 0.64 | 0.51 | N/A | N/A | N/A | N/A | 0.49 | 0.49 |
| Claim 3 | 10 | 0.32 | 0.65 | N/A | N/A | 0.32 | 0.66 | N/A | N/A | N/A | N/A | 0.24 | 0.66 |

**Table 10.F.55 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Seven**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.81 | 0.53 | 0.70 | 0.50 | 0.80 | 0.45 | N/A | N/A | 0.46 | 0.74 | 0.44 | 0.47 |
| Claim 2 | 11 | 0.72 | 0.54 | 0.37 | 0.61 | 0.72 | 0.52 | N/A | N/A | N/A | N/A | N/A | N/A |
| Claim 3 | 10 | 0.51 | 0.84 | 0.51 | 0.84 | 0.55 | 0.77 | N/A | N/A | N/A | N/A | N/A | N/A |

**Table 10.F.56 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Eight**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.57 | 0.73 | 0.52 | 0.82 | 0.59 | 0.73 | – | – | 0.40 | 0.83 | 0.72 | 0.69 |
| Claim 2 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | – | – | N/A | N/A | N/A | N/A |
| Claim 3 | 9 | N/A | N/A | 0.16 | 1.15 | N/A | N/A | – | – | N/A | N/A | 0.70 | 1.05 |

**Table 10.F.57 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Eleven**

| | | No Spec. Serv. | | Spec. Serv. | | Eng. Only | | Ini. Fluent | | Learner | | Red. Fluent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.76 | 0.67 | 0.57 | 0.74 | 0.66 | 0.73 | – | – | – | – | N/A | N/A |
| Claim 2 | 11 | N/A | N/A | 0.47 | 0.98 | 0.41 | 0.91 | – | – | – | – | N/A | N/A |
| Claim 3 | 10 | N/A | N/A | N/A | N/A | 0.07 | 1.11 | – | – | – | – | N/A | N/A |

**Table 10.F.58 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Three**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.68 | 0.44 | 0.78 | 0.47 | 0.67 | 0.42 | 0.76 | 0.48 | 0.76 | 0.48 | 0.71 | 0.46 | 0.77 | 0.48 |
| Claim 2 | 12 | 0.60 | 0.62 | 0.69 | 0.59 | 0.91 | 0.65 | N/A | N/A | 0.71 | 0.67 | 0.55 | 0.60 | 0.72 | 0.63 |
| Claim 3 | 9 | N/A | N/A | 0.45 | 0.78 | 0.61 | 0.87 | N/A | N/A | 0.35 | 0.81 | 0.35 | 0.78 | 0.45 | 0.79 |
| Claim 4 | 11 | 0.59 | 0.65 | 0.75 | 0.72 | 0.86 | 0.75 | 0.23 | 0.63 | 0.66 | 0.68 | 0.59 | 0.63 | 0.69 | 0.66 |

**Table 10.F.59 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Four**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.72 | 0.46 | 0.76 | 0.44 | 0.82 | 0.46 | N/A | N/A | 0.79 | 0.48 | 0.81 | 0.48 | 0.78 | 0.46 |
| Claim 2 | 12 | 0.76 | 0.68 | 0.65 | 0.64 | 0.82 | 0.67 | 0.87 | 0.70 | 0.71 | 0.64 | 0.77 | 0.68 | 0.69 | 0.65 |
| Claim 3 | 9 | N/A | N/A | 0.40 | 0.80 | 0.56 | 0.82 | 0.67 | 0.87 | 0.48 | 0.84 | 0.42 | 0.84 | 0.38 | 0.82 |
| Claim 4 | 9 | 0.52 | 0.86 | 0.47 | 0.70 | 0.38 | 0.69 | 0.74 | 0.89 | 0.61 | 0.77 | 0.48 | 0.74 | 0.62 | 0.74 |

**Table 10.F.60 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Five**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.64 | 0.48 | 0.69 | 0.51 | N/A | N/A | 0.46 | 0.47 | 0.75 | 0.51 | 0.68 | 0.48 | 0.70 | 0.50 |
| Claim 2 | 12 | 0.67 | 0.56 | 0.74 | 0.59 | N/A | N/A | 0.67 | 0.58 | 0.80 | 0.58 | 0.59 | 0.55 | 0.73 | 0.60 |
| Claim 3 | 9 | 0.37 | 0.83 | 0.30 | 0.86 | N/A | N/A | 0.49 | 0.86 | 0.47 | 0.87 | N/A | N/A | 0.23 | 0.85 |
| Claim 4 | 11 | 0.64 | 0.84 | 0.75 | 0.76 | N/A | N/A | 0.57 | 0.72 | 0.57 | 0.77 | 0.51 | 0.79 | 0.55 | 0.72 |

**Table 10.F.61 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Six**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.74 | 0.50 | 0.77 | 0.50 | – | – | N/A | N/A | 0.80 | 0.55 | 0.76 | 0.55 | 0.81 | 0.52 |
| Claim 2 | 12 | 0.58 | 0.69 | 0.29 | 0.71 | – | – | N/A | N/A | 0.72 | 0.71 | 0.65 | 0.69 | 0.70 | 0.74 |
| Claim 3 | 8 | 0.40 | 0.93 | N/A | N/A | – | – | N/A | N/A | 0.40 | 0.92 | 0.27 | 0.87 | 0.34 | 0.94 |
| Claim 4 | 11 | 0.15 | 1.12 | 0.41 | 0.93 | – | – | N/A | N/A | 0.53 | 0.87 | 0.55 | 0.80 | 0.58 | 0.77 |

**Table 10.F.62 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Seven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | – | – | 0.90 | 0.60 | N/A | N/A | – | – | 0.69 | 0.53 | 0.78 | 0.54 | 0.75 | 0.53 |
| Claim 2 | 12 | – | – | N/A | N/A | N/A | N/A | – | – | 0.70 | 0.63 | 0.29 | 0.62 | 0.67 | 0.65 |
| Claim 3 | 9 | – | – | 0.73 | 1.03 | N/A | N/A | – | – | 0.52 | 0.95 | 0.33 | 0.96 | 0.29 | 0.90 |
| Claim 4 | 10 | – | – | 0.72 | 1.03 | N/A | N/A | – | – | 0.16 | 1.05 | 0.48 | 0.82 | 0.24 | 0.91 |

**Table 10.F.63 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eight**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | N/A | N/A | 0.48 | 0.72 | – | – | N/A | N/A | 0.59 | 0.61 | N/A | N/A | 0.78 | 0.59 |
| Claim 2 | 12 | 0.48 | 0.56 | 0.33 | 0.57 | – | – | N/A | N/A | 0.68 | 0.58 | N/A | N/A | 0.77 | 0.63 |
| Claim 3 | 9 | 0.45 | 1.46 | N/A | N/A | – | – | N/A | N/A | N/A | N/A | N/A | N/A | 0.09 | 1.12 |
| Claim 4 | 10 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.41 | 0.85 | N/A | N/A | 0.40 | 0.90 |

**Table 10.F.64 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eleven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | – | – | N/A | N/A | – | – | – | – | 0.22 | 0.57 | N/A | N/A | 0.65 | 0.59 |
| Claim 2 | 12 | – | – | N/A | N/A | – | – | – | – | 0.27 | 0.64 | N/A | N/A | N/A | N/A |
| Claim 3 | 9 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | – | – | N/A | N/A |
| Claim 4 | 10 | – | – | N/A | N/A | – | – | – | – | 0.64 | 0.86 | N/A | N/A | 0.71 | 0.89 |

**Table 10.F.65 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Three**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.78 | 0.36 | 0.82 | 0.44 | 0.94 | 0.49 | 0.67 | 0.36 | 0.80 | 0.39 | 0.83 | 0.45 | 0.78 | 0.41 |
| Claim 2 | 12 | 0.74 | 0.47 | 0.82 | 0.47 | 0.88 | 0.60 | 0.82 | 0.44 | 0.74 | 0.46 | 0.75 | 0.50 | 0.76 | 0.45 |
| Claim 3 | 9 | 0.30 | 0.63 | 0.47 | 0.62 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0.32 | 0.63 |

**Table 10.F.66 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Four**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.75 | 0.41 | 0.86 | 0.41 | 0.86 | 0.39 | 0.92 | 0.52 | 0.82 | 0.42 | 0.85 | 0.41 | 0.77 | 0.38 |
| Claim 2 | 10 | 0.45 | 0.65 | 0.34 | 0.62 | N/A | N/A | 0.82 | 0.70 | 0.57 | 0.65 | 0.53 | 0.63 | 0.58 | 0.66 |
| Claim 3 | 10 | 0.04 | 0.62 | 0.55 | 0.56 | N/A | N/A | N/A | N/A | 0.52 | 0.68 | 0.43 | 0.62 | 0.57 | 0.63 |

**Table 10.F.67 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Five**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.67 | 0.47 | 0.58 | 0.42 | 0.12 | 0.40 | 0.48 | 0.43 | 0.69 | 0.54 | 0.40 | 0.48 | 0.75 | 0.47 |
| Claim 2 | 11 | 0.72 | 0.70 | 0.77 | 0.65 | N/A | N/A | 0.34 | 0.52 | 0.62 | 0.66 | 0.48 | 0.64 | 0.68 | 0.59 |
| Claim 3 | 10 | N/A | N/A | 0.22 | 0.74 | 0.45 | 0.95 | 0.54 | 0.76 | 0.33 | 0.85 | 0.01 | 0.85 | 0.45 | 0.77 |

**Table 10.F.68 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Six**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.68 | 0.46 | N/A | N/A | – | – | N/A | N/A | 0.71 | 0.53 | 0.72 | 0.49 | 0.76 | 0.42 |
| Claim 2 | 11 | 0.63 | 0.58 | N/A | N/A | – | – | N/A | N/A | 0.48 | 0.54 | 0.24 | 0.54 | 0.64 | 0.51 |
| Claim 3 | 10 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.07 | 0.70 | N/A | N/A | 0.38 | 0.65 |

**Table 10.F.69 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Seven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | – | – | 0.85 | 0.43 | N/A | N/A | – | – | 0.65 | 0.71 | 0.66 | 0.41 | 0.81 | 0.46 |
| Claim 2 | 11 | – | – | 0.71 | 0.46 | N/A | N/A | – | – | N/A | N/A | 0.64 | 0.58 | 0.71 | 0.49 |
| Claim 3 | 10 | – | – | N/A | N/A | N/A | N/A | – | – | 0.08 | 1.01 | 0.53 | 0.80 | 0.59 | 0.79 |

**Table 10.F.70 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eight**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.23 | 0.87 | N/A | N/A | – | – | N/A | N/A | 0.40 | 0.83 | – | – | 0.63 | 0.67 |
| Claim 2 | 10 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | N/A | N/A | – | – | N/A | N/A |
| Claim 3 | 9 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | N/A | N/A | – | – | N/A | N/A |

**Table 10.F.71 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eleven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | – | – | N/A | N/A | – | – | – | – | 0.54 | 0.78 | – | – | 0.75 | 0.72 |
| Claim 2 | 11 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | N/A | N/A | N/A | N/A |
| Claim 3 | 10 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | – | – | 0.57 | 0.92 |

**Table 10.F.72 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.73 | 0.43 | 0.80 | 0.48 | – | – | N/A | N/A | 0.76 | 0.47 | 0.76 | 0.47 | 0.77 | 0.47 |
| Claim 2 | 12 | 0.79 | 0.62 | 0.73 | 0.59 | – | – | N/A | N/A | 0.74 | 0.63 | 0.52 | 0.57 | 0.71 | 0.62 |
| Claim 3 | 9 | N/A | N/A | 0.49 | 0.79 | – | – | N/A | N/A | 0.39 | 0.79 | 0.53 | 0.82 | 0.44 | 0.79 |
| Claim 4 | 11 | 0.80 | 0.64 | 0.76 | 0.76 | – | – | N/A | N/A | 0.68 | 0.67 | 0.64 | 0.62 | 0.68 | 0.65 |

**Table 10.F.73 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.64 | 0.42 | 0.72 | 0.43 | 0.93 | 0.47 | N/A | N/A | 0.81 | 0.48 | 0.86 | 0.50 | 0.77 | 0.45 |
| Claim 2 | 12 | N/A | N/A | 0.61 | 0.61 | 0.89 | 0.68 | 0.87 | 0.70 | 0.70 | 0.64 | 0.80 | 0.70 | 0.69 | 0.66 |
| Claim 3 | 9 | N/A | N/A | 0.20 | 0.81 | 0.48 | 0.87 | 0.67 | 0.87 | 0.43 | 0.83 | 0.38 | 0.79 | 0.37 | 0.82 |
| Claim 4 | 9 | 0.61 | 0.81 | 0.57 | 0.71 | 0.68 | 0.69 | 0.74 | 0.89 | 0.68 | 0.77 | 0.62 | 0.75 | 0.63 | 0.74 |

**Table 10.F.74 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | N/A | N/A | 0.39 | 0.52 | – | – | N/A | N/A | 0.75 | 0.49 | 0.68 | 0.49 | 0.71 | 0.50 |
| Claim 2 | 12 | N/A | N/A | 0.58 | 0.58 | – | – | 0.72 | 0.58 | 0.79 | 0.59 | 0.44 | 0.57 | 0.72 | 0.61 |
| Claim 3 | 9 | N/A | N/A | 0.44 | 0.88 | – | – | 0.52 | 0.87 | 0.40 | 0.87 | N/A | N/A | 0.19 | 0.84 |
| Claim 4 | 11 | N/A | N/A | 0.80 | 0.79 | – | – | 0.65 | 0.72 | 0.47 | 0.72 | 0.57 | 0.79 | 0.53 | 0.72 |

**Table 10.F.75 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.75 | 0.50 | 0.54 | 0.66 | 0.81 | 0.52 |
| Claim 2 | 12 | 0.19 | 0.71 | 0.29 | 0.71 | – | – | N/A | N/A | 0.66 | 0.72 | 0.78 | 0.70 | 0.72 | 0.75 |
| Claim 3 | 8 | 0.36 | 0.86 | N/A | N/A | – | – | N/A | N/A | 0.30 | 0.96 | 0.21 | 0.82 | 0.34 | 0.92 |
| Claim 4 | 11 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.63 | 0.76 | 0.52 | 0.71 | 0.61 | 0.79 |

**Table 10.F.76 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | – | – | 0.90 | 0.55 | – | – | – | – | N/A | N/A | 0.83 | 0.54 | 0.78 | 0.54 |
| Claim 2 | 12 | – | – | N/A | N/A | – | – | – | – | 0.84 | 0.64 | 0.29 | 0.61 | 0.66 | 0.65 |
| Claim 3 | 9 | – | – | 0.84 | 1.03 | – | – | – | – | 0.64 | 0.90 | 0.60 | 1.00 | N/A | N/A |
| Claim 4 | 10 | – | – | 0.12 | 1.15 | – | – | – | – | N/A | N/A | 0.38 | 0.81 | 0.40 | 0.93 |

**Table 10.F.77 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | N/A | N/A | 0.48 | 0.72 | – | – | N/A | N/A | – | – | – | – | 0.72 | 0.58 |
| Claim 2 | 12 | N/A | N/A | 0.33 | 0.57 | – | – | N/A | N/A | – | – | – | – | 0.70 | 0.64 |
| Claim 3 | 9 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | N/A | N/A | – | – | 0.19 | 1.14 |
| Claim 4 | 10 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | – | – | – | – | 0.39 | 0.95 |

**Table 10.F.78 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | – | – | N/A | N/A | – | – | – | – | 0.45 | 0.57 | – | – | 0.81 | 0.62 |
| Claim 2 | 12 | – | – | N/A | N/A | – | – | – | – | 0.41 | 0.65 | – | – | N/A | N/A |
| Claim 3 | 9 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | – | – | N/A | N/A |
| Claim 4 | 10 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | – | – | 0.19 | 0.84 |

**Table 10.F.79 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.86 | 0.38 | 0.83 | 0.44 | – | – | 0.68 | 0.34 | 0.79 | 0.39 | 0.82 | 0.55 | 0.76 | 0.41 |
| Claim 2 | 12 | 0.62 | 0.44 | 0.83 | 0.48 | – | – | 0.82 | 0.44 | 0.75 | 0.44 | 0.13 | 0.39 | 0.77 | 0.46 |
| Claim 3 | 9 | 0.09 | 0.71 | 0.31 | 0.61 | – | – | N/A | N/A | N/A | N/A | N/A | N/A | 0.28 | 0.63 |

**Table 10.F.80 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.77 | 0.36 | 0.81 | 0.40 | N/A | N/A | 0.92 | 0.52 | 0.84 | 0.40 | 0.86 | 0.40 | 0.77 | 0.38 |
| Claim 2 | 10 | 0.23 | 0.60 | 0.16 | 0.61 | N/A | N/A | 0.82 | 0.70 | 0.51 | 0.63 | 0.64 | 0.65 | 0.59 | 0.67 |
| Claim 3 | 10 | 0.54 | 0.66 | 0.51 | 0.57 | N/A | N/A | N/A | N/A | 0.57 | 0.66 | 0.41 | 0.56 | 0.58 | 0.61 |

**Table 10.F.81 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | N/A | N/A | 0.74 | 0.44 | – | – | 0.52 | 0.44 | 0.76 | 0.54 | N/A | N/A | 0.77 | 0.47 |
| Claim 2 | 11 | N/A | N/A | 0.64 | 0.54 | – | – | N/A | N/A | 0.64 | 0.62 | 0.25 | 0.56 | 0.69 | 0.60 |
| Claim 3 | 10 | N/A | N/A | N/A | N/A | – | – | 0.11 | 0.80 | 0.46 | 0.78 | N/A | N/A | 0.49 | 0.75 |

**Table 10.F.82 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Six**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.66 | 0.54 | N/A | N/A | – | – | N/A | N/A | 0.78 | 0.47 | 0.40 | 0.36 | 0.77 | 0.42 |
| Claim 2 | 11 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.66 | 0.49 | 0.58 | 0.54 | 0.68 | 0.52 |
| Claim 3 | 10 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.41 | 0.62 | 0.37 | 0.60 | 0.40 | 0.64 |

**Table 10.F.83 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Seven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | – | – | 0.78 | 0.45 | – | – | – | – | 0.81 | 0.62 | 0.70 | 0.41 | 0.80 | 0.44 |
| Claim 2 | 11 | – | – | 0.68 | 0.49 | – | – | – | – | N/A | N/A | 0.68 | 0.61 | 0.76 | 0.51 |
| Claim 3 | 10 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | 0.57 | 0.79 | 0.61 | 0.69 |

**Table 10.F.84 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eight**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.72 | 0.79 | – | – | 0.62 | 0.72 |
| Claim 2 | 10 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | N/A | N/A | – | – | N/A | N/A |
| Claim 3 | 9 | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.08 | 0.93 | – | – | N/A | N/A |

**Table 10.F.85 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantage—Mathematics, Grade Eleven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | – | – | N/A | N/A | – | – | – | – | 0.27 | 0.68 | – | – | 0.70 | 0.62 |
| Claim 2 | 11 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | – | – | N/A | N/A |
| Claim 3 | 10 | – | – | N/A | N/A | – | – | – | – | N/A | N/A | – | – | 0.66 | 1.19 |

**Table 10.F.86 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.69 | 0.44 | 0.59 | 0.46 | 0.67 | 0.42 | 0.82 | 0.49 | 0.73 | 0.49 | 0.66 | 0.45 | 0.78 | 0.48 |
| Claim 2 | 12 | 0.47 | 0.62 | 0.64 | 0.58 | 0.91 | 0.65 | 0.17 | 0.59 | 0.67 | 0.70 | 0.58 | 0.61 | 0.73 | 0.65 |
| Claim 3 | 9 | N/A | N/A | 0.51 | 0.77 | 0.61 | 0.87 | N/A | N/A | 0.26 | 0.82 | 0.27 | 0.75 | 0.46 | 0.80 |
| Claim 4 | 11 | 0.17 | 0.66 | 0.66 | 0.60 | 0.86 | 0.75 | 0.43 | 0.64 | 0.63 | 0.68 | 0.59 | 0.63 | 0.70 | 0.67 |

**Table 10.F.87 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.70 | 0.48 | 0.59 | 0.44 | N/A | N/A | – | – | 0.77 | 0.47 | 0.72 | 0.47 | 0.77 | 0.46 |
| Claim 2 | 12 | 0.80 | 0.72 | 0.45 | 0.70 | 0.86 | 0.66 | – | – | 0.70 | 0.64 | 0.75 | 0.66 | 0.67 | 0.64 |
| Claim 3 | 9 | 0.18 | 0.86 | N/A | N/A | 0.60 | 0.77 | – | – | 0.42 | 0.84 | 0.37 | 0.87 | 0.40 | 0.81 |
| Claim 4 | 9 | 0.52 | 0.88 | N/A | N/A | N/A | N/A | – | – | 0.52 | 0.77 | 0.33 | 0.74 | 0.57 | 0.74 |

**Table 10.F.88 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.68 | 0.48 | 0.81 | 0.50 | N/A | N/A | 0.68 | 0.50 | 0.72 | 0.52 | 0.62 | 0.48 | 0.68 | 0.49 |
| Claim 2 | 12 | 0.70 | 0.57 | 0.86 | 0.61 | N/A | N/A | N/A | N/A | 0.81 | 0.57 | 0.61 | 0.54 | 0.73 | 0.59 |
| Claim 3 | 9 | 0.37 | 0.82 | N/A | N/A | N/A | N/A | N/A | N/A | 0.48 | 0.87 | N/A | N/A | 0.30 | 0.85 |
| Claim 4 | 11 | 0.61 | 0.74 | 0.66 | 0.70 | N/A | N/A | N/A | N/A | 0.59 | 0.79 | 0.49 | 0.79 | 0.55 | 0.74 |

**Table 10.F.89 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.81 | 0.51 | N/A | N/A | – | – | N/A | N/A | 0.78 | 0.56 | 0.81 | 0.52 | 0.82 | 0.53 |
| Claim 2 | 12 | 0.64 | 0.67 | – | – | – | – | N/A | N/A | 0.73 | 0.71 | 0.60 | 0.69 | 0.68 | 0.72 |
| Claim 3 | 8 | 0.50 | 0.97 | – | – | – | – | N/A | N/A | 0.36 | 0.91 | 0.32 | 0.88 | 0.32 | 0.96 |
| Claim 4 | 11 | 0.36 | 1.00 | N/A | N/A | – | – | N/A | N/A | 0.44 | 0.90 | 0.57 | 0.82 | 0.51 | 0.73 |

**Table 10.F.90 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | – | – | N/A | N/A | N/A | N/A | – | – | 0.72 | 0.53 | 0.73 | 0.54 | 0.70 | 0.52 |
| Claim 2 | 12 | – | – | – | – | N/A | N/A | – | – | 0.70 | 0.63 | 0.28 | 0.63 | 0.68 | 0.64 |
| Claim 3 | 9 | – | – | N/A | N/A | N/A | N/A | – | – | 0.55 | 0.96 | 0.02 | 0.94 | 0.47 | 0.91 |
| Claim 4 | 10 | – | – | N/A | N/A | N/A | N/A | – | – | 0.22 | 1.02 | 0.55 | 0.83 | N/A | N/A |

**Table 10.F.91 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | N/A | N/A | – | – | – | – | – | – | 0.59 | 0.61 | N/A | N/A | 0.84 | 0.61 |
| Claim 2 | 12 | N/A | N/A | – | – | – | – | – | – | 0.68 | 0.58 | N/A | N/A | 0.84 | 0.61 |
| Claim 3 | 9 | N/A | N/A | – | – | – | – | – | – | N/A | N/A | N/A | N/A | N/A | N/A |
| Claim 4 | 10 | N/A | N/A | – | – | – | – | – | – | 0.41 | 0.85 | N/A | N/A | 0.44 | 0.81 |

**Table 10.F.92 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | – | – | – | – | – | – | – | – | 0.05 | 0.57 | N/A | N/A | 0.65 | 0.58 |
| Claim 2 | 12 | – | – | – | – | – | – | – | – | 0.15 | 0.63 | N/A | N/A | N/A | N/A |
| Claim 3 | 9 | – | – | – | – | – | – | – | – | N/A | N/A | – | – | N/A | N/A |
| Claim 4 | 10 | – | – | – | – | – | – | – | – | 0.77 | 1.04 | N/A | N/A | 0.64 | 0.92 |

**Table 10.F.93 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.72 | 0.35 | 0.85 | 0.42 | 0.94 | 0.49 | 0.72 | 0.37 | 0.81 | 0.38 | 0.84 | 0.40 | 0.81 | 0.42 |
| Claim 2 | 12 | 0.81 | 0.49 | 0.76 | 0.44 | 0.88 | 0.60 | 0.85 | 0.44 | 0.72 | 0.48 | 0.78 | 0.54 | 0.73 | 0.44 |
| Claim 3 | 9 | 0.38 | 0.54 | 0.68 | 0.65 | N/A | N/A | N/A | N/A | N/A | N/A | 0.01 | 0.63 | 0.42 | 0.64 |

**Table 10.F.94 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | 0.66 | 0.43 | 0.89 | 0.43 | 0.94 | 0.42 | – | – | 0.79 | 0.42 | 0.84 | 0.41 | 0.75 | 0.40 |
| Claim 2 | 10 | 0.31 | 0.67 | 0.56 | 0.65 | N/A | N/A | – | – | 0.56 | 0.67 | 0.44 | 0.62 | 0.53 | 0.63 |
| Claim 3 | 10 | N/A | N/A | 0.58 | 0.54 | N/A | N/A | – | – | 0.49 | 0.69 | 0.45 | 0.65 | 0.52 | 0.65 |

**Table 10.F.95 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | 0.70 | 0.47 | N/A | N/A | 0.12 | 0.40 | N/A | N/A | 0.59 | 0.54 | 0.54 | 0.50 | 0.71 | 0.48 |
| Claim 2 | 11 | 0.74 | 0.72 | 0.84 | 0.79 | N/A | N/A | 0.54 | 0.53 | 0.60 | 0.68 | 0.52 | 0.68 | 0.65 | 0.59 |
| Claim 3 | 10 | 0.10 | 0.70 | 0.59 | 0.83 | 0.45 | 0.95 | 0.56 | 0.62 | 0.11 | 0.89 | 0.14 | 0.84 | 0.37 | 0.80 |

**Table 10.F.96 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Six**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 19 | 0.66 | 0.39 | – | – | – | – | N/A | N/A | 0.67 | 0.55 | 0.72 | 0.51 | 0.75 | 0.41 |
| Claim 2 | 11 | 0.72 | 0.57 | – | – | – | – | N/A | N/A | 0.31 | 0.56 | 0.18 | 0.54 | 0.55 | 0.50 |
| Claim 3 | 10 | N/A | N/A | – | – | – | – | N/A | N/A | N/A | N/A | N/A | N/A | 0.38 | 0.65 |

**Table 10.F.97 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Seven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | – | – | N/A | N/A | N/A | N/A | – | – | 0.63 | 0.72 | 0.67 | 0.41 | 0.80 | 0.48 |
| Claim 2 | 11 | – | – | N/A | N/A | N/A | N/A | – | – | N/A | N/A | 0.63 | 0.56 | 0.54 | 0.46 |
| Claim 3 | 10 | – | – | N/A | N/A | N/A | N/A | – | – | 0.14 | 1.01 | 0.54 | 0.81 | 0.50 | 0.89 |

**Table 10.F.98 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eight**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 20 | N/A | N/A | – | – | – | – | – | – | 0.31 | 0.84 | – | – | 0.57 | 0.60 |
| Claim 2 | 10 | N/A | N/A | – | – | – | – | – | – | N/A | N/A | – | – | N/A | N/A |
| Claim 3 | 9 | N/A | N/A | – | – | – | – | – | – | N/A | N/A | – | – | 0.08 | 1.14 |

**Table 10.F.99 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eleven**

| | | Am. Ind. | | Asian | | Pac. Island | | Filipino | | Hispanic | | African Am. | | White | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Claim | N of Items | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM | Reliab | SEM |
| Claim 1 | 21 | – | – | – | – | – | – | – | – | 0.67 | 0.90 | – | – | 0.80 | 0.76 |
| Claim 2 | 11 | – | – | – | – | – | – | – | – | N/A | N/A | N/A | N/A | N/A | N/A |
| Claim 3 | 10 | – | – | – | – | – | – | – | – | N/A | N/A | – | – | N/A | N/A |

# Appendix 10.G: Scale Score CSEM Distribution 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 10.G.1 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Three**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 407 | 407 | 61% | 61% |
| [25, 30) | 174 | 581 | 26% | 87% |
| [30, 35) | 51 | 632 | 8% | 94% |
| [35, 40) | 12 | 644 | 2% | 96% |
| [40, 45) | 7 | 651 | 1% | 97% |
| [45, 50) | 5 | 656 | 1% | 98% |
| [60, 65) | 1 | 657 | 0% | 98% |
| [210, 215) | 12 | 669 | 2% | 100% |

**Table 10.G.2 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Four**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 296 | 296 | 47% | 47% |
| [25, 30) | 246 | 542 | 39% | 87% |
| [30, 35) | 54 | 596 | 9% | 95% |
| [35, 40) | 12 | 608 | 2% | 97% |
| [40, 45) | 7 | 615 | 1% | 98% |
| [50, 55) | 3 | 618 | 0% | 99% |
| [55, 60) | 1 | 619 | 0% | 99% |
| [210, 215) | 7 | 626 | 1% | 100% |

**Table 10.G.3 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Five**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 82 | 82 | 15% | 15% |
| [25, 30) | 381 | 463 | 71% | 86% |
| [30, 35) | 51 | 514 | 9% | 96% |
| [35, 40) | 10 | 524 | 2% | 97% |
| [40, 45) | 2 | 526 | 0% | 98% |
| [45, 50) | 1 | 527 | 0% | 98% |
| [50, 55) | 1 | 528 | 0% | 98% |
| [55, 60) | 2 | 530 | 0% | 99% |
| [60, 65) | 1 | 531 | 0% | 99% |
| [210, 215) | 7 | 538 | 1% | 100% |

**Table 10.G.4 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Six**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [25, 30) | 157 | 157 | 73% | 73% |
| [30, 35) | 41 | 198 | 19% | 92% |
| [35, 40) | 9 | 207 | 4% | 96% |
| [40, 45) | 5 | 212 | 2% | 98% |
| [50, 55) | 1 | 213 | 0% | 99% |
| [55, 60) | 1 | 214 | 0% | 99% |
| [75, 80) | 1 | 215 | 0% | 100% |
| [95, 100) | 1 | 216 | 0% | 100% |

**Table 10.G.5 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Seven**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [25, 30) | 69 | 69 | 71% | 71% |
| [30, 35) | 15 | 84 | 15% | 87% |
| [35, 40) | 7 | 91 | 7% | 94% |
| [40, 45) | 1 | 92 | 1% | 95% |
| [45, 50) | 1 | 93 | 1% | 96% |
| [50, 55) | 1 | 94 | 1% | 97% |
| [55, 60) | 1 | 95 | 1% | 98% |
| [210, 215) | 2 | 97 | 2% | 100% |

**Table 10.G.6 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eight**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [25, 30) | 42 | 42 | 61% | 61% |
| [30, 35) | 13 | 55 | 19% | 80% |
| [35, 40) | 4 | 59 | 6% | 86% |
| [40, 45) | 5 | 64 | 7% | 93% |
| [45, 50) | 1 | 65 | 1% | 94% |
| [210, 215) | 4 | 69 | 6% | 100% |

**Table 10.G.7 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eleven**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [25, 30) | 9 | 9 | 45% | 45% |
| [30, 35) | 5 | 14 | 25% | 70% |
| [35, 40) | 1 | 15 | 5% | 75% |
| [40, 45) | 1 | 16 | 5% | 80% |
| [45, 50) | 1 | 17 | 5% | 85% |
| [160, 165) | 1 | 18 | 5% | 90% |
| [210, 215) | 2 | 20 | 10% | 100% |

**Table 10.G.8 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Three**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 344 | 344 | 50% | 50% |
| [20, 25) | 285 | 629 | 42% | 92% |
| [25, 30) | 14 | 643 | 2% | 94% |
| [30, 35) | 13 | 656 | 2% | 96% |
| [35, 40) | 7 | 663 | 1% | 97% |
| [40, 45) | 2 | 665 | 0% | 98% |
| [45, 50) | 1 | 666 | 0% | 98% |
| [50, 55) | 2 | 668 | 0% | 98% |
| [80, 85) | 1 | 669 | 0% | 98% |
| [195, 200) | 13 | 682 | 2% | 100% |

**Table 10.G.9 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Four**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 514 | 514 | 80% | 80% |
| [25, 30) | 78 | 592 | 12% | 92% |
| [30, 35) | 25 | 617 | 4% | 96% |
| [35, 40) | 15 | 632 | 2% | 98% |
| [40, 45) | 4 | 636 | 1% | 99% |
| [195, 200) | 6 | 642 | 1% | 100% |

**Table 10.G.10 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Five**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [20, 25) | 324 | 324 | 59% | 59% |
| [25, 30) | 133 | 457 | 24% | 84% |
| [30, 35) | 47 | 504 | 9% | 92% |
| [35, 40) | 18 | 522 | 3% | 96% |
| [40, 45) | 9 | 531 | 2% | 97% |
| [45, 50) | 6 | 537 | 1% | 98% |
| [50, 55) | 2 | 539 | 0% | 99% |
| [55, 60) | 2 | 541 | 0% | 99% |
| [65, 70) | 1 | 542 | 0% | 99% |
| [195, 200) | 4 | 546 | 1% | 100% |

**Table 10.G.11 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Six**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 40 | 40 | 18% | 18% |
| [20, 25) | 108 | 148 | 48% | 65% |
| [25, 30) | 24 | 172 | 11% | 76% |
| [30, 35) | 12 | 184 | 5% | 81% |
| [35, 40) | 9 | 193 | 4% | 85% |
| [40, 45) | 9 | 202 | 4% | 89% |
| [45, 50) | 5 | 207 | 2% | 91% |
| [55, 60) | 3 | 210 | 1% | 93% |
| [60, 65) | 1 | 211 | 0% | 93% |
| [75, 80) | 2 | 213 | 1% | 94% |
| [80, 85) | 3 | 216 | 1% | 95% |
| [90, 95) | 2 | 218 | 1% | 96% |
| [195, 200) | 9 | 227 | 4% | 100% |

**Table 10.G.12 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Seven**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [15, 20) | 26 | 26 | 25% | 25% |
| [20, 25) | 29 | 55 | 28% | 52% |
| [25, 30) | 21 | 76 | 20% | 72% |
| [30, 35) | 9 | 85 | 9% | 81% |
| [35, 40) | 6 | 91 | 6% | 87% |
| [40, 45) | 1 | 92 | 1% | 88% |
| [50, 55) | 1 | 93 | 1% | 89% |
| [55, 60) | 2 | 95 | 2% | 90% |
| [60, 65) | 2 | 97 | 2% | 92% |
| [70, 75) | 1 | 98 | 1% | 93% |
| [75, 80) | 3 | 101 | 3% | 96% |
| [105, 110) | 1 | 102 | 1% | 97% |
| [115, 120) | 1 | 103 | 1% | 98% |
| [195, 200) | 2 | 105 | 2% | 100% |

**Table 10.G.13 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eight**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [25, 30) | 5 | 5 | 6% | 6% |
| [30, 35) | 12 | 17 | 15% | 22% |
| [35, 40) | 15 | 32 | 19% | 41% |
| [40, 45) | 13 | 45 | 16% | 57% |
| [45, 50) | 10 | 55 | 13% | 70% |
| [50, 55) | 3 | 58 | 4% | 73% |
| [55, 60) | 4 | 62 | 5% | 78% |
| [60, 65) | 4 | 66 | 5% | 84% |
| [65, 70) | 4 | 70 | 5% | 89% |
| [70, 75) | 1 | 71 | 1% | 90% |
| [75, 80) | 1 | 72 | 1% | 91% |
| [80, 85) | 2 | 74 | 3% | 94% |
| [145, 150) | 2 | 76 | 3% | 96% |
| [195, 200) | 3 | 79 | 4% | 100% |

**Table 10.G.14 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eleven**

| CSEM range | N | Cumulative Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|
| [25, 30) | 1 | 1 | 6% | 6% |
| [30, 35) | 5 | 6 | 29% | 35% |
| [35, 40) | 6 | 12 | 35% | 71% |
| [40, 45) | 1 | 13 | 6% | 76% |
| [50, 55) | 1 | 14 | 6% | 82% |
| [65, 70) | 1 | 15 | 6% | 88% |
| [80, 85) | 1 | 16 | 6% | 94% |
| [115, 120) | 1 | 17 | 6% | 100% |

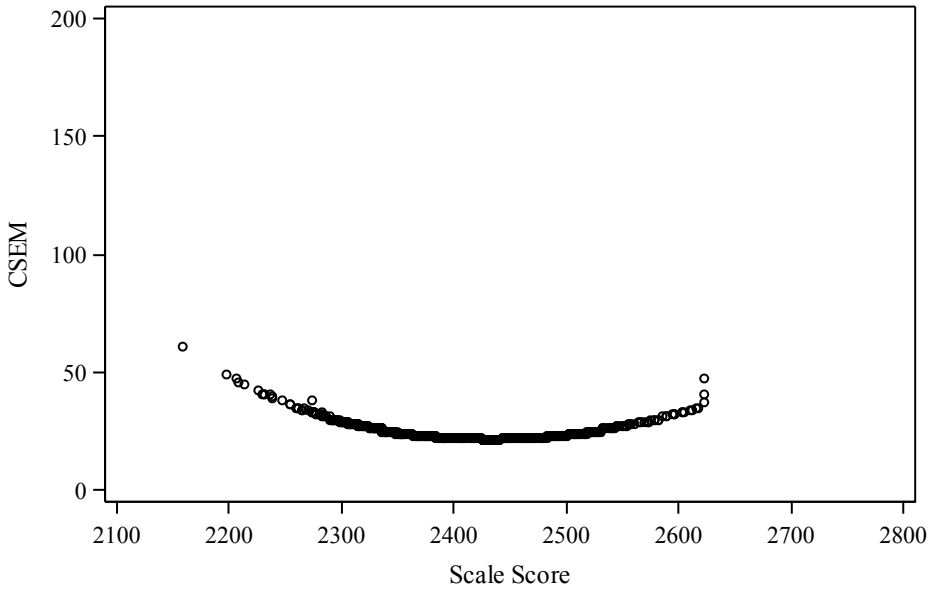


**Figure 10.G.1 Scale Score CSEM Distribution Plots—ELA, Grade Three**

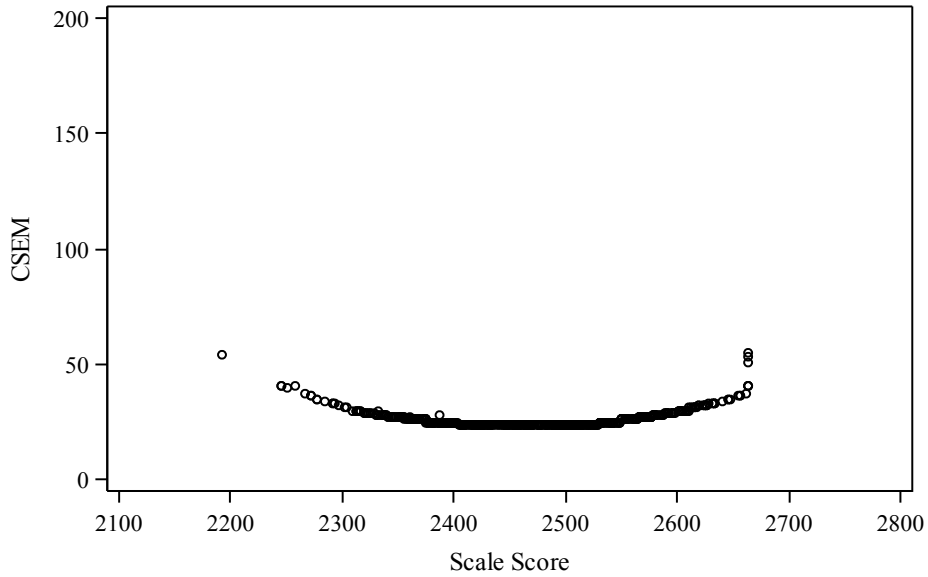


**Figure 10.G.2 Scale Score CSEM Distribution Plots—ELA, Grade Four**

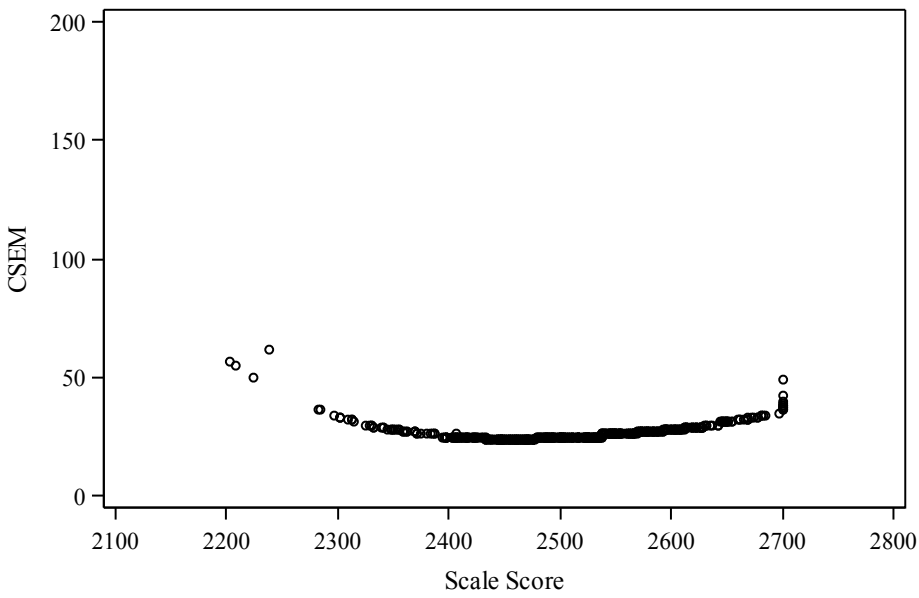


**Figure 10.G.3 Scale Score CSEM Distribution Plots—ELA, Grade Five**

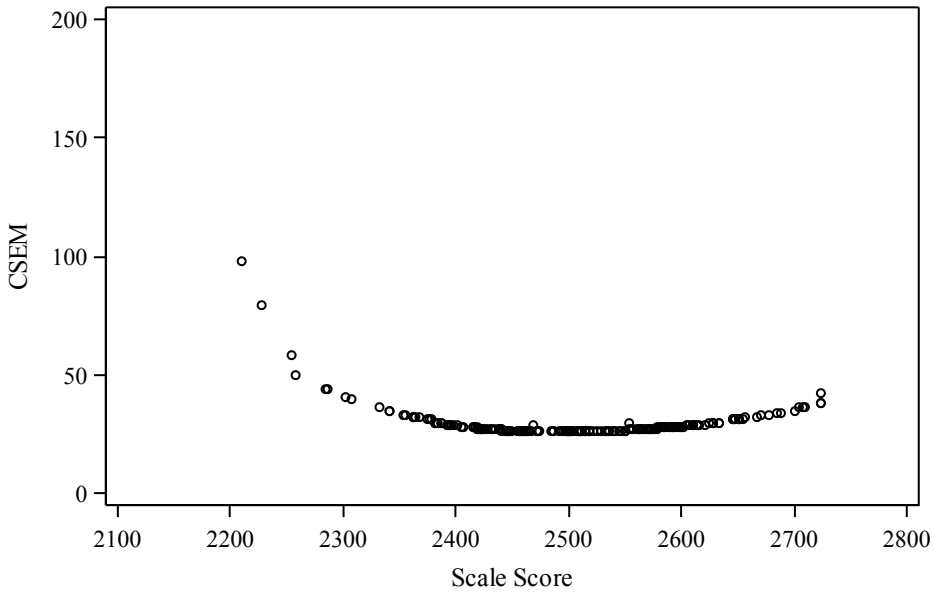


**Figure 10.G.4 Scale Score CSEM Distribution Plots—ELA, Grade Six**

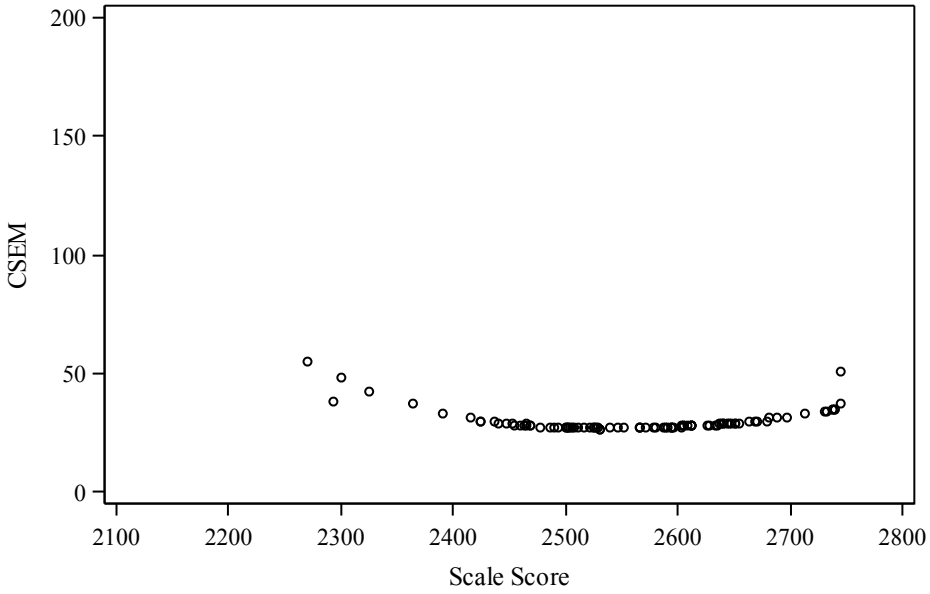


**Figure 10.G.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven**

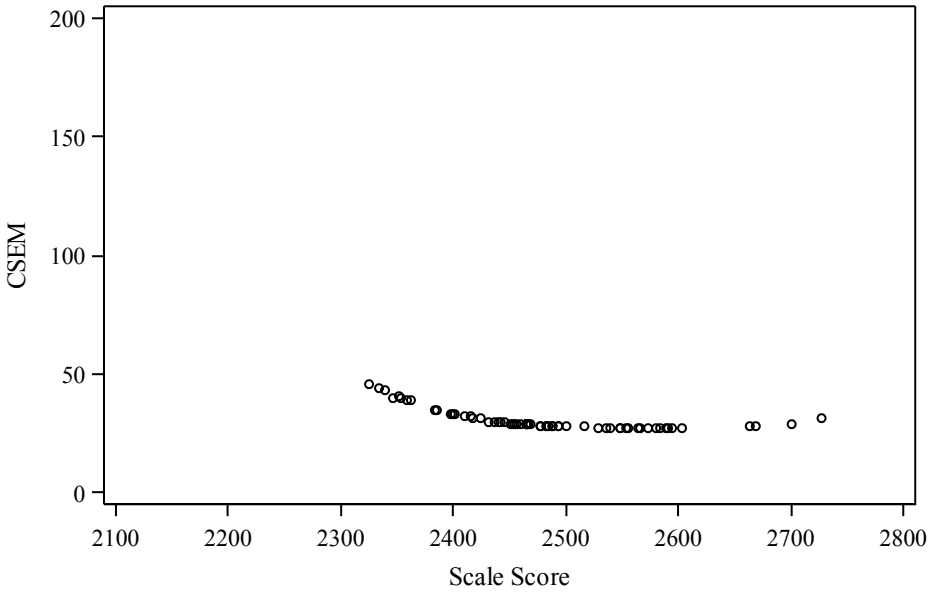


**Figure 10.G.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight**

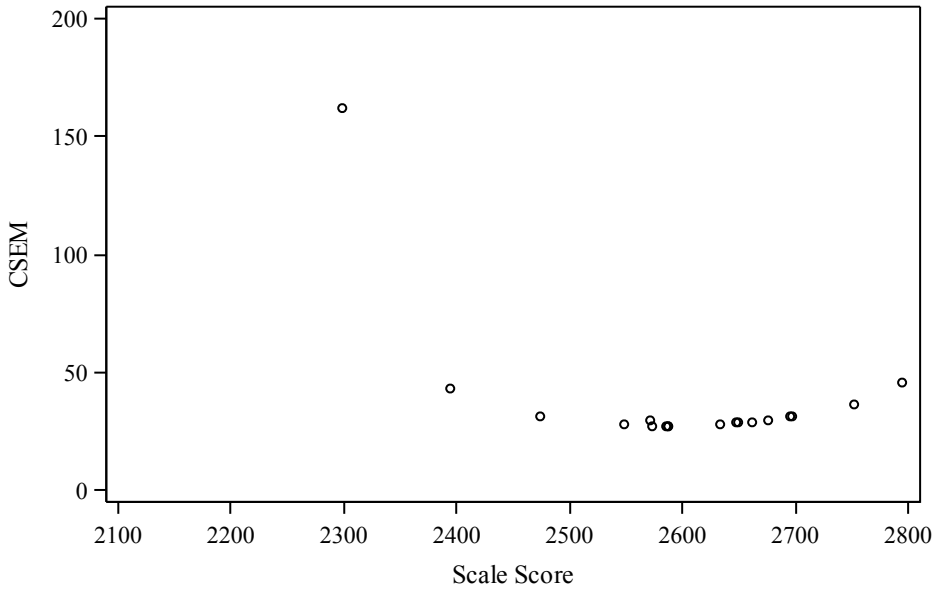


**Figure 10.G.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven**

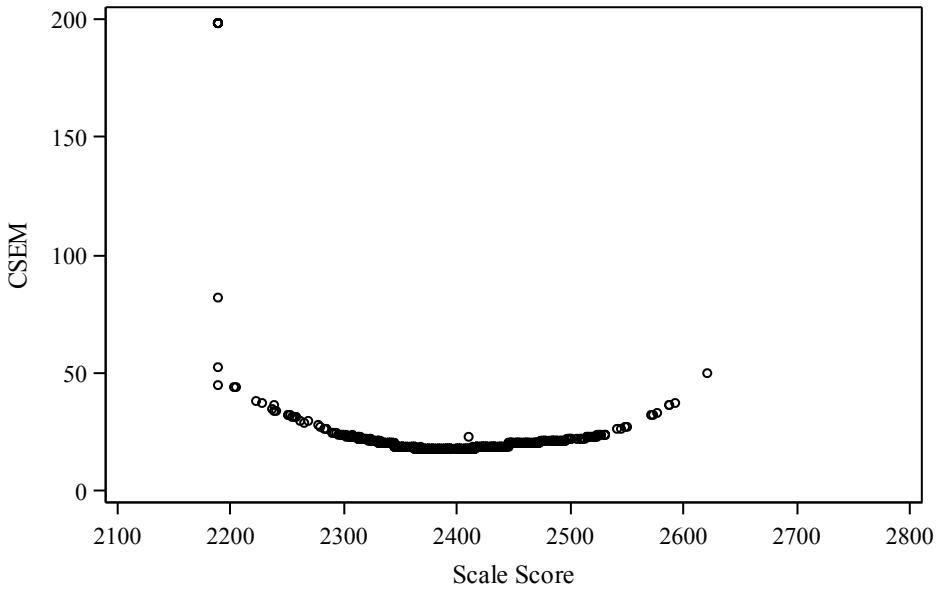


**Figure 10.G.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three**

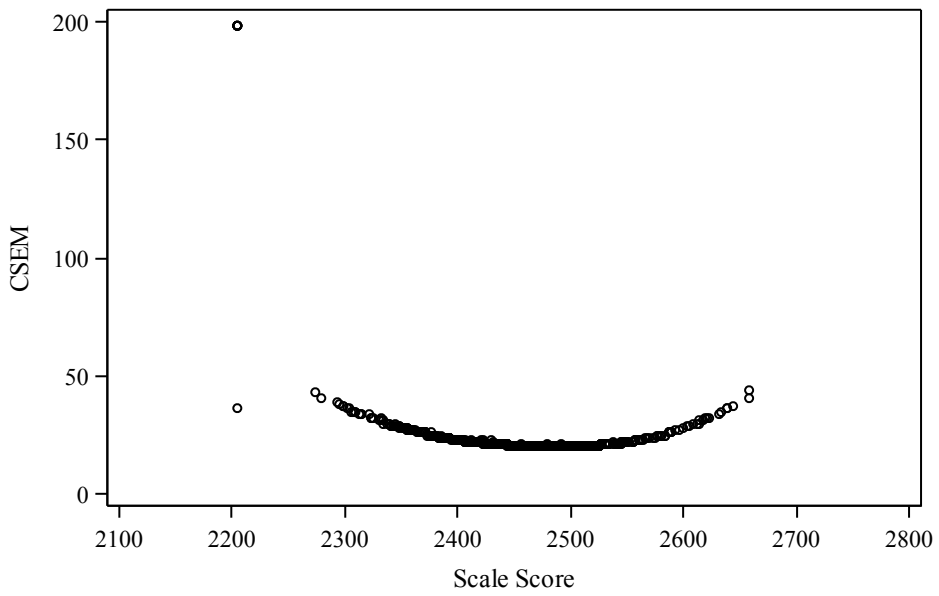


**Figure 10.G.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four**

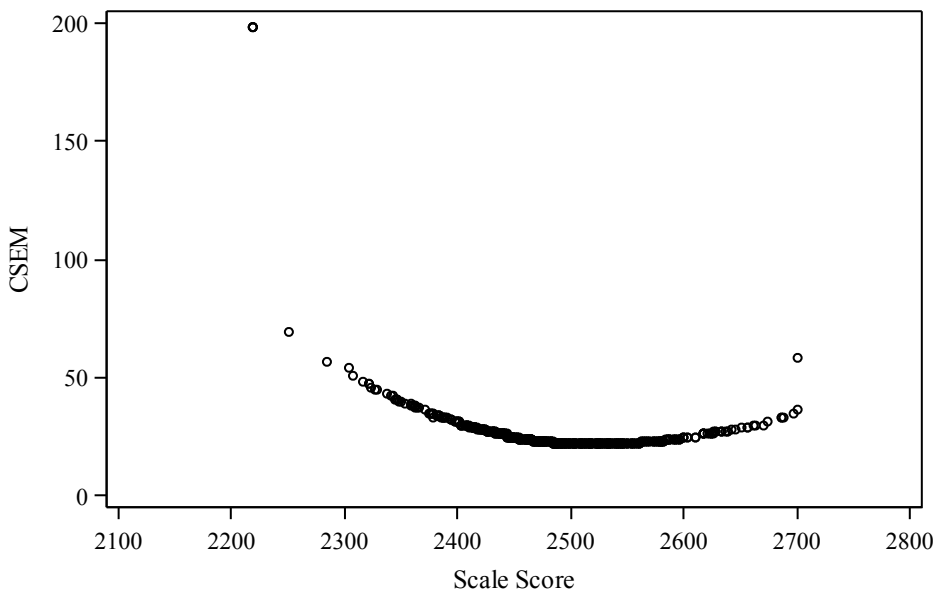


**Figure 10.G.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five**

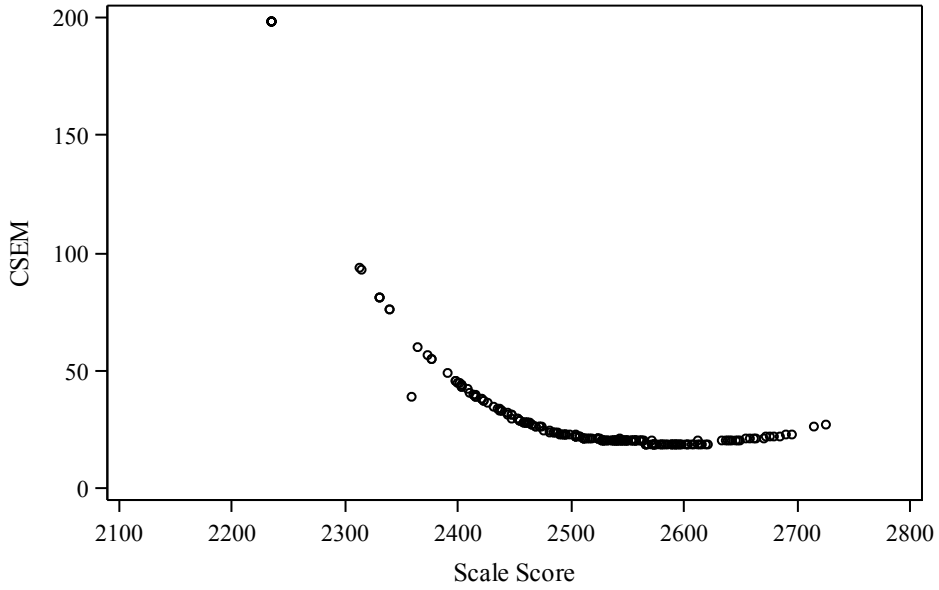


**Figure 10.G.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six**

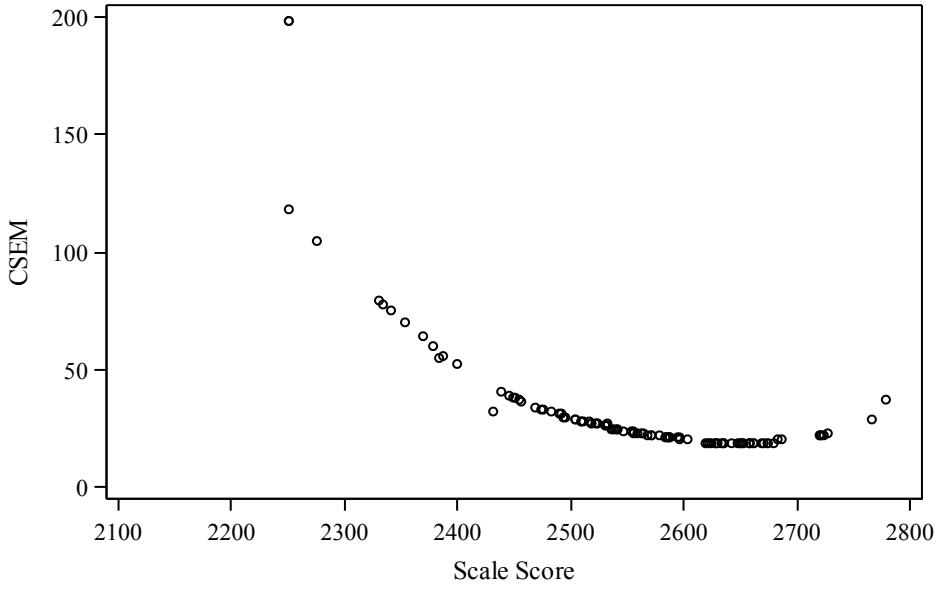


**Figure 10.G.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven**

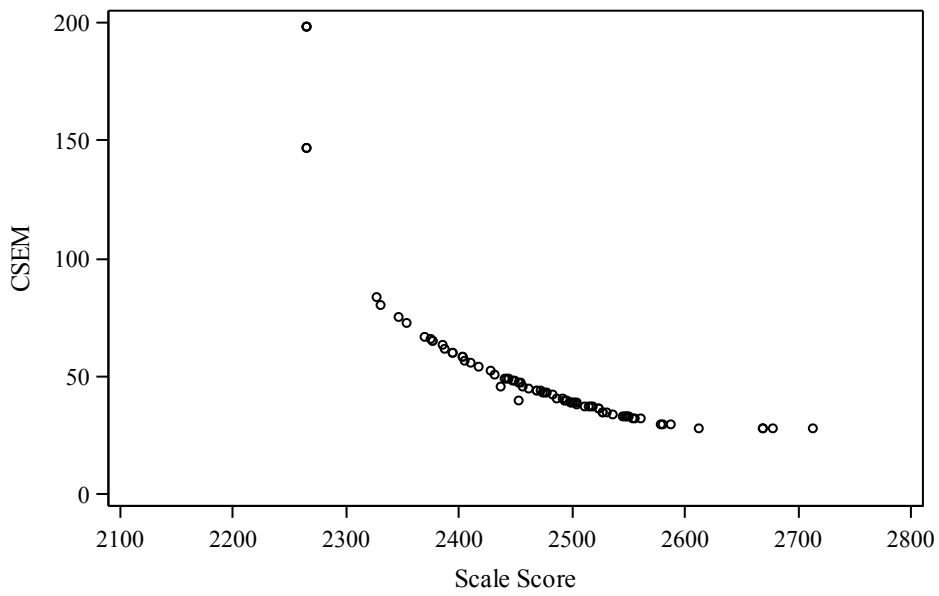


**Figure 10.G.13 Scale Score CSEM Distribution Plots—Mathematics, Grade Eight**

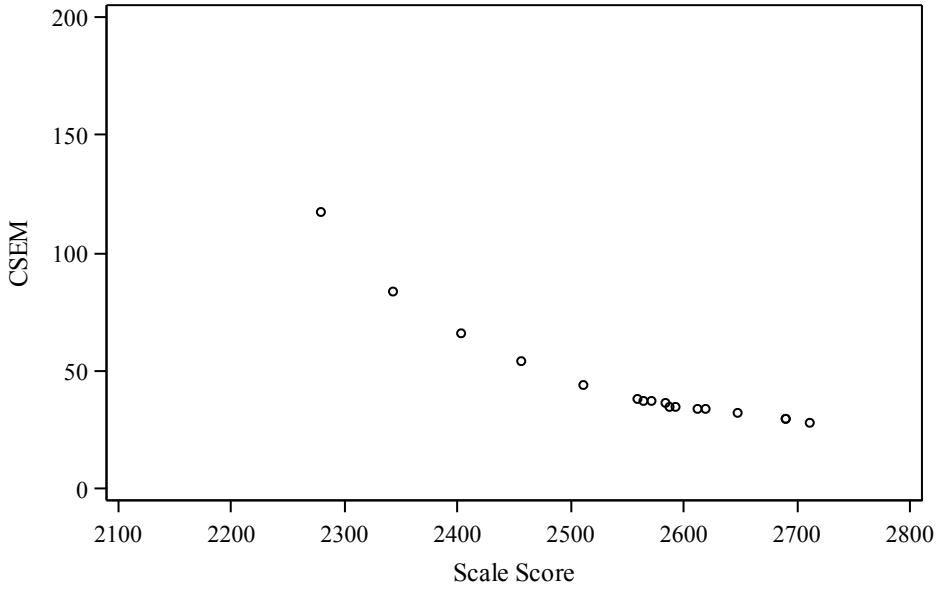


**Figure 10.G.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven**