

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



**Standards-based Tests in Spanish  
Technical Report  
Spring 2013 Administration**

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**Acronyms and Initialisms Used in the *STS Technical Report***

ADA	Americans with Disabilities Act	ICCs	item characteristic curves
AERA	American Educational Research Association	IEP	individualized education program
APA	American Psychological Association	IRT	item response theory
API	Academic Performance Index	IT	Information Technology
ARP	Assessment Review Panel	LEA	local educational agency
ASL	American Sign Language	MCE	Manually Coded English
AYP	Adequate Yearly Progress	MH DIF	Mantel-Haenszel DIF
CAHSEE	California High School Exit Examination	NCME	National Council on Measurement in Education
CAPA	California Alternate Performance Assessment	NPS	nonsecure, nonsectarian school
CCR	California <i>Code of Regulations</i>	NSLP	National School Lunch Program
CDE	California Department of Education	OIB	ordered item booklet
CDS	county/district/school	OTI	Office of Testing Integrity
CELDT	California English Language Development Test	<i>p</i> -value	item proportion correct
CI	confidence interval	PSAA	Public School Accountability Act
CMA	California Modified Assessment	Pt-Bis	point-biserial correlations
CSEMs	conditional standard errors of measurement	QC	quality control
CSTs	California Standards Tests	RACF	Random Access Control Facility
DFA	<i>Directions for Administration</i>	RLA	reading/language arts
DIF	differential item functioning	SBE	State Board of Education
DOK	depth of knowledge	SD	standard deviation
DPLT	designated primary language test	SDAIE	pecially designed academic instruction in English
DQS	Data Quality Services	SEM	standard error of measurement
EC	<i>Education Code</i>	SFTP	secure file transfer protocol
EL	English learner	SGID	School and Grade Identification sheet
ELA	English–language arts	SKM	score key management
ELD	English language development	SPAR	Statewide Pupil Assessment Review
EM	expectation maximization	STAR	Standardized Testing and Reporting
EOC	end of course	STAR TAC	STAR Technical Assistance Center
ESEA	Elementary and Secondary Education Act	STS	Standards-based Tests in Spanish
ETS	Educational Testing Service	TIF	test information function
FIA	final item analyses	WRMSD	weighted root-mean-square difference
GENASYS	Generalized Analysis System		

# Chapter 1: Introduction

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## Background

In 1997 and 1998, the California State Board of Education (SBE) adopted content standards in four major content areas: English–language arts (ELA), mathematics, history–social science, and science. These standards are designed to provide state-level input into instruction curricula and serve as a foundation for the state’s school accountability programs.

In order to measure and evaluate student achievement of the content standards, the state instituted the Standardized Testing and Reporting (STAR) Program. This Program, administered annually, was authorized in 1997 by state law (Senate Bill 376).

During its 2013 administration, the STAR Program had four components:

- California Standards Tests (CSTs), produced for California public schools to assess the California content standards for ELA, mathematics, history–social science, and science in grades two through eleven
- California Modified Assessment (CMA), an assessment of students’ achievement of California’s content standards for ELA, mathematics, and science, developed for students with an individualized education program (IEP) who meet the CMA eligibility criteria approved by the SBE
- California Alternate Performance Assessment (CAPA), produced for students with an IEP and who have significant cognitive disabilities and are not able to take the CSTs with accommodations and/or modifications or the CMA with accommodations
- Standards-based Tests in Spanish (STS), an assessment of students’ achievement of California’s content standards for Spanish-speaking English learners that is administered as the STAR Program’s designated primary language test (DPLT)

## Test Purpose

The purpose of the STS program is to permit Spanish-speaking English learners (ELs) to measure their achievement with respect to California’s content standards in reading/language arts (RLA) and mathematics through a primary language test in Spanish. These content standards, approved by the SBE, describe what students should know and be able to do at each grade level. The STS test results are not part of the accountability system in California.

According to the California *Education Code (EC)* Section 60640

(<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=60001-61000&file=60640-60649>): [Note: the preceding Web address is no longer valid.]

“60640. (f) (1) . . . pupils with limited English proficiency who are enrolled in any of grades 2 to 11, inclusive, may take a second achievement test in their primary language. Primary language tests administered pursuant to this subdivision and subdivision (g) shall be subject to the requirements of subdivision (a) of Section 60641. These primary language tests shall produce individual pupil scores that are valid and reliable.”

## Test Content

The STS are administered in two content areas, RLA and mathematics. The STS for RLA is administered to students in grades two through eleven, and the grade-level STS for

mathematics are administered to students in grades two through seven. In addition, the STS includes two end-of-course (EOC) mathematics tests: Algebra I, which is administered to students in grades seven through eleven; and Geometry, which is administered to students in grades eight through eleven. The EOC mathematics STS are designed to address the content standards for courses available at the secondary school level. Students in grade seven who meet the criteria for taking the CST for Algebra I also take the STS for Algebra I instead of the grade-level test.

In 2013, the STS included the following content areas:

- Reading/language arts (grades two through eleven)
- Mathematics (grades two through seven)
- Algebra I (grades seven through eleven)
- Geometry (grades eight through eleven)

## Intended Population

The STS are multiple-choice tests that are designed for Spanish-speaking ELs in grades two through eleven. Students who take the STS are required to also take the CSTs and/or CMA appropriate to their grade level.

The STS are required for Spanish-speaking ELs who have been in school in the United States for less than 12 months or who receive instruction in Spanish. However, all students who are ELs and whose primary language is Spanish are eligible to take the STS. The two distinct STS populations are the “target” and “nontarget/optional” students.

The target population consists of students receiving instruction in Spanish or students who have attended school in the United States for less than 12 months. These are cumulative, not consecutive, months.

The optional population consists of students who receive instruction in English and who have attended school in the United States for 12 cumulative months or longer. (Note: These are *not* the students who took the STS for Non-ELs in Dual-immersion Programs. In 2013, the STS could be purchased by districts and administered to students enrolled in a dual-language immersion program and are either nonlimited English proficient or have been redesignated fluent English proficient. Results were not reported for students who took the STS for Non-ELs in Dual-immersion Programs.)

The number of examinees taking the grade-level STS varies significantly across different grade levels, from approximately 800 in grade eleven (RLA) to approximately 13,400 for grade two. Test-taker volumes for the EOC STS vary by content, with approximately 3,000 for Algebra I and approximately 400 for Geometry. Approximately 66 to 88 percent of the total test-takers are from the target population, depending on grade level.

Parents may submit a written request to have their child exempted from taking any or all parts of the tests within the STAR Program. Only students whose parents submit a written request may be exempted from taking the tests (*Education Code [EC] Section 60615*).

## Intended Use and Purpose of Test Scores

The results for tests within the STAR Program are used for three primary purposes, described as follows (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>): [Note: the preceding Web address is no longer valid.]

“60602. (a) (1) First and foremost, provide information on the academic status and progress of individual pupils to those pupils, their parents, and their teachers. This information should be designed to assist in the improvement of teaching and learning in California public classrooms. The Legislature recognizes that, in addition to statewide assessments that will occur as specified in this chapter, school districts will conduct additional ongoing pupil diagnostic assessment and provide information regarding pupil performance based on those assessments on a regular basis to parents or guardians and schools. The Legislature further recognizes that local diagnostic assessment is a primary mechanism through which academic strengths and weaknesses are identified.”

“60602. (a) (4) Provide information to pupils, parents or guardians, teachers, schools, and school districts on a timely basis so that the information can be used to further the development of the pupil and to improve the educational program.”

“60602. (c) It is the intent of the Legislature that parents, classroom teachers, other educators, governing board members of school districts, and the public be involved, in an active and ongoing basis, in the design and implementation of the statewide pupil assessment program and the development of assessment instruments.”

“60602. (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 Standardized Testing and Reporting Program become open and transparent to teachers, parents, and pupils, to assist all the 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.”

In addition, STAR Program assessments are used to provide data for school, district, and state purposes and to meet federal accountability requirements. STS results are not used for state or federal accountability purposes.

## Testing Window

The STS are administered within a 25-day window which begins 12 instructional days before and ends 12 instructional days after the day on which 85 percent of the instructional year is completed. School districts may use all or any part of the 25 days for testing but are encouraged to schedule testing over no more than a 10- to 15-day period (California *Code of Regulations [CCR], Title 5, Education, Division 1, Chapter 2, Subchapter 3.75, Article 2, § 855*; in the California Department of Education [CDE] Web document linked at <http://www.cde.ca.gov/ta/tg/sr/admin.asp>).

## Significant STAR Developments in 2013

### Cut Scores and Score Scales for Newly Developed Tests

A standard setting was held in November 2011 to establish cut scores for the below basic, basic, proficient, and advanced performance levels for the RLA tests in grades eight through eleven and the EOC Algebra I and Geometry tests. A scale for reporting each of these STS test results was developed and adopted by the SBE in July 2012. This scale was used for the first time to report scores for the spring 2013 administration.

## **Pre-equating of the Geometry Results**

Because of the small sample size—fewer than 250 cases—the conversion table for the STS for Geometry was developed using pre-equating.

## **English Learner Service Definitions**

New English learner service definitions were introduced for the 2013 test administration.

## **Limitations of the Assessment**

### **Score Interpretation**

Teachers and administrators should not use STAR results in isolation to make inferences about instructional needs. In addition, 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 local assessments, classroom tests, student grades, classroom work, and teacher recommendations in addition to the child's STS results (CDE, 2013). It is also important to note that student scores in a content area contain measurement error and could vary if students were retested.

### **Out-of-Level Testing**

Each STS is designed to measure the content corresponding to a specific grade or course and is appropriate for students in the specific grade or course. Testing below a student's grade is not allowed for the STS or any test in the STAR Program; all students are required to take the test for the grade in which they are enrolled. School districts are advised to review all IEPs to ensure that any provision for testing below a student's grade level has been removed.

### **Score Comparison**

When comparing scale score results for the STS, the reviewer is limited to comparing results only within the same content area and grade. For example, it is appropriate to compare scores obtained by students and/or schools on the 2013 grade three mathematics tests; it would not be appropriate to compare scores obtained on the grade three mathematics test with those obtained on the grade four mathematics test. The reviewer may compare results for the same content area and grade, within a school, between schools, or between a school and its district, its county, or the state within the same year or to previous years. Comparisons between scores obtained in different grades or content areas should be avoided.

Finally, it is inappropriate to conduct any type of score comparisons (including raw score, percent correct, scale score, or performance level comparisons) between the CSTs and STS. Although the STS shares the same test blueprint with the CSTs, they follow an independent procedure for test development and establishment of performance levels; therefore, comparison between STS and CST results is discouraged.

## **Groups and Organizations Involved with the STAR Program**

### **State Board of Education**

The SBE is the state education agency that sets education 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 *EC*.

The SBE is responsible for assuring the compliance with programs that meet the requirement of the federal Elementary and Secondary Education Act (ESEA) and the state's Public School Accountability Act (PSAA) and for reporting results in terms of the Adequate Yearly Progress (AYP) and Academic Performance Index (API), which measure the academic performance and growth of schools on a variety of academic measures. In order to provide information on student progress in public schools, as essential for those programs, the SBE supervises the administration and progress of the STAR Program.

## **California Department of Education**

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 Department of Education serves California by innovating and collaborating with educators, schools, parents, and community partners which together, as a team, prepares students to live, work, and thrive in a highly connected world.

## **Contractors**

### **Educational Testing Service**

The CDE and the SBE contract with ETS to develop and administer the STAR Program. 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 and its subcontractor Pearson. Activities directly conducted by ETS include the following:

- Overall management of the program activities;
- Development of all test items;
- Construction and production of test booklets and related test materials;
- Support and training provided to counties, school districts, and independently testing charter schools;
- Implementation and maintenance of the STAR Management System for orders of materials and pre-identification services; and
- Completion of all psychometric activities.

### **Pearson**

ETS also monitors and manages the work of Pearson, subcontractor to ETS for the STAR Program. Activities conducted by Pearson include the following:

- Production of all scannable test materials;
- Packaging, distribution, and collection of testing materials to school districts and independently testing charter schools;
- Scanning and scoring of all responses, including performance scoring of the writing responses; and
- Production of all score reports and data files of test results.

## **Overview of the Technical Report**

This technical report addresses the characteristics of the STS administered in spring 2013. The technical report contains nine additional chapters as follows:

- Chapter 2 presents a conceptual overview of processes involved in a testing cycle for an STS. This includes test construction, test administration, generation of test scores, and dissemination of score reports. Information about the distributions of scores aggregated

by subgroups based on demographics and the use of special services is also included, as are the references to various chapters that detail the processes briefly discussed in this chapter.

- Chapter 3 describes the procedures followed during the development of valid STS items; the chapter explains the process of field-testing new items and the review of items by contractors and content experts.
- Chapter 4 details the content and psychometric criteria that guided the construction of the STS for 2013.
- Chapter 5 presents the processes involved in the actual administration of the 2013 STS with an emphasis on efforts made to ensure standardization of the tests. It also includes a detailed section that describes the procedures that were followed by ETS to ensure test security.
- Chapter 6 describes the standard-setting process previously conducted for all the STS for RLA and mathematics.
- Chapter 7 details the types of scores and score reports that are produced at the end of each administration of the STS.
- Chapter 8 summarizes the results of the test- and item-level analyses performed during the spring 2013 administration of the tests. These include the classical item analyses, the reliability analyses that include assessments of test reliability and the consistency and accuracy of the STS performance-level classifications, and the procedures designed to ensure the validity of STS score uses and interpretations. Also discussed in this chapter are the item response theory (IRT) and model-fit analyses, as well as documentation of the equating and pre-equating of the Geometry test, along with STS conversion tables. Finally, the chapter summarizes the results of analyses investigating the differential item functioning (DIF) for each STS.
- Chapter 9 highlights the importance of controlling and maintaining the quality of the STS.
- Chapter 10 presents historical comparisons of various item- and test-level results for the past three years and the base year for the grade-level tests in grades two through seven, which vary according to test.

Each chapter contains summary tables in the body of the text. However, extended appendixes that give more detailed information are provided at the end of the relevant chapters.

## References

- California *Code of Regulations, Title 5, Education, Division 1, Chapter 2, Subchapter 3.75, Article 2, § 855.*
- California Department of Education. (2013). *STAR Program information packet for school district and school staff* (p. 15). Sacramento, CA. Downloaded from <http://www.cde.ca.gov/ta/tg/sr/resources.asp>
- California Department of Education, EdSource, & the Fiscal Crisis Management Assistance Team. (2013). *Fiscal, demographic, and performance data on California's K–12 schools*. Sacramento, CA: Ed-Data. [http://www.ed-data.k12.ca.us/App\\_Resx/EdDataClassic/fsTwoPanel.aspx?#!bottom=/\\_layouts/EdDataClassic/profile.asp?Tab=1&level=04&reportNumber=16](http://www.ed-data.k12.ca.us/App_Resx/EdDataClassic/fsTwoPanel.aspx?#!bottom=/_layouts/EdDataClassic/profile.asp?Tab=1&level=04&reportNumber=16) [Note: the preceding Web address is no longer valid.]
- California State Board of Education. (2012). SBE agenda for July 2012. <http://www.cde.ca.gov/be/ag/ag/yr12/agenda201207.asp>

## **Chapter 2: An Overview of STS Processes**

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This chapter provides an overview of the processes involved in a typical test development and administration cycle for the STS; these processes are similar to those undertaken to develop the CSTs. Also described are the specifications maintained by ETS to implement each of those processes. The chapter is organized to provide a brief description of each process followed by 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.

### **Item Development**

#### **Item Formats**

All tests of the STS contain four-option multiple-choice items.

#### **Item Specifications**

The STS items are developed to measure California content standards and designed to conform to principles of item writing defined by ETS (ETS, 2002). ETS maintains and updates an item specifications document, otherwise known as “item writer guidelines,” for each STS and has developed an item utilization plan to guide the development of the items for each content area. Item writing emphasis is determined in consultation with the CDE.

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. To achieve this, the item specifications provide detailed information to item writers who are developing items for the STS.

The items selected for each STS undergo an extensive item review process that is designed to provide the best standards-based tests possible. Details about the item specifications, the item review process, and the item utilization plan are presented in Chapter 3, starting on page 101.

#### **Item Banking**

Before newly developed items are placed in the item bank, ETS prepares the items for review by content experts and various external review organizations such as the Assessment Review Panels (ARPs), which are described in Chapter 3, starting on page 105; and the Statewide Pupil Assessment Review (SPAR) panel, described in Chapter 3, starting on page 108.

Once the ARP review is complete, the items are placed in the item bank along with the associated information obtained at the review sessions. Items that are accepted by the content experts are updated to a “field-test ready” status. ETS then delivers the items to the CDE by means of a delivery of the California electronic item bank. Items are subsequently field-tested to obtain information about item performance and item statistics that can be used to assemble operational forms. The CDE then reviews the item data and makes decisions about which items could be used operationally (see page 110 for more information about the CDE’s data review). Any additional updates to item content and statistics are based on data collected from the operational use of the items. However, only the latest content of the item is retained in the bank at any time, along with the administration data from every administration that has included the item.

Further details on item banking are presented on page 110 in Chapter 3.

## Item Refresh Rate

The item utilization plan assumes that each year a certain percentage of items on an operational form are refreshed; these items remain in the item bank for future use. The refresh rate for each STS is presented in Table 3.1 on page 102.

## Test Assembly

### Test Length

The number of operational items in each STS varies by content area and grade. There are 65 operational items on the STS for RLA in grades two and three and 75 operational items in grades four through eleven. The STS grade-level and end-of-course mathematics tests are each composed of 65 operational items. The considerations used in deciding the test length are described on page 112 in Chapter 4.

Each STS also includes six field-test items in addition to the operational items. The total number of items, including operational and field-test items, in each STS form and the estimated time to complete a test form are presented in Appendix 2.A on page 19.

### Test Blueprints

ETS selects all STS items to conform to the SBE-approved California content standards and test blueprints. The test blueprints for the STS can be found on the CDE STAR STS Blueprints Web page at <http://www.cde.ca.gov/ta/tg/sr/stsblueprints.asp>.

Although the test blueprints call for the number of items at the individual standard level, scores for the STS items are grouped into subcontent areas referred to as “reporting clusters.” For each STS reporting cluster, the percentage of questions correctly answered is reported on a student’s score report. A description of the STS reporting clusters and the standards that comprise each cluster are provided in Appendix 2.B, which starts on page 20.

### Content Rules and Item Selection

When developing a new test form for a given grade and content area, test developers follow a number of rules. First and foremost, they select items that meet the blueprint for that grade level and content area. Using an electronic item bank, assessment specialists begin by identifying a set of linking items. These are items that appeared in previous operational test administrations and are then used to equate subsequent (new) test forms. After the linking items are approved, assessment specialists populate the rest of the test form.

Linking items are selected to proportionally represent the full blueprint. Each STS form is a collection of test items designed to reflect a reliable, fair, and valid measure of student learning within well-defined course content.

Another consideration is the difficulty of each item. Test developers strive to ensure that there are some easy and some hard items and that there are a number of items in the middle range of difficulty. The detailed rules are presented in Chapter 4, which begins on page 112.

### Psychometric Criteria

The staff assesses the projected test characteristics during the preliminary review of the assembled forms. The statistical test targets used to develop the 2013 forms and the projected characteristics of the assembled forms are presented in Chapter 4, starting on page 113.

The items in test forms are organized and sequenced differently according to the requirements of the content area. Further details on the arrangement of items during test assembly are also described on page 115 in Chapter 4.

## Test Administration

It is of utmost priority to administer the STS in an appropriate, consistent, secure, confidential, and standardized manner.

### Test Security and Confidentiality

All tests within the STAR Program are secure documents. For the STS administration, every person having access to test materials maintains the security and confidentiality of the tests. ETS's 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 on page 141.

In the pursuit of enforcing secure practices, ETS and the OTI strive 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 processes are discussed in detail in Chapter 5, starting on page 141.

- Test development
- Item and data review
- Item banking
- Transfer of forms and items to the CDE
- Security of electronic files using a firewall
- Printing and publishing
- Test administration
- Test delivery
- Processing and scoring
- Data management
- Transfer of scores via secure data exchange
- Statistical analysis
- Reporting and posting results
- Student confidentiality
- Student test results

### Procedures to Maintain Standardization

The STS processes are designed so that the tests are administered and scored in a standardized manner. ETS takes all necessary measures to ensure the standardization of the STS, as described in this section.

#### Test Administrators

The STS are administered in conjunction with the other tests that comprise the STAR Program. ETS employs personnel who facilitate various processes involved in the standardization of an administration cycle.

Staff at school districts who are central to the processes include district STAR coordinators, test site coordinators, test examiners, proctors, and scribes. The responsibilities of each of the staff members are included in the *STAR District and Test Site Coordinator Manual* (CDE, 2013); see page 147 in Chapter 5 for more information.

### Test Directions

A series of instructions compiled in detailed manuals is provided to the test administrators. Such documents include, but are not limited to, the following:

**Directions for Administration (DFAs)**—Manuals used by test examiners to administer the STS to students to be followed exactly so that all students have an equal opportunity to demonstrate their academic achievement (See page 147 in Chapter 5 for more information.)

**District and Test Site Coordinator Manual**—Test administration procedures for district STAR coordinators and test site coordinators (See page 147 in Chapter 5 for more information.)

**STAR Management System manuals**—Instructions for the Web-based modules that allow district STAR coordinators to set up test administrations, order materials, and submit and correct student Pre-ID data; every module has its own user manual with detailed instructions on how to use the STAR Management System (See page 148 in Chapter 5 for more information.)

## Test Variations, Accommodations, and Modifications

All public school students participate in the STAR Program, including students with disabilities and English learners. Most students with IEPs take the STS under standard conditions. However, some students with IEPs may need assistance when taking the STS. This assistance takes the form of test variations, accommodations, or modifications. All students in these categories may have test administration directions simplified or clarified.

All eligible students may have test variations, if these variations are regularly used in the classroom. They also must be allowed to use the accommodations and modifications that are specified in each student's IEP or Section 504 plan. These accommodations and/or modifications must match the one(s) used for classroom work throughout the year.

The purpose of test variations, accommodations, and modifications for the STS is to enable the students to take the assessments, not to give them an advantage over other students or to artificially inflate their scores. Accommodations change the way the test is given but do not change what is tested. Modifications fundamentally change what is being tested and may interfere with the construct being measured. Scores for students tested with modifications are counted as far below basic on the STAR summary reports, regardless of the scale scores obtained.

Test variations, accommodations, and modifications for the statewide assessments, including the STAR Program, are defined as follows:

**Category 1: Test Variations**—Eligible students may have test variations if regularly used in the classroom. For example, students may take a test in a group smaller than the regular testing group or take the test individually. They also may use special lighting, adaptive furniture, or magnifying equipment.

**Category 2: Accommodations**—Eligible students are permitted to take the STS with accommodations specified in their IEP or Section 504 plan for use on the STS or for use

during classroom instruction and assessment. Examples of accommodations are large-print or braille versions of the STS or providing more than one day for a test designed for a single sitting.

**Category 3: Modifications**—Eligible students are permitted to take the STS with modifications specified in the student’s IEP or Section 504 plan for use on the STS or for use during classroom instruction and assessment. Examples of modifications include reading the test aloud to a student taking the RLA test or allowing the use of a calculator by a student to perform computations on the mathematics test.

Appendix 2.C on page 24 presents the 2013 Matrix of Test Variations, Accommodations, and Modifications for Administration of California Statewide Assessments. The matrix provides a complete list of the variations, accommodations, and modifications that were allowed for the STS in 2013.

### Special Services Summaries

The percentage of students using various testing variations, accommodations, and modifications during the 2013 administration of the STS is presented in Appendix 2.D, which starts on page 26. The data are organized into five sections within each table. The first section presents the percentages of students using each accommodation or modification in the total testing population. The results for target and nontarget STS students are presented in the second section, and the results for students in special education and not in special education are presented in the third section. The fourth section presents the results for students enrolled in U.S. schools for less than 12 months and students enrolled in U.S. schools for 12 months or more. The final section presents the results for various categories based on EL program participation. The information within each section is presented for the relevant grades.

### Scores

The STS total test raw scores equal the sum of examinees’ scores on the operational multiple-choice test items.

Total test raw scores for all tests except the STS for Geometry are converted to three-digit scale scores using the post-equating process described starting on page 13; for the STS for Geometry, the score conversion is based on the pre-equating process described on page 14. STS results are reported through the use of these scale scores; the scores range from 150 to 600 for each test. Also reported are performance levels obtained by categorizing the scale score into one of the following levels: far below basic, below basic, basic, proficient, or advanced. Scale scores of 300 and 350 correspond to the cut scores for the basic and proficient performance levels, respectively. The state’s target is for all students to score at the proficient or advanced level.

In addition to scale scores for the total content-area test, performance on the associated reporting clusters is also reported. The subscore or reporting cluster score is obtained by summing an examinee’s scores on the items in each reporting cluster. That information is reported in terms of a percent-correct score.

Detailed descriptions of STS scores are found in Chapter 7, which starts on page 158.

## Aggregation Procedures

In order to provide meaningful results to the stakeholders, STS scores for a given grade and content area are aggregated at the school, independently testing charter school, district, county, and state levels. The aggregated scores are generated for both individual students and demographic subgroups. The following sections describe the summary results of individual and demographic subgroup STS scores aggregated at the state level.

Please note that aggregation is performed on valid scores only, which are cases where examinees met all of the following criteria:

1. Met attemptedness criteria.
2. Did not have a parental exemption.
3. Did not miss any part of the test due to illness or medical emergency.
4. Took the STS as a designated English learner.
5. Identified, in the case of the end-of-course Algebra I or Geometry tests, the particular test taken.
6. Did not test out of level (grade inappropriate).

### Individual Scores

Table 7.1 through Table 7.3, starting on page 160 in Chapter 7, offer summary statistics for individual scores aggregated at the state level, describing overall student performance on each STS for the total, target, and nontarget STS student populations respectively. Included in the tables are the means and standard deviations (SDs) of student scores expressed in terms of both raw scores and scale scores and the raw score means and standard deviations expressed as percentages of the total raw score points in each test. Table 7.4 on page 162 presents the percentages of STS target students in each performance level.

### Demographic Subgroup Scores

Statistics summarizing STS student performance by content area and grade for selected groups of students are provided in Table 7.B.1 through Table 7.B.36, starting on page 172 in Appendix 7.B, for overall and target STS students, respectively. In these tables, students are grouped by demographic characteristics, including gender, country of origin, economic status, length of enrollment in U.S. schools, EL program participation, and need for special education services. The tables show the numbers of students with valid scores in each group, scale score means and standard deviations, and percent in a performance level, as well as mean percent-correct scores for each reporting cluster for each demographic group. Table 7.5 on page 163 provides definitions for the demographic groups included in the tables.

## Equating

### Post-equating

The STS—except for the STS for Geometry—are equated to a reference form using a common-item nonequivalent groups design and methods based on item response theory (IRT) (Hambleton & Swaminathan, 1985). The “base” or “reference” calibrations for the STS were established by calibrating samples of item response data from a specific administration. Doing so established a scale to which subsequent item calibrations could be linked. The 2013 item parameter estimates were placed on the reference scale using a set of linking items selected from the 2012 forms and readministered in 2013.

For RLA and mathematics in grades two through four, the reference scales were established in 2009 and were based on the spring 2009 operational administration. For RLA and mathematics in grades five through seven, the reference scales were established in 2010 and were based on the spring 2010 operational administration. For RLA in grades eight through eleven and EOC Algebra I and Geometry, reference scales were established in 2011 and were based on the spring 2011 operational administration.

The procedure used for equating the STS involves three steps: item calibration, item scaling, and production of scoring tables. Each of those steps, as described below, was applied to all STS.

### **Pre-equating**

During the 2013 administration, pre-equating is conducted for Geometry due to the small sample size at the time of equating. Based on the sample invariant property of item response theory (IRT), all the item parameter estimates are placed on the reference scale in their previous administrations through the post-equating procedure described above. Item parameters derived in such a manner can be used to create raw-score-to-scale-score conversion tables prior to test administration.

For the 2013 administration, the conversion table for Geometry is generated using the IRT procedure described later in the scoring table production section. The item parameters used for scoring table production are scaled item parameters based on FIA samples of the most recent administration that includes that item.

### **Calibration**

To obtain item calibrations, a proprietary version of the PARSCALE program is used. The estimation process is constrained by setting a common discrimination value for all items equal to  $1.0 / 1.7$  (or 0.588) and by setting the lower asymptote for all multiple-choice items to zero. The resulting estimation is equivalent to the Rasch model for multiple-choice items. This approach is in line with the current CST equating and scaling procedures. For the purpose of equating, only the operational items are calibrated for each test.

The PARSCALE calibrations are run in two stages following procedures used with other ETS testing programs. In the first stage, estimation imposes normal constraints on the updated prior-ability distribution. The estimates resulting from this first stage are used as starting values for a second PARSCALE run, in which the subject prior distribution is updated after each expectation maximization (EM) cycle with no constraints. For both stages, the metric of the scale is controlled by the constant discrimination parameters.

### **Scaling**

Calibration results of the 2013 items are linked to the previously obtained reference scale estimates using linking items and the Stocking and Lord (1983) procedure. In the case of the one-parameter model calibrations, this procedure is equivalent to setting the mean of the new item parameter estimates for the linking set equal to the mean of the previously scaled estimates. As noted earlier, the linking set is a collection of items in a current test form that also appeared in last year's form and was scaled at that time.

The linking process is carried out iteratively by inspecting differences between the transformed new and old (reference) estimates for the linking items and removing items for which the item difficulty estimates changed significantly. Items with large weighted root-mean-square differences (WRMSDs) between item characteristic curves (ICCs) based on

the old and new difficulty estimates were removed from the linking set. The differences are calculated using the following formula:

$$WRMSD = \sqrt{\sum_{j=1}^{n_g} w_j [P_n(\theta_j) - P_r(\theta_j)]^2} \quad (2.1)$$

where,

abilities are grouped into intervals of 0.005 ranging from  $-3.0$  to  $3.0$ ,

$n_g$  is the number of intervals/groups,

$\theta_j$  is the mean of the ability estimates that fall in interval  $j$ ,

$w_j$  is a weight equal to the proportion of estimated abilities from the transformed new form in interval  $j$ ,

$P_n(\theta_j)$  is the probability of correct response for the transformed new form item at ability  $\theta_j$ , and

$P_r(\theta_j)$  is the probability of correct response for the old (reference) form item at ability  $\theta_j$ .

Based on established procedures, any linking items for which the WRMSD was greater than 0.125 were eliminated from the linking set. This criterion has produced reasonable results over time in similar equating work done with other testing programs at ETS.

### Scoring Table Production

Once the new item calibrations for each test are transformed to the base scale, IRT procedures are used to transform the new form number-correct scores (raw scores) to their corresponding ability (theta). The ability estimates can then be transformed to scale scores through linear transformation.

The procedure is based on the relationship between raw scores and ability (theta). For the STS, which consists entirely of  $n$  multiple-choice items, this is the well-known relationship defined in Lord (1980; equations 4–5):

$$\xi(\theta) = \sum_{i=1}^n P_i(\theta) \quad (2.2)$$

where,

$P_i(\theta)$  is the probability of a correct response to item  $i$  at ability  $\theta$ , and

$\xi(\theta)$  is the corresponding true score.

For each integer score  $\xi_n$  on the new form, the procedure is used to first solve for the corresponding ability estimate using equation 2.2. The ability estimates are then expressed in the reporting scale metric by applying linear transformation with the appropriate slope and intercept, using equation 2.3:

$$ScaleScore = Intercept + Slope \times \theta \quad (2.3)$$

The slope and intercept for each STS were developed from the base forms, which are the 2008 operational forms for grades two through four, the 2009 operational forms for the grades five through seven grade-level tests, and the 2011 operational forms for the grades eight through eleven RLA, Algebra I, and Geometry tests using equations 2.4 and 2.5:

$$\text{Slope} = \frac{350 - 300}{\theta_{\text{proficient}} - \theta_{\text{basic}}} \quad (2.4)$$

$$\text{Intercept} = 350 - \theta_{\text{proficient}} \times \left( \frac{350 - 300}{\theta_{\text{proficient}} - \theta_{\text{basic}}} \right) \quad (2.5)$$

where,

$\theta$  represents student ability that corresponds to a raw score,

$\theta_{\text{proficient}}$  represents theta cut score for proficient on the base scale, and

$\theta_{\text{basic}}$  represents theta cut score for basic on the base scale.

Complete raw-score-to-scale-score conversion tables for the 2013 STS are presented in Table 8.D.27 through Table 8.D.35 in Appendix 8.D, starting on page 301. The raw scores and corresponding transformed scale scores are also listed in those tables.

For all of the 2013 STS, scale scores were adjusted at both ends of the scale so that the minimum reported scale score was 150 and the maximum reported scale score was 600. Raw scores of zero and perfect raw scores were assigned scale scores of 150 and 600, respectively.

The scale-score ranges defining the various performance levels are presented in Table 2.1.

**Table 2.1 Scale-Score Ranges for Performance Levels**

Content Area	STS *	Far Below Basic	Below Basic	Basic	Proficient	Advanced
Reading/Language Arts	2	150 – 241	242 – 299	300 – 349	350 – 385	386 – 600
	3	150 – 250	251 – 299	300 – 349	350 – 392	393 – 600
	4	150 – 255	256 – 299	300 – 349	350 – 386	387 – 600
	5	150 – 270	271 – 299	300 – 349	350 – 400	401 – 600
	6	150 – 259	260 – 299	300 – 349	350 – 400	401 – 600
	7	150 – 255	256 – 299	300 – 349	350 – 398	399 – 600
	8	150 – 247	248 – 299	300 – 349	350 – 400	401 – 600
	9	150 – 247	248 – 299	300 – 349	350 – 395	396 – 600
	10	150 – 239	240 – 299	300 – 349	350 – 393	394 – 600
	11	150 – 234	235 – 299	300 – 349	350 – 396	397 – 600
	Mathematics	2	150 – 216	217 – 299	300 – 349	350 – 416	417 – 600
3		150 – 228	229 – 299	300 – 349	350 – 420	421 – 600
4		150 – 242	243 – 299	300 – 349	350 – 419	420 – 600
5		150 – 244	245 – 299	300 – 349	350 – 415	416 – 600
6		150 – 250	251 – 299	300 – 349	350 – 402	403 – 600
7		150 – 256	257 – 299	300 – 349	350 – 414	415 – 600
Algebra I		150 – 269	270 – 299	300 – 349	350 – 397	398 – 600
Geometry	150 – 251	252 – 299	300 – 349	350 – 428	429 – 600	

\* Numbers indicate grade-level tests.

## Equating Samples

For all STS that are post-equated, all target STS students with valid results on the STS are included in the equating samples. No equating sample is necessary for Geometry for the 2013 administration due to the implementation of the pre-equating.

## **Equating the Braille Versions of the STS**

In some cases, it is not possible to translate all of the operational items contained in an STS into braille. This situation requires that a new conversion table be developed for the resulting shortened test. To obtain this table, the shortened test is equated to the full-length operational test using the IRT equating methods described previously. This process ensures that the scaled cut scores established for the full-length test are used to classify students who take the shorter test.

In 2013, all the operational items were translated into braille. Therefore, this process did not apply to the current administration.

## References

- California Department of Education. (2013). *2013 STAR district and test site coordinator manual*. Sacramento, CA. Downloaded from [http://www.startest.org/pdfs/STAR.coord\\_man.2013.pdf](http://www.startest.org/pdfs/STAR.coord_man.2013.pdf)
- Educational Testing Service. (2002). *ETS standards for quality and fairness*. Princeton, NJ: Author.
- Hambleton, R. K., and Swaminathan, H. (1985). *Item response theory: principles and applications*. Boston, MA: Kluwer-Nijhoff.
- Lord, F. M. (1980). *Applications of item response theory to practical testing problems*. Hillside, NJ: Lawrence Erlbaum Associates, Inc.
- Stocking, M. L., and Lord, F. M. (1983). Developing a common metric in item response theory. *Applied Psychological Measurement*, 7, 201–10.

## Appendix 2.A—STS Items and Estimated Time Chart

Standards-based Tests in Spanish	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		
	Total No. of Items	Time																			
<b>Reading/Language Arts</b>		<b>150</b>		<b>150</b>		<b>170</b>															
Part 1	71	50	71	50	81	85	81	85	81	85	81	85	81	85	81	85	81	85	81	85	
Part 2		50		50	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
Part 3—only grades 2 & 3		50		50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Mathematics</b>		<b>150</b>		<b>180</b>		<b>180</b>		<b>180</b>		<b>180</b>											
Part 1	71	50	71	50	71	75	71	75	71	75	71 <sup>1</sup>	75	71 <sup>2</sup>	90	90						
Part 2		50		50	75	75	75	75	75	75	75	75	75	90	90	90	90	90	90	90	90
Part 3—only grades 2 & 3		50		50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

<sup>1</sup> Students in grade seven taking a mathematics STS will take either the STS for Mathematics (Grade 7) or the STS for Algebra I. Item numbers and times are for the STS for Mathematics (Grade 7). Items and estimated times for the STS for Algebra I are listed under grades eight through eleven mathematics.

<sup>2</sup> Eligible students in grades eight through eleven may take the STS for Algebra I or Geometry. Item totals and estimated testing times provided apply to both tests.

## Appendix 2.B—Reporting Clusters

### Reading/Language Arts

#### Reading/Language Arts Standards Test (Grade Two)

##### *Reading*

Word Analysis and Vocabulary Development	22 items
Reading Comprehension	15 items
Literary Response and Analysis	6 items

##### *Writing*

Written Conventions	14 items
Writing Strategies	8 items

#### Reading/Language Arts Standards Test (Grade Three)

##### *Reading*

Word Analysis and Vocabulary Development	20 items
Reading Comprehension	15 items
Literary Response and Analysis	8 items

##### *Writing*

Written Conventions	13 items
Writing Strategies	9 items

#### Reading/Language Arts Standards Test (Grade Four)

##### *Reading*

Word Analysis and Vocabulary Development	18 items
Reading Comprehension	15 items
Literary Response and Analysis	9 items

##### *Writing*

Written Conventions	18 items
Writing Strategies	15 items

#### Reading/Language Arts Standards Test (Grade Five)

##### *Reading*

Word Analysis and Vocabulary Development	14 items
Reading Comprehension	16 items
Literary Response and Analysis	12 items

##### *Writing*

Written Conventions	17 items
Writing Strategies	16 items

#### Reading/Language Arts Standards Test (Grade Six)

##### *Reading*

Word Analysis and Vocabulary Development	13 items
Reading Comprehension	17 items
Literary Response and Analysis	12 items

##### *Writing*

Written Conventions	16 items
Writing Strategies	17 items

**Reading/Language Arts Standards Test (Grade Seven)***Reading*

Word Analysis and Vocabulary Development	11 items
Reading Comprehension	18 items
Literary Response and Analysis	13 items

*Writing*

Written Conventions	16 items
Writing Strategies	17 items

**Reading/Language Arts Standards Test (Grade Eight)***Reading*

Word Analysis and Vocabulary Development	9 items
Reading Comprehension	18 items
Literary Response and Analysis	15 items

*Writing*

Written Conventions	16 items
Writing Strategies	17 items

**Reading/Language Arts Standards Test (Grade Nine)***Reading*

Word Analysis and Vocabulary Development	8 items
Reading Comprehension	18 items
Literary Response and Analysis	16 items

*Writing*

Written Conventions	13 items
Writing Strategies	20 items

**Reading/Language Arts Standards Test (Grade Ten)***Reading*

Word Analysis and Vocabulary Development	8 items
Reading Comprehension	18 items
Literary Response and Analysis	16 items

*Writing*

Written Conventions	13 items
Writing Strategies	20 items

**Reading/Language Arts Standards Test (Grade Eleven)***Reading*

Word Analysis and Vocabulary Development	8 items
Reading Comprehension	19 items
Literary Response and Analysis	17 items

*Writing*

Written Conventions	9 items
Writing Strategies	22 items

## Mathematics

### Mathematics Standards Test (Grade Two)

<i>Number Sense</i>	
Place value, addition, and subtraction	15 items
Multiplication, division, and fractions	23 items
<i>Algebra and Functions</i>	
	6 items
<i>Measurement and Geometry</i>	
	14 items
<i>Statistics, Data Analysis, and Probability</i>	
	7 items

### Mathematics Standards Test (Grade Three)

<i>Number Sense</i>	
Place value, fractions, and decimals	16 items
Addition, subtraction, multiplication, division	16 items
<i>Algebra and Functions</i>	
	12 items
<i>Measurement and Geometry</i>	
	16 items
<i>Statistics, Data Analysis, and Probability</i>	
	5 items

### Mathematics Standards Test (Grade Four)

<i>Number Sense</i>	
Decimals, fractions, and negative numbers	17 items
Operations and factoring	14 items
<i>Algebra and Functions</i>	
	18 items
<i>Measurement and Geometry</i>	
	12 items
<i>Statistics, Data Analysis, and Probability</i>	
	4 items

### Mathematics Standards Test (Grade Five)

<i>Number Sense</i>	
Estimation, percents, and factoring	12 items
Operations with fractions and decimals	17 items
<i>Algebra and Functions</i>	
	17 items
<i>Measurement and Geometry</i>	
	15 items
<i>Statistics, Data Analysis, and Probability</i>	
	4 items

**Mathematics Standards Test (Grade Six)**

<i>Number Sense</i>	
Ratios, proportions, percentages, and negative numbers	15 items
Operations with problem solving with fractions	10 items
<i>Algebra and Functions</i>	19 items
<i>Measurement and Geometry</i>	10 items
<i>Statistics, Data Analysis, and Probability</i>	11 items

**Mathematics Standards Test (Grade Seven)**

<i>Number Sense</i>	
Rational numbers	14 items
Exponents, powers, and roots	8 items
<i>Algebra and Functions</i>	
Quantitative relationships and evaluating expressions	10 items
Multistep problems, graphing, and functions	15 items
<i>Measurement and Geometry</i>	13 items
<i>Statistics, Data Analysis, and Probability</i>	5 items

**Algebra I Standards Test**

<i>Number Properties, Operations, and Linear Equations</i>	
Standards: 1.0–5.0, 24.1–24.3, and 25.1–25.3	17 items
<i>Graphing and Systems of Linear Equations</i>	
Standards: 6.0–9.0	14 items
<i>Quadratics and Polynomials</i>	
Standards: 10.0, 11.0, 14.0, and 19.0–23.0	21 items
<i>Functions and Rational Expressions</i>	
Standards: 12.0, 13.0, and 15.0–18.0	13 items

(Note: Standards 24.0–25.3 are embedded within the 65 items)

**Geometry Standards Test**

<i>Logic and Geometric Proofs</i>	
Standards: 1.0–7.0	23 items
<i>Volume and Area Formulas</i>	
Standards: 8.0–11.0	11 items
<i>Angle Relationships, Constructions, and Lines</i>	
Standards: 12.0–17.0	16 items
<i>Trigonometry</i>	
Standards: 18.0–22.0	15 items

## Appendix 2.C—2013 Test Variations, Accommodations, and Modifications

<b>(1): Test Variation, (2): Accommodation, (3): Modification</b>	
Test administration directions that are simplified or clarified (does not apply to test questions)	ALL
Student marks in test booklet (other than responses) including highlighting	ALL For grades 2 and 3 marks must be removed to avoid scanning interference or transcribed.
Test students in a small group setting	ALL
Extra time on a test within a testing day	ALL
Test individual student separately, provided that a test examiner directly supervises the student	1
Visual magnifying equipment	1
Audio amplification equipment	1
Noise buffers (e.g., individual carrel or study enclosure)	1
Special lighting or acoustics; special or adaptive furniture	1
Colored overlay, mask, or other means to maintain visual attention	1
Manually Coded English (MCE) or American Sign Language (ASL) to present directions for administration (does not apply to test questions)	1
Student marks responses in test booklet and responses are transferred to a scorable answer document by an employee of the school, district, or nonpublic school	2
Multiple-choice question responses dictated orally, or in MCE to a scribe, audio recorder, or speech-to-text converter for selected-response items	2
Assistive device that does not interfere with the independent work of the student on the multiple-choice responses	2
Braille transcriptions provided by the test contractor	2
Large-print versions or test items enlarged (not duplicated) to a font size larger than that used on large print versions	2
Test over more than one day for a test or test part to be administered in a single sitting	2
Supervised breaks within a section of the test	2
Administration of the test at the most beneficial time of day to the student	2
Test administered at home or in hospital by a test examiner	2
MCE or ASL to present test questions and answer options	2 Math
	3 RLA
Test questions and answer options read aloud to student	2 Math
	3 RLA
Calculator on the mathematics tests	3

<b>(1): Test Variation, (2): Accommodation, (3): Modification</b>	
Arithmetic table or formulas (not provided) on the mathematics tests	3
Dictionary	3
Math manipulatives on the mathematics tests	3
Assistive device that interferes with the independent work of the student on the multiple-choice responses	3
Unlisted Accommodation or Modification	Check with CDE prior to use

All = All students may be provided these test variations.

(1): Test Variation = Students may have these testing variations if regularly used in the classroom.

(2): Accommodation = Eligible students shall be permitted to take the examination/test with accommodations if specified in the eligible student’s IEP or Section 504 plan for use on the examination, standardized testing, or for use during classroom instruction and assessment.

(3): Modification = For the STAR Program, eligible students shall be permitted to take the tests with modifications if specified in the eligible student’s IEP or Section 504 plan.

## Appendix 2.D—Special Services Summary Tables

### Notes:

1. To improve clarity of tables presented in this section, the columns with total number of students using each service are labeled with the particular grade or test name for which the services were utilized. For example, the column with a heading of “Grade 2” in Table 2.D.1 presents the number of students using various special services on the STS for RLA in grade two. The column with the heading of “Pct. of Total” in the same table represents the percent of students using a service out of the total number of test-takers.
2. The total number of test-takers is the total of students listed under “Any Accommodation or Modification” and those listed under “No Accommodation or Modification.”
3. The sum of the numbers of students across subgroups may not match exactly to the total testing population due to the fact that only valid codes were chosen to identify these subgroups.

**Table 2.D.1 Special Services Summary for RLA, Grades Two and Three**

Special Services Summary for RLA, Grades Two and Three				
All Students Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	1	0.01%	4	0.04%
C: Dictated responses to a scribe	1	0.01%	1	0.01%
F: Used noninterfering assistive device	0	0.00%	1	0.01%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	4	0.04%
J: Tested over more than one day	7	0.05%	8	0.09%
K: Had supervised breaks	70	0.52%	52	0.58%
L: Administered at most beneficial time of day	26	0.19%	14	0.16%
M: Administered at home or in a hospital	1	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.02%
X: Used an unlisted accommodation	12	0.09%	7	0.08%
Y: Leave blank	2	0.01%	0	0.00%
Z: Examiner read test questions aloud	13	0.10%	10	0.11%
Accommodation or Modification is in Section 504 plan	5	0.04%	1	0.01%
Accommodation or Modification is in IEP	71	0.52%	55	0.62%
<i>Any Accommodation or Modification</i>	89	0.66%	63	0.71%
<i>No Accommodation or Modification</i>	13,464	99.34%	8,866	99.29%
Target Students Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	0	0.00%	1	0.03%
C: Dictated responses to a scribe	0	0.00%	1	0.03%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	1	0.03%
J: Tested over more than one day	1	0.02%	2	0.07%
K: Had supervised breaks	21	0.50%	14	0.46%
L: Administered at most beneficial time of day	7	0.17%	2	0.07%
M: Administered at home or in a hospital	1	0.02%	0	0.00%

<b>Special Services Summary for RLA, Grades Two and Three</b>				
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.07%
X: Used an unlisted accommodation	4	0.10%	0	0.00%
Y: Leave blank	1	0.02%	0	0.00%
Z: Examiner read test questions aloud	5	0.12%	2	0.07%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	19	0.45%	15	0.49%
<i>Any</i> Accommodation or Modification	24	0.57%	16	0.52%
<i>No</i> Accommodation or Modification	4,164	99.43%	3,044	99.48%
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.01%	3	0.05%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	1	0.02%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.03%	3	0.05%
J: Tested over more than one day	6	0.06%	6	0.10%
K: Had supervised breaks	49	0.52%	38	0.65%
L: Administered at most beneficial time of day	19	0.20%	12	0.20%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	8	0.09%	7	0.12%
Y: Leave blank	1	0.01%	0	0.00%
Z: Examiner read test questions aloud	8	0.09%	8	0.14%
Accommodation or Modification is in Section 504 plan	4	0.04%	1	0.02%
Accommodation or Modification is in IEP	52	0.56%	40	0.68%
<i>Any</i> Accommodation or Modification	65	0.69%	47	0.80%
<i>No</i> Accommodation or Modification	9,300	99.31%	5,822	99.20%
<b>Students Not in Special Education</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	1	0.01%
C: Dictated responses to a scribe	1	0.01%	1	0.01%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	0	0.00%
J: Tested over more than one day	4	0.03%	0	0.00%
K: Had supervised breaks	15	0.12%	3	0.04%
L: Administered at most beneficial time of day	7	0.05%	0	0.00%
M: Administered at home or in a hospital	1	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%

<b>Special Services Summary for RLA, Grades Two and Three</b>				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	3	0.02%	0	0.00%
Y: Leave blank	1	0.01%	0	0.00%
Z: Examiner read test questions aloud	4	0.03%	1	0.01%
Accommodation or Modification is in Section 504 plan	5	0.04%	1	0.01%
Accommodation or Modification is in IEP	17	0.13%	4	0.05%
<i>Any</i> Accommodation or Modification	26	0.20%	6	0.07%
<i>No</i> Accommodation or Modification	12,913	99.80%	8,475	99.93%
<b>Students in Special Education</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.16%	3	0.67%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	2	0.33%	4	0.89%
J: Tested over more than one day	3	0.49%	8	1.79%
K: Had supervised breaks	55	8.96%	48	10.74%
L: Administered at most beneficial time of day	19	3.09%	13	2.91%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.45%
X: Used an unlisted accommodation	9	1.47%	7	1.57%
Y: Leave blank	1	0.16%	0	0.00%
Z: Examiner read test questions aloud	9	1.47%	9	2.01%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	54	8.79%	50	11.19%
<i>Any</i> Accommodation or Modification	63	10.26%	56	12.53%
<i>No</i> Accommodation or Modification	551	89.74%	391	87.47%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	1	0.08%
C: Dictated responses to a scribe	0	0.00%	1	0.08%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	1	0.08%
J: Tested over more than one day	0	0.00%	1	0.08%
K: Had supervised breaks	6	0.43%	5	0.38%
L: Administered at most beneficial time of day	0	0.00%	1	0.08%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for RLA, Grades Two and Three</b>				
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	1	0.07%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.21%	6	0.46%
<i>Any</i> Accommodation or Modification	6	0.43%	7	0.54%
<i>No</i> Accommodation or Modification	1,398	99.57%	1,298	99.46%
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.01%	3	0.04%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	1	0.01%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	3	0.04%
J: Tested over more than one day	7	0.06%	7	0.09%
K: Had supervised breaks	64	0.53%	47	0.62%
L: Administered at most beneficial time of day	26	0.21%	13	0.17%
M: Administered at home or in a hospital	1	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.03%
X: Used an unlisted accommodation	12	0.10%	7	0.09%
Y: Leave blank	1	0.01%	0	0.00%
Z: Examiner read test questions aloud	13	0.11%	10	0.13%
Accommodation or Modification is in Section 504 plan	5	0.04%	1	0.01%
Accommodation or Modification is in IEP	68	0.56%	49	0.64%
<i>Any</i> Accommodation or Modification	83	0.68%	56	0.73%
<i>No</i> Accommodation or Modification	12,066	99.32%	7,568	99.27%
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	2	0.04%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	1	0.02%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	3	0.06%
J: Tested over more than one day	1	0.01%	4	0.07%
K: Had supervised breaks	40	0.50%	39	0.73%
L: Administered at most beneficial time of day	15	0.19%	11	0.21%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for RLA, Grades Two and Three</b>				
X: Used an unlisted accommodation	4	0.05%	6	0.11%
Y: Leave blank	1	0.01%	0	0.00%
Z: Examiner read test questions aloud	6	0.08%	8	0.15%
Accommodation or Modification is in Section 504 plan	3	0.04%	1	0.02%
Accommodation or Modification is in IEP	38	0.48%	41	0.76%
<i>Any</i> Accommodation or Modification	50	0.63%	48	0.90%
<i>No</i> Accommodation or Modification	7,910	99.37%	5,314	99.10%
<b>EL Program: ELD Instruction Only</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.39%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	1	0.28%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.28%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.28%	0	0.00%
<i>Any</i> Accommodation or Modification	1	0.28%	1	0.39%
<i>No</i> Accommodation or Modification	352	99.72%	254	99.61%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.36%	1	0.35%
K: Had supervised breaks	3	0.54%	2	0.71%
L: Administered at most beneficial time of day	2	0.36%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for RLA, Grades Two and Three</b>				
X: Used an unlisted accommodation	0	0.00%	1	0.35%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.54%	2	0.71%
<i>Any</i> Accommodation or Modification	3	0.54%	2	0.71%
<i>No</i> Accommodation or Modification	551	99.46%	281	99.29%
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	1	0.04%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	1	0.03%	2	0.08%
K: Had supervised breaks	17	0.50%	10	0.42%
L: Administered at most beneficial time of day	7	0.21%	2	0.08%
M: Administered at home or in a hospital	1	0.03%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.08%
X: Used an unlisted accommodation	4	0.12%	0	0.00%
Y: Leave blank	1	0.03%	0	0.00%
Z: Examiner read test questions aloud	5	0.15%	2	0.08%
Accommodation or Modification is in Section 504 plan	1	0.03%	0	0.00%
Accommodation or Modification is in IEP	17	0.50%	10	0.42%
<i>Any</i> Accommodation or Modification	20	0.59%	10	0.42%
<i>No</i> Accommodation or Modification	3,355	99.41%	2,363	99.58%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.21%	0	0.00%
J: Tested over more than one day	0	0.00%	1	0.21%
K: Had supervised breaks	4	0.85%	1	0.21%
L: Administered at most beneficial time of day	0	0.00%	1	0.21%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for RLA, Grades Two and Three</b>				
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	0.85%	1	0.21%
<i>Any</i> Accommodation or Modification	5	1.07%	1	0.21%
<i>No</i> Accommodation or Modification	464	98.93%	470	99.79%
<b>EL Program: None (EL only)</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	1	2.50%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	2.50%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	1	2.50%	0	0.00%
<i>No</i> Accommodation or Modification	39	97.50%	35	100.00%

**Table 2.D.2 Special Services Summary for RLA, Grades Four and Five**

<b>Special Services Summary for RLA, Grades Four and Five</b>				
<b>All Students Tested</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	2	0.04%	0	0.00%
C: Dictated responses to a scribe	1	0.02%	0	0.00%
F: Used noninterfering assistive device	1	0.02%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.02%	0	0.00%
J: Tested over more than one day	11	0.21%	17	0.46%
K: Had supervised breaks	37	0.70%	43	1.16%
L: Administered at most beneficial time of day	7	0.13%	8	0.22%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.03%
X: Used an unlisted accommodation	9	0.17%	8	0.22%
Y: Leave blank	0	0.00%	1	0.03%
Z: Examiner read test questions aloud	2	0.04%	8	0.22%
Accommodation or Modification is in Section 504 plan	1	0.02%	1	0.03%
Accommodation or Modification is in IEP	41	0.78%	53	1.43%
<i>Any Accommodation or Modification</i>	47	0.89%	58	1.57%
<i>No Accommodation or Modification</i>	5,212	99.11%	3,638	98.43%
<b>Target Students Tested</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.05%	0	0.00%
C: Dictated responses to a scribe	1	0.05%	0	0.00%
F: Used noninterfering assistive device	1	0.05%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.05%	0	0.00%
J: Tested over more than one day	1	0.05%	2	0.12%
K: Had supervised breaks	7	0.34%	6	0.35%
L: Administered at most beneficial time of day	1	0.05%	2	0.12%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	3	0.18%
Y: Leave blank	0	0.00%	1	0.06%
Z: Examiner read test questions aloud	0	0.00%	1	0.06%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	9	0.43%	11	0.64%
<i>Any Accommodation or Modification</i>	11	0.53%	11	0.64%
<i>No Accommodation or Modification</i>	2,069	99.47%	1,703	99.36%

<b>Special Services Summary for RLA, Grades Four and Five</b>				
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.03%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	10	0.31%	15	0.76%
K: Had supervised breaks	30	0.94%	37	1.87%
L: Administered at most beneficial time of day	6	0.19%	6	0.30%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.05%
X: Used an unlisted accommodation	9	0.28%	5	0.25%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.06%	7	0.35%
Accommodation or Modification is in Section 504 plan	1	0.03%	1	0.05%
Accommodation or Modification is in IEP	32	1.01%	42	2.12%
<i>Any Accommodation or Modification</i>	36	1.13%	47	2.37%
<i>No Accommodation or Modification</i>	3,143	98.87%	1,935	97.63%
<b>Students Not in Special Education</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	1	0.02%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.04%	0	0.00%
K: Had supervised breaks	5	0.10%	3	0.09%
L: Administered at most beneficial time of day	1	0.02%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.03%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.03%
Accommodation or Modification is in Section 504 plan	1	0.02%	1	0.03%
Accommodation or Modification is in IEP	4	0.08%	4	0.12%
<i>Any Accommodation or Modification</i>	6	0.12%	5	0.15%
<i>No Accommodation or Modification</i>	4,950	99.88%	3,421	99.85%

<b>Special Services Summary for RLA, Grades Four and Five</b>				
<b>Students in Special Education</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	2	0.66%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.33%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.33%	0	0.00%
J: Tested over more than one day	9	2.98%	17	6.30%
K: Had supervised breaks	32	10.60%	40	14.81%
L: Administered at most beneficial time of day	6	1.99%	8	2.96%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	9	2.98%	8	2.96%
Y: Leave blank	0	0.00%	1	0.37%
Z: Examiner read test questions aloud	2	0.66%	7	2.59%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	37	12.25%	49	18.15%
<i>Any Accommodation or Modification</i>	41	13.58%	53	19.63%
<i>No Accommodation or Modification</i>	261	86.42%	217	80.37%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	1	0.09%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	1	0.09%	2	0.18%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	1	0.09%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.09%	3	0.27%
<i>Any Accommodation or Modification</i>	2	0.17%	3	0.27%
<i>No Accommodation or Modification</i>	1,165	99.83%	1,112	99.73%

<b>Special Services Summary for RLA, Grades Four and Five</b>				
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	2	0.05%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.02%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.02%	0	0.00%
J: Tested over more than one day	11	0.27%	17	0.66%
K: Had supervised breaks	36	0.88%	41	1.59%
L: Administered at most beneficial time of day	7	0.17%	8	0.31%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.04%
X: Used an unlisted accommodation	9	0.22%	8	0.31%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.05%	8	0.31%
Accommodation or Modification is in Section 504 plan	1	0.02%	1	0.04%
Accommodation or Modification is in IEP	40	0.98%	50	1.94%
<i>Any Accommodation or Modification</i>	45	1.10%	55	2.13%
<i>No Accommodation or Modification</i>	4,047	98.90%	2,526	97.87%
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.03%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	5	0.17%	10	0.53%
K: Had supervised breaks	22	0.73%	34	1.81%
L: Administered at most beneficial time of day	4	0.13%	2	0.11%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.05%
X: Used an unlisted accommodation	8	0.26%	5	0.27%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.07%	7	0.37%
Accommodation or Modification is in Section 504 plan	1	0.03%	1	0.05%
Accommodation or Modification is in IEP	25	0.83%	39	2.08%
<i>Any Accommodation or Modification</i>	28	0.93%	44	2.35%
<i>No Accommodation or Modification</i>	2,997	99.07%	1,832	97.65%

<b>Special Services Summary for RLA, Grades Four and Five</b>				
<b>EL Program: ELD Instruction Only</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	1	0.46%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	1	0.46%	0	0.00%
<i>No Accommodation or Modification</i>	218	99.54%	197	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	3	1.52%	5	2.82%
K: Had supervised breaks	5	2.54%	5	2.82%
L: Administered at most beneficial time of day	0	0.00%	4	2.26%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.51%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	2.03%	5	2.82%
<i>Any Accommodation or Modification</i>	5	2.54%	5	2.82%
<i>No Accommodation or Modification</i>	192	97.46%	172	97.18%

<b>Special Services Summary for RLA, Grades Four and Five</b>				
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.07%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.07%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.07%	0	0.00%
J: Tested over more than one day	1	0.07%	2	0.17%
K: Had supervised breaks	6	0.40%	4	0.34%
L: Administered at most beneficial time of day	1	0.07%	2	0.17%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	3	0.25%
Y: Leave blank	0	0.00%	1	0.08%
Z: Examiner read test questions aloud	0	0.00%	1	0.08%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	8	0.53%	9	0.76%
<i>Any Accommodation or Modification</i>	9	0.60%	9	0.76%
<i>No Accommodation or Modification</i>	1,493	99.40%	1,174	99.24%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.83%	0	0.00%
K: Had supervised breaks	4	1.67%	0	0.00%
L: Administered at most beneficial time of day	2	0.83%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	1.67%	0	0.00%
<i>Any Accommodation or Modification</i>	4	1.67%	0	0.00%
<i>No Accommodation or Modification</i>	236	98.33%	186	100.00%

<b>Special Services Summary for RLA, Grades Four and Five</b>				
<b>EL Program: None (EL only)</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	22	100.00%	18	100.00%

**Table 2.D.3 Special Services Summary for RLA, Grades Six and Seven**

<b>Special Services Summary for RLA, Grades Six and Seven</b>				
<b>All Students Tested</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	2	0.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.05%	0	0.00%
J: Tested over more than one day	7	0.32%	0	0.00%
K: Had supervised breaks	21	0.95%	5	0.28%
L: Administered at most beneficial time of day	2	0.09%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	3	0.14%	2	0.11%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.05%	0	0.00%
Accommodation or Modification is in IEP	20	0.91%	5	0.28%
<i>Any Accommodation or Modification</i>	25	1.14%	5	0.28%
<i>No Accommodation or Modification</i>	2,176	98.86%	1,751	99.72%
<b>Target Students Tested</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.07%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	9	0.67%	3	0.22%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.07%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	0.74%	3	0.22%
<i>Any Accommodation or Modification</i>	11	0.81%	3	0.22%
<i>No Accommodation or Modification</i>	1,340	99.19%	1,384	99.78%

<b>Special Services Summary for RLA, Grades Six and Seven</b>				
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.12%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.12%	0	0.00%
J: Tested over more than one day	7	0.82%	0	0.00%
K: Had supervised breaks	12	1.41%	2	0.54%
L: Administered at most beneficial time of day	2	0.24%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.24%	2	0.54%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.12%	0	0.00%
Accommodation or Modification is in IEP	10	1.18%	2	0.54%
<i>Any</i> Accommodation or Modification	14	1.65%	2	0.54%
<i>No</i> Accommodation or Modification	836	98.35%	367	99.46%
<b>Students Not in Special Education</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.05%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.05%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	2	0.10%	1	0.06%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.10%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.14%	1	0.06%
<i>Any</i> Accommodation or Modification	4	0.19%	1	0.06%
<i>No</i> Accommodation or Modification	2,068	99.81%	1,691	99.94%

<b>Special Services Summary for RLA, Grades Six and Seven</b>				
<b>Students in Special Education</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.78%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	7	5.47%	0	0.00%
K: Had supervised breaks	19	14.84%	4	6.45%
L: Administered at most beneficial time of day	2	1.56%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.78%	2	3.23%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.78%	0	0.00%
Accommodation or Modification is in IEP	17	13.28%	4	6.45%
<i>Any Accommodation or Modification</i>	21	16.41%	4	6.45%
<i>No Accommodation or Modification</i>	107	83.59%	58	93.55%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	9	0.85%	3	0.25%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.09%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	0.95%	3	0.25%
<i>Any Accommodation or Modification</i>	11	1.04%	3	0.25%
<i>No Accommodation or Modification</i>	1,044	98.96%	1,174	99.75%

<b>Special Services Summary for RLA, Grades Six and Seven</b>				
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.09%	0	0.00%
J: Tested over more than one day	7	0.61%	0	0.00%
K: Had supervised breaks	12	1.05%	2	0.35%
L: Administered at most beneficial time of day	2	0.17%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.17%	2	0.35%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.09%	0	0.00%
Accommodation or Modification is in IEP	10	0.87%	2	0.35%
<i>Any</i> Accommodation or Modification	14	1.22%	2	0.35%
<i>No</i> Accommodation or Modification	1,132	98.78%	577	99.65%
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.12%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.12%	0	0.00%
J: Tested over more than one day	7	0.82%	0	0.00%
K: Had supervised breaks	21	2.46%	2	0.45%
L: Administered at most beneficial time of day	1	0.12%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.23%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.12%	0	0.00%
Accommodation or Modification is in IEP	19	2.23%	2	0.45%
<i>Any</i> Accommodation or Modification	22	2.58%	2	0.45%
<i>No</i> Accommodation or Modification	830	97.42%	438	99.55%

<b>Special Services Summary for RLA, Grades Six and Seven</b>				
<b>EL Program: ELD Instruction Only</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	1	0.49%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	1	0.49%	0	0.00%
<i>No Accommodation or Modification</i>	202	99.51%	145	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	2	1.27%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.92%	2	1.27%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.92%	2	1.27%
<i>Any Accommodation or Modification</i>	1	0.92%	2	1.27%
<i>No Accommodation or Modification</i>	108	99.08%	156	98.73%

<b>Special Services Summary for RLA, Grades Six and Seven</b>				
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.11%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.12%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	1	0.12%
<i>Any</i> Accommodation or Modification	1	0.11%	1	0.12%
<i>No</i> Accommodation or Modification	886	99.89%	806	99.88%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	95	100.00%	95	100.00%

<b>Special Services Summary for RLA, Grades Six and Seven</b>				
<b>EL Program: None (EL only)</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	15	100.00%	45	100.00%

**Table 2.D.4 Special Services Summary for RLA, Grades Eight and Nine**

<b>Special Services Summary for RLA, Grades Eight and Nine</b>				
<b>All Students Tested</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.07%	0	0.00%
J: Tested over more than one day	1	0.07%	0	0.00%
K: Had supervised breaks	1	0.07%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.07%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.07%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.07%	0	0.00%
Accommodation or Modification is in IEP	3	0.22%	0	0.00%
<i>Any Accommodation or Modification</i>	4	0.29%	0	0.00%
<i>No Accommodation or Modification</i>	1,360	99.71%	2,250	100.00%
<b>Target Students Tested</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.09%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.09%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.09%	0	0.00%
Accommodation or Modification is in IEP	1	0.09%	0	0.00%
<i>Any Accommodation or Modification</i>	2	0.18%	0	0.00%
<i>No Accommodation or Modification</i>	1,089	99.82%	2,074	100.00%

<b>Special Services Summary for RLA, Grades Eight and Nine</b>				
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	1	0.37%	0	0.00%
K: Had supervised breaks	1	0.37%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.37%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	2	0.73%	0	0.00%
<i>Any</i> Accommodation or Modification	2	0.73%	0	0.00%
<i>No</i> Accommodation or Modification	271	99.27%	176	100.00%
<b>Students Not in Special Education</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.08%	0	0.00%
J: Tested over more than one day	1	0.08%	0	0.00%
K: Had supervised breaks	1	0.08%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.08%	0	0.00%
Accommodation or Modification is in IEP	1	0.08%	0	0.00%
<i>Any</i> Accommodation or Modification	2	0.15%	0	0.00%
<i>No</i> Accommodation or Modification	1,315	99.85%	2,241	100.00%

<b>Special Services Summary for RLA, Grades Eight and Nine</b>				
<b>Students in Special Education</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	2.13%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	2.13%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	2	4.26%	0	0.00%
<i>Any</i> Accommodation or Modification	2	4.26%	0	0.00%
<i>No</i> Accommodation or Modification	45	95.74%	9	100.00%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.11%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.11%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.11%	0	0.00%
Accommodation or Modification is in IEP	1	0.11%	0	0.00%
<i>Any</i> Accommodation or Modification	2	0.22%	0	0.00%
<i>No</i> Accommodation or Modification	904	99.78%	1,929	100.00%

<b>Special Services Summary for RLA, Grades Eight and Nine</b>				
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	1	0.22%	0	0.00%
K: Had supervised breaks	1	0.22%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.22%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	2	0.44%	0	0.00%
<i>Any</i> Accommodation or Modification	2	0.44%	0	0.00%
<i>No</i> Accommodation or Modification	456	99.56%	321	100.00%
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	1	0.31%	0	0.00%
K: Had supervised breaks	1	0.31%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.31%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.31%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.92%	0	0.00%
<i>Any</i> Accommodation or Modification	3	0.92%	0	0.00%
<i>No</i> Accommodation or Modification	323	99.08%	472	100.00%

<b>Special Services Summary for RLA, Grades Eight and Nine</b>				
<b>EL Program: ELD Instruction Only</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	115	100.00%	202	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	105	100.00%	297	100.00%

<b>Special Services Summary for RLA, Grades Eight and Nine</b>				
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	664	100.00%	1,038	100.00%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	1.28%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	1.28%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	1	1.28%	0	0.00%
<i>No</i> Accommodation or Modification	77	98.72%	34	100.00%

<b>Special Services Summary for RLA, Grades Eight and Nine</b>				
<b>EL Program: None (EL only)</b>	<b>Grade 8</b>	<b>Pct. of Total</b>	<b>Grade 9</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	35	100.00%	62	100.00%

**Table 2.D.5 Special Services Summary for RLA, Grades Ten and Eleven**

<b>Special Services Summary for RLA, Grades Ten and Eleven</b>				
<b>All Students Tested</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.07%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.07%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.07%	0	0.00%
<i>Any Accommodation or Modification</i>	2	0.15%	0	0.00%
<i>No Accommodation or Modification</i>	1,366	99.85%	804	100.00%
<b>Target Students Tested</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.08%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.08%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.08%	0	0.00%
<i>Any Accommodation or Modification</i>	2	0.16%	0	0.00%
<i>No Accommodation or Modification</i>	1,251	99.84%	740	100.00%

<b>Special Services Summary for RLA, Grades Ten and Eleven</b>				
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	115	100.00%	64	100.00%
<b>Students Not in Special Education</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	1,357	100.00%	802	100.00%

<b>Special Services Summary for RLA, Grades Ten and Eleven</b>				
<b>Students in Special Education</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	9.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	9.09%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	9.09%	0	0.00%
<i>Any Accommodation or Modification</i>	2	18.18%	0	0.00%
<i>No Accommodation or Modification</i>	9	81.82%	2	100.00%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.09%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.09%	0	0.00%
<i>Any Accommodation or Modification</i>	2	0.18%	0	0.00%
<i>No Accommodation or Modification</i>	1,133	99.82%	640	100.00%

<b>Special Services Summary for RLA, Grades Ten and Eleven</b>				
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	233	100.00%	164	100.00%
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	314	100.00%	155	100.00%

<b>Special Services Summary for RLA, Grades Ten and Eleven</b>				
<b>EL Program: ELD Instruction Only</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	146	100.00%	108	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	79	100.00%	42	100.00%

<b>Special Services Summary for RLA, Grades Ten and Eleven</b>				
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.15%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.15%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.15%	0	0.00%
<i>Any</i> Accommodation or Modification	2	0.30%	0	0.00%
<i>No</i> Accommodation or Modification	672	99.70%	418	100.00%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	50	100.00%	24	100.00%

<b>Special Services Summary for RLA, Grades Ten and Eleven</b>				
<b>EL Program: None (EL only)</b>	<b>Grade 10</b>	<b>Pct. of Total</b>	<b>Grade 11</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	39	100.00%	20	100.00%

**Table 2.D.6 Special Services Summary for Mathematics, Grades Two and Three**

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
<b>All Students Tested</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.01%	4	0.05%
C: Dictated responses to a scribe	1	0.01%	1	0.01%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	4	0.05%
J: Tested over more than one day	9	0.07%	8	0.09%
K: Had supervised breaks	65	0.48%	46	0.52%
L: Administered at most beneficial time of day	25	0.19%	14	0.16%
M: Administered at home or in a hospital	1	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	2	0.01%	5	0.06%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.02%
X: Used an unlisted accommodation	9	0.07%	6	0.07%
Y: Leave blank	1	0.01%	0	0.00%
Z: Examiner read test questions aloud	26	0.19%	27	0.31%
Accommodation or Modification is in Section 504 plan	5	0.04%	2	0.02%
Accommodation or Modification is in IEP	70	0.52%	64	0.72%
<i>Any</i> Accommodation or Modification	88	0.66%	74	0.84%
<i>No</i> Accommodation or Modification	13,340	99.34%	8,769	99.16%
<b>Target Students Tested</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	1	0.03%
C: Dictated responses to a scribe	0	0.00%	1	0.03%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	1	0.03%
J: Tested over more than one day	1	0.02%	2	0.07%
K: Had supervised breaks	19	0.46%	10	0.33%
L: Administered at most beneficial time of day	7	0.17%	2	0.07%
M: Administered at home or in a hospital	1	0.02%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.07%

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
X: Used an unlisted accommodation	4	0.10%	0	0.00%
Y: Leave blank	1	0.02%	0	0.00%
Z: Examiner read test questions aloud	12	0.29%	3	0.10%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	20	0.48%	14	0.46%
<i>Any Accommodation or Modification</i>	24	0.58%	15	0.49%
<i>No Accommodation or Modification</i>	4,104	99.42%	3,053	99.51%
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.01%	3	0.05%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.03%	3	0.05%
J: Tested over more than one day	8	0.09%	6	0.10%
K: Had supervised breaks	46	0.49%	36	0.62%
L: Administered at most beneficial time of day	18	0.19%	12	0.21%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	2	0.02%	5	0.09%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	5	0.05%	6	0.10%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	14	0.15%	24	0.42%
Accommodation or Modification is in Section 504 plan	4	0.04%	2	0.03%
Accommodation or Modification is in IEP	50	0.54%	50	0.87%
<i>Any Accommodation or Modification</i>	64	0.69%	59	1.02%
<i>No Accommodation or Modification</i>	9,236	99.31%	5,716	98.98%
<b>Students Not in Special Education</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	1	0.01%
C: Dictated responses to a scribe	1	0.01%	1	0.01%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	0	0.00%
J: Tested over more than one day	6	0.05%	0	0.00%
K: Had supervised breaks	14	0.11%	3	0.04%
L: Administered at most beneficial time of day	7	0.05%	0	0.00%
M: Administered at home or in a hospital	1	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.01%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	9	0.07%	4	0.05%
Accommodation or Modification is in Section 504 plan	5	0.04%	2	0.02%
Accommodation or Modification is in IEP	17	0.13%	4	0.05%
<i>Any Accommodation or Modification</i>	27	0.21%	8	0.10%
<i>No Accommodation or Modification</i>	12,790	99.79%	8,393	99.90%
<b>Students in Special Education</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.16%	3	0.68%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	2	0.33%	4	0.91%
J: Tested over more than one day	3	0.49%	8	1.81%
K: Had supervised breaks	51	8.35%	42	9.52%
L: Administered at most beneficial time of day	18	2.95%	13	2.95%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	2	0.33%	5	1.13%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.45%
X: Used an unlisted accommodation	8	1.31%	6	1.36%
Y: Leave blank	1	0.16%	0	0.00%
Z: Examiner read test questions aloud	17	2.78%	23	5.22%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	53	8.67%	59	13.38%
<i>Any Accommodation or Modification</i>	61	9.98%	65	14.74%
<i>No Accommodation or Modification</i>	550	90.02%	376	85.26%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	2	0.16%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.08%
F: Used noninterfering assistive device	0	0.00%	1	0.08%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	1	0.08%
K: Had supervised breaks	0	0.00%	1	0.08%
L: Administered at most beneficial time of day	5	0.36%	5	0.38%

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
M: Administered at home or in a hospital	0	0.00%	1	0.08%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.07%	0	0.00%
Accommodation or Modification is in Section 504 plan	2	0.14%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	3	0.21%	6	0.46%
<i>No</i> Accommodation or Modification	6	0.43%	7	0.54%
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.01%	3	0.04%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	3	0.04%
J: Tested over more than one day	9	0.07%	7	0.09%
K: Had supervised breaks	60	0.50%	41	0.54%
L: Administered at most beneficial time of day	25	0.21%	13	0.17%
M: Administered at home or in a hospital	1	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	2	0.02%	5	0.07%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.03%
X: Used an unlisted accommodation	9	0.07%	6	0.08%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	24	0.20%	27	0.36%
Accommodation or Modification is in Section 504 plan	5	0.04%	2	0.03%
Accommodation or Modification is in IEP	67	0.56%	58	0.77%
<i>Any</i> Accommodation or Modification	82	0.68%	67	0.89%
<i>No</i> Accommodation or Modification	11,943	99.32%	7,469	99.11%

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	2	0.04%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	3	0.06%
J: Tested over more than one day	3	0.04%	4	0.07%
K: Had supervised breaks	39	0.49%	38	0.71%
L: Administered at most beneficial time of day	14	0.18%	11	0.21%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	2	0.03%	5	0.09%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.03%	5	0.09%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	12	0.15%	23	0.43%
Accommodation or Modification is in Section 504 plan	3	0.04%	2	0.04%
Accommodation or Modification is in IEP	39	0.49%	51	0.95%
<i>Any Accommodation or Modification</i>	52	0.65%	60	1.12%
<i>No Accommodation or Modification</i>	7,902	99.35%	5,284	98.88%
<b>EL Program: ELD Instruction Only</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.39%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	1	0.28%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.28%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.28%	0	0.00%
<i>Any</i> Accommodation or Modification	1	0.28%	1	0.39%
<i>No</i> Accommodation or Modification	350	99.72%	253	99.61%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.36%	1	0.35%
K: Had supervised breaks	3	0.54%	1	0.35%
L: Administered at most beneficial time of day	2	0.36%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	1	0.35%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.54%	2	0.71%
<i>Any</i> Accommodation or Modification	3	0.54%	2	0.71%
<i>No</i> Accommodation or Modification	549	99.46%	280	99.29%
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	1	0.04%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	1	0.03%	2	0.08%
K: Had supervised breaks	15	0.45%	6	0.25%
L: Administered at most beneficial time of day	7	0.21%	2	0.08%
M: Administered at home or in a hospital	1	0.03%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.08%
X: Used an unlisted accommodation	4	0.12%	0	0.00%
Y: Leave blank	1	0.03%	0	0.00%
Z: Examiner read test questions aloud	12	0.36%	3	0.13%
Accommodation or Modification is in Section 504 plan	1	0.03%	0	0.00%
Accommodation or Modification is in IEP	18	0.54%	9	0.38%
<i>Any</i> Accommodation or Modification	20	0.60%	9	0.38%
<i>No</i> Accommodation or Modification	3,297	99.40%	2,371	99.62%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.24%	0	0.00%
J: Tested over more than one day	0	0.00%	1	0.24%
K: Had supervised breaks	2	0.48%	1	0.24%
L: Administered at most beneficial time of day	0	0.00%	1	0.24%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.24%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	2	0.48%	1	0.24%
<i>Any</i> Accommodation or Modification	3	0.72%	1	0.24%
<i>No</i> Accommodation or Modification	411	99.28%	408	99.76%
<b>EL Program: None (EL only)</b>	<b>Grade 2</b>	<b>Pct. of Total</b>	<b>Grade 3</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	1	2.50%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Two and Three</b>				
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	2.50%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	1	2.50%	0	0.00%
<i>No Accommodation or Modification</i>	39	97.50%	36	100.00%

**Table 2.D.7 Special Services Summary for Mathematics, Grades Four and Five**

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
<b>All Students Tested</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.02%	0	0.00%
C: Dictated responses to a scribe	1	0.02%	0	0.00%
F: Used noninterfering assistive device	1	0.02%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.02%	0	0.00%
J: Tested over more than one day	11	0.21%	17	0.47%
K: Had supervised breaks	33	0.64%	44	1.22%
L: Administered at most beneficial time of day	8	0.16%	8	0.22%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	2	0.04%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.03%
X: Used an unlisted accommodation	7	0.14%	8	0.22%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	12	0.23%	17	0.47%
Accommodation or Modification is in Section 504 plan	1	0.02%	1	0.03%
Accommodation or Modification is in IEP	44	0.85%	56	1.55%
<i>Any Accommodation or Modification</i>	49	0.95%	61	1.69%
<i>No Accommodation or Modification</i>	5,108	99.05%	3,541	98.31%
<b>Target Students Tested</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	1	0.05%	0	0.00%
F: Used noninterfering assistive device	1	0.05%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.05%	0	0.00%
J: Tested over more than one day	1	0.05%	2	0.12%
K: Had supervised breaks	7	0.34%	7	0.41%
L: Administered at most beneficial time of day	1	0.05%	2	0.12%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
X: Used an unlisted accommodation	0	0.00%	3	0.18%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.10%	4	0.23%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	0.48%	12	0.70%
<i>Any</i> Accommodation or Modification	11	0.53%	12	0.70%
<i>No</i> Accommodation or Modification	2,064	99.47%	1,694	99.30%
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.03%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	10	0.32%	15	0.79%
K: Had supervised breaks	26	0.84%	37	1.95%
L: Administered at most beneficial time of day	7	0.23%	6	0.32%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	2	0.06%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.05%
X: Used an unlisted accommodation	7	0.23%	5	0.26%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	10	0.32%	13	0.69%
Accommodation or Modification is in Section 504 plan	1	0.03%	1	0.05%
Accommodation or Modification is in IEP	34	1.10%	44	2.32%
<i>Any</i> Accommodation or Modification	38	1.23%	49	2.58%
<i>No</i> Accommodation or Modification	3,044	98.77%	1,847	97.42%
<b>Students Not in Special Education</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	1	0.02%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.04%	0	0.00%
K: Had supervised breaks	5	0.10%	3	0.09%
L: Administered at most beneficial time of day	1	0.02%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.03%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	2	0.06%
Accommodation or Modification is in Section 504 plan	1	0.02%	1	0.03%
Accommodation or Modification is in IEP	4	0.08%	4	0.12%
<i>Any</i> Accommodation or Modification	6	0.12%	5	0.15%
<i>No</i> Accommodation or Modification	4,851	99.88%	3,331	99.85%
<b>Students in Special Education</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.33%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.33%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.33%	0	0.00%
J: Tested over more than one day	9	3.01%	17	6.39%
K: Had supervised breaks	28	9.36%	41	15.41%
L: Administered at most beneficial time of day	7	2.34%	8	3.01%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	2	0.67%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	7	2.34%	8	3.01%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	12	4.01%	15	5.64%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	40	13.38%	52	19.55%
<i>Any</i> Accommodation or Modification	43	14.38%	56	21.05%
<i>No</i> Accommodation or Modification	256	85.62%	210	78.95%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	1	0.09%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	1	0.09%	3	0.27%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.09%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.09%	4	0.36%
<i>Any Accommodation or Modification</i>	2	0.17%	4	0.36%
<i>No Accommodation or Modification</i>	1,159	99.83%	1,105	99.64%
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.03%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.03%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.03%	0	0.00%
J: Tested over more than one day	11	0.28%	17	0.68%
K: Had supervised breaks	32	0.80%	41	1.64%
L: Administered at most beneficial time of day	8	0.20%	8	0.32%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	2	0.05%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.04%
X: Used an unlisted accommodation	7	0.18%	8	0.32%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	12	0.30%	16	0.64%
Accommodation or Modification is in Section 504 plan	1	0.03%	1	0.04%
Accommodation or Modification is in IEP	43	1.08%	52	2.09%
<i>Any Accommodation or Modification</i>	47	1.18%	57	2.29%
<i>No Accommodation or Modification</i>	3,949	98.82%	2,436	97.71%

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.03%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	5	0.17%	10	0.54%
K: Had supervised breaks	20	0.66%	35	1.88%
L: Administered at most beneficial time of day	5	0.17%	2	0.11%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	2	0.07%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.05%
X: Used an unlisted accommodation	6	0.20%	5	0.27%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	8	0.27%	13	0.70%
Accommodation or Modification is in Section 504 plan	1	0.03%	1	0.05%
Accommodation or Modification is in IEP	29	0.96%	42	2.26%
<i>Any Accommodation or Modification</i>	32	1.06%	47	2.52%
<i>No Accommodation or Modification</i>	2,979	98.94%	1,815	97.48%
<b>EL Program: ELD Instruction Only</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	1	0.45%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
Any Accommodation or Modification	1	0.45%	0	0.00%
No Accommodation or Modification	219	99.55%	195	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	3	1.52%	5	2.84%
K: Had supervised breaks	5	2.54%	5	2.84%
L: Administered at most beneficial time of day	0	0.00%	4	2.27%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.51%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	2.03%	5	2.84%
Any Accommodation or Modification	5	2.54%	5	2.84%
No Accommodation or Modification	192	97.46%	171	97.16%
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.07%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.07%	0	0.00%
J: Tested over more than one day	1	0.07%	2	0.17%
K: Had supervised breaks	6	0.40%	4	0.34%
L: Administered at most beneficial time of day	1	0.07%	2	0.17%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	3	0.25%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.13%	4	0.34%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	9	0.60%	9	0.76%
<i>Any Accommodation or Modification</i>	9	0.60%	9	0.76%
<i>No Accommodation or Modification</i>	1,488	99.40%	1,169	99.24%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	1.20%	0	0.00%
K: Had supervised breaks	2	1.20%	0	0.00%
L: Administered at most beneficial time of day	2	1.20%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	1.20%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	2	1.20%	0	0.00%
<i>Any Accommodation or Modification</i>	2	1.20%	0	0.00%
<i>No Accommodation or Modification</i>	165	98.80%	123	100.00%
<b>EL Program: None (EL only)</b>	<b>Grade 4</b>	<b>Pct. of Total</b>	<b>Grade 5</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Four and Five</b>				
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any</i> Accommodation or Modification	0	0.00%	0	0.00%
<i>No</i> Accommodation or Modification	21	100.00%	18	100.00%

**Table 2.D.8 Special Services Summary for Mathematics, Grades Six and Seven**

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
<b>All Students Tested</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	2	0.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.05%	0	0.00%
J: Tested over more than one day	7	0.33%	0	0.00%
K: Had supervised breaks	21	0.99%	5	0.30%
L: Administered at most beneficial time of day	2	0.09%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	4	0.19%	2	0.12%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.09%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.05%	0	0.00%
Accommodation or Modification is in IEP	22	1.03%	5	0.30%
<i>Any</i> Accommodation or Modification	27	1.27%	5	0.30%
<i>No</i> Accommodation or Modification	2,101	98.73%	1,647	99.70%
<b>Target Students Tested</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.07%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	9	0.67%	3	0.22%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
X: Used an unlisted accommodation	1	0.07%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.07%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	0.75%	3	0.22%
<i>Any Accommodation or Modification</i>	11	0.82%	3	0.22%
<i>No Accommodation or Modification</i>	1,330	99.18%	1,336	99.78%
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.13%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.13%	0	0.00%
J: Tested over more than one day	7	0.89%	0	0.00%
K: Had supervised breaks	12	1.52%	2	0.64%
L: Administered at most beneficial time of day	2	0.25%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	3	0.38%	2	0.64%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.13%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.13%	0	0.00%
Accommodation or Modification is in IEP	12	1.52%	2	0.64%
<i>Any Accommodation or Modification</i>	16	2.03%	2	0.64%
<i>No Accommodation or Modification</i>	771	97.97%	311	99.36%
<b>Students Not in Special Education</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.05%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.05%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	2	0.10%	1	0.06%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.10%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.15%	1	0.06%
<i>Any Accommodation or Modification</i>	4	0.20%	1	0.06%
<i>No Accommodation or Modification</i>	2,003	99.80%	1,591	99.94%
<b>Students in Special Education</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.83%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	7	5.83%	0	0.00%
K: Had supervised breaks	19	15.83%	4	6.90%
L: Administered at most beneficial time of day	2	1.67%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	1.67%	2	3.45%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	1.67%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.83%	0	0.00%
Accommodation or Modification is in IEP	19	15.83%	4	6.90%
<i>Any Accommodation or Modification</i>	23	19.17%	4	6.90%
<i>No Accommodation or Modification</i>	97	80.83%	54	93.10%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.10%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	9	0.86%	3	0.26%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.10%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.10%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	0.95%	3	0.26%
<i>Any</i> Accommodation or Modification	11	1.05%	3	0.26%
<i>No</i> Accommodation or Modification	1,037	98.95%	1,136	99.74%
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.09%	0	0.00%
J: Tested over more than one day	7	0.65%	0	0.00%
K: Had supervised breaks	12	1.11%	2	0.39%
L: Administered at most beneficial time of day	2	0.19%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	3	0.28%	2	0.39%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.09%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.09%	0	0.00%
Accommodation or Modification is in IEP	12	1.11%	2	0.39%
<i>Any</i> Accommodation or Modification	16	1.48%	2	0.39%
<i>No</i> Accommodation or Modification	1,064	98.52%	511	99.61%

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.12%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.12%	0	0.00%
J: Tested over more than one day	7	0.84%	0	0.00%
K: Had supervised breaks	21	2.53%	2	0.49%
L: Administered at most beneficial time of day	1	0.12%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	3	0.36%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.12%	0	0.00%
Accommodation or Modification is in Section 504 plan	1	0.12%	0	0.00%
Accommodation or Modification is in IEP	21	2.53%	2	0.49%
<i>Any Accommodation or Modification</i>	24	2.90%	2	0.49%
<i>No Accommodation or Modification</i>	805	97.10%	409	99.51%
<b>EL Program: ELD Instruction Only</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	1	0.51%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
Any Accommodation or Modification	1	0.51%	0	0.00%
No Accommodation or Modification	195	99.49%	136	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	2	1.30%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.93%	2	1.30%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.93%	2	1.30%
Any Accommodation or Modification	1	0.93%	2	1.30%
No Accommodation or Modification	107	99.07%	152	98.70%
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	1	0.11%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.13%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.11%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	1	0.13%
<i>Any Accommodation or Modification</i>	1	0.11%	1	0.13%
<i>No Accommodation or Modification</i>	881	99.89%	778	99.87%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	58	100.00%	67	100.00%
<b>EL Program: None (EL only)</b>	<b>Grade 6</b>	<b>Pct. of Total</b>	<b>Grade 7</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%

<b>Special Services Summary for Mathematics, Grades Six and Seven</b>				
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	16	100.00%	44	100.00%

**Table 2.D.9 Special Services Summary for Algebra I**

<b>Special Services Summary for Algebra I</b>							
<b>All Students Tested</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	1	0	0	0	1	0.03%
K: Had supervised breaks	0	2	0	0	0	2	0.06%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	0	0	1	0.03%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	1	0	0	0	1	0.03%
Accommodation or Modification is in IEP	0	2	0	0	0	2	0.06%
Any Accommodation or Modification	0	3	0	0	0	3	0.10%
No Accommodation or Modification	23	511	1,457	748	353	3,092	99.90%
<b>Target Students Tested</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	1	0	0	0	1	0.04%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%

Special Services Summary for Algebra I							
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	1	0	0	0	1	0.04%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	1	0	0	0	1	0.04%
No Accommodation or Modification	11	381	1,360	693	325	2,770	99.96%
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	1	0	0	0	1	0.31%
K: Had supervised breaks	0	1	0	0	0	1	0.31%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	0	0	1	0.31%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	2	0	0	0	2	0.62%
Any Accommodation or Modification	0	2	0	0	0	2	0.62%
No Accommodation or Modification	12	130	97	55	28	322	99.38%
<b>Students Not in Special Education</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	1	0	0	0	1	0.03%
K: Had supervised breaks	0	2	0	0	0	2	0.07%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%

<b>Special Services Summary for Algebra I</b>							
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	1	0	0	0	1	0.03%
Accommodation or Modification is in IEP	0	1	0	0	0	1	0.03%
Any Accommodation or Modification	0	2	0	0	0	2	0.07%
No Accommodation or Modification	20	493	1,452	745	351	3,061	99.93%
<b>Students in Special Education</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	0	0	1	3.13%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	1	0	0	0	1	3.13%
Any Accommodation or Modification	0	1	0	0	0	1	3.13%
No Accommodation or Modification	3	18	5	3	2	31	96.88%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	1	0	0	0	1	0.04%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%

<b>Special Services Summary for Algebra I</b>							
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	1	0	0	0	1	0.04%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	1	0	0	0	1	0.04%
<i>No</i> Accommodation or Modification	8	300	1,283	640	301	2,532	99.96%
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	1	0	0	0	1	0.18%
K: Had supervised breaks	0	1	0	0	0	1	0.18%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	0	0	1	0.18%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	2	0	0	0	2	0.36%
<i>Any</i> Accommodation or Modification	0	2	0	0	0	2	0.36%
<i>No</i> Accommodation or Modification	15	211	174	108	52	560	99.64%

<b>Special Services Summary for Algebra I</b>							
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	1	0	0	0	1	0.14%
K: Had supervised breaks	0	1	0	0	0	1	0.14%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	0	0	1	0.14%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	2	0	0	0	2	0.29%
Any Accommodation or Modification	0	2	0	0	0	2	0.29%
No Accommodation or Modification	12	140	301	169	66	688	99.71%
<b>EL Program: ELD Instruction Only</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%

Special Services Summary for Algebra I							
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0	0.00%
No Accommodation or Modification	2	34	118	84	59	297	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0	0.00%
No Accommodation or Modification	1	39	214	51	23	328	100.00%
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	1	0	0	0	1	0.07%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%

Special Services Summary for Algebra I							
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	1	0	0	0	1	0.07%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	1	0	0	0	1	0.07%
No Accommodation or Modification	6	245	652	365	169	1,437	99.93%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0	0.00%
No Accommodation or Modification	2	34	24	19	5	84	100.00%
<b>EL Program: None (EL only)</b>	<b>Grade 7</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0	0.00%

<b>Special Services Summary for Algebra I</b>							
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	0	9	35	21	7	72	100.00%

**Table 2.D.10 Special Services Summary for Geometry**

<b>Special Services Summary for Geometry</b>						
<b>All Students Tested</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	1	0	1	0.24%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	1	0	1	0.24%
Any Accommodation or Modification	0	0	1	0	1	0.24%
No Accommodation or Modification	2	55	210	145	412	99.76%
<b>Target Students Tested</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	1	0	1	0.27%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%

<b>Special Services Summary for Geometry</b>						
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	1	0	1	0.27%
<i>Any</i> Accommodation or Modification	0	0	1	0	1	0.27%
<i>No</i> Accommodation or Modification	0	49	189	127	365	99.73%
<b>Nontarget (Optional) Students Tested</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	2	6	21	18	47	100.00%
<b>Students Not in Special Education</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%

<b>Special Services Summary for Geometry</b>						
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0.00%
No Accommodation or Modification	2	55	209	145	411	100.00%
<b>Students in Special Education</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	1	0	1	50.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	1	0	1	50.00%
Any Accommodation or Modification	0	0	1	0	1	50.00%
No Accommodation or Modification	0	0	1	0	1	50.00%
<b>Students in U.S. Schools &lt; 12 Months</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	1	0	1	0.34%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%

<b>Special Services Summary for Geometry</b>						
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	1	0	1	0.34%
<i>Any</i> Accommodation or Modification	0	0	1	0	1	0.34%
<i>No</i> Accommodation or Modification	0	46	153	93	292	99.66%
<b>Students in U.S. Schools ≥ 12 Months</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	2	9	57	52	120	100.00%

<b>Special Services Summary for Geometry</b>						
<b>EL Program: Primary Language Instruction and ELD and/or SDAIE Instruction</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0.00%
No Accommodation or Modification	0	15	56	27	98	100.00%
<b>EL Program: ELD Instruction Only</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%

<b>Special Services Summary for Geometry</b>						
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0.00%
No Accommodation or Modification	0	6	16	9	31	100.00%
<b>EL Program: SDAIE Instruction Only</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0.00%
No Accommodation or Modification	0	4	10	10	24	100.00%
<b>EL Program: ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	1	0	1	0.47%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%

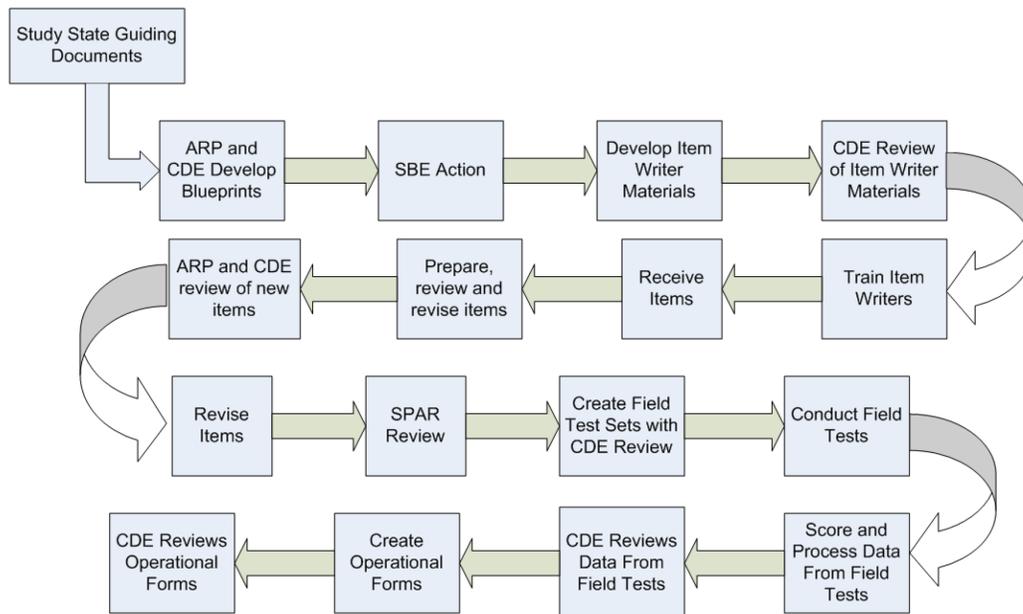
<b>Special Services Summary for Geometry</b>						
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	1	0	1	0.47%
<i>Any</i> Accommodation or Modification	0	0	1	0	1	0.47%
<i>No</i> Accommodation or Modification	0	23	106	83	212	99.53%
<b>EL Program: Other EL Instructional Services</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	2	1	13	5	21	100.00%
<b>EL Program: None (EL only)</b>	<b>Grade 8</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Total</b>	<b>Pct. of Total</b>
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%

<b>Special Services Summary for Geometry</b>						
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	0	2	2	4	8	100.00%

## Chapter 3: Item Development

The STS items are developed to measure California’s content standards and designed to conform to principles of item writing defined by ETS (ETS, 2002). Each STS item goes through a comprehensive development cycle as is described in Figure 3.1, below.

**Figure 3.1 The ETS Item Development Process for the STAR Program**



### Rules for Item Development

ETS maintains and updates item development specifications for each STS and has developed an item utilization plan to guide the development of the items for each content area. Item writing emphasis is determined in consultation with the CDE.

### 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. To achieve this, the item specifications provide detailed information to item writers who are developing items for the STS. The specifications include the following:

- A full statement of each academic content standard, as defined by the SBE (CDE, 2009)
- A description of each content strand
- The expected depth of knowledge (DOK) measured by items written for each standard (coded as 1, 2, or 3; items assigned a DOK of 1 are the least cognitively complex and items assigned a DOK of 3 are the most cognitively complex)
- The homogeneity of the construct measured by each standard
- A description of the kinds of item stems appropriate for multiple-choice items used to assess each standard
- A description of the kinds of distractors that are appropriate for multiple-choice items assessing each standard
- A description of appropriate data representations (such as charts, tables, graphs, or other illustrations) for mathematics items

- The content limits for the standard (such as one or two variables, maximum place values of numbers) for mathematics items
- A description of appropriate reading passages, if applicable, for RLA items
- A description of specific kinds of items to be avoided, if any (for example, items with any negative expressions in the stem, e.g. “Which of the following is NOT...”)

In addition, the RLA item specifications contain guidelines for passages used to assess reading comprehension and writing. These guidelines include the following:

- The acceptable ranges for passage length
- The expected distribution of passages by genre
- Guidelines for readability and cognitive load, using standards agreed to by the CDE and ETS
- Expected use of illustrations
- The target number of items that should follow each reading passage and each writing passage
- Appropriate readability levels for reading passages
- A list of topics to be avoided

### Expected Item Ratio

ETS developed the item utilization plan to continue the development of STS items. The plan includes strategies for developing items that will permit coverage of all appropriate standards for all tests in each content area and at each grade level. ETS test development staff uses this plan to determine the number of items to develop for each content area.

The item utilization plan assumes that the percentage of new items required in an operational form each year matches the development rate listed for each test (shown in Table 3.1); these items remain in the item bank for future use. The plan also declares that an additional five percent of the operational items are likely to be unusable because of normal attrition and notes that there is a need to focus development on “critical” standards, which are standards that are difficult to measure well or for which there are few usable items.

For all content areas, it is assumed that at least 75 percent of all field-tested items are expected to have acceptable field-test statistics and become candidates for use in operational tests.

ETS has developed field-test percentages and item counts that are shown in Table 3.1. The percentages are based on the ratio of the number of items to be field-tested to the number of items in an operational test form.

**Table 3.1 Field-test Percentages for the STS**

Content Area	Grade or Course *	Refresh Rate (Percent)	Percentage of Operational Form to Be Field-Tested	Number of Operational Items per Grade or Course	Number of Items to Be Field-Tested per Grade or Course
Reading/Language Arts	2	20%	111%	65	72
	3	20%	111%	65	72
	4	20%	72%	75	54
	5	15%	48%	75	36
	6	10%	32%	75	24

Content Area	Grade or Course *	Refresh Rate (Percent)	Percentage of Operational Form to Be Field-Tested	Number of Operational Items per Grade or Course	Number of Items to Be Field-Tested per Grade or Course
Reading/Language Arts (cont.)	7	10%	32%	75	24
	8	10%	32%	75	24
	9	15%	40%	75	30
	10	10%	32%	75	24
	11	5%	16%	75	12
Mathematics	2	20%	111%	65	72
	3	20%	111%	65	72
	4	20%	83%	65	54
	5	20%	55%	65	36
	6	10%	37%	65	24
	7	10%	37%	65	24
	Algebra I	15%	46%	65	30
	Geometry	5%	9%	65	6

\* Number indicates grade-level test.

The plan calls for larger numbers of items to be field-tested at the lower grades than at the higher grades since lower grade levels require more items to be developed.

## Selection of Item Writers

### Criteria for Selecting Item Writers

The items for each STS are written by individual item writers who have a thorough understanding of the California content standards. Applicants for item writing are screened by senior ETS content staff. Only those with strong content and teaching backgrounds are approved for inclusion in the training program for item writers. Because most of the participants are current or former California educators, they are particularly knowledgeable about the standards assessed by the STS. All item writers meet the following minimum qualifications:

- Possession of a Bachelor's degree in the relevant content area or in the field of education with special focus on a particular content of interest; an advanced degree in the relevant content area is desirable
- Previous experience in writing items for standards-based assessments, including knowledge of the many considerations that are important when developing items to match state-specific standards
- Previous experience in writing items in the content areas covered by STS grades and/or courses
- Familiarity, understanding, and support of the California content standards
- Current or previous teaching experience in California, when possible
- Bilingual and biliterate in Spanish and English

### Item Review Process

The items selected for each STS undergo an extensive item review process that is designed to provide the best standards-based tests possible. This section summarizes the various reviews performed that ensure the quality of the STS items and test forms.

## Contractor Review

Once the items have been written, ETS employs a series of internal reviews. The reviews establish the criteria used to judge the quality of the item content and are designed to ensure that each item is measuring what it is intended to measure. The internal reviews also examine the overall quality of the test items before they are prepared for presentation to the CDE and the Assessment Review Panels (ARPs). Because of the complexities involved in producing defensible items for high-stakes programs such as the STAR Program, it is essential that many experienced individuals review each item before it is brought to the CDE, the ARPs, and Statewide Pupil Assessment Review (SPAR) panels.

The ETS review process for the STS includes the following:

1. Internal content review
2. Internal editorial review
3. Internal sensitivity review

Throughout this multistep item review process, the lead content-area assessment specialists and development team members continually evaluate the adherence to the rules for item development.

### 1. Internal Content Review

Test items and materials undergo two reviews by the content-area assessment specialists. These assessment specialists make sure that the test items and related materials are in compliance with ETS's written guidelines for clarity, style, accuracy, and appropriateness for California students as well as in compliance with the approved item specifications.

Assessment specialists review each item in terms of the following characteristics:

- Relevance of each item to the purpose of the test
- Match of each item to the item specifications, including DOK
- Match of each item to the principles of quality item writing
- Match of each item to the identified standard or standards
- Difficulty of the item
- Accuracy of the content of the item
- Readability of the item or passage
- Grade-level appropriateness of the item
- Appropriateness of any illustrations, graphs, or figures

Each item is classified with a code for the standard it is intended to measure. The assessment specialists check all items against their classification codes, both to evaluate the correctness of the classification and to ensure that the task posed by the item is relevant to the outcome it is intended to measure. The reviewers may accept the item and classification as written, suggest revisions, or recommend that the item be discarded. These steps occur prior to the CDE's review.

### 2. Internal Editorial Review

After the content-area assessment specialists review each item, a group of specially trained editors reviews each item in preparation for review by the CDE and the ARPs. The editors check items for clarity, correctness of language, appropriateness of language for the grade level assessed, adherence to the style guidelines, and conformity with accepted item-writing practices.

### 3. Internal Sensitivity Review

ETS assessment specialists who are specially trained to identify and eliminate questions that contain content or wording that could be construed to be offensive to or biased against members of specific ethnic, racial, or gender groups, conduct the next level of review. These trained staff members review every item before the CDE and ARP reviews.

The review process promotes a general awareness of and responsiveness to the following:

- Cultural diversity
- Diversity of background, cultural tradition, and viewpoints to be found in the test-taking populations
- Changing roles and attitudes toward various groups
- Role of language in setting and changing attitudes toward various groups
- Contributions of diverse groups (including ethnic and minority groups, individuals with disabilities, and women) to the history and culture of the United States and the achievements of individuals within these groups
- Item accessibility for English-language learners

### Content Expert Reviews

#### Assessment Review Panels

ETS is responsible for working with ARPs as items are developed for the STS. The ARPs are advisory panels to the CDE and ETS and provide guidance on matters related to item development for the STS. The ARPs are responsible for reviewing all newly developed items for alignment to the California content standards. The ARPs also review the items for accuracy of content, clarity of phrasing, and quality. In their examination of test items, the ARPs may raise concerns related to age/grade appropriateness and gender, racial, ethnic, and/or socioeconomic bias.

#### Composition of ARPs

The ARPs comprise current and former teachers, resource specialists, administrators, curricular experts, and other education professionals. Current school staff members must meet minimum qualifications to serve on the STS ARPs, including:

- Three or more years of general teaching experience in grades kindergarten through twelve and in the content areas (reading/language arts or mathematics);
- Bachelor's or higher degree in a grade or content area related to reading/language arts or mathematics;
- Knowledge and experience with the California content standards in reading/language arts or mathematics; and
- Bilingual and biliterate in Spanish and English.

School administrators, district/county content/program specialists, or university educators serving on the STS ARPs must meet the following qualifications:

- Three or more years of experience as a school administrator, district/county content/program specialist, or university instructor in a grade-specific area or area related to reading/language arts or mathematics;
- Bachelor's or higher degree in a grade-specific or subject area related to reading/language arts or mathematics;

- Knowledge of and experience with the California content standards in reading/language arts or mathematics; and
- Bilingual and biliterate in Spanish and English.

Every effort is made to ensure that ARP committees include representation of genders and of the geographic regions and ethnic groups in California. Efforts are also made to ensure representation by members with experience working with the diverse student population that makes up STS-eligible test-takers.

Current ARP members are recruited through an application process. Recommendations are solicited from school districts and county offices of education as well as from CDE and SBE staff. Applications are received and reviewed throughout the year. They are reviewed by the ETS assessment directors, who confirm that the applicant's qualifications meet the specified criteria. Applications that meet the criteria are forwarded to CDE and SBE staff for further review and agreement on ARP membership. Upon approval, the applicant is notified that he or she has been selected to serve on the ARP committee.

Table 3.2 shows the educational qualifications, present occupation, and credentials of the current STS ARP members.

**Table 3.2 STS ARP Member Qualifications, by Content Area and Total**

<b>STS</b>	<b>RLA</b>	<b>Math</b>	<b>Total</b>
<b>Total</b>	<b>18</b>	<b>8</b>	<b>26</b>
<b>Occupation (Members may teach multiple levels.)</b>			
Teacher or Program Specialist, Elementary/Middle School	13	5	18
Teacher or Program Specialist, High School	2	1	3
Teacher or Program Specialist, K–12	4	1	5
University Personnel	3	0	3
Other District Personnel (e.g., Director of Special Services, etc.)	2	2	4
<b>Highest Degree Earned</b>			
Bachelor's Degree	9	4	13
Master's Degree	9	4	13
Doctorate	0	0	0
<b>K–12 Teaching Credentials and Experience (Members may hold multiple credentials.)</b>			
Elementary Teaching (multiple subjects)	13	6	19
Secondary Teaching (single subject)	5	4	9
Special Education	0	0	0
Reading Specialist	0	0	0
Bilingual Education (BCLAD)	9	4	13
Administrative	0	1	1
Other	1	0	1
None (teaching at the university level)	0	0	0

### **ARP Meetings for Review of STS Items**

ETS content-area assessment specialists facilitate the STS ARP meetings. Each meeting begins with a brief training session on how to review items. ETS provides this training, which consists of the following topics:

- Overview of the purpose and scope of the STS
- Overview of the STS’s test design specifications and blueprints
- Analysis of the STS’s item specifications
- Overview of criteria for evaluating multiple-choice test items
- Overview of universally accessible Spanish language used to develop multiple-choice test items
- Review and evaluation of items for bias and sensitivity issues

The criteria for evaluating multiple-choice items include the following:

- Overall technical quality
- Match to the California content standards
- Match to the construct being assessed by the standard
- Difficulty range
- Clarity
- Correctness of the answer
- Plausibility of the distractors
- Bias and sensitivity factors

Criteria also include more global factors, including—for RLA—the appropriateness, difficulty, and readability of reading passages. The ARPs also are trained on how to make recommendations for revising items.

Guidelines for reviewing items are provided by ETS and approved by the CDE. The set of guidelines for reviewing items is summarized below.

Does the item:

- Have one and only one clearly correct answer?
- Measure the content standard?
- Match the test item specifications?
- Align with the construct being measured?
- Test worthwhile concepts or information?
- Reflect good and current teaching practices?
- Have a stem that gives the student a full sense of what the item is asking?
- Avoid unnecessary wordiness?
- Use response options that relate to the stem in the same way?
- Use response options that are plausible and have reasonable misconceptions and errors?
- Avoid having one response option that is markedly different from the others?
- Avoid clues to students, such as absolutes or words repeated in both the stem and options?
- Reflect content that is free of bias against any person or group?

Is the stimulus, if any, for the item:

- Required in order to answer the item?
- Likely to be interesting to students?
- Clearly and correctly labeled?
- Providing all the information needed to answer the item?

As the first step of the item review process, ARP members review a set of items independently and record their individual comments. The next step in the review process is for the group to discuss each item. The content-area assessment specialists facilitate the discussion and record all recommendations in a master item review booklet. Item review binders and other item evaluation materials also identify potential bias and sensitivity factors the ARP will consider as a part of its item reviews.

Depending on CDE approval and the numbers of items still to be reviewed, some ARPs are divided further into smaller groups. These smaller groups are also facilitated by the content-area assessment specialists.

ETS staff maintains the minutes summarizing the review process and then forwards copies of the minutes to the CDE, emphasizing in particular the recommendations of the panel members.

### **Statewide Pupil Assessment Review Panel**

The SPAR panel is responsible for reviewing and approving all achievement test items to be used statewide for the testing of students in California public schools, grades two through eleven. At the SPAR panel meetings, all new items are presented in binders for review. The SPAR panel representatives ensure that the test items conform to the requirements of *EC* Section 60602. If the SPAR panel rejects specific items, the items are marked for rejection in the item bank and excluded from use on field tests. For the SPAR panel meeting, the item development coordinator is available by telephone to respond to any questions during the course of the meeting.

## **Field Testing**

The primary purposes of field testing are to gather information about item performance and to obtain statistics that can be used to assemble operational forms.

### **Stand-alone Field Testing**

For RLA and mathematics in grades two through seven, for each new STS launched, a pool of items was initially constructed by administering the newly developed items in a stand-alone field test. In stand-alone field testing, examinees are recruited to take tests outside of the usual testing circumstances, and the test results are typically not used for instructional or accountability purposes (Schmeiser & Welch, 2006). STS stand-alone field testing in grades two through seven occurred in the fall before the tests became operational in the following spring.

For the STS for RLA in grades eight and above and the EOC mathematics tests, no stand-alone field testing was conducted due to sample size concerns. Item statistics for these tests were obtained from operational administration and embedded field-testing.

### **Embedded Field-test Items**

Although a stand-alone field test is useful for developing a new test because it can produce a large pool of quality items, embedded field testing is generally preferred because the

items being field-tested are seeded throughout the operational test. Variables such as test-taker motivation and test security are the same in embedded field testing as they will be when the field-tested items are later administered operationally. Such field testing involves distributing the items being field-tested within an operational test form. Different forms contain the same operational items and different field-test items. The numbers of embedded field-test items for the STS are shown in Table 3.3.

### Allocation of Students to Forms

The test forms for a given STS are spiraled among students in the state so that a large representative sample of test-takers responds to the field-test items embedded in these forms. The spiraling design ensures that a diverse sample of students takes each field-test item. The students do not know which items are field-test items and which items are operational items; therefore, their motivation is not expected to vary over the two types of items (Patrick & Way, 2008).

### Number of Forms and Sample Sizes

A set of six field-test items is administered on all STS forms. The sets of field-test items differ across forms and the number of forms varies across content area and grade level.

Table 3.3 also shows the number of forms administered for each STS in 2013 and the numbers of examinees included in samples used for the field test or “final” item analyses (FIA) of these forms. The field-test samples constitute the entire population tested and were extracted from the P2 data file, which contains 100 percent of school district data that were received for ETS statistical analysis by approximately August 21, 2013.

**Table 3.3 Summary of Items and Forms Presented in the 2013 STS**

Content Area	STS *	Operational		Field Test		
		No. Items	No. Examinees	No. Forms	No. Items	No. Examinees FIA Sample
Reading/ Language Arts	2	65	8,854	12	72	446–924
	3	65	6,259	12	72	490–543
	4	75	3,903	9	54	382–458
	5	75	2,743	6	36	422–464
	6	75	1,725	4	24	408–433
	7	75	1,414	4	24	340–349
	8	75	1,083	4	24	250–287
	9	75	1,980	5	30	329–445
	10	75	1,177	4	24	288–293
	11	75	669	2	12	325–334
	Mathematics	2	65	8,851	12	72	447–922
3		65	6,243	12	72	494–542
4		65	3,885	9	54	381–459
5		65	2,728	6	36	419–461
6		65	1,695	4	24	401–423
7		65	1,351	4	24	327–330
Algebra I		65	2,687	5	30	467–617
Geometry	65	320	1	6	320	

\* Numbers indicate grade-level tests.

## CDE Data Review

Once items have been field-tested, ETS prepares the items and the associated statistics for review by the CDE. ETS provides items with their statistical data, along with annotated comment sheets, for the CDE to use in its review. ETS conducts an introductory training to highlight any new issues and serve as a statistical refresher. CDE consultants then make decisions about which items should be included in the item bank. ETS psychometric and content staff members are available to CDE consultants throughout this process.

## Item Banking

Once the ARP new item review is complete, the items are placed in the item bank along with their corresponding review information. Items that are accepted by the ARP, SPAR, and CDE are updated to a “field-test ready” status; items that are rejected are updated to a “rejected before use” status. ETS then delivers the items to the CDE by means of a delivery of the California electronic item bank. Subsequent updates to items are based on field-test and operational use of the items. However, only the latest content of the item is in the bank at any given time, along with the administration data from every administration that has included the item.

After field-test or operational use, items that do not meet statistical specifications may be rejected; such items are updated with a status of “rejected for statistical reasons” and remain unavailable in the bank. These statistics are obtained by the psychometrics group at ETS, which carefully evaluates each item for its level of difficulty and discrimination as well as conformance to the IRT Rasch model. Psychometricians also determine if the item functions similarly for various subgroups of interest.

All unavailable items are clearly marked with an availability indicator of “Unavailable,” a reason for rejection as described above, and cause alerts so they are not inadvertently included on subsequent test forms. Statuses and availability are updated programmatically as items are presented for review, accepted or rejected, placed on a form for field-testing, presented for statistical review, and used operationally. All rejection indications are monitored and controlled through ETS’s assessment development processes.

ETS currently provides and maintains the electronic item banks for several of the California assessments, including the California High School Exit Examination (CAHSEE), the California English Language Development Test (CELDT), and STAR (CSTs, CMA, CAPA, and STS). CAHSEE and STAR are currently consolidated in the California item banking system. ETS works with the CDE to obtain the data for assessments, such as the CELDT, under contract with other vendors for inclusion into the item bank. ETS provides the item banking application using the LAN architecture and the relational database management system, SQL 2008, already deployed. ETS provides updated versions of the item bank to the CDE on an ongoing basis and works with the CDE to determine the optimum process if a change in databases is desired.

## References

- California Department of Education. (2009). *California content standards*. Sacramento, CA. Downloaded from <http://www.cde.ca.gov/be/st/ss/>
- Educational Testing Service. (2002). *ETS standards for quality and fairness*. Princeton, NJ: Author.
- Patrick, R., & Way, D. (March, 2008). *Field testing and equating designs for state educational assessments*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
- Schmeiser, C. B., & Welch, C. J. (2006). Test development. In R.L. Brennan (Ed.), *Educational measurement* (4th ed.). Westport, CT: American Council on Education and Praeger Publishers.

## Chapter 4: Test Assembly

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The STS are constructed to measure students' performance relative to California's content standards approved by the SBE. They are also constructed to meet professional standards for validity and reliability. For each STS, the content standards and desired psychometric attributes are used as the basis for assembling the test forms.

### Test Length

The number of items in each STS blueprint was determined by considering the construct that the test is intended to measure and the level of psychometric quality desired. Test length is closely related to the complexity of content to be measured by each test; this content is defined by the California content standards for each grade level and content area. Also considered is the goal that the test be short enough that most of the students complete it in a reasonable amount of time.

The number of operational items on each STS varies across grades and content areas. There are 65 operational items on the STS for RLA in grades two and three and 75 operational items on the STS for RLA in grades four through eleven. The STS grade-level and EOC mathematics tests comprise 65 operational items each.

The total number of items also varies. There are 71 items on the STS for RLA in grades two and three and 81 items on the STS for RLA in grades four through eleven. The STS grade-level and EOC mathematics tests contain 71 items each.

In addition to operational items, a certain number of the items on each test are field-test items. Among the items on each STS, six items are field-test items. For more details on the distribution of items, see Appendix 2.A—STS Items and Time Chart on page 19.

### Rules for Item Selection

#### Test Blueprint

All test items on STS forms are selected to conform to the SBE-approved California content standards and test blueprints. The content blueprints for the STS can be found on the CDE STAR STS Blueprints Web page at <http://www.cde.ca.gov/ta/tg/sr/stsblueprints.asp>.

Although the test blueprints call for the number of items at the individual standard level, scores for the STS items are grouped into subcontent areas (reporting clusters). For each STS reporting cluster, the percentage of questions correctly answered is reported on a student's score report. A list of the STS reporting clusters by test and the number of items in the cluster that appear in each test are provided in Appendix 2.B—Reporting Clusters, which starts on page 20.

#### Content Rules and Item Selection

When developing a new test form for a given grade and content area, test developers follow a number of rules. First and foremost, they select items that meet the blueprint for that grade level and content area. Using an electronic item bank, assessment specialists begin by identifying a number of linking items. These are items that appeared in the previous year's operational administration and are used to equate the test forms administered each year. Linking items are selected to proportionally represent the full blueprint. For example, if 25 percent of all of the items in a test are in the first reporting cluster, then 25 percent of the linking items should come from that cluster. The selected linking items are also reviewed to ensure that specific psychometric criteria are met.

After the linking items are approved, assessment specialists populate the rest of the test form. Their first consideration is the strength of the content and the match of each item to a specified content standard. In selecting items, team members also try to ensure that they include a variety of formats and content and that at least some of the items include graphics for visual interest.

Another consideration is the difficulty of each item. Test developers strive to ensure that there are some easy and some hard items and that there are a number of items in the middle range of difficulty. If items do not meet all content and psychometric criteria, staff reviews the other available items to determine if there are other selections that could improve the match of the test to all of the requirements. If such a match is not attainable, the content team works in conjunction with psychometricians and the CDE to determine which combination of items will best serve the needs of the students taking the test. Chapter 3, starting on page 101, contains further information about this process.

### Psychometric Criteria

The three goals of STS test development are as follows:

1. The test must have desired precision of measurement at all ability levels.
2. The test score must be valid and reliable for the intended population and for the various subgroups of test-takers.
3. The test forms must be comparable across years of administration to ensure the generalizability of scores over time.

In order to achieve these goals, a set of rules is developed that outlines the desired psychometric properties of each STS has been developed. These rules are referred to as statistical targets.

Three types of assembly targets are developed for each STS: the total test target, the linking block target, and (reporting) cluster targets. Although Geometry was pre-equated due to small sample size at the time of equating and thus did not use the linking block for scaling purpose, the linking block target was developed before form construction in case the post-equating was feasible. The test developers and psychometricians work together to design the tests to meet these targets.

### Primary Statistical Targets

The total test target, or primary statistical targets, used for assembling the STS forms for the 2013 administration were the test information function (TIF) and an average point-biserial correlation.

The TIF is the sum of the item information function based on the item response theory (IRT) item parameters. When using an IRT model, the target TIF makes it possible to choose items to produce a test that has the desired precision of measurement at all ability levels.

Due to the unique characteristics of the Rasch IRT model, the information curve conditional on each ability level is determined by item difficulty ( $b$ -values) alone. In this case, the TIF would, therefore, suffice as the target for conditional test difficulty. Although additional item difficulty targets are not imperative when the target TIF is used for form construction, the target mean and standard deviation of item difficulty ( $b$ -values) consistent with the TIF were still provided to test development staff to help with the test construction process. The target  $b$ -value range approximates a minimum proportion-correct value ( $p$ -value) of 0.20 and a maximum  $p$ -value of 0.95 for each test.

The point-biserial correlation describes the relationship between student performance on a dichotomously-scored item and student performance on the test as a whole. It is used as a measure of how well an item discriminates among test-takers who differ in their ability, and it is related to the overall reliability of the test.

The minimum target value for an item point biserial was set at 0.14 for each test. This value approximates a biserial correlation of 0.20.

### Assembly Targets

The target values for the STS are presented in Table 4.1.

**Table 4.1 Statistical Targets for STS Test Assembly**

Content Area	STS *	Target Mean b	Target SD b	Min <i>p</i> -value	Max <i>p</i> -value	Mean Point Biserial	Min Point Biserial
Reading/ Language Arts	2	-0.44	0.91	0.20	0.95	> 0.37	0.14
	3	-0.46	0.88	0.20	0.95	> 0.37	0.14
	4	-0.45	0.71	0.20	0.95	> 0.37	0.14
	5	-0.24	0.65	0.20	0.95	> 0.37	0.14
	6	-0.23	0.72	0.20	0.95	> 0.37	0.14
	7	-0.21	0.80	0.20	0.95	> 0.37	0.14
	8	-0.20	0.74	0.20	0.95	> 0.37	0.14
	9	-0.21	0.77	0.20	0.95	> 0.37	0.14
	10	-0.21	0.79	0.20	0.95	> 0.37	0.14
	11	-0.21	0.70	0.20	0.95	> 0.37	0.14
	Mathematics	2	-0.75	0.94	0.20	0.95	0.39–0.45	0.14
3		-0.58	0.88	0.20	0.95	0.39–0.45	0.14
4		-0.49	0.65	0.20	0.95	0.39–0.45	0.14
5		-0.23	0.65	0.20	0.95	0.39–0.45	0.14
6		-0.25	0.65	0.20	0.95	0.39–0.45	0.14
7		-0.24	0.65	0.20	0.95	0.39–0.45	0.14
Algebra I		-0.27	0.65	0.20	0.95	0.31–0.35	0.14
Geometry	-0.25	0.75	0.20	0.95	0.33–0.37	0.14	

\* Numbers indicate grade-level tests.

The linking block target for each test consists of a proportionally adjusted (for numbers of items) total test target. To aid comparisons, the information curves based on the linking blocks are proportionally adjusted to match the full test length and are presented with the information curves for the total test. The graphs in Figure 4.A.1 and Figure 4.A.2 starting on page 119 show, for each STS, the target TIF and the projected TIF for the total test and the linking set except for the Geometry test, in which the graphs for both the target TIF and the projected TIF of the linking set are not presented because the pre-equating procedure did not require a linking set, and item parameter estimates used were scaled in the previous administrations in which the items were last used.

Target information functions are also used to evaluate the items selected to measure each subscore in the interest of maintaining some consistency in the accuracy of cluster scores across years. Because the clusters include fewer items than the total test, there is always more variability between the target and the information curves constructed for the new form clusters than there is for the total test.

Figure 4.B.1 through Figure 4.B.18, starting on page 123, present the target and projected information curves for the clusters in each STS.

### Projected Psychometric Properties of the Assembled Tests

Prior to the 2013 administration, ETS psychometricians performed a preliminary review of the technical characteristics of the assembled tests. The expected or projected performance of examinees and the overall score reliability were estimated using the item-level statistics available in the California item bank for the selected items. The test reliability was based on Gulliksen's formula (Gulliksen, 1987) for estimating test reliability ( $r_{xx}$ ) from item  $p$ -values and item point-biserial correlations:

$$r_{xx} = \left( \frac{K}{K-1} \right) \left( 1 - \frac{\sum_{g=1}^K s_g^2}{\left( \sum_{g=1}^K r_{xg} s_g \right)^2} \right) \quad (4.1)$$

where,

$K$  is the number of items in the test,

$s_g^2$  is the estimated item variances, i.e.,  $p_g(1-p_g)$ , where  $p_g$  is the item  $p$ -value for item  $g$ ,

$r_{xg}$  is the item point-biserial correlation for item  $g$ , and

$r_{xg} s_g$  is the item reliability index.

In addition, estimated test raw score means were calculated by summing the item  $p$ -values, and estimated test raw score standard deviations were calculated by summing the item reliability indices. Table 4.A.1 on page 118 presents these summary values by content area and grade.

It should be noted that the projected reliabilities in Table 4.A.1 were based on item  $p$ -values and point-biserial correlations. Chapter 8 presents item  $p$ -values, point-biserial correlations, and test reliability estimates based on the data from the 2013 STS administration.

Table 4.A.2 on page 118 shows the mean observed statistics of the items on each STS based on the item-level statistics available in the item bank for the most recent administration of those items. These values can be compared to the target values in Table 4.1.

### Rules for Item Sequence and Layout

The items on test forms are organized and sequenced differently according to the requirements of the content area.

- **RLA**—Because the RLA test is primarily passage-dependent, items are sequenced with their associated reading passages. All passages are high interest and are selected and sequenced based on standards and blueprint requirements. Stand-alone items are placed throughout the form, where appropriate.
- **Mathematics**—The mathematics test forms are sequenced mostly according to reporting cluster; that is, all items from a single reporting cluster are presented together, and then all of the items from the next reporting cluster are presented. The exceptions are

reporting clusters 1 and 2 for grades two through seven and reporting clusters 3 and 4 for grade seven. Reporting clusters 1 and 2 for grades two through seven both test Number Sense; items for these clusters are intertwined and administered together at the beginning of the test. Reporting clusters 3 and 4 for grade seven both test Algebra and Functions; items for these clusters are intertwined as well.

## Reference

Gulliksen, H. (1987). *Theory of mental tests*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

## Appendix 4.A—Technical Characteristics

**Table 4.A.1 Summary of 2013 STS Projected Technical Characteristics**

Content Area	STS *	Number of Op. Items	Mean Raw Score	Std. Dev. of Raw Scores	Reliability
Reading/ Language Arts	2	65	39.46	12.63	0.93
	3	65	36.99	11.63	0.91
	4	75	42.64	14.65	0.93
	5	75	37.69	13.39	0.91
	6	75	38.54	13.10	0.91
	7	75	41.64	13.41	0.92
	8	75	40.50	12.75	0.91
	9	75	41.05	12.32	0.90
	10	75	42.11	11.96	0.89
	11	75	42.30	11.96	0.89
	Mathematics	2	65	43.41	11.90	0.92
3		65	42.29	12.76	0.93
4		65	41.59	12.82	0.93
5		65	36.12	11.72	0.90
6		65	33.62	12.08	0.91
7		65	31.09	10.93	0.89
Algebra I		65	26.05	9.33	0.84
Geometry		65	28.73	10.48	0.88

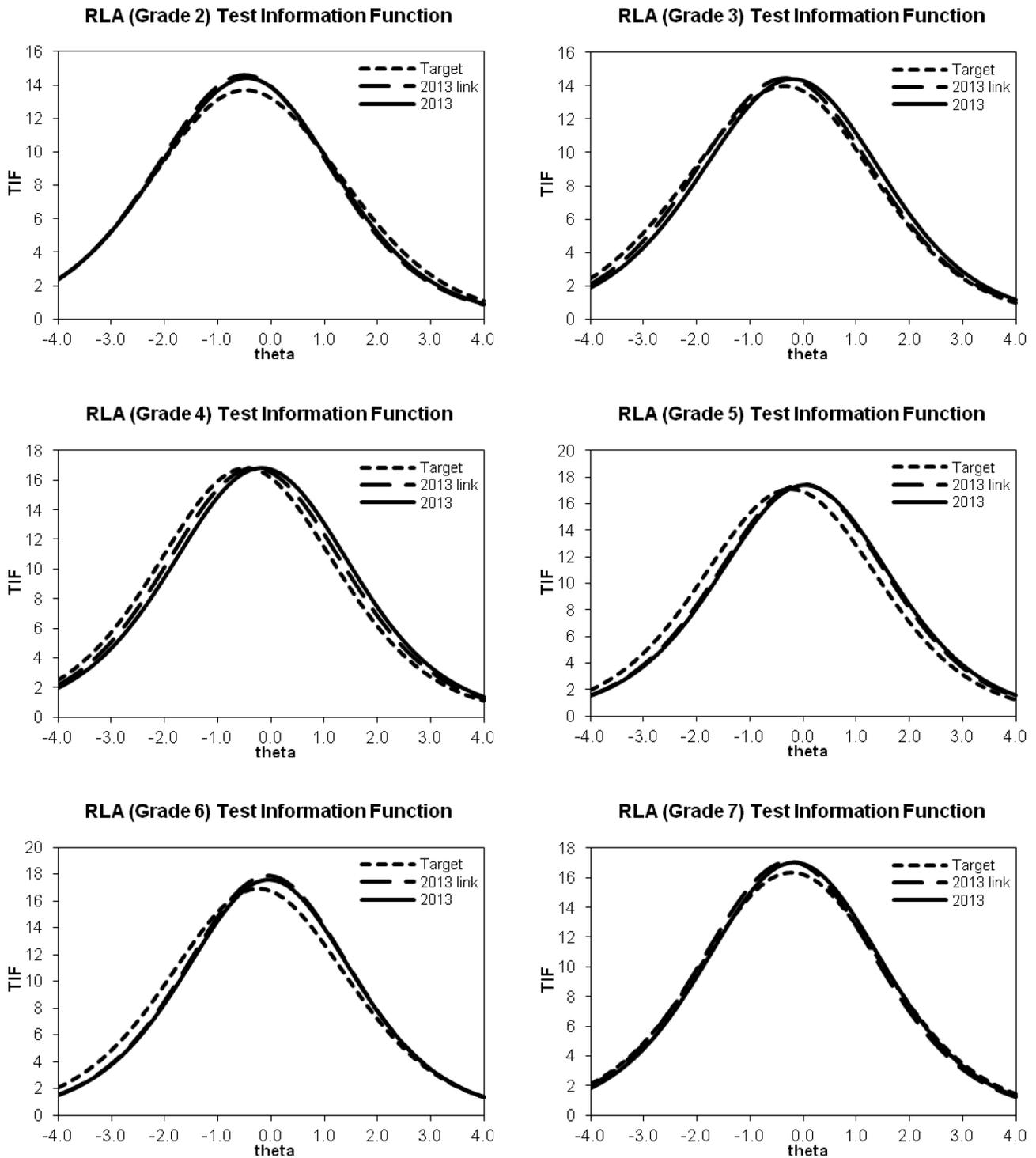
\* Numbers indicate grade-level tests.

**Table 4.A.2 Summary of 2013 STS Projected Statistical Attributes**

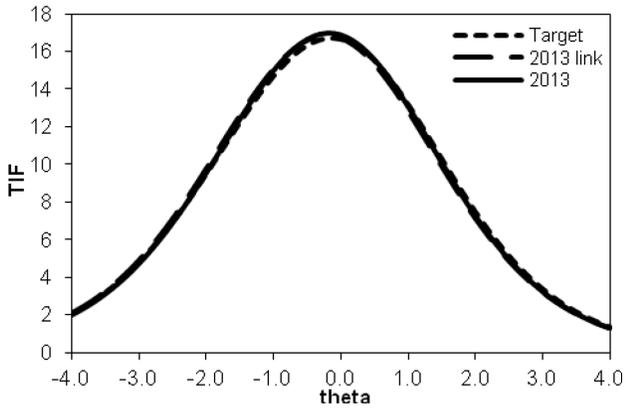
Content Area	STS *	Mean b	SD b	Mean <i>p</i> -value	Min <i>p</i> -value	Max <i>p</i> -value	Mean Point Biserial	Min Point Biserial
Reading/ Language Arts	2	-0.51	0.76	0.61	0.28	0.92	0.42	0.20
	3	-0.24	0.76	0.57	0.30	0.92	0.38	0.20
	4	-0.19	0.70	0.57	0.28	0.89	0.41	0.19
	5	0.02	0.58	0.50	0.25	0.83	0.37	0.20
	6	-0.04	0.46	0.51	0.30	0.75	0.36	0.15
	7	-0.17	0.65	0.56	0.30	0.79	0.37	0.17
	8	-0.21	0.67	0.54	0.26	0.83	0.36	0.19
	9	-0.18	0.73	0.55	0.26	0.84	0.35	0.17
	10	-0.24	0.74	0.56	0.28	0.88	0.34	0.20
	11	-0.19	0.69	0.56	0.22	0.90	0.34	0.08
	Mathematics	2	-0.75	0.80	0.67	0.32	0.92	0.41	0.25
3		-0.58	0.94	0.65	0.26	0.93	0.44	0.23
4		-0.49	0.72	0.64	0.29	0.89	0.43	0.21
5		-0.14	0.63	0.56	0.32	0.87	0.38	0.17
6		-0.06	0.65	0.52	0.23	0.84	0.39	0.25
7		0.17	0.59	0.48	0.20	0.82	0.35	0.18
Algebra I		0.39	0.55	0.40	0.18	0.68	0.30	0.03
Geometry		0.36	0.71	0.44	0.17	0.81	0.34	0.14

\* Numbers indicate grade-level tests.

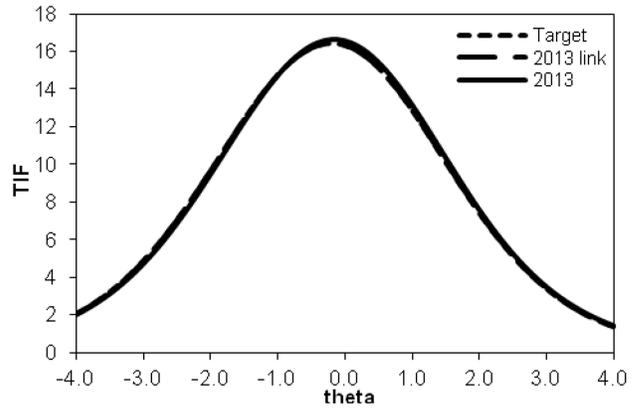
**Figure 4.A.1 Plots of Target Information Function and Projected Information for Total Test and Linking Set for RLA**



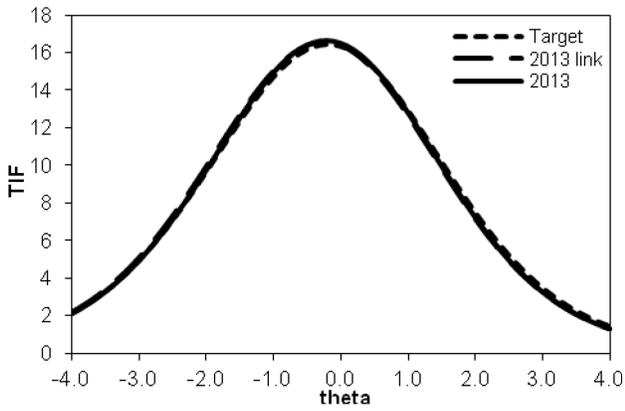
**RLA (Grade 8) Test Information Function**



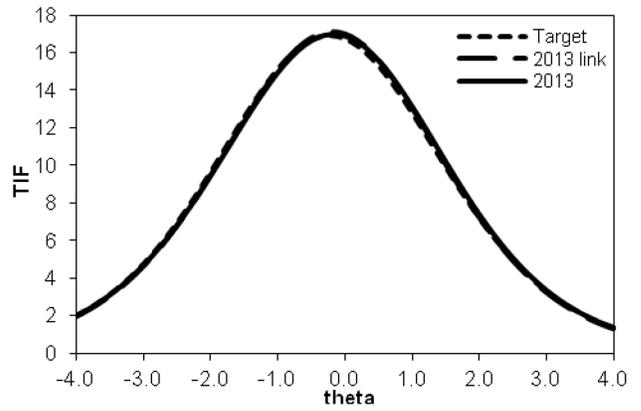
**RLA (Grade 9) Test Information Function**



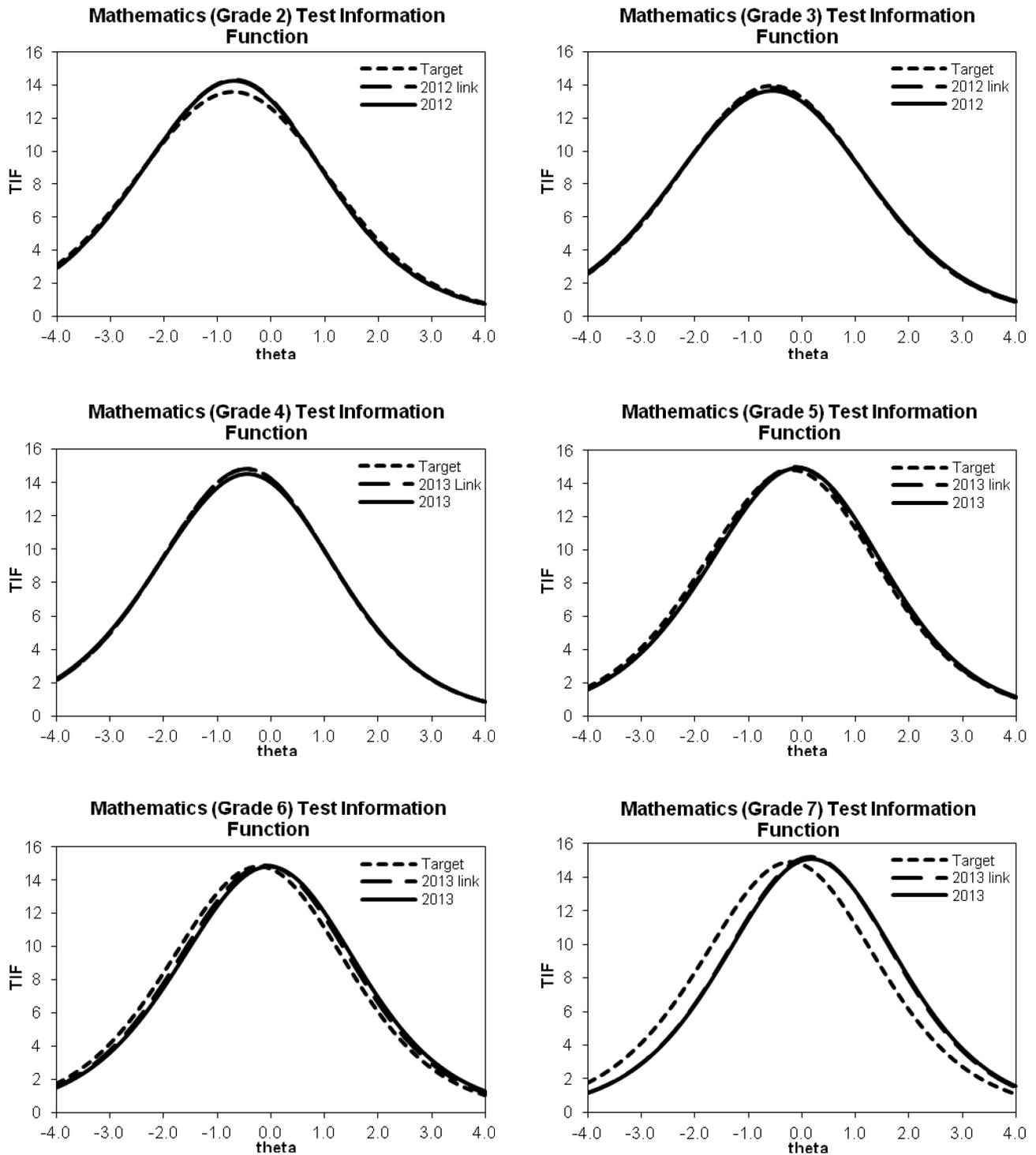
**RLA (Grade 10) Test Information Function**

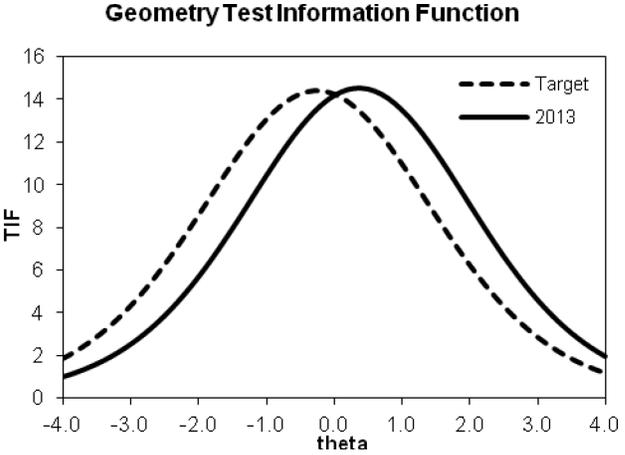
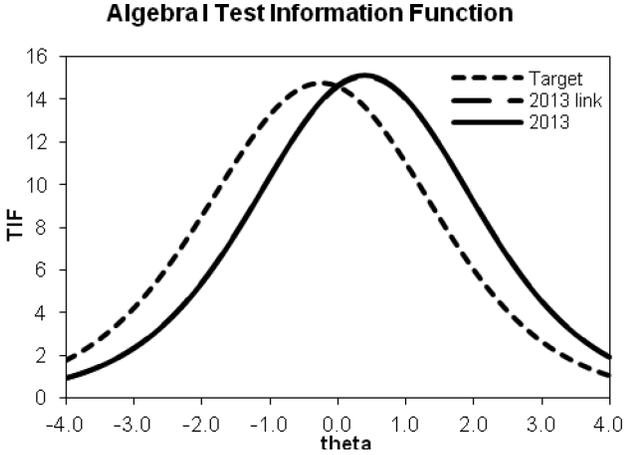


**RLA (Grade 11) Test Information Function**



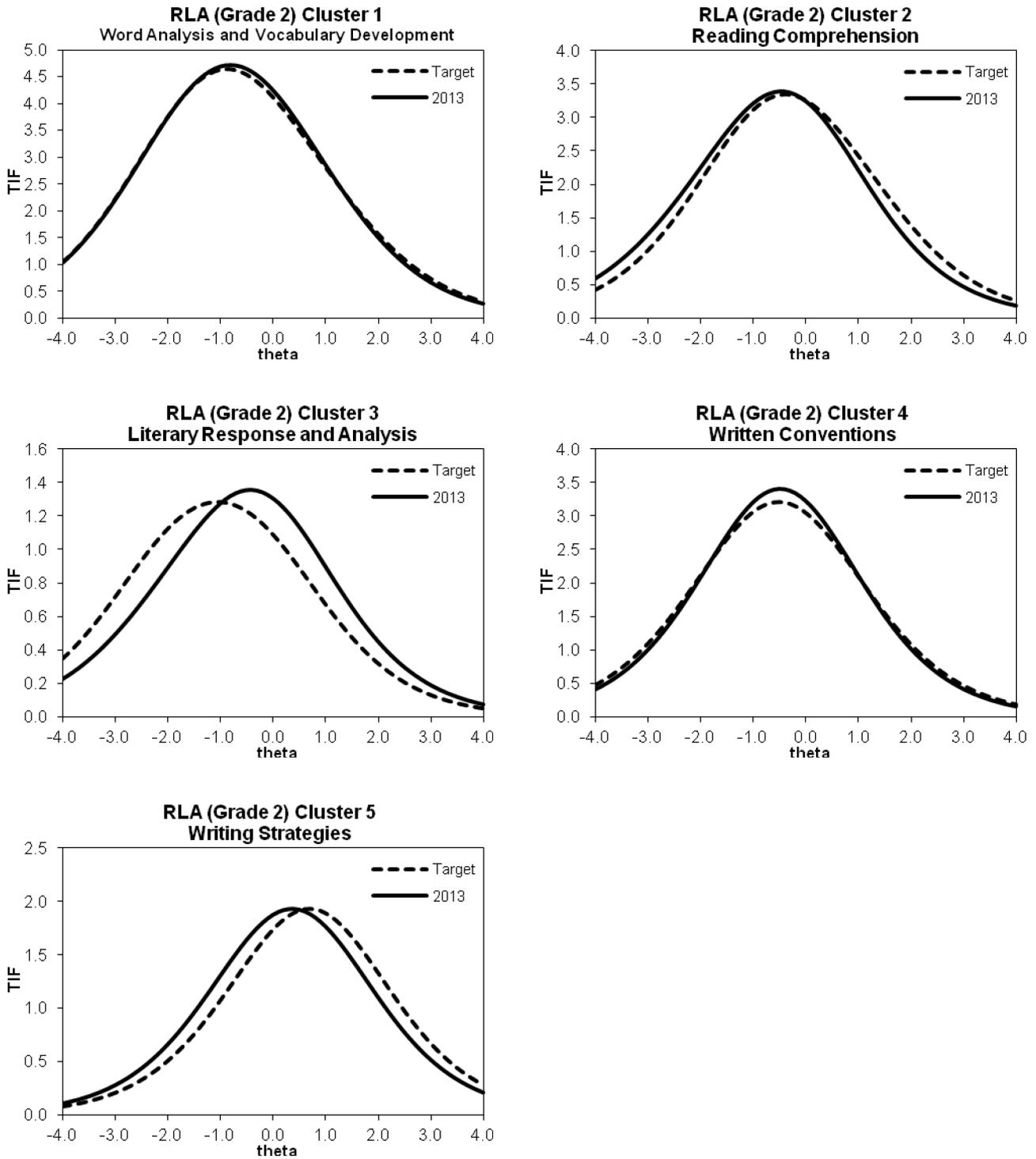
**Figure 4.A.2 Plots of Target Information Function and Projected Information for Total Test and Linking Set for Mathematics**



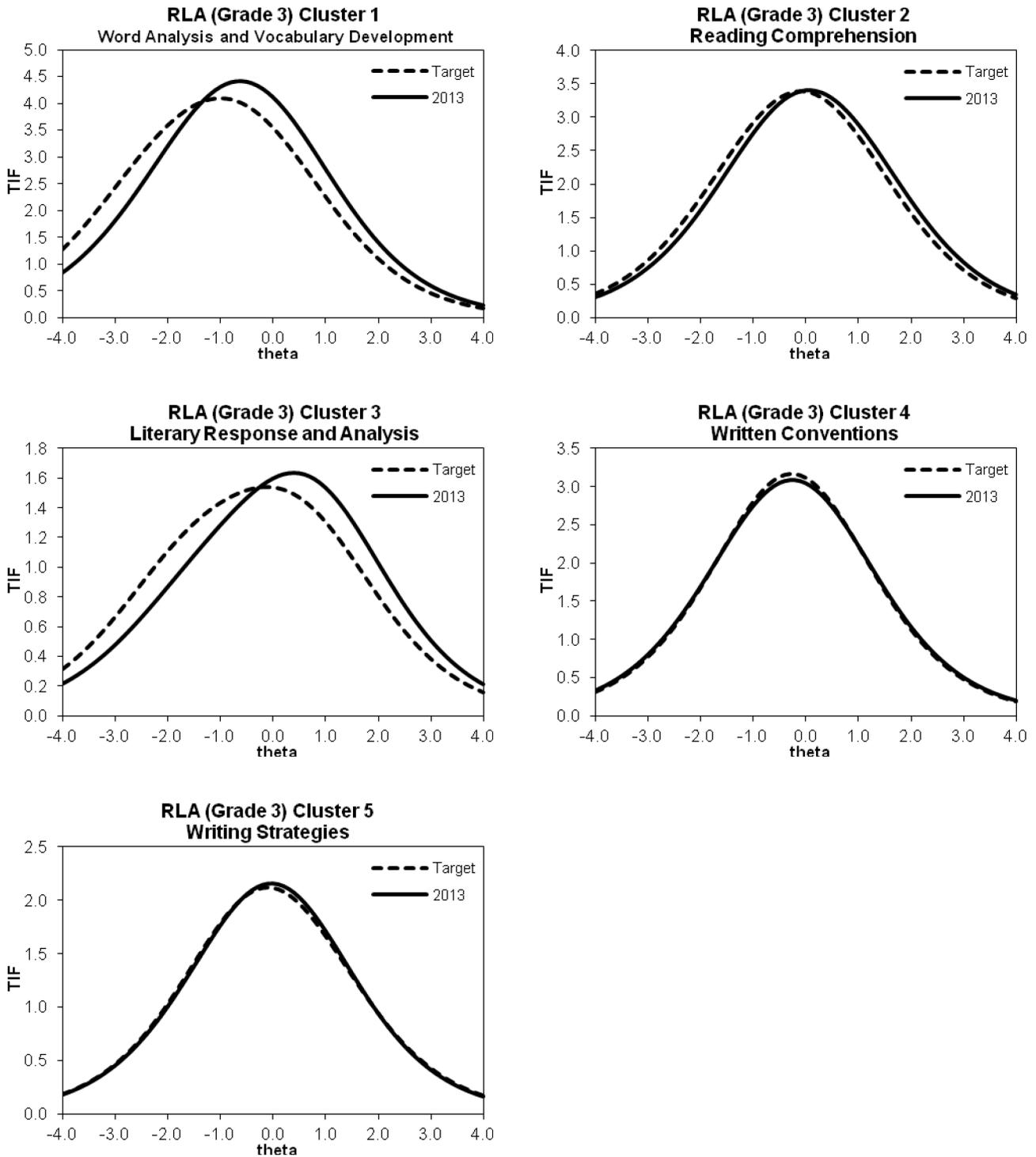


## Appendix 4.B—Cluster Targets

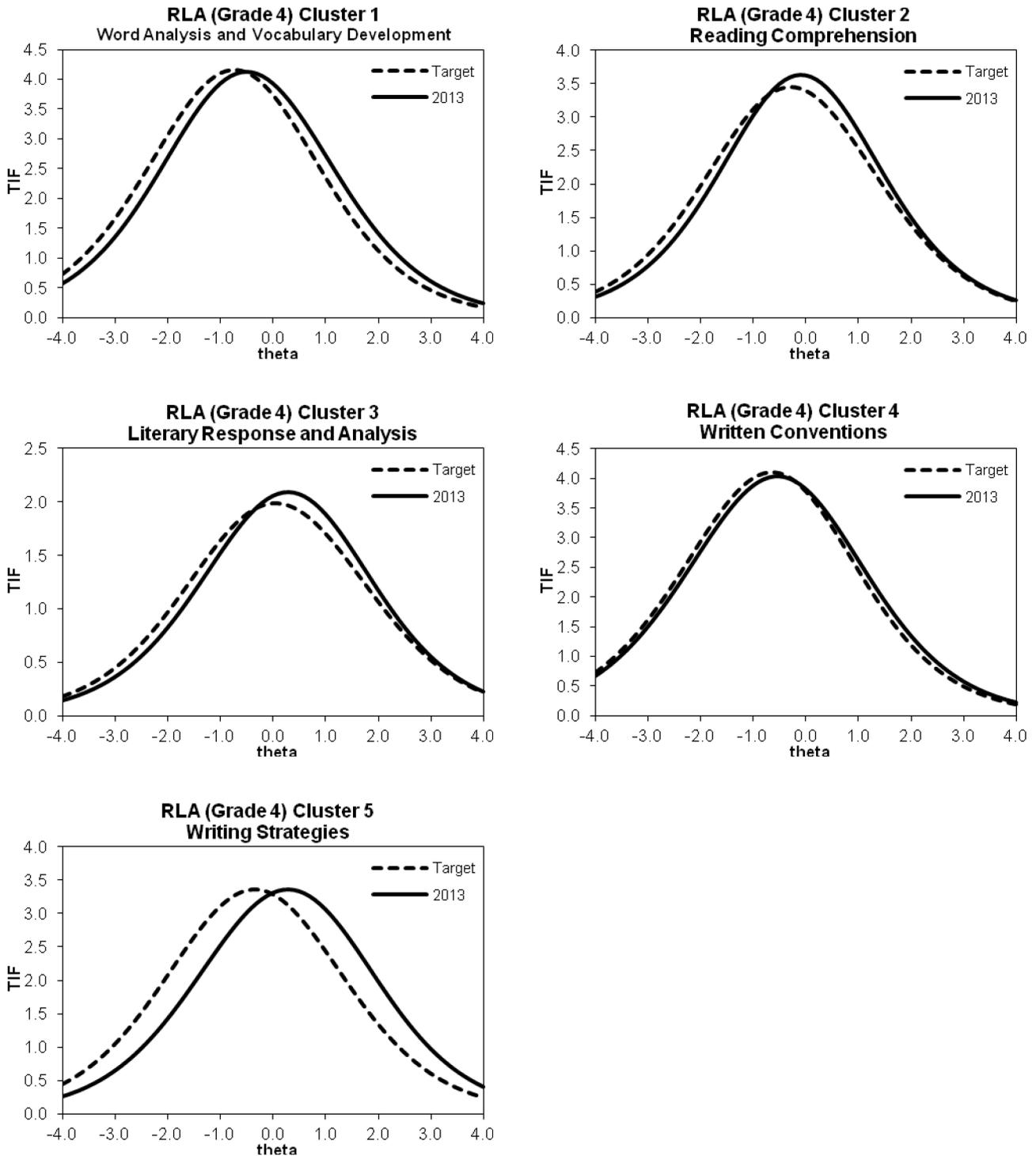
Figure 4.B.1 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Two



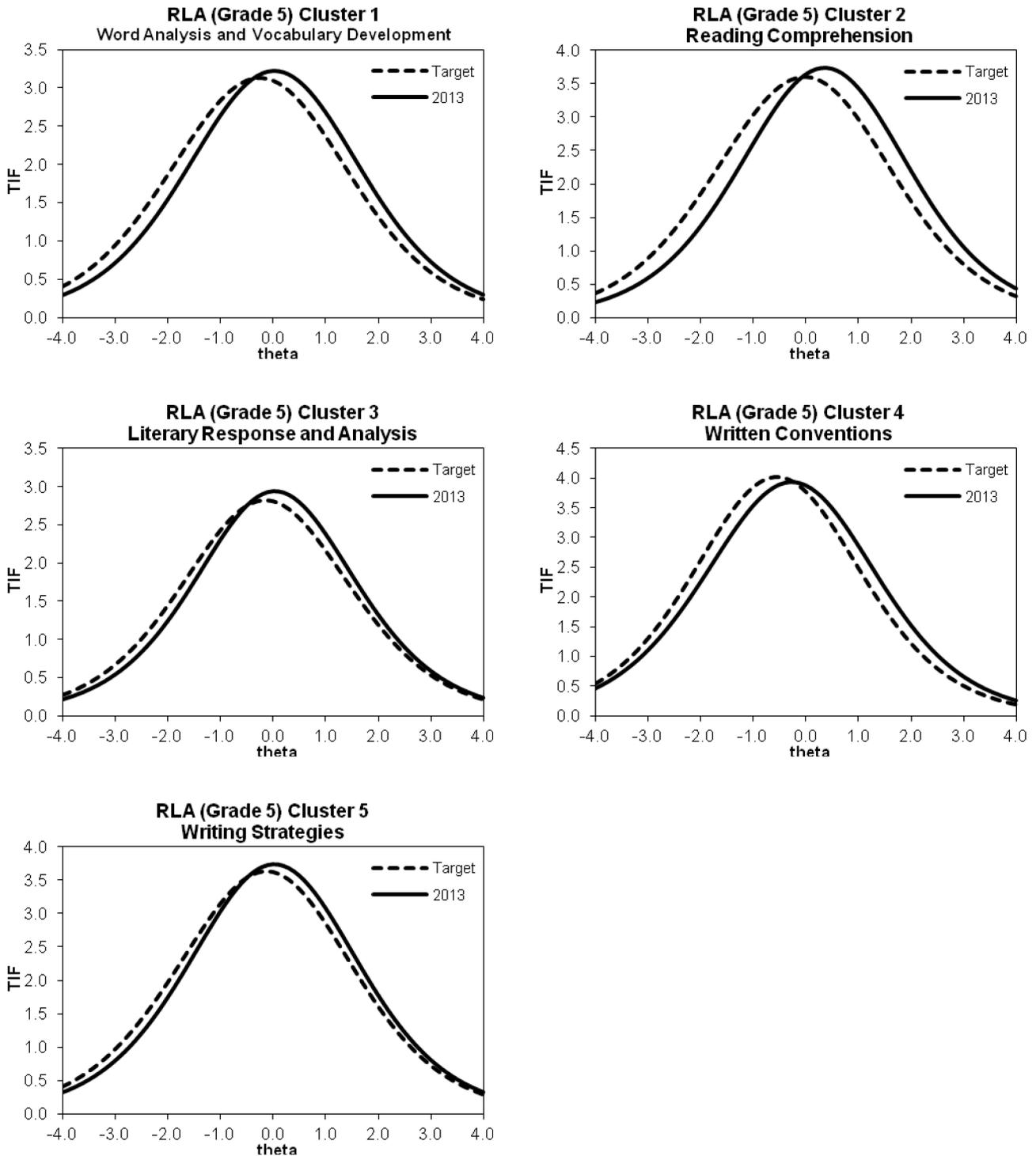
**Figure 4.B.2 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Three**



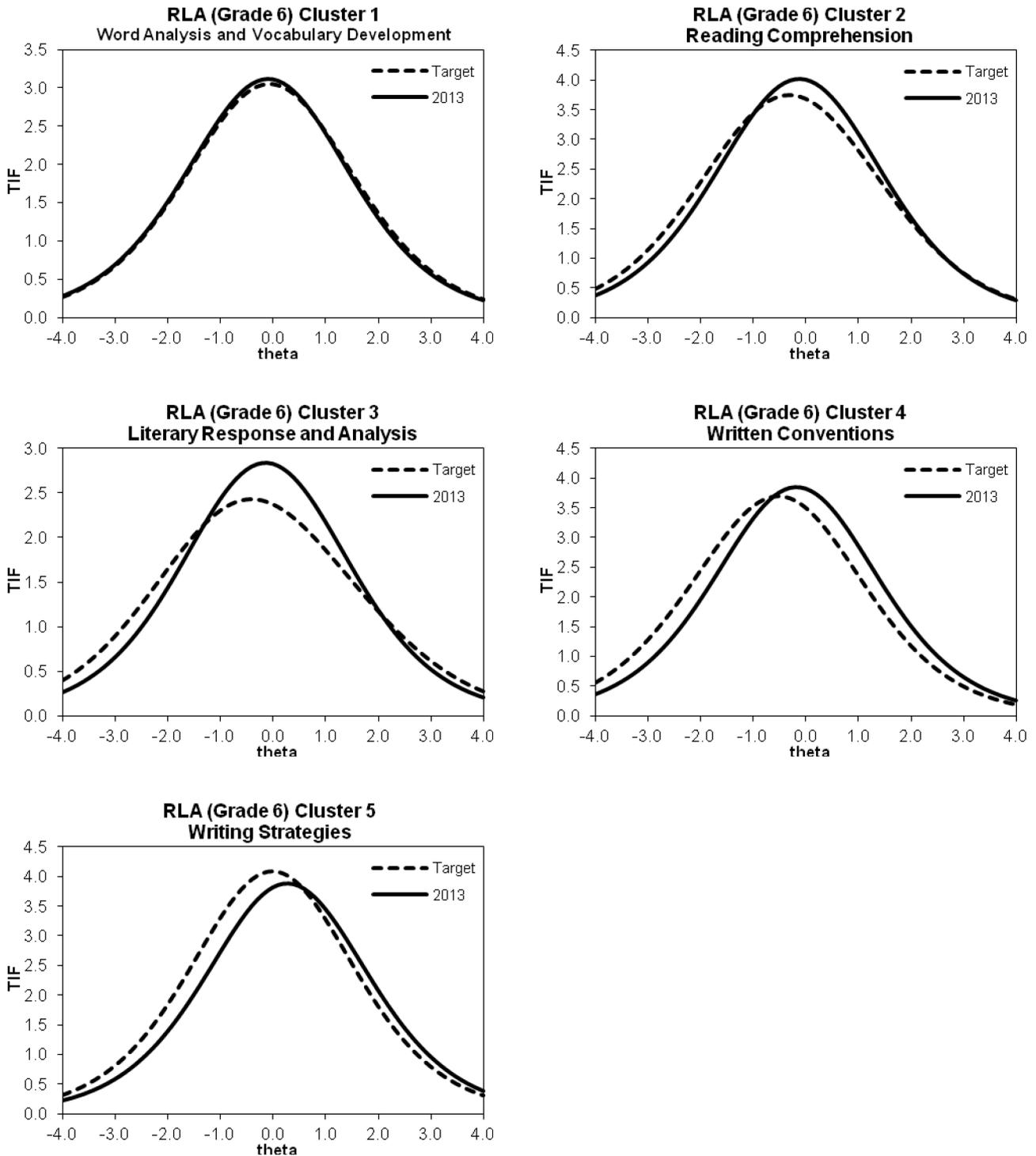
**Figure 4.B.3 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Four**



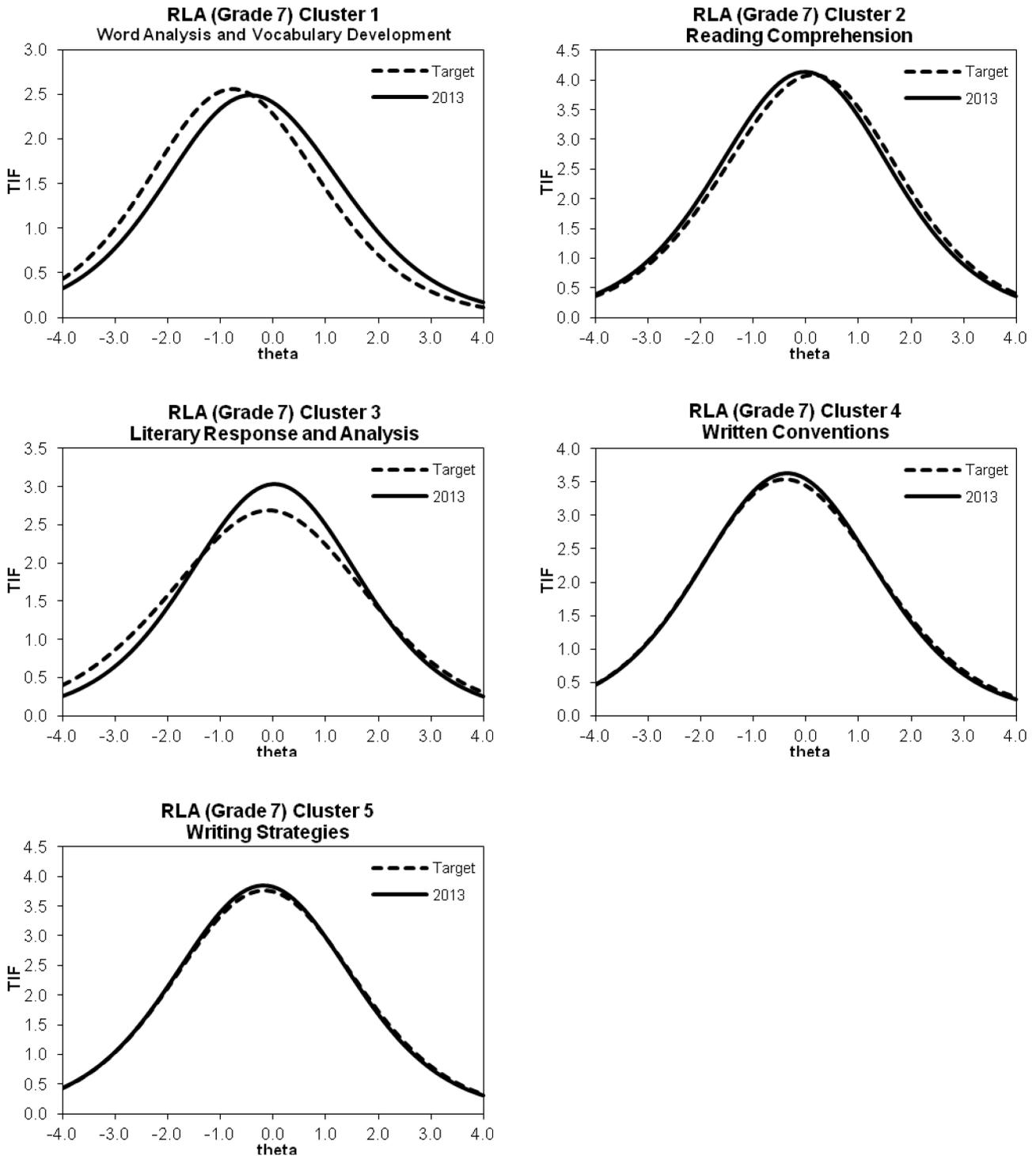
**Figure 4.B.4 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Five**



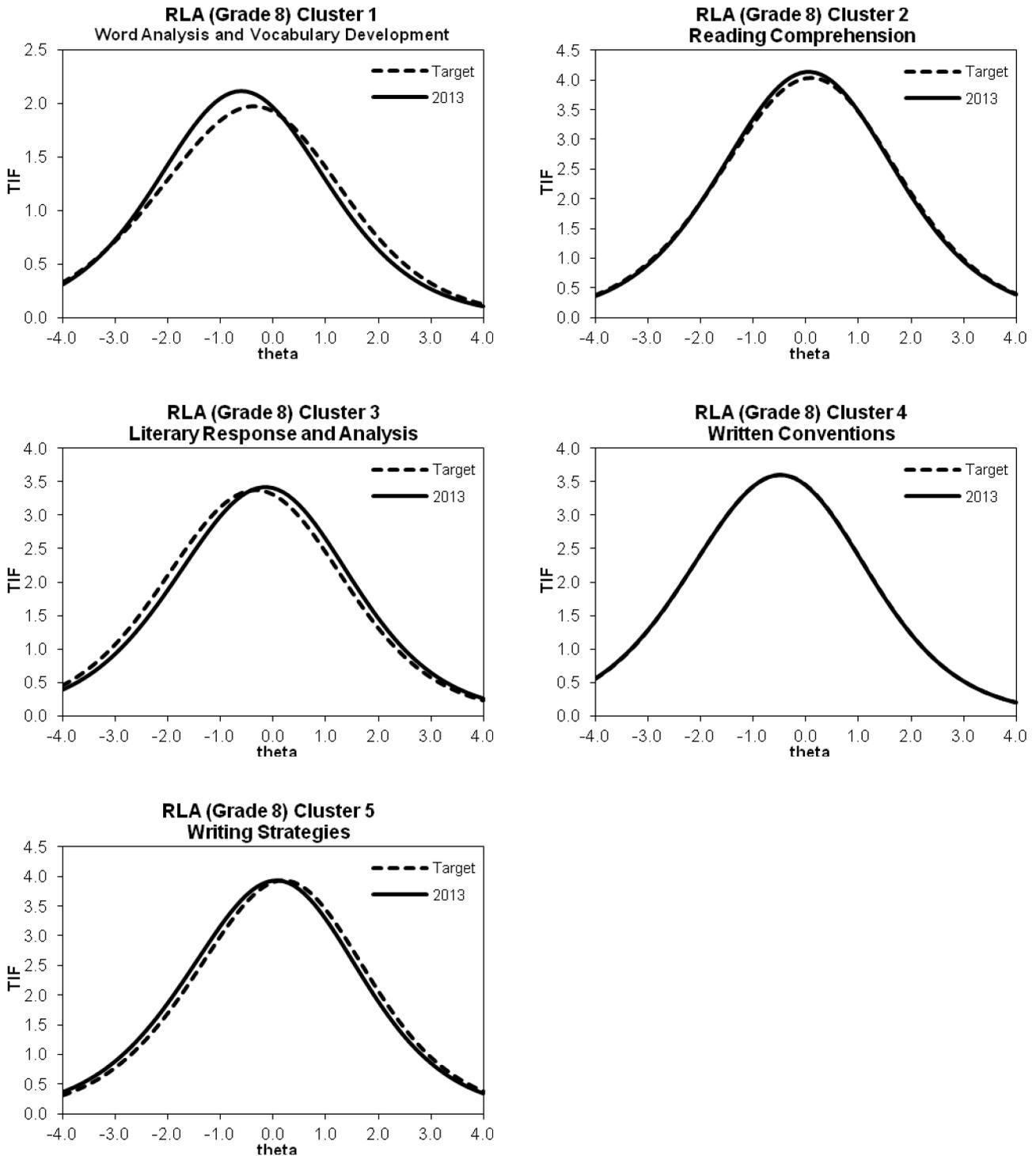
**Figure 4.B.5 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Six**



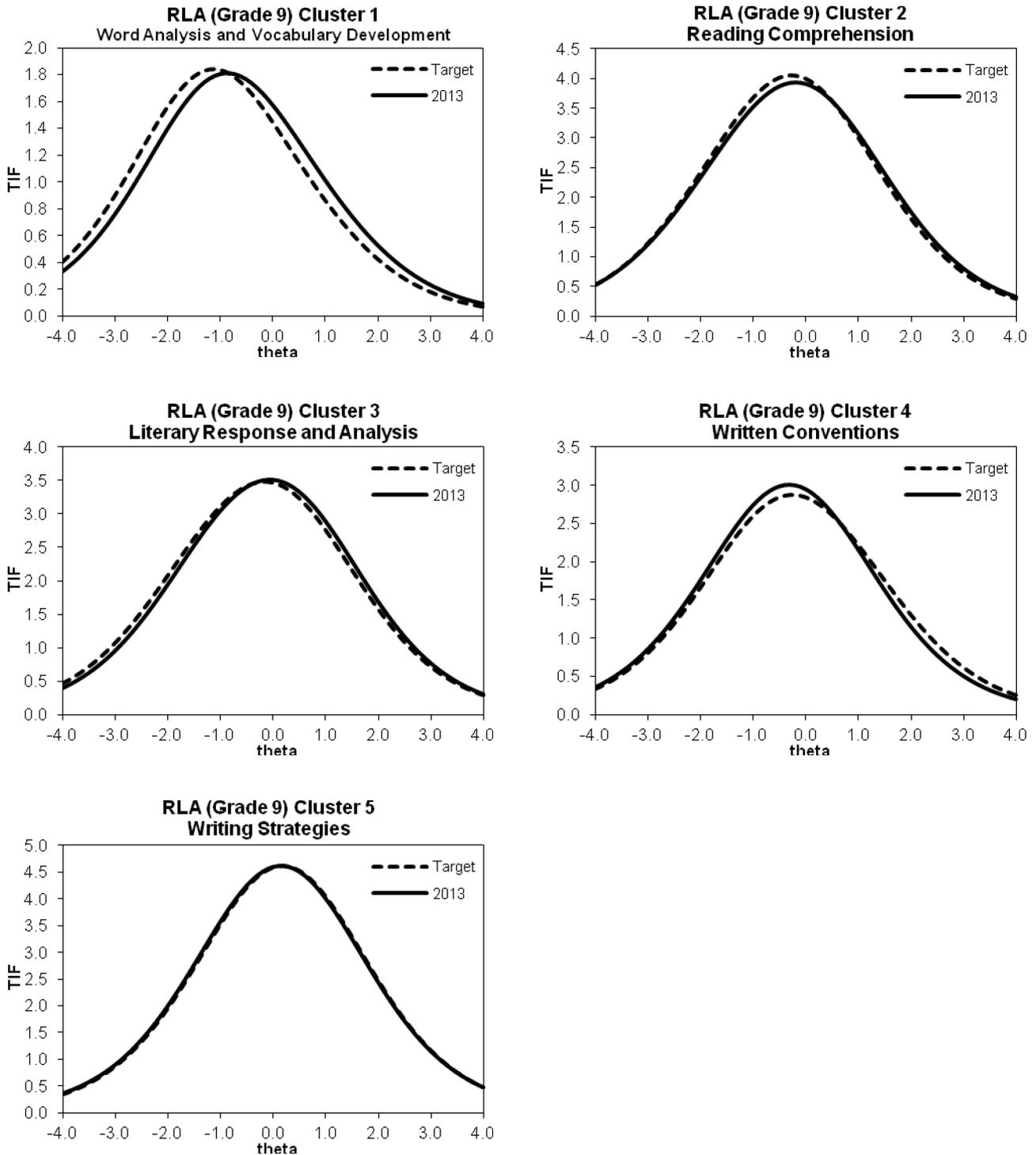
**Figure 4.B.6 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Seven**



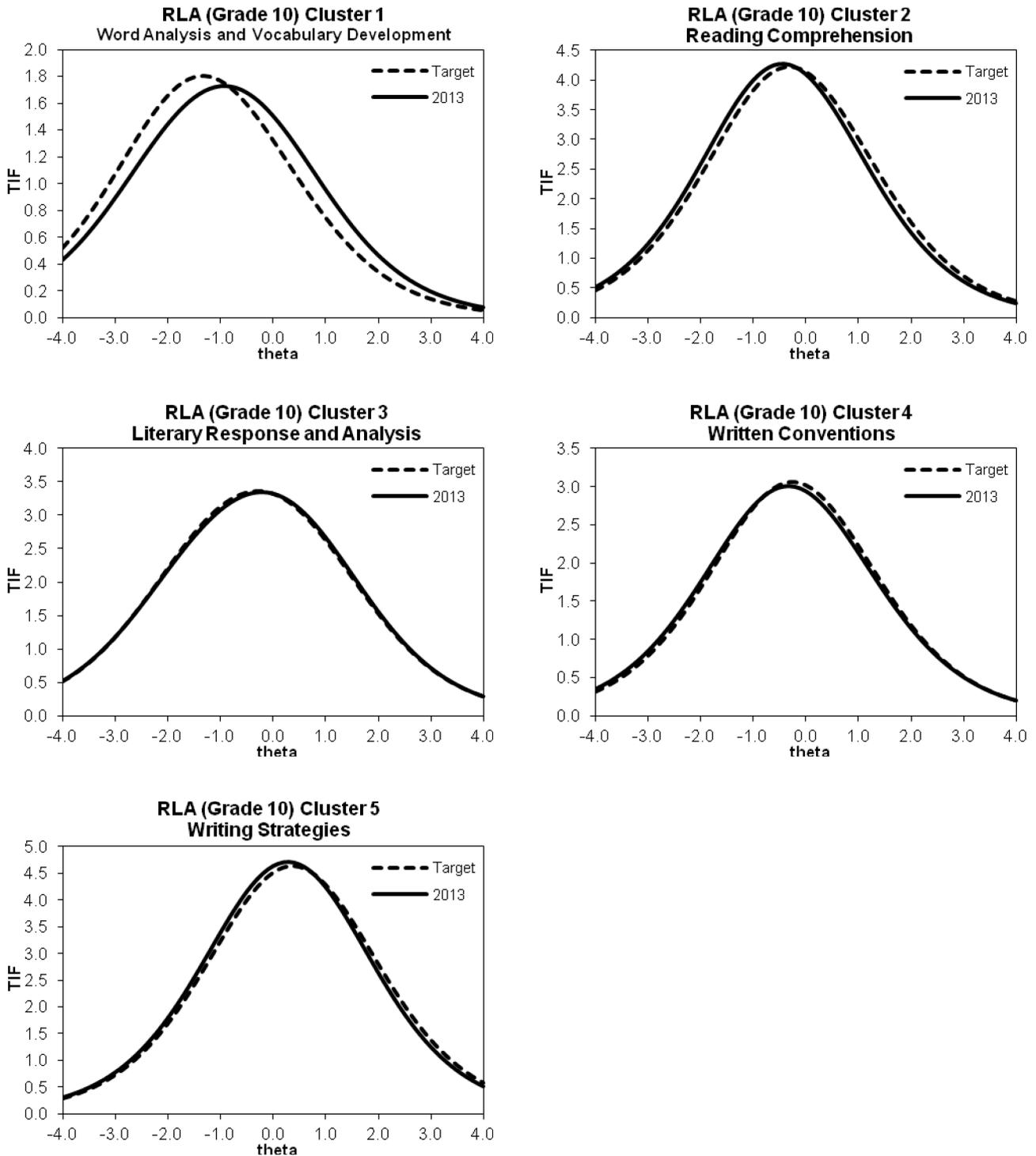
**Figure 4.B.7 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Eight**



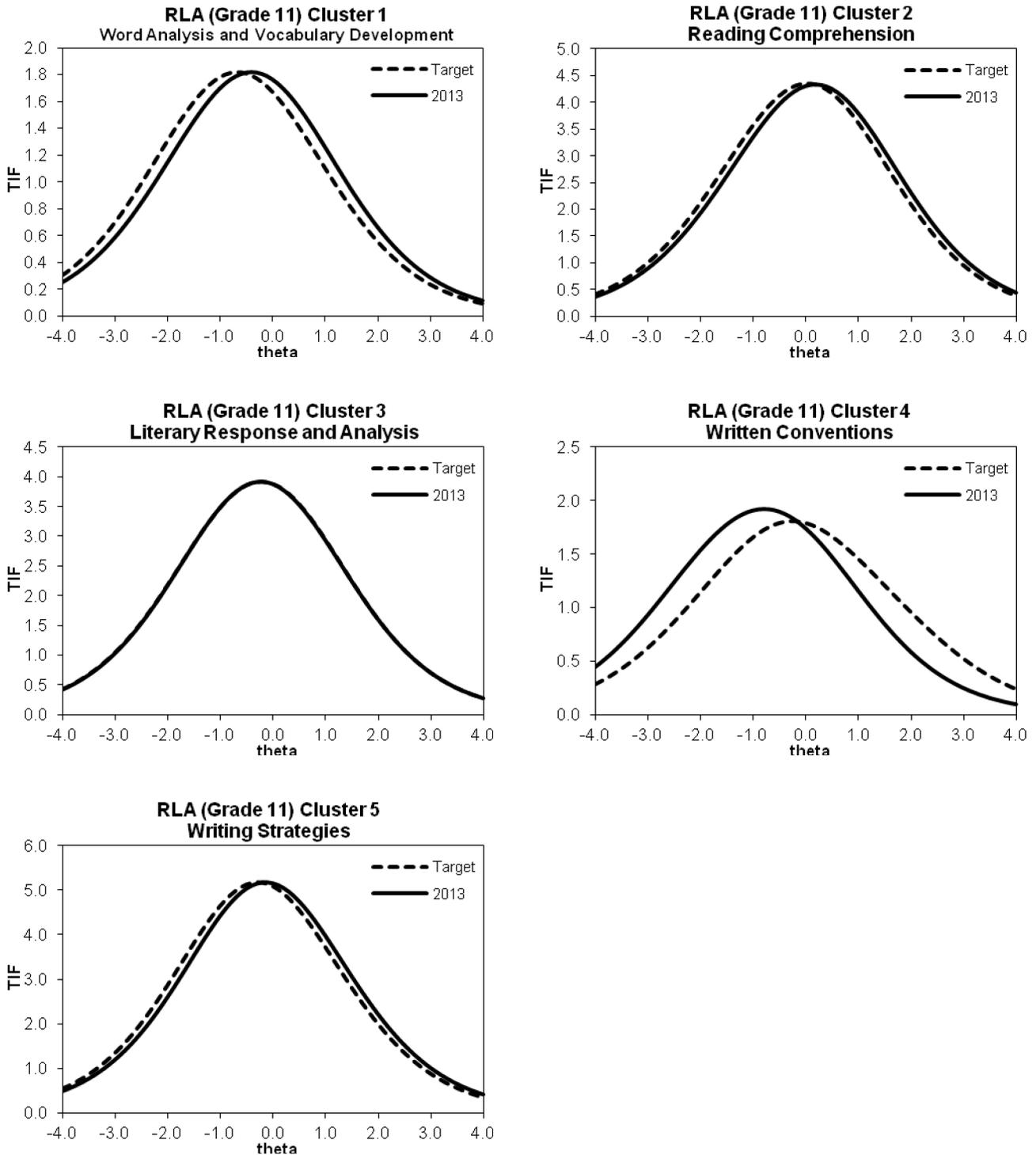
**Figure 4.B.8 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Nine**



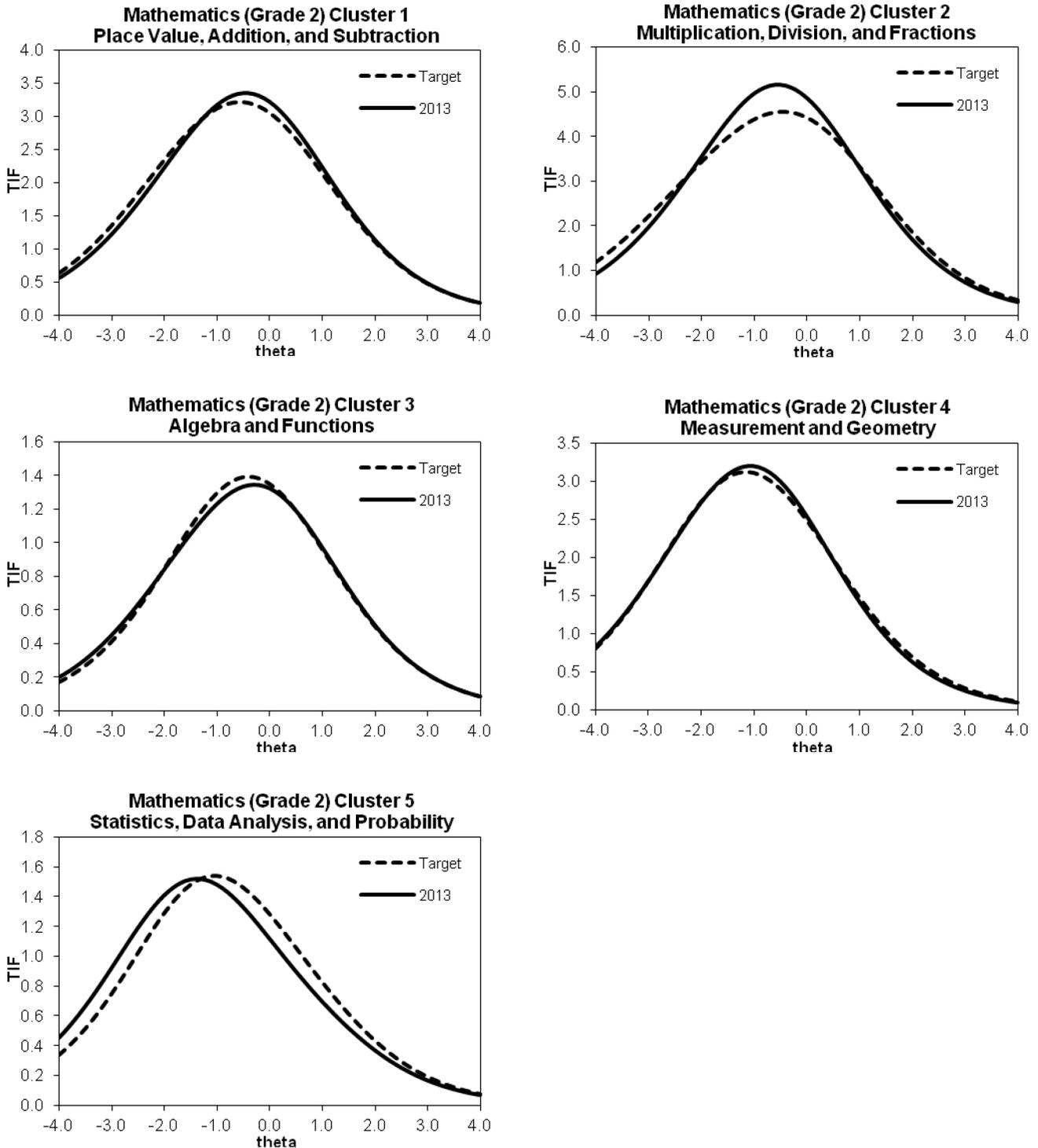
**Figure 4.B.9 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Ten**



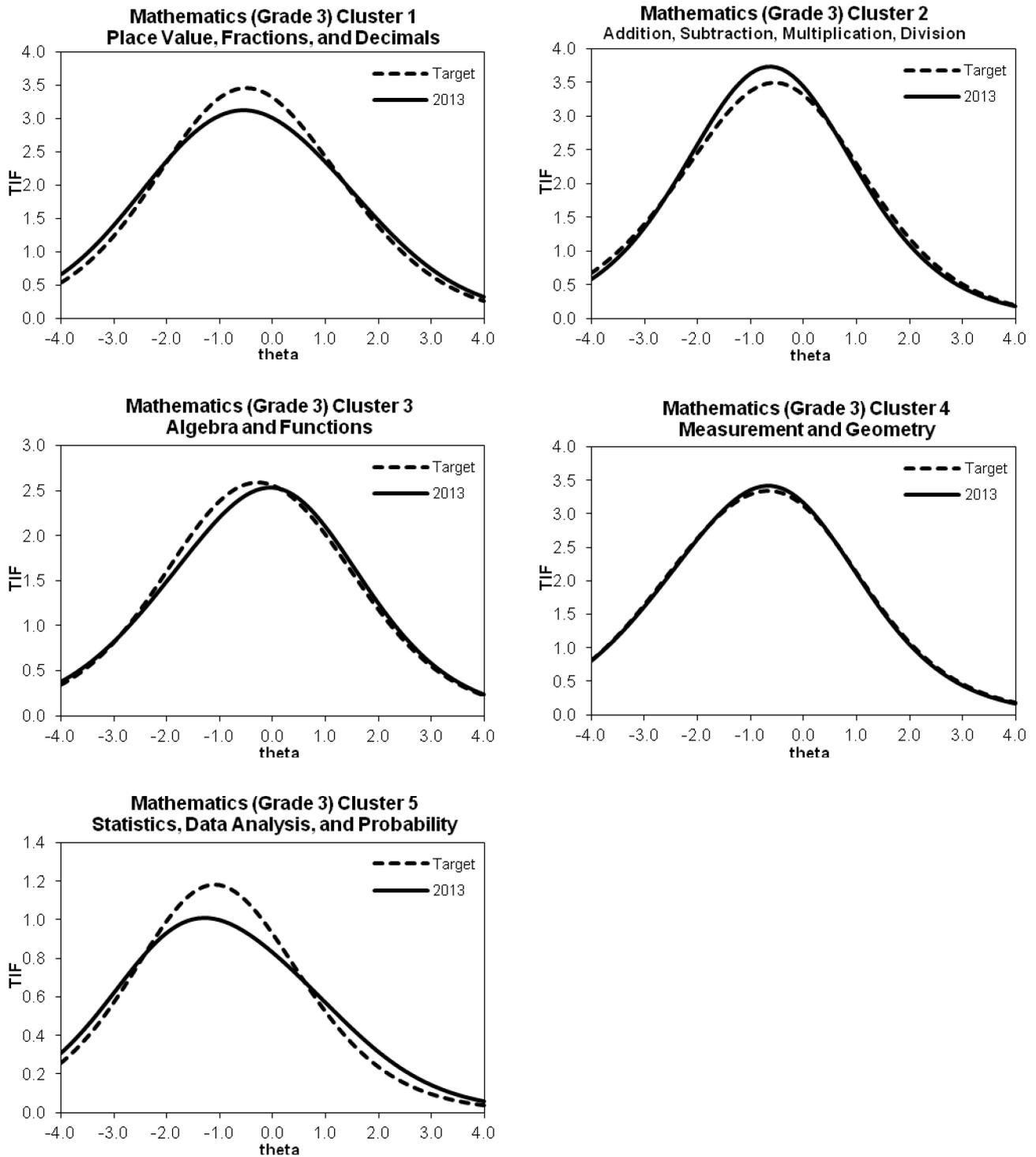
**Figure 4.B.10 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Eleven**



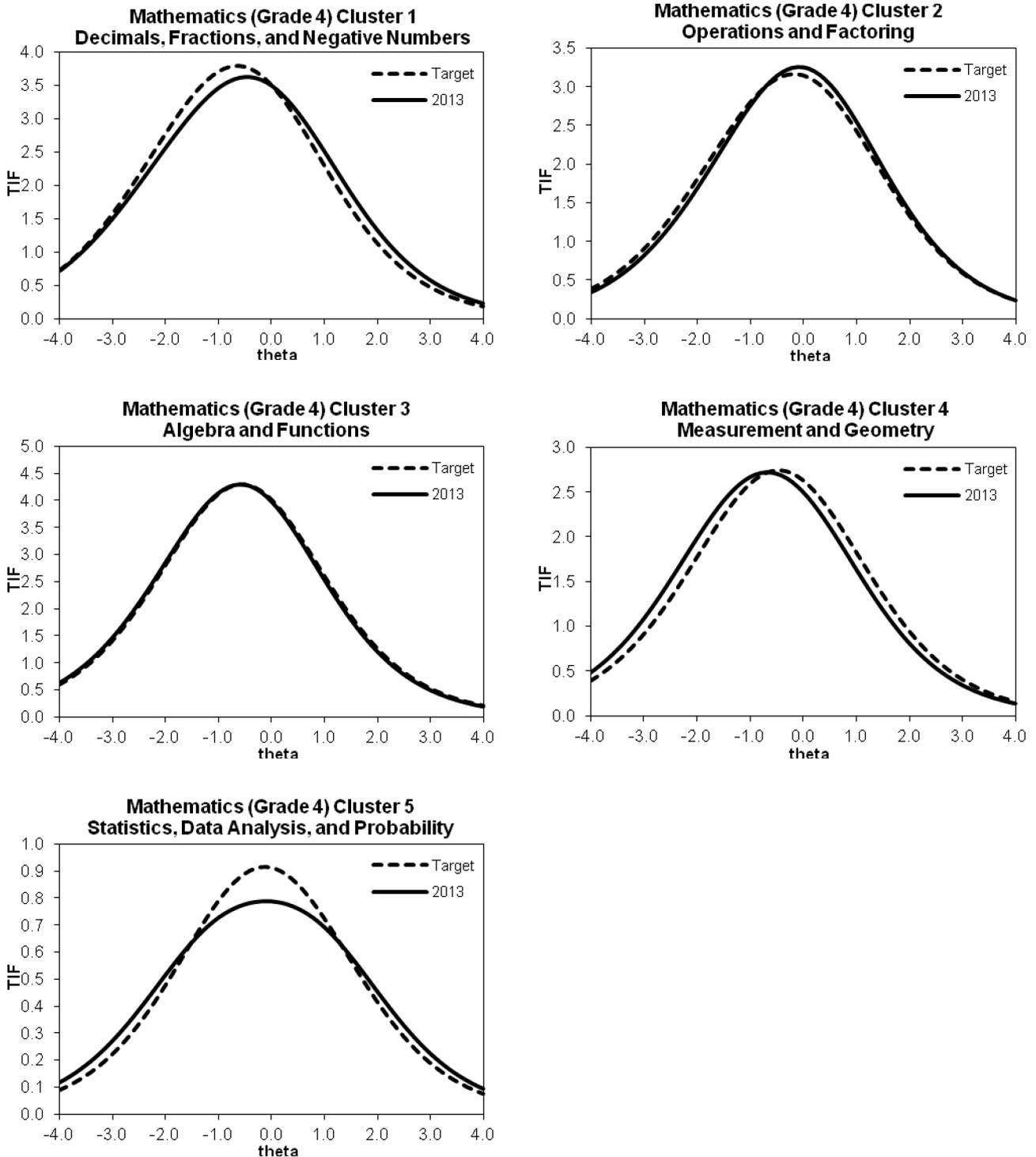
**Figure 4.B.11 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Two**



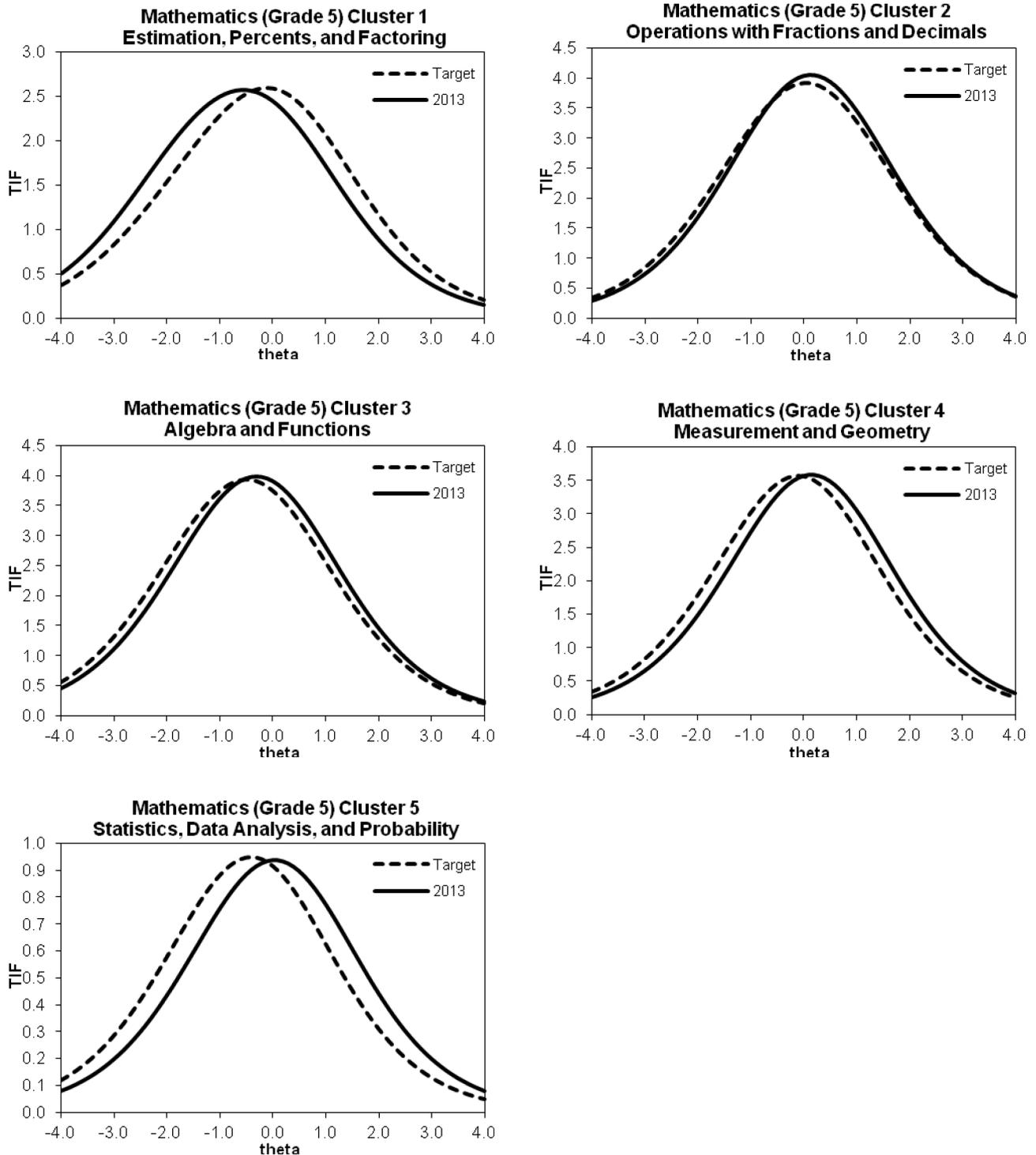
**Figure 4.B.12 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Three**



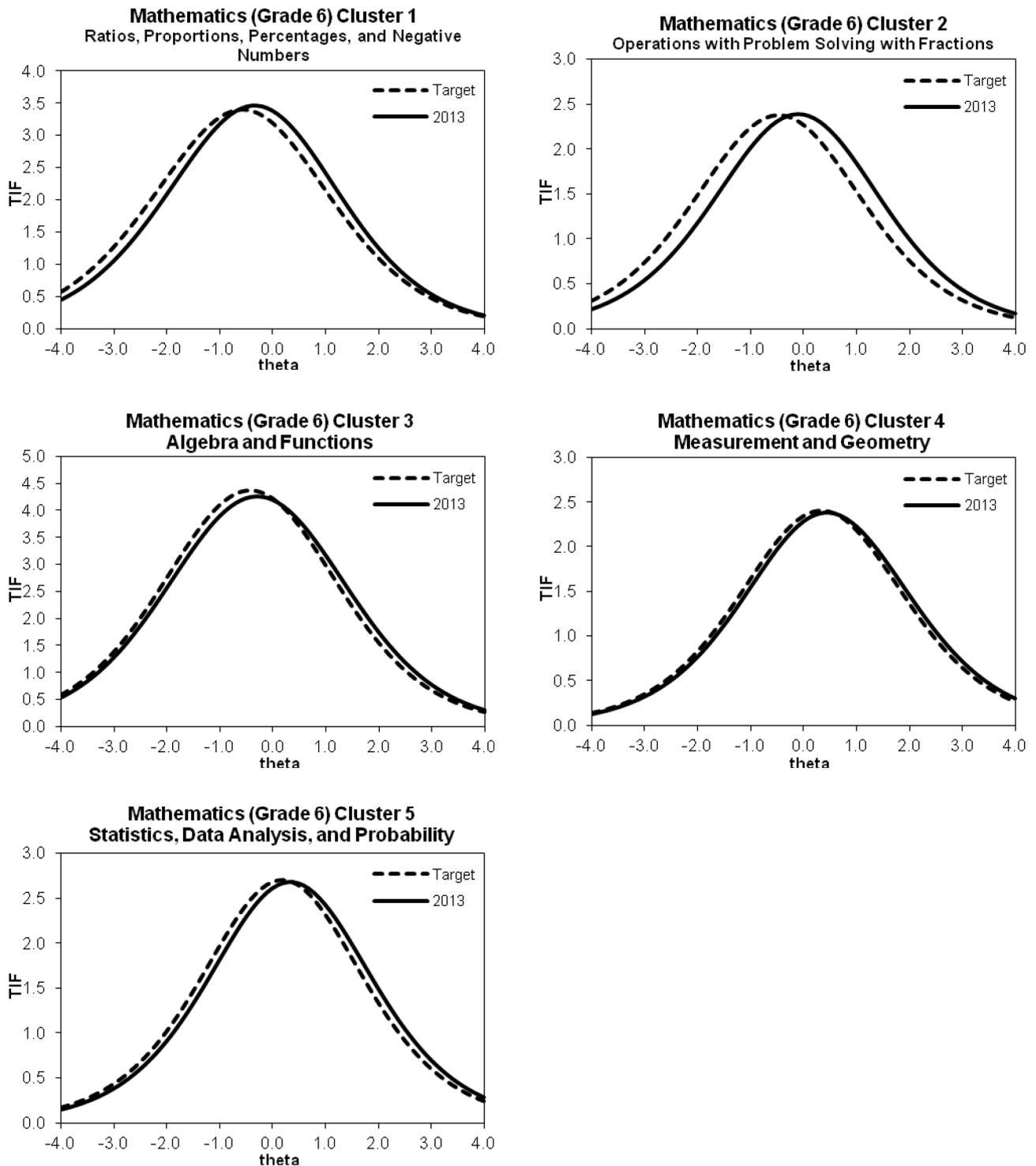
**Figure 4.B.13 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Four**



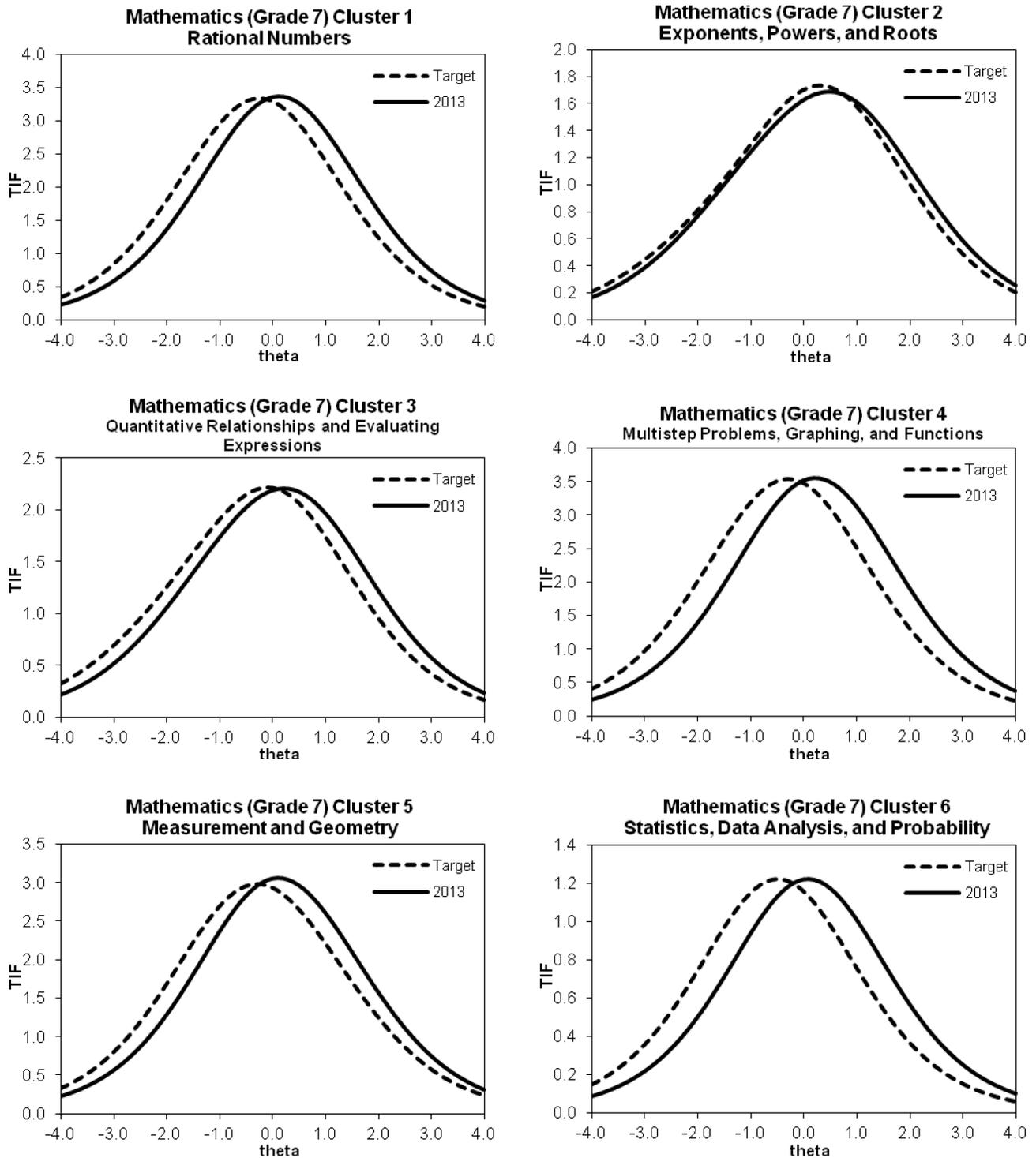
**Figure 4.B.14 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Five**



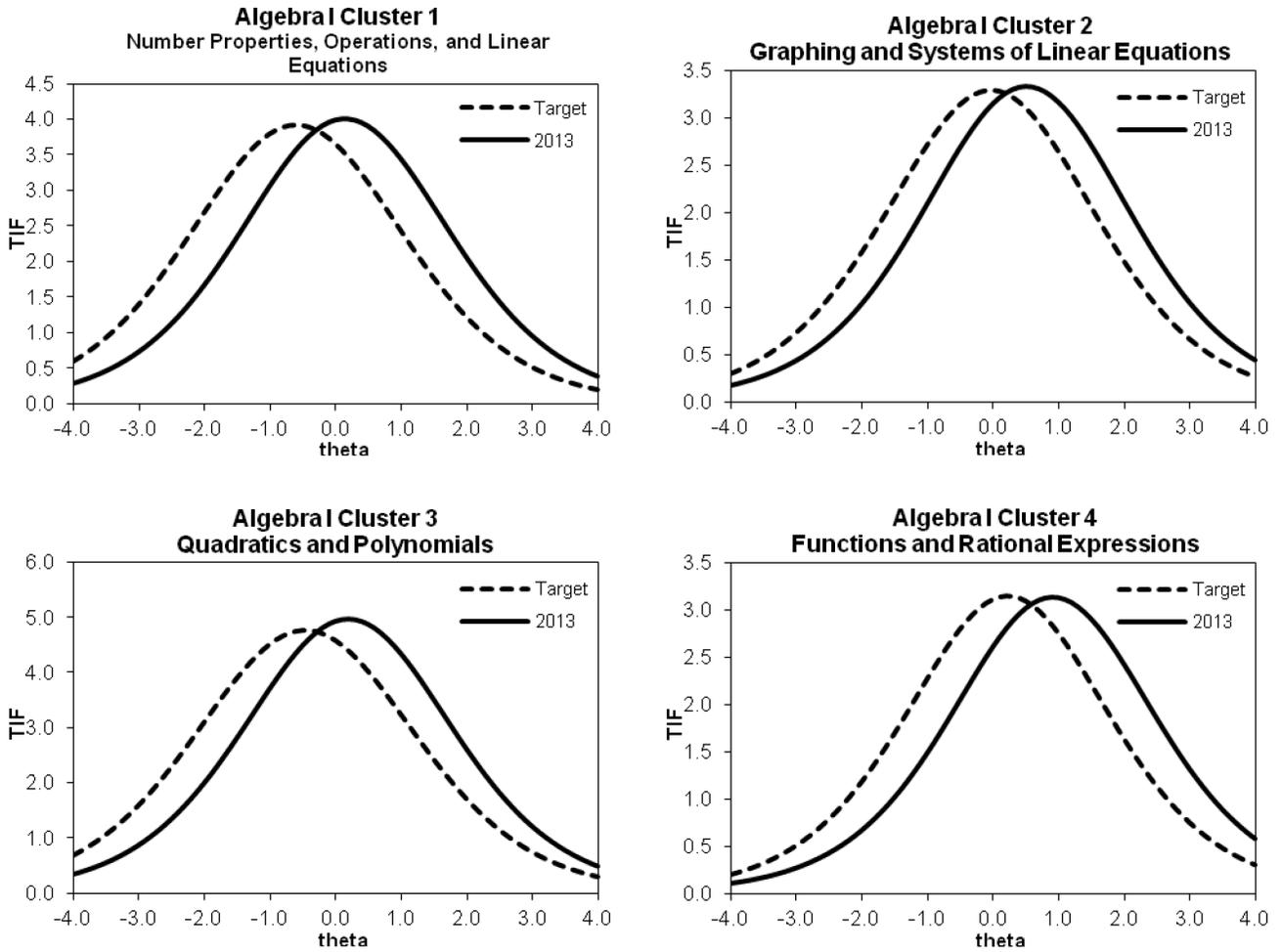
**Figure 4.B.15 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Six**



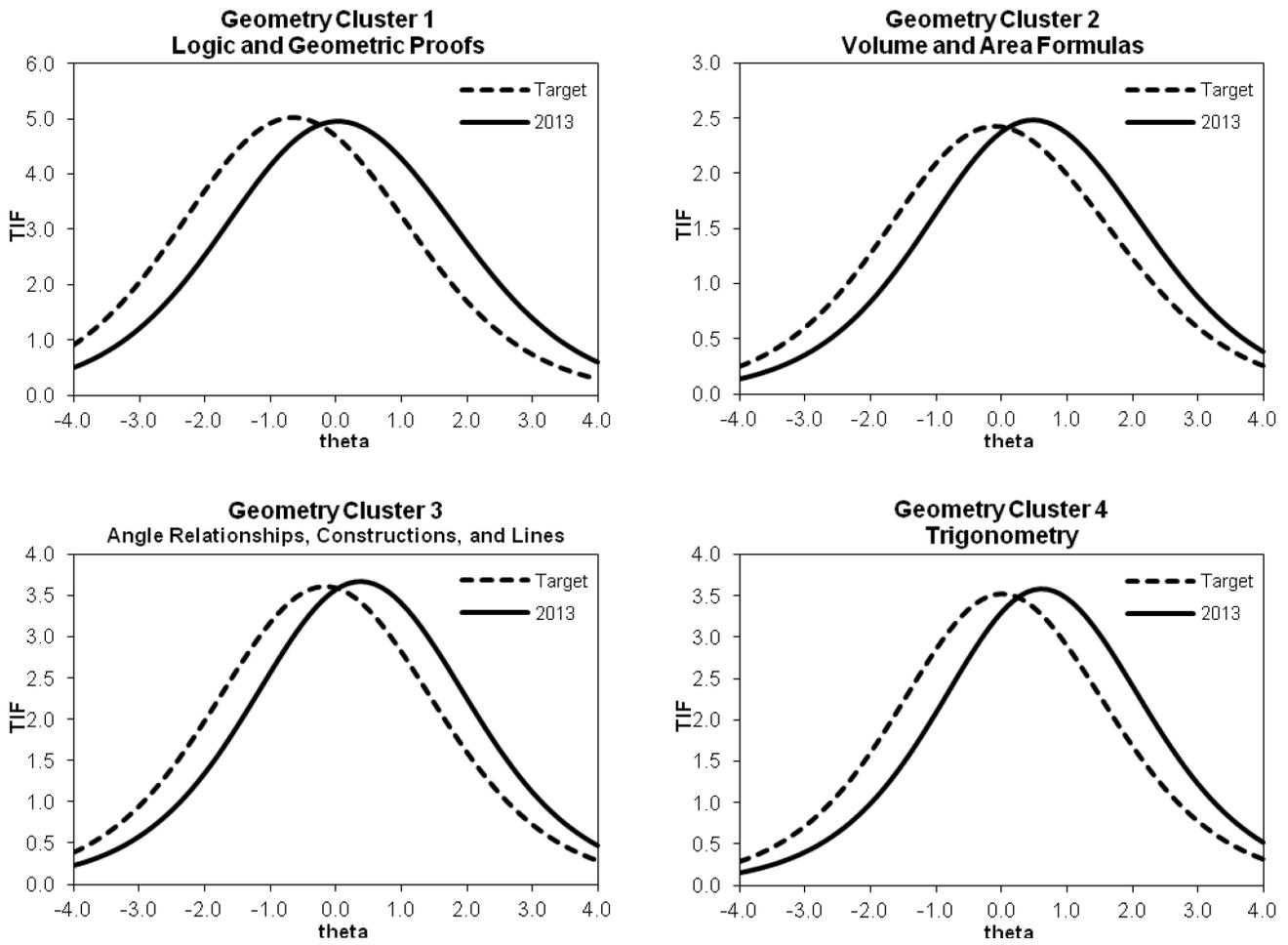
**Figure 4.B.16 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Seven**



**Figure 4.B.17 Plots of Target Information Functions and Projected Information for Clusters for Algebra I**



**Figure 4.B.18 Plots of Target Information Functions and Projected Information for Clusters for Geometry**



# Chapter 5: Test Administration

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## Test Security and Confidentiality

All tests within the STAR Program are secure documents. For the STS administration, every person having access to testing materials maintains the security and confidentiality of the tests. ETS's Code of Ethics requires that all test information, including tangible materials (such as test booklets), confidential files, processes, and activities are kept secure. ETS has systems in place that maintain tight security for test questions 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 section.

### ETS's Office of Testing Integrity

The OTI is a division of ETS that provides quality assurance services for all testing programs administered by ETS and resides in the ETS legal department. The Office of Professional Standards Compliance of ETS publishes and maintains *ETS Standards for Quality and Fairness*, which supports the OTI's goals and activities. The purposes of the *ETS Standards for Quality and Fairness* are to help ETS design, develop, and deliver technically sound, fair, and useful products and services, and to 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
- Report on security activities

The OTI helps prevent misconduct on the part of test-takers and administrators, detects potential misconduct through empirically established indicators, and resolves situations 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, ETS, through the OTI, strives to safeguard the various processes involved in a test development and administration cycle. These practices are discussed in detail in the next sections.

### Test Development

During the test development process, ETS staff members consistently adhere to the following established security procedures:

- Only authorized individuals have access to test content at any step during the test development, item review, and data analysis processes.
- Test developers keep all hard-copy test content, computer disk copies, art, film, proofs, and plates in locked storage when not in use.
- ETS shreds working copies of secure content as soon as they are no longer needed during the test development process.
- Test developers take further security measures when testing materials are to be shared outside of ETS; this is achieved by using registered and/or secure mail, using express delivery methods, and actively tracking records of dispatch and receipt of the materials.

### Item and Data Review

ETS enforces security measures at ARP meetings to protect the integrity of meeting materials using the following guidelines:

- Individuals who participate in the ARPs must sign a confidentiality agreement.
- Meeting materials are strictly managed before, during, and after the review meetings.
- Meeting participants are supervised at all times during the meetings.
- Use of electronic devices is prohibited in the meeting rooms.

### **Item Banking**

Once the ARP review is complete, the items are placed in the item bank. ETS then delivers the items to the CDE through the California electronic item bank. Subsequent updates to content and statistics associated with items are based on data collected from field testing and the operational use of the items. The latest version of the item is retained in the bank along with the data from every administration that has included the item.

Security of the electronic item banking system is of critical importance. The measures that ETS takes for assuring the security of electronic files include the following:

- Electronic forms of test content, documentation, and item banks are backed up electronically, with the backups kept offsite, to prevent loss from a system breakdown or a natural disaster.
- The offsite backup files are kept in secure storage with access limited to authorized personnel only.
- To prevent unauthorized electronic access to the item bank, state-of-the-art network security measures are used.

ETS routinely maintains many secure electronic systems for both internal and external access. The current electronic item banking application includes a login/password system to provide authorized access to the database or designated portions of the database. In addition, only users authorized to access the specific SQL database are able to use the electronic item banking system. Designated administrators at the CDE and at ETS authorize users to access these electronic systems.

### **Transfer of Forms and Items to the CDE**

ETS shares a secure file transfer protocol (SFTP) site with the CDE. SFTP is a method for reliable and exclusive routing of files. Files reside on a password-protected server that only authorized users may access. On that site, ETS posts Microsoft Word and Excel, Adobe Acrobat PDF, or other document files for the CDE to review. ETS sends a notification e-mail to the CDE to announce that files are posted. Item data are always transmitted in an encrypted format to the SFTP site; 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 not stored permanently on the shared SFTP server.

### **Security of Electronic Files Using a Firewall**

A firewall is software that prevents unauthorized entry to files, e-mail, and other organization-specific programs. ETS data exchange 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 included in the STAR Management System (CDE, 2013a) remain protected by the ETS firewall software at all times. Due to the sensitive nature of the student information processed by the STAR Management System, the firewall plays a significant role in maintaining an assurance of confidentiality in the users of this information.

## Printing and Publishing

After items and test forms are approved, the files are sent for printing on a CD using a secure courier system. According to the established procedures, the OTI preapproves all printing vendors before they can work on secured confidential and proprietary testing materials. The printing vendor must submit a completed ETS Printing Plan and a Typesetting Facility Security Plan; both plans document security procedures, access to testing materials, a log of work in progress, personnel procedures, and access to the facilities by the employees and visitors. After reviewing the completed plans, representatives of the OTI visit the printing vendor to conduct an onsite inspection. The printing vendor ships printed test booklets to Pearson and other authorized locations. Pearson distributes the booklets to school districts in securely packaged boxes.

## Test Administration

Pearson receives testing materials from printers, packages them, and sends them to school districts. After testing, the school districts return materials to Pearson for scoring. During these events, Pearson takes extraordinary measures to protect the testing materials. Pearson's customized Oracle business applications verify that inventory controls are in place, from materials receipt to packaging. The reputable carriers used by Pearson provide a specialized handling and delivery service that maintains test security and meets the STAR program schedule. The carriers provide inside delivery directly to the district STAR coordinators or authorized recipients of the assessment materials.

## Test Delivery

Test security requires accounting for all secure materials before, during, and after each test administration. The district STAR coordinators are, therefore, required to keep all testing materials in central locked storage except during actual test administration times. Test site coordinators are responsible for accounting for and returning all secure materials to the district STAR coordinator, who is responsible for returning them to the STAR Scoring and Processing Centers. The following measures are in place to ensure security of STAR testing materials:

- District STAR coordinators are required to sign and submit a “STAR Test (Including Field Tests) Security Agreement for District and Test Site Coordinators” form to the STAR Technical Assistance Center before ETS can ship any testing materials to the school district.
- Test site coordinators have to sign and submit a “STAR Test (Including Field Tests) Security Agreement for District and Test Site Coordinators” form to the district STAR coordinator before any testing materials can be delivered to the school/test site.
- Anyone having access to the testing materials must sign and submit a “STAR Test (Including Field Tests) Security Affidavit for Test Examiners, Proctors, Scribes, and Any Other Person Having Access to STAR Tests” form to the test site coordinator before receiving access to any testing materials.
- It is the responsibility of each person participating in the STAR Program to report immediately any violation or suspected violation of test security or confidentiality. The test site coordinator is responsible for immediately reporting any security violation to the district STAR coordinator. The district STAR coordinator must contact the CDE immediately; the coordinator will be asked to follow up with a written explanation of the violation or suspected violation.

## Processing and Scoring

An environment that promotes the security of the test prompts, student responses, data, and employees throughout a project is of utmost concern to Pearson. Pearson requires the following standard safeguards for security at its sites:

- There is controlled access to the facility.
- No testing materials may leave the facility during the project without the permission of a person or persons designated by the CDE.
- All scoring personnel must sign a nondisclosure and confidentiality form in which they agree not to use or divulge any information concerning tests, scoring guides, or individual student responses.
- All staff must wear Pearson identification badges at all times in Pearson facilities.

No recording or photographic equipment is allowed in the scoring area without the consent of the CDE.

The completed and scored answer documents are stored in secure warehouses. After they are stored, they will not be handled again unless questions arise about a student's score. For example, a school district may request that a student's test responses be rescored. In such a case, the answer document is removed from storage, copied, and sent securely to the ETS facility in Sacramento, California, for hand scoring, after which the copy is destroyed. School and district personnel are not allowed to look at a completed answer document unless required for transcription or to investigate irregular cases.

All answer documents, test booklets, and other secure testing materials are destroyed after October 31 each year.

## Data Management

Pearson provides overall security for assessment materials through its limited-access facilities and through its secure data processing capabilities. Pearson enforces stringent procedures to prevent unauthorized attempts to access its facilities. Entrances are monitored by security personnel and a computerized badge-reading system is utilized. Upon entering a facility, all Pearson employees are required to display identification badges that must be worn at all times while in the facility. Visitors must sign in and out. While they are at the facility, they are assigned a visitor badge and escorted by Pearson personnel. Access to the Data Center is further controlled by the computerized badge-reading system that allows entrance only to those employees who possess the proper authorization.

Data, electronic files, test files, programs (source and object), and all associated tables and parameters are maintained in secure network libraries for all systems developed and maintained in a client-server environment. Only authorized software development employees are given access as needed for development, testing, and implementation in a strictly controlled Configuration Management environment.

For mainframe processes, Pearson utilizes Random Access Control Facility (RACF) to limit and control access to all data files (test and production), source code, object code, databases, and tables. RACF controls who is authorized to alter, update, or even read the files. All attempts to access files on the mainframe by unauthorized users are logged and monitored. In addition, Pearson uses ChangeMan, a mainframe configuration management tool, to control versions of the software and data files. ChangeMan provides another level of security, combined with RACF, to place the correct tested version of code into production. Unapproved changes are not implemented without prior review and approval.

## Transfer of Scores via Secure Data Exchange

After scoring is completed, Pearson sends scored data files to ETS and follows secure data exchange procedures. ETS and Pearson have implemented procedures and systems to provide efficient coordination of secure data exchange. This includes the established SFTP site that is used for secure data transfers between ETS and Pearson. These well-established procedures provide timely, efficient, and secure transfer of data. Access to the STAR data files is limited to appropriate personnel with direct project responsibilities.

## Statistical Analysis

The Information Technology (IT) area at ETS retrieves the Pearson data files from the SFTP site and loads them into a database. The Data Quality Services (DQS) area at ETS extracts the data from the database and performs quality control procedures before passing files to the ETS Statistical Analysis group. The Statistical Analysis group keeps the files on secure servers and adheres to the ETS Code of Ethics and the ETS Information Protection Policies to prevent any unauthorized access.

## Reporting and Posting Results

After statistical analysis has been completed on student data, the following deliverables are produced:

- Paper reports, some with individual student results and others with summary results
- Encrypted files of summary results (sent to the CDE by means of SFTP) (Any summary results that have fewer than 11 students are not reported.)
- Item-level statistics based on the results which are entered into the item bank

## Student Confidentiality

To meet ESEA and state requirements, school districts must collect demographic data about students. This includes information about students' ethnicity, parent education, disabilities, whether the student qualifies for the National School Lunch Program (NSLP), and so forth (CDE, 2013b). ETS takes precautions 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 these student demographic data may appear, including in Pre-ID files and reports.

## Student Test Results

ETS also has security measures for files and reports that show students' scores and performance levels. ETS is committed to safeguarding the information in its possession from unauthorized access, disclosure, modification, or destruction. ETS has strict information security policies in place to protect the confidentiality of ETS 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 to unauthorized access or denial of service. Routers, switches, firewalls, and gateways may possess little in the way of logical access.

ETS has many facilities and procedures that protect computer files. Facilities, policies, 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 its data to either disk through deduplication or to tape, both 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 Data Center at all times. Extensive smoke detection and alarm systems, as well as a pre-action fire-control system, are installed in the Center.

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's property and resources. Specific rules are also given to ETS employees and their immediate families who may take a test developed by ETS, such as a STAR examination. The ETS Office of Testing Integrity verifies that these standards are followed throughout ETS. It does this, in part, by conducting periodic onsite security audits of departments, with follow-up reports containing recommendations for improvement.

## Procedures to Maintain Standardization

The STS processes are designed so that the tests are administered and scored in a standardized manner. ETS employs personnel who facilitate various processes involved in the standardization of an administration cycle and takes all necessary measures to ensure the standardization of the STS, as described in this section.

### Test Administrators

The STS are administered in conjunction with the other tests that comprise the STAR Program. The responsibilities for district and test site staff members are included in the *STAR District and Test Site Coordinator Manual* (CDE, 2013c). This manual is described in the next section.

The staff members centrally involved in the test administration are as follows:

#### District STAR Coordinator

Each local educational agency (LEA) designates a district STAR coordinator who is responsible for ensuring the proper and consistent administration of the STAR tests. 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.

District STAR coordinators are also responsible for securing testing materials upon receipt, distributing testing materials to schools, tracking the materials, training and answering questions from district staff and test site coordinators, reporting any testing irregularities or

security breaches to the CDE, receiving scorable and nonscorable materials from schools after an administration, and returning the materials to the STAR contractor for processing.

### **Test Site Coordinator**

The superintendent of the school district or the district STAR coordinator designates a STAR test site coordinator at each test site from among the employees of the school district. (5 CCR Section 858 [a])

Test site coordinators are responsible for making sure that the school has the proper testing materials, distributing testing materials within a school, securing materials before, during, and after the administration period, answering questions from test examiners, preparing and packaging materials to be returned to the school district after testing, and returning the materials to the school district. (CDE, 2013c)

### **Test Examiner**

The STS are administered by test examiners who may be assisted by test proctors and scribes. A test examiner is an employee of a school district or an employee of a nonpublic, nonsectarian school (NPS) who has been trained to administer the tests, has signed a STAR Test Security Affidavit, and is bilingual in English and Spanish. Test examiners must follow the directions in the *California Standards-based Tests in Spanish Directions for Administration (DFA)* (CDE, 2013d) exactly.

### **Test Proctor**

A test proctor is an employee of the school district or a person, assigned by an NPS to implement the IEP of a student, who has received training designed to prepare the proctor to assist the test examiner in the administration of tests within the STAR Program (5 CCR Section 850 [r]). Test proctors must sign STAR Test Security Affidavits (5 CCR Section 859 [c]).

### **Scribe**

A scribe is an employee of the school district or a person, assigned by an NPS to implement the IEP of a student, who is required to transcribe a student's responses to the format required by the test. A student's parent or guardian is not eligible to serve as the student's scribe (5 CCR Section 850 [m]). Scribes must sign STAR Test Security Affidavits (5 CCR Section 859 [c]).

## **Directions for Administration**

STS *DFAs* are manuals used by test examiners to administer the STS to students (CDE, 2013d). Test examiners must follow all directions and guidelines and read, word-for-word, the instructions to students in "SAY" boxes to ensure test standardization. The *DFA* for the grade two STS also includes test questions that the examiner reads aloud to students.

## **District and Test Site Coordinator Manual**

Test administration procedures are to be followed exactly so that all students have an equal opportunity to demonstrate their academic achievement. The *STAR District and Test Site Coordinator Manual* contributes to this goal by providing information about the responsibilities of district and test site coordinators, as well as those of the other staff involved in the administration cycle (CDE, 2013c). However, the manual is not intended as a substitute for the *CCR, Title 5, Education (5 CCR)*, or to detail all of the coordinator's responsibilities.

## STAR Management System Manuals

The STAR Management System is a series of secure, Web-based modules that allow district STAR coordinators to set up test administrations, order materials, and submit and correct student Pre-ID data. Every module has its own user manual with detailed instructions on how to use the STAR Management System. The modules of the STAR Management System are as follows:

- **Test Administration Setup**—This module allows school districts to determine and calculate dates for scheduling test administrations for school districts, to verify contact information for those school districts, and to update the school district’s shipping information. (CDE, 2013e)
- **Order Management**—This module allows school districts to enter quantities of testing materials for schools. Its manual includes guidelines for determining which materials to order. (CDE, 2013f)
- **Pre-ID**—This module allows school districts to enter or upload student information, including demographics, and identify the test(s) the student will take. This information is printed on student test booklets or answer documents or on labels that can be affixed to test booklets or answer documents. Its manual includes the CDE’s Pre-ID layout. (CDE, 2013b)
- **Extended Pre-ID Data Corrections**—This module allows school districts to correct the data that were submitted during Pre-ID prior to the last day of the school district’s selected testing window. (CDE, 2013b)

## Test Booklets

For each grade-level and end-of-course test, multiple versions of test booklets are administered. The versions differ only in terms of the field-test items they contain. In grades three through eleven, these versions are spiraled—comingled—and packaged consecutively and are distributed at the student level; that is, each classroom or group of test-takers receives at least one of each version of the test. The grade two STS versions are not spiraled; instead, versions are assigned by school because test questions are read aloud to the students.

The test booklets, along with answer documents and other supporting materials, are packaged by school or group, depending on how the district STAR coordinator ordered the materials. All materials are sent to the district STAR coordinator for proper distribution within the LEA. Special formats of test booklets are also available for test-takers who require accommodations to participate in testing. These special formats include large-print and braille testing materials.

## Accommodations and Modifications for Students with Disabilities

All public school students participate in the STAR Program, including students with disabilities and English learners. ETS policy states that reasonable testing accommodations be provided to candidates with documented disabilities that are identified in the Americans with Disabilities Act (ADA). The ADA mandates that test accommodations be individualized, meaning that no single type of test accommodation may be adequate or appropriate for all individuals with any given type of disability. The ADA authorizes that test-takers with disabilities may be tested under standard conditions if ETS determines that only minor

adjustments to the testing environment are required (e.g., wheelchair access, large-print test book, a sign language interpreter for spoken directions).

## Identification

Most students with disabilities take the STS under standard conditions. However, some students with disabilities may need assistance when taking the STS. This assistance takes the form of test accommodations or modifications (see Appendix 2.C on page 24 in Chapter 2 for details). During the test, these students may use the special services specified in their IEP or Section 504 plan. If students use accommodations or modifications for the STS, test examiners are responsible for marking the accommodation or modification used on the students' test booklets or answer documents.

## Scoring

The purpose of test accommodations and modifications is to enable students to take the STS, not to give them an advantage over other students or to inflate their scores artificially. Scores for students tested with modifications are counted as far below basic for aggregate reporting.

## Demographic Data Corrections

After reviewing student data, some school districts may discover data related to the CSTs, CMA, or CAPA that are incorrect. The Demographics Data Corrections module of the STAR Management System gives school districts the means to correct these data within a specified availability window. Data related to the STS are not correctable; for example, districts cannot rescore uncoded or miscoded STS end-of-course mathematics tests. (CDE, 2013g)

## Testing Irregularities

Testing irregularities are circumstances that may compromise the reliability and validity of test results.

The district STAR coordinator is responsible for immediately notifying the CDE of any irregularities that occur before, during, or after testing. The test examiner is responsible for immediately notifying the district STAR coordinator of any security breaches or testing irregularities that occur in the administration of the test. Once the district STAR coordinator and the CDE have determined that an irregularity has occurred, the CDE instructs the district STAR coordinator on how and where to identify the irregularity on the student test booklet or answer document. The information and procedures to assist in identifying irregularities and notifying the CDE are provided in the *STAR District and Test Site Coordinator Manual* (CDE, 2013c).

## Social Media Security Breaches

Social media security breaches are exposures of test questions and testing materials through social media Web sites. These security breaches raise serious concerns that require comprehensive investigation and additional statistical analyses. In recognizing the importance of and the need to provide valid and reliable results to the state, districts, and schools, both the CDE and ETS take every precaution necessary, including extensive statistical analyses, to ensure that all test results maintain the highest levels of psychometric integrity.

There were no social media security breaches associated with the STS in 2013.

## Test Administration Incidents

A test administration incident is any event that occurs before, during, or after test administrations that does not conform to the instructions stated in the *DFAs* (CDE, 2013d) and the *STAR District and Test Site Coordinator Manual* (CDE, 2013c). These events include test administration errors, disruptions, and student cheating. Test administration incidents generally do not affect test results. These administration incidents are not reported to the CDE or the STAR Program testing contractor. The STAR test site coordinator should immediately notify the district STAR coordinator of any test administration incidents that occur. It is recommended by the CDE that districts and schools maintain records of these incidents.

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# Chapter 6: Performance Standards

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## Background

The STS were introduced in stages, starting with the lower grades in 2006. Performance standards for each new test were developed after the introductory year for operational use in subsequent administrations. The STS for RLA and mathematics in grades two through four became part of the STAR Program in 2006. For each test, the performance standards were developed in February 2009 and adopted by the SBE for the 2009 operational administration of those tests.

In spring 2008, the STS for RLA and mathematics were introduced in grades five through seven. The performance standards for those tests were developed in October 2009 and adopted by the SBE for the 2010 operational administration.

The STS for RLA in grades eight through eleven and EOC mathematics were introduced in spring 2009. The performance standards for those tests were developed in November 2011 and adopted by the SBE in July 2012 for use starting with the 2013 operational administration.

The performance standards for the STS were defined by the SBE as far below basic, below basic, basic, proficient, and advanced. Performance standards are developed from a general description of the performance level (policy level descriptors) and competencies lists, which operationally define each level. Cut scores numerically define the performance levels.

The state target is to have all students achieve the proficient or advanced level by 2014. Schools and districts are expected to provide additional assistance to students scoring at or below the basic level.

California employed carefully designed standard-setting procedures to facilitate the development of performance standards for each STS. The standard-setting method used for the STS is the Bookmark method. These processes are described in the sections that follow.

## Standard-Setting Procedure

The process of standard setting is designed to identify a “cut score” or minimum test score that is required to qualify a student for each performance level. The process generally requires a panel of subject-matter experts and others with relevant perspectives (for example, teachers or school administrators) be assembled. The panelists for the STS standard settings were selected based on the following characteristics:

- Familiarity with the subject matter assessed
- Familiarity with students in the respective grade levels
- Experience with English learners
- Familiarity with the California content standards
- An understanding of the STS
- An appreciation of the consequences of setting these cut scores

All panelists are bilingual and biliterate in Spanish and English and were recruited from diverse geographic regions and from different gender and major racial/ethnic subgroups to

be representative of the educators of the state’s STS-eligible students (ETS, 2009, 2010, 2011).

For each test, three cut scores were developed in order to differentiate four of the five performance levels: below basic, basic, proficient, and advanced. Far below basic was defined as chance-level performance.

The standard-setting processes implemented for the STS required panelists to follow these steps, which include training and practice prior to making judgments:

1. Prior to attending the workshop, all panelists received a pre-workshop assignment. The task was to review, on their own, the content standards upon which the test items are based and take notes on their own expectations in the content area. This allowed the panelists to understand how their perceptions may relate to the complexity of the content standards.
2. At the start of the workshop, panelists received training, which included the purpose of standard setting and their role in the work, the meaning of a “cut score” and “impact data,” and specific training and practice in the Bookmark method. Impact data included the percentage of examinees assessed in a previous administration of the test that would fall into each level, given the panelists’ judgments of cut scores.
3. Panelists became familiar with the difficulty level of the items by taking the actual test and then assessing and discussing the demands of the test items.
4. Panelists reviewed the draft list of competencies as a group, noting the increasing demands of each subsequent level. In this step, they began to visualize the knowledge and skills of students in each performance level.
5. Panelists identified characteristics of a “borderline” test-taker or “target student.” This student is defined as one who possesses just enough knowledge of the content to move over the border separating a performance level from the performance level below it.
6. After training in the method was complete and confirmed through an evaluation questionnaire, panelists made individual judgments. Working in small groups, they discussed feedback related to other panelists’ judgments and feedback based on student performance data (impact data). Panelists could revise their judgments during the process if they wished.
7. The final recommended cut scores were based on the median of panelists’ judgment scores at the end of three rounds (in the Bookmark method, the panel recommendation is calculated by taking the median of the small group [table] medians). For the STS, the cut scores recommended by the panelists and the recommendation of the State Superintendent of Public Instruction were presented for public comment at regional public hearings. Comments and recommendations were then presented to the SBE for adoption.

### **Development of Competencies Lists**

Prior to the STS standard-setting workshop, ETS facilitated a meeting in which a subset of the standard-setting panelists was assembled to develop lists of competencies based on the California content standards and policy-level descriptors. For each content area, one panel of educators was assembled for each grade to identify and discuss the competencies required of students taking the STS for each performance level (below basic, basic,

proficient, and advanced). The lists were used to facilitate the discussion and construction of the target student definitions during the standard-setting workshop.

## Standard-Setting Methodology

### Bookmark Method

The Bookmark method for setting cut scores was introduced in 1999 and has been used widely across the United States (Lewis, et al., 1999; Mitzel, et al., 2001). In California, the Bookmark method has been used in standard settings for most of the STAR tests.

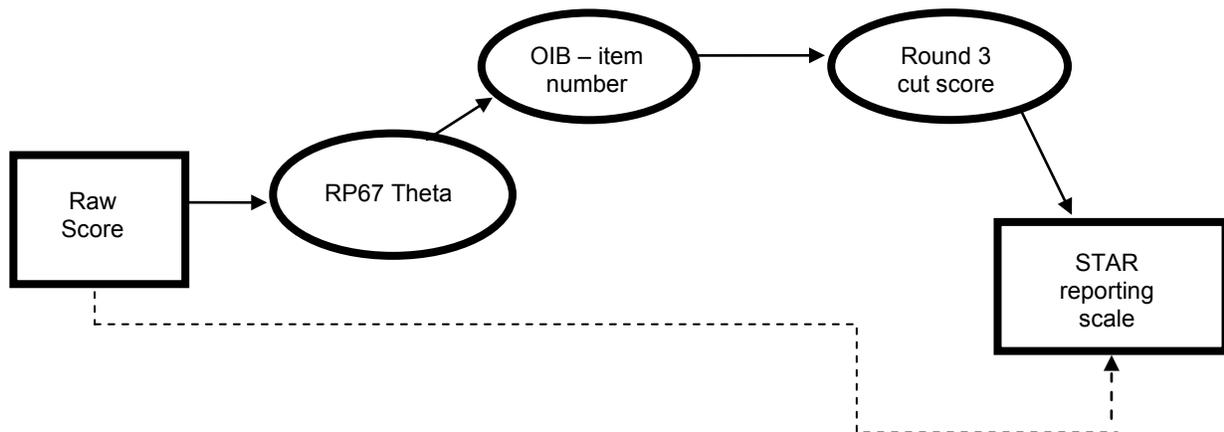
The Bookmark method is an item-mapping procedure in which panelists consider content covered by items in a specially constructed book where items are ordered from easiest to hardest based on operational student performance data from a previous test administration. The “item map,” which accompanies the ordered item booklet (OIB), includes information on the content measured by each operational test question, information about each question’s difficulty, the correct answer for each question, and where each question was located in the test booklet before the questions were reordered by difficulty.

Panelists are asked to place a bookmark in the OIB to demarcate each performance level. The bookmarks are placed with the assumption that the borderline students will perform successfully at a given performance level with a probability of at least 0.67. Conversely, these students are expected to perform successfully on the items after the bookmark with a probability of less than 0.67 (Huynh, 1998).

In this method, the panelists’ cut-score recommendations are presented in the metric of the OIB and are derived by obtaining the median of the corresponding bookmarks placed for each performance level across panelists.

Each item location corresponds to a value of theta, based on a response probability of 0.67 (RP67 Theta), which maps back to a raw score on the test form. Figure 6.1 below may best illustrate the relationship among the various metrics used when the Bookmark method is applied. The solid lines represent steps in the standard-setting process described above; the dotted line represents the scaling described in the next section.

**Figure 6.1 Bookmark Standard Setting Process for the STS**



## Results

The cut scores obtained as a result of the standard-setting process are on the IRT scale; each recommended cut score is associated with a theta value in the OIB. This RP67 Theta has a corresponding number-correct or raw score for the test form upon which standards were set; the scores are then translated to a score scale that ranges between 150 and 600. The cut score for the basic performance level is 300 for every grade and content area; this means that a student must earn a score of 300 or higher to achieve a basic classification. The cut score for the proficient performance level is 350 for every grade and content area; this means that a student must earn a score of 350 or higher to achieve a proficient classification.

The cut scores for the other performance levels are derived using procedures based on IRT and usually vary by grade and content area. Each raw cut score for a given test is mapped to an IRT *theta* ( $\theta$ ) using the test characteristic function or curve and then transformed to the scale-score metric using the following equation:

$$\text{Scale Cut Score} = (350 - \theta_{\text{proficient}} \times \left( \frac{350 - 300}{\theta_{\text{proficient}} - \theta_{\text{basic}}} \right)) + \left( \frac{350 - 300}{\theta_{\text{proficient}} - \theta_{\text{basic}}} \right) \times \theta_{\text{cut-score}} \quad (6.1)$$

where,

$\theta_{\text{cut-score}}$  represents the student ability at cut scores for performance levels other than proficient or basic, e.g., below basic or advanced,

$\theta_{\text{proficient}}$  represents the theta corresponding to the cut score for proficient, and

$\theta_{\text{basic}}$  represents the theta corresponding to the cut score for basic.

Please note that an IRT test characteristic function or curve is the sum of item characteristic curves (ICC), where an ICC represents the probability of correctly responding to an item conditioned on examinee ability.

The scale-score ranges for each performance level are presented in Table 2.1 on page 16. The cut score for each performance level is the lower bound of each scale-score range. The scale-score ranges do not change from year to year. Once established, they remain unchanged from administration to administration until such time that new performance levels are adopted.

Table 7.4 on page 162 in Chapter 7 presents the percentages of examinees meeting each performance level in 2013.

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## Chapter 7: Scoring and Reporting

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ETS conforms to high standards of quality and fairness (ETS, 2002) when scoring tests and reporting scores. These standards dictate that ETS provides accurate and understandable assessment results to the intended recipients. It is also ETS's mission to provide appropriate guidelines for score interpretation and cautions about the limitations in the meaning and use of the test scores. Finally, ETS conducts analyses needed to ensure that the assessments are equitable for various groups of test-takers.

### Procedures for Maintaining and Retrieving Individual Scores

Items for all the STS are multiple choice. Students are presented with a question and asked to select the correct answer from among four possible choices. In grades two and three, students mark their answer choices in the test booklet. In the other grades, students mark their answer choices in an answer document. All questions are machine scored.

In order to score and report STS results, ETS follows an established set of written procedures. The specifications for these procedures are presented in the next sections.

### Scoring and Reporting Specifications

ETS develops standardized scoring procedures and specifications so that test materials are processed and scored accurately. These documents include the following:

- **General Reporting Specifications**—Provides the calculation rules for the information presented on STAR summary reports and defines the appropriate codes to use when a student does not take or complete a test or when a score will not be reported
- **Score Key and Score Conversion**—Defines file formats and information that is provided for scoring and the process of converting raw scores to scale scores
- **Form Planner Specifications**—Describes, in detail, the contents of files that contain keys required for scoring
- **Aggregation Rules**—Describes how and when a school's results are aggregated at the school, district, county, and state levels
- **"What If" List**—Provides a variety of anomalous scenarios that may occur when test materials are returned by school districts to Pearson and defines the action(s) to be taken in response
- **Edit Specifications**—Describes edits, defaults, and solutions to errors encountered while data are being captured as answer documents are processed
- **Reporting Cluster Names and Item Numbers**—Identifies the reporting clusters for each test and the number of items in each cluster

The scoring specifications are reviewed and revised by the CDE, ETS, and Pearson each year. After a version agreeable to all parties is finalized, the CDE issues a formal approval of the scoring and reporting specifications.

### Scanning and Scoring

Answer documents are scanned and scored by Pearson in accordance with the scoring specifications that have been approved by the CDE. Answer documents are designed to produce a single complete record for each student. This record includes demographic data and scanned responses for each student; once computed, the scored responses and the total test scores for a student are also merged into the same record. All scores must comply

with the ETS scoring specifications. Pearson has quality control checks in place to ensure the quality and accuracy of scanning and the transfer of scores into the database of student records.

Each school district must return scorable and nonscorable materials within five working days after the selected last day of testing for each test administration period.

## **Types of Scores and Subscores**

### **Raw Score**

For all of the tests, the total test raw score equals the number of multiple-choice test items answered correctly.

### **Subscore**

The items in each STS are aggregated into groups of related content standards to form reporting clusters. A subscore is a measure of an examinee's performance on the items in each reporting cluster. These results are reported both as raw scores and percent of items answered correctly. A description of the STS reporting clusters is provided in Appendix 2.B of Chapter 2, starting on page 20.

### **Scale Score**

Raw scores obtained on each STS are transformed to three-digit scale scores using the equating process described in Chapter 2 on page 13. Scale scores range from 150 to 600 on each STS. The scale scores of examinees that have been tested in different years at a given grade level and content area can be compared. However, the raw scores of these examinees cannot be meaningfully compared, because these scores are affected by the relative difficulty of the test taken as well as the ability of the examinee.

### **Performance Levels**

The performance of each student on each STS is categorized into one of the following performance levels:

- far below basic
- below basic
- basic
- proficient
- advanced

For all STS, the cut score for the basic performance level is 300 for every grade and content area; this means that a student must earn a score of 300 or higher to achieve a basic classification. The cut score for the proficient performance level is 350 for every grade and content area; this means that a student must earn a score of 350 or higher to achieve a proficient classification. The cut scores for the other performance levels usually vary by grade and content area.

## **Score Verification Procedures**

Various necessary measures are taken to ascertain that the scoring keys are applied to the student responses as intended and the student scores are computed accurately.

### **Scoring Key Verification Process**

Scoring keys, provided in the form planners, are produced by ETS and verified by performing multiple quality-control checks. The form planners contain the information about

an assembled test form, including scoring keys, test name, administration year, subscore identification, and the standards and statistics associated with each item. The quality control checks that are performed before keys are finalized are listed below:

1. Keys in the form planners are checked against their matching test booklets to ensure that the correct keys are listed.
2. The form planners are checked for accuracy against the Form Planner Specification document and the Score Key and Score Conversion document before the keys are loaded into the score key management system (SKM) at ETS.
3. The printed lists of the scoring keys are checked again once the keys have been loaded into the SKM system.
4. The sequences of linking items in the form planners are matched with their sequences in the actual test booklets. Linking items are used to equate the scores on the current year's test form to scores obtained on the previous years' test forms so as to adjust for any differences in the difficulty level of the forms across years. This is accomplished during the equating process, as discussed in Chapter 2 on page 13.
5. The demarcations of various sections in the actual test booklets are checked against the list of demarcations provided by ETS test development staff.
6. Scoring is verified internally at Pearson. ETS independently generates scores and verifies Pearson's scoring of the data by comparing the two results. Any discrepancies are then resolved.
7. The entire scoring system is tested using a test deck that includes typical and extremely atypical response vectors.
8. Classical item analyses are computed on an early sample of data to provide an additional check of the keys. Although rare, if an item is found to be problematic, a follow-up process is carried out for it to be excluded from further analyses.

### **Score Verification Process**

ETS psychometricians employ special procedures that adjust for differences in item difficulty from one test form to another. (See Chapter 2, Equating, on page 13 for details.) As a result of this process, scoring tables are produced. Such tables map the current year's raw score to an appropriate scale score. A series of quality control (QC) checks is carried out by ETS psychometricians to ensure the accuracy of each scoring table, as discussed in Chapter 9 on page 322.

Pearson utilizes the scoring tables to generate scale scores for each student. ETS verifies Pearson's scale scores by conducting QC and reasonableness checks, which are described in Chapter 9 on page 323.

## **Overview of Score Aggregation Procedures**

In order to provide meaningful results to the stakeholders, STS scores for a given grade and content area are aggregated at the school, independently testing charter school, district, county, and state levels. The aggregated scores are generated both for individual scores and group scores. The next section contains a description of types of aggregation performed on STS scores.

### **Individual Scores**

The tables in this section provide state-level summary statistics describing student performance on each STS.

## Score Distributions and Summary Statistics

Summary statistics that describe the performance of students on each STS in the overall population are presented in Table 7.1. Analogous results are given in Table 7.2 and Table 7.3 for students in the target population and the optional population, respectively. The target population consists of students receiving instruction in Spanish or students who have attended school in the United States for less than 12 cumulative months. The optional population consists of students who receive instruction in English and who have attended school in the United States for 12 cumulative months or longer (see Chapter 1 on page 2 for more information on the intended population of STS test-takers). The optional population does *not* include students who were administered the STS for Non-ELs in Dual-Immersion Programs.

Included in the tables are the number of items in each test, the number of examinees taking each test, the means and standard deviations of student raw scores, and the means and standard deviations of scale scores. The last two columns in the tables list the raw score means and standard deviations as percentages of the total raw score points in each test.

The last content-area section in the tables present information on the grade-specific end-of-course testing groups. The statistics for grade-specific end-of-course testing groups are based on the population of test-takers in a particular grade for which the course is recommended.

**Table 7.1 Mean and Standard Deviation of Raw and Scale Scores for the STS (Overall Population)**

Content Area	STS *	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Score Percent Correct	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Reading/ Language Arts	2	65	13,458	329	54	40.31	13.27	62.01	20.42
	3	65	8,867	334	53	38.43	12.21	59.13	18.79
	4	75	5,241	328	56	43.54	14.96	58.05	19.95
	5	75	3,679	319	60	38.46	13.63	51.27	18.17
	6	75	2,193	325	63	39.49	13.91	52.65	18.54
	7	75	1,754	330	60	42.49	14.06	56.65	18.75
	8	75	1,358	328	57	41.56	13.52	55.42	18.03
	9	75	2,245	323	54	41.35	12.88	55.13	17.18
	10	75	1,357	325	55	42.43	12.55	56.57	16.73
	11	75	800	315	60	41.68	12.31	55.57	16.42
	Mathematics	2	65	13,349	360	75	44.13	12.15	67.88	18.69
3		65	8,787	364	75	43.54	12.48	66.98	19.20
4		65	5,140	363	77	42.53	12.99	65.43	19.99
5		65	3,589	347	86	36.07	11.68	55.50	17.97
6		65	2,122	332	81	33.55	12.37	51.62	19.03
7		65	1,648	316	68	30.29	10.79	46.60	16.60
Algebra I		65	3,076	293	49	25.78	9.98	39.65	15.36
Geometry		65	412	311	76	28.80	11.02	44.30	16.95
Grade-Specific	Algebra I – 8	65	514	292	48	25.43	9.82	39.12	15.11
	Geometry – 9	65	54	304	77	27.76	11.35	42.71	17.46

\* Numbers indicate grade-level tests.

**Note:** The overall population is comprised of the target population plus the optional population.

**Table 7.2 Mean and Standard Deviation of Raw and Scale Scores for the STS (Target Population)**

Content Area	STS *	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Score Percent Correct	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Reading/ Language Arts	2	65	8,854	329	55	40.31	13.42	62.01	20.65
	3	65	6,259	333	53	38.11	12.29	58.63	18.91
	4	75	3,903	326	54	43.20	14.78	57.60	19.71
	5	75	2,743	317	59	38.04	13.50	50.72	18.00
	6	75	1,725	323	62	39.07	13.69	52.10	18.26
	7	75	1,414	333	60	43.18	14.01	57.57	18.69
	8	75	1,083	330	58	42.21	13.57	56.28	18.09
	9	75	1,980	324	54	41.53	12.94	55.38	17.25
	10	75	1,177	327	55	42.89	12.48	57.19	16.65
	11	75	669	315	61	41.71	12.36	55.62	16.48
	Mathematics	2	65	8,851	359	76	43.95	12.29	67.62	18.91
3		65	6,243	362	75	43.15	12.66	66.38	19.47
4		65	3,885	361	78	42.15	13.14	64.84	20.21
5		65	2,728	341	83	35.18	11.45	54.13	17.62
6		65	1,695	326	77	32.70	12.05	50.30	18.54
7		65	1,351	317	67	30.42	10.77	46.79	16.57
Algebra I		65	2,687	293	49	25.74	9.99	39.60	15.36
Geometry		65	320	313	77	29.03	11.16	44.67	17.17
Grade-Specific	Algebra I – 8	65	382	291	49	25.37	9.89	39.03	15.21
	Geometry – 9	65	48	307	76	28.23	11.20	43.43	17.24

\* Numbers indicate grade-level tests.

**Note:** The target population consists of students receiving instruction in Spanish or students who have attended school in the United States for less than 12 months. These are cumulative, not consecutive, months.

**Table 7.3 Mean and Standard Deviation of Raw and Scale Scores for the STS (Optional Population)**

Content Area	STS *	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Score Percent Correct	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Reading/ Language Arts	2	65	4,604	329	53	40.32	12.98	62.03	19.97
	3	65	2,608	338	53	39.22	11.99	60.33	18.45
	4	75	1,338	332	59	44.53	15.42	59.37	20.57
	5	75	936	325	63	39.68	13.94	52.91	18.58
	6	75	468	332	68	41.03	14.58	54.71	19.45
	7	75	340	318	59	39.61	13.91	52.81	18.55
	8	75	275	317	54	39.01	13.04	52.02	17.39
	9	75	265	317	51	39.94	12.39	53.26	16.52
	10	75	180	312	55	39.41	12.58	52.54	16.77
	11	75	131	313	59	41.51	12.11	55.35	16.15
	Mathematics	2	65	4,498	361	73	44.47	11.84	68.41	18.22
3		65	2,544	369	74	44.49	11.99	68.45	18.44
4		65	1,255	369	76	43.71	12.47	67.25	19.19
5		65	861	369	91	38.89	11.96	59.83	18.40
6		65	427	356	90	36.96	13.03	56.86	20.04
7		65	297	313	70	29.71	10.88	45.70	16.73
Algebra I		65	389	295	49	26.01	9.97	40.01	15.33
Geometry		65	92	304	72	27.97	10.52	43.03	16.18

Content Area	STS *	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Score Percent Correct	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Grade-Specific	Algebra I – 8	65	132	292	47	25.58	9.68	39.36	14.89
	Geometry – 9	65	6	–	–	–	–	–	–

\* Numbers indicate grade-level tests.

Statistics are not reported for tests with N less than 11.

**Note:** The optional population consists of students who receive instruction in English and who have attended school in the United States for 12 cumulative months or longer.

The percentages of students in each performance level are presented in Table 7.4. The last column of the table presents the overall percentages of examinees that were classified at the proficient level or higher.

The numbers in the summary tables may not match exactly the results reported on the CDE’s Web site because of slight differences in the samples used to compute the statistics. The P2 data file was used for the analyses in this chapter. This file contained data collected from all school districts but did not include corrections of demographic data through the Demographic Data Corrections process. In addition, students with invalid scores were excluded from the tables.

**Table 7.4 Percentages of Examinees in Each Performance Level**

Content Area	STS *	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/Advanced †
Reading/Language Arts	2	4%	29%	31%	19%	17%	37%
	3	4%	26%	34%	22%	14%	36%
	4	11%	22%	33%	21%	14%	35%
	5	24%	18%	29%	19%	10%	29%
	6	17%	21%	30%	21%	11%	32%
	7	9%	24%	28%	24%	15%	38%
	8	7%	26%	33%	24%	11%	35%
	9	8%	26%	33%	22%	11%	33%
	10	7%	23%	33%	26%	11%	37%
	11	9%	32%	29%	21%	9%	30%
	Mathematics	2	1%	21%	26%	31%	21%	52%
3		2%	21%	25%	29%	23%	52%
4		5%	19%	23%	32%	21%	53%
5		13%	22%	24%	23%	18%	42%
6		18%	23%	25%	19%	16%	34%
7		18%	28%	27%	18%	9%	27%
Algebra I		37%	26%	23%	10%	4%	14%
Geometry	20%	34%	19%	18%	10%	28%	

\* Numbers indicate grade-level tests.

† May not exactly match the sum of percent proficient and percent advanced due to rounding.

Table 7.A.1 through Table 7.A.8 in Appendix 7.A, starting on page 168, show the distributions of scale scores for each STS for the overall and target populations, respectively.

The results are reported in terms of 15 score intervals, each of which contains 30 scale score points. A cell value of “N/A” indicates that there are no obtainable scale scores within that scale-score range for the particular STS.

For each grade level and content area, the distributions are presented for all examinees and for the target population. Table 7.A.7 and Table 7.A.8 present similar information for grade-specific results of the Algebra I and Geometry EOC tests.

## Group Scores

Statistics summarizing student performance by content area and grade for selected groups of students are provided starting on page 172 in Table 7.B.1 through Table 7.B.36 for the STS. The summary tables are provided for each STS based on all examinees and the target population, respectively. When a test is administered at more than one grade level, the results are reported for all students tested and also by grade.

In these tables, students are grouped by demographic characteristics, including gender, country of origin, economic status, length of enrollment in U.S. schools, English learner (EL) program participation, and special education programs. The tables show, for each demographic group, the numbers of valid cases, scale score means and standard deviations, the percentages of students in each performance level, as well as the mean-percent correct in each reporting cluster.

Table 7.5 provides definitions of the demographic groups included in the tables. Students’ economic status was determined by considering the education level of their parents and whether or not they 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 test- and reporting-cluster-level are not reported and are presented as hyphens. Percentages in these tables may not sum up to 100 due to rounding.

**Table 7.5 Subgroup Definitions**

<b>Subgroup</b>	<b>Definition</b>
Gender	<ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> </ul>
Country of Origin	<ul style="list-style-type: none"> <li>• Argentina</li> <li>• Bolivia</li> <li>• Brazil</li> <li>• Chile</li> <li>• Colombia</li> <li>• Costa Rica</li> <li>• Cuba</li> <li>• Ecuador</li> <li>• El Salvador</li> <li>• Guatemala</li> <li>• Mexico</li> <li>• Nicaragua</li> <li>• Panama</li> <li>• Paraguay</li> <li>• Peru</li> <li>• Puerto Rico</li> <li>• Spain</li> </ul>

Subgroup	Definition
	<ul style="list-style-type: none"> <li>• United States</li> <li>• Uruguay</li> <li>• Venezuela</li> <li>• Other</li> </ul>
Economic Status	<ul style="list-style-type: none"> <li>• Not economically disadvantaged</li> <li>• Economically disadvantaged</li> </ul>
Enrollment in U.S. Schools	<ul style="list-style-type: none"> <li>• Less than 12 months</li> <li>• 12 months or more</li> </ul>
EL Program Participation	<ul style="list-style-type: none"> <li>• Primary Language Instruction and English-Language Development (ELD) Instruction and/or Specially Designed Academic Instruction in English (SDAIE) Instruction</li> <li>• ELD Instruction Only</li> <li>• SDAIE Instruction Only</li> <li>• ELD Instruction and SDAIE Instruction but Not Primary Language Instruction</li> <li>• Other EL Instructional Services</li> <li>• None (EL only)</li> </ul>
Special Services	<ul style="list-style-type: none"> <li>• No special services</li> <li>• Special services</li> </ul>

In addition to the subgroups presented in Table 7.5, the demographic tables also include grade-level data for the end-of-course mathematics STS. The grades included for the end-of-course tests are as follows:

Grades	Test
7, 8, 9, 10, 11	Algebra I
8, 9, 10, 11	Geometry

## Reports Produced and Scores for Each Report

The tests that make up the STAR Program provide results or score summaries that are reported for different purposes. The four major purposes include:

1. Communicating with parents and guardians;
2. Informing decisions needed to support student achievement;
3. Evaluating school programs; and
4. Providing data for state and federal accountability programs for schools and districts.

A detailed description of the uses and applications of STAR reports is presented in the next section.

### Types of Score Reports

There are three categories of STS reports. These categories and the specific reports in each category are given in Table 7.6.

**Table 7.6 Types of STS Reports**

1. Summary Reports	<ul style="list-style-type: none"> <li>▪ STAR Student Master List Summary</li> <li>▪ STAR Student Master List Summary, End-of-Course</li> <li>▪ STAR Subgroup Summary</li> </ul>
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2. Individual Reports	<ul style="list-style-type: none"> <li>▪ STAR Student Record Label</li> <li>▪ STAR Student Master List</li> <li>▪ STAR Student Report for the STS</li> </ul>
<hr/>	
3. Internet Reports	<ul style="list-style-type: none"> <li>▪ STS Scores (state, county, district, school)</li> <li>▪ STS Summary Scores (state, county, district, school)</li> </ul>

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These reports are sent to the independently testing charter schools, counties, or school districts; the school district forwards the appropriate reports to test sites or, in the case of the STAR Student Report, sends the report(s) to the child’s parent or guardian and forwards a copy to the student’s school or test site. Reports such as the STAR Student Report, Student Record Label, and Student Master List 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://star.cde.ca.gov/>.

### Score Report Contents

The STAR Student Report provides scale scores, performance levels, and reporting cluster (subscore) results for each STS. Scale scores are reported on a scale ranging from 150 to 600. The performance levels reported are: far below basic, below basic, basic, proficient, and advanced.

In addition, percent-correct scores are provided at the cluster level. Also given for each cluster is the average percent-correct for proficient students, which is presented as a range from the percent-correct score associated with the lowest proficient score on the total test to the percent-correct score associated with the lowest advanced score on the total test, less one percent. The average percent-correct estimates associated with the lowest proficient and advanced scores are obtained empirically for the tests that have sample sizes of 25 or more examinees at both the minimum proficient and the minimum advanced score levels. In cases where the available sample sizes are less than 25, “data smoothing” is conducted before obtaining the averages (Lu & Smith, 2009).

Reports for students with disabilities who use accommodations or modifications include a notation that indicates that the student used accommodations or was tested with modifications. Scores for students who use accommodations are reported in the same way as they are for nonaccommodated students. Modifications, however, change what is being tested and, therefore, change scores. If students use modifications, their scores are counted differently from nonmodified test scores on summary reports. On the STAR summary reports, these students’ STS scores are counted as far below basic for tests that report performance levels, regardless of the scale score obtained.

Further information about the STAR Student Report and the other reports is provided in Appendix 7.C on page 213.

### Score Report Applications

STS 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 report cards from teachers and information from school and classroom tests, the STAR Student Report can be used by parents and guardians while talking with teachers about ways to improve their child’s achievement of the California content standards.

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

STS results help school districts and schools identify strengths and weaknesses in their instructional programs. Each year, school districts and school staffs examine STS results at each grade 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.

## Criteria for Interpreting Test Scores

A school district may use STS 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 STS results (CDE, 2013a). 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.

## 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 for the STS, the user is limited to comparisons within the same content area and grade. This is because the score scales are different for each content area and grade. 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. The user can also make comparisons within the same grade and content area across years. Comparing scores obtained in different grades or content areas should be avoided because the results are not on the same scale. Comparisons between raw scores or cluster scores should be limited to comparisons within not only content area and grade but also test year. For more details on the criteria for interpreting information provided on the score reports, see the *2013 STAR Post-Test Guide* (CDE, 2013b).

## References

- California Department of Education. (2013a). *2013 STAR CST/CMA, CAPA, and STS printed reports*. Sacramento, CA. Downloaded from <http://www.startest.org/pdfs/STAR.reports.2013.pdf>
- California Department of Education. (2013b). *STAR 2013 post-test guide*. Sacramento, CA. Downloaded from [http://www.startest.org/pdfs/STAR.post-test\\_guide.2013.pdf](http://www.startest.org/pdfs/STAR.post-test_guide.2013.pdf)
- Educational Testing Service. (2002). *ETS standards for quality and fairness*. Princeton, NJ: Author.
- Lu, Y., & Smith, R. L. (2009, April). *An alternative method to estimate cluster performance of proficient students on a large scale state assessment*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Diego, CA.

## Appendix 7.A—Scale Score Distribution Tables

*In Appendix 7.A, a cell value of “N/A” indicates that there are no obtainable scale scores within that scale-score range for the particular STS.*

STS populations are as follows:

- Overall population—target population plus the optional population
- Target population— students receiving instruction in Spanish or students who have attended school in the United States for less than 12 months (cumulative, not consecutive, months)
- Optional population—students who receive instruction in English and who have attended school in the United States for 12 cumulative months or longer

**Table 7.A.1 Distribution of STS Scale Scores for RLA, Grades Two through Eleven (Overall Population)**

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
570 – 600	6	1	0	1	1	1	0	0	0	0
540 – 569	N/A	N/A	2	3	1	1	0	0	0	0
510 – 539	N/A	12	N/A	6	2	5	2	0	0	0
480 – 509	42	27	20	15	28	16	8	3	1	0
450 – 479	206	124	50	52	64	42	22	24	12	9
420 – 449	402	415	247	116	83	85	57	66	34	25
390 – 419	1,238	722	459	292	156	163	108	183	122	44
360 – 389	2,226	1,544	844	394	277	202	194	266	211	120
330 – 359	2,360	1,654	908	623	346	318	245	466	245	125
300 – 329	2,600	1,817	1,006	658	416	307	255	464	302	156
270 – 299	2,265	1,508	782	670	360	305	263	401	185	125
240 – 269	1,638	879	719	595	314	238	150	260	147	108
210 – 239	439	148	191	219	126	61	48	93	76	58
180 – 209	36	16	13	33	17	10	6	16	22	28
150 – 179	0	0	0	2	2	0	0	3	0	2

**Table 7.A.2 Distribution of STS Scale Scores for RLA, Grades Two through Eleven (Target Population)**

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
570 – 600	5	1	0	0	1	1	0	0	0	0
540 – 569	N/A	N/A	0	2	1	1	0	0	0	0
510 – 539	N/A	7	N/A	3	2	4	1	0	0	0
480 – 509	26	14	12	9	12	14	8	2	1	0
450 – 479	136	89	22	30	42	34	19	21	10	8
420 – 449	274	276	171	83	65	73	48	62	33	24
390 – 419	847	516	328	214	125	140	93	166	110	34
360 – 389	1,470	1,080	635	284	218	169	165	239	190	104
330 – 359	1,534	1,120	684	463	260	268	196	414	215	102
300 – 329	1,649	1,276	766	493	336	240	203	399	262	121
270 – 299	1,484	1,097	588	507	294	238	194	354	155	108
240 – 269	1,090	658	537	452	256	182	116	226	120	95
210 – 239	313	113	148	175	97	41	34	79	62	49
180 – 209	26	12	12	26	16	9	6	15	19	23
150 – 179	0	0	0	2	0	0	0	3	0	1

**Table 7.A.3 Distribution of STS Scale Scores for Mathematics, Grades Two through Seven (Overall Population)**

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
570 – 600	193	124	38	51	15	5
540 – 569	N/A	N/A	71	40	25	7
510 – 539	197	147	88	71	8	8
480 – 509	599	375	218	102	63	19
450 – 479	683	453	276	195	72	32
420 – 449	1,122	962	424	219	121	75
390 – 419	1,535	986	749	341	136	84
360 – 389	1,952	1,152	688	495	228	135
330 – 359	2,099	1,559	798	520	337	231
300 – 329	2,139	1,133	602	396	295	286
270 – 299	1,344	1,023	603	483	312	325
240 – 269	1,037	595	395	347	257	291
210 – 239	346	258	159	224	181	119
180 – 209	92	19	26	70	51	28
150 – 179	11	1	5	35	21	3

**Table 7.A.4 Distribution of STS Scale Scores for Mathematics, Grades Two through Seven (Target Population)**

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
570 – 600	125	82	26	29	3	4
540 – 569	N/A	N/A	57	24	13	5
510 – 539	140	95	65	42	7	6
480 – 509	397	254	157	64	44	15
450 – 479	462	317	200	137	49	25
420 – 449	730	679	322	156	94	63
390 – 419	1,010	695	543	239	108	74
360 – 389	1,245	798	517	376	172	114
330 – 359	1,374	1,105	592	406	270	202
300 – 329	1,415	801	468	314	239	220
270 – 299	921	727	463	371	257	268
240 – 269	707	459	312	290	221	235
210 – 239	257	212	138	189	156	95
180 – 209	60	18	21	64	42	22
150 – 179	8	1	4	27	20	3

**Table 7.A.5 Distribution of STS Scale Scores for Algebra I and Geometry (Overall Population)**

<b>Scale Score</b>	<b>Algebra I</b>	<b>Geometry</b>
570 – 600	0	1
540 – 569	1	2
510 – 539	1	5
480 – 509	4	5
450 – 479	14	12
420 – 449	38	14
390 – 419	89	22
360 – 389	169	33
330 – 359	306	48
300 – 329	539	54
270 – 299	785	76
240 – 269	784	87
210 – 239	321	32
180 – 209	22	15
150 – 179	3	6

**Table 7.A.6 Distribution of STS Scale Scores for Algebra I and Geometry (Target Population)**

<b>Scale Score</b>	<b>Algebra I</b>	<b>Geometry</b>
570 – 600	0	1
540 – 569	1	1
510 – 539	1	5
480 – 509	4	5
450 – 479	9	12
420 – 449	34	10
390 – 419	80	15
360 – 389	144	24
330 – 359	273	35
300 – 329	459	41
270 – 299	693	66
240 – 269	681	67
210 – 239	285	25
180 – 209	20	9
150 – 179	3	4

**Table 7.A.7 Distribution of STS Scale Scores for Grade-specific Mathematics (Overall Population)**

<b>Scale Score</b>	<b>Algebra I – Grade 8</b>	<b>Geometry – Grade 9</b>
570 – 600	0	0
540 – 569	0	0
510 – 539	0	1
480 – 509	1	0
450 – 479	1	1
420 – 449	6	1
390 – 419	11	3
360 – 389	32	10
330 – 359	48	2
300 – 329	84	5
270 – 299	131	9
240 – 269	143	13
210 – 239	52	5
180 – 209	5	3
150 – 179	0	1

**Table 7.A.8 Distribution of STS Scale Scores for Grade-specific Mathematics (Target Population)**

<b>Scale Score</b>	<b>Algebra I – Grade 8</b>	<b>Geometry – Grade 9</b>
570 – 600	0	0
540 – 569	0	0
510 – 539	0	1
480 – 509	1	0
450 – 479	1	1
420 – 449	3	1
390 – 419	11	3
360 – 389	23	8
330 – 359	34	2
300 – 329	63	5
270 – 299	95	8
240 – 269	108	12
210 – 239	40	5
180 – 209	3	2
150 – 179	0	0

## Appendix 7.B—Demographic Summaries

To protect privacy when the number of students in a subgroup is 10 or fewer, the summary statistics at the test- and reporting-cluster-level are not reported and are presented as hyphens in the tables in Appendix 7.C. Percentages in these tables may not sum up to 100 due to rounding.

STS populations are as follows:

- Overall population—Target population plus the optional population
- Target population—Students receiving instruction in Spanish or students who have attended school in the United States for less than 12 months (cumulative, not consecutive, months)
- Optional population—Students who receive instruction in English and who have attended school in the United States for 12 cumulative months or longer

**Table 7.B.1 Demographic Summary for RLA, Grade Two (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	13,458	329	54	4%	29%	31%	19%	17%	69%	60%	61%	62%	48%
Male	6,800	321	53	4%	34%	31%	17%	13%	67%	56%	58%	59%	45%
Female	6,640	337	54	3%	24%	31%	21%	20%	71%	64%	64%	65%	51%
Gender unknown	18	320	43	0%	39%	28%	33%	0%	67%	57%	63%	59%	43%
Argentina	5	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	1	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	7	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	4	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	3	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	128	311	55	5%	42%	28%	14%	10%	60%	56%	59%	51%	42%
Guatemala	70	311	53	4%	41%	30%	14%	10%	61%	56%	56%	52%	43%
Mexico	1,139	320	58	6%	35%	28%	15%	16%	65%	57%	59%	57%	44%
Nicaragua	7	—	—	—	—	—	—	—	—	—	—	—	—
Panama	2	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	9	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	9	—	—	—	—	—	—	—	—	—	—	—	—
Spain	10	—	—	—	—	—	—	—	—	—	—	—	—
United States	11,107	330	54	3%	28%	32%	20%	17%	70%	60%	61%	63%	48%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	0	—	—	—	—	—	—	—	—	—	—	—	—
Other	63	314	62	11%	32%	33%	14%	10%	61%	55%	54%	55%	44%
Country unknown	889	329	54	3%	29%	30%	21%	17%	69%	60%	61%	62%	49%

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Not economically disadvantaged	882	336	57	3%	25%	31%	18%	23%	71%	63%	63%	65%	51%
Economically disadvantaged	12,338	328	54	3%	29%	31%	20%	16%	69%	60%	61%	62%	48%
Economic status unknown	238	321	60	9%	27%	33%	16%	15%	67%	56%	60%	57%	43%
In U.S. schools < 12 months	1,382	298	52	11%	45%	26%	11%	7%	56%	50%	54%	47%	37%
In U.S. schools ≥ 12 months	12,076	332	54	3%	27%	32%	20%	18%	70%	61%	62%	64%	49%
Primary language instruction and ELD and/or SDAIE instruction	7,921	334	54	3%	27%	31%	21%	19%	71%	61%	62%	64%	50%
ELD instruction only	349	312	56	6%	42%	27%	15%	10%	62%	53%	56%	53%	43%
SDAIE instruction only	547	320	55	5%	35%	30%	16%	14%	65%	57%	59%	58%	45%
ELD instr. and SDAIE instr. but not primary language instr.	3,341	325	56	5%	31%	30%	18%	16%	67%	59%	60%	60%	47%
Other EL instructional services	463	324	51	4%	30%	33%	20%	13%	67%	60%	61%	60%	44%
None (EL only)	40	314	53	5%	33%	43%	10%	10%	65%	57%	56%	51%	44%
Program participation unknown	797	313	49	4%	37%	35%	15%	9%	64%	53%	57%	56%	43%
No special education	12,857	331	54	3%	28%	32%	20%	17%	70%	60%	62%	63%	49%
Special education	601	292	48	11%	51%	24%	9%	4%	55%	44%	47%	46%	35%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.2 Demographic Summary for RLA, Grade Two (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	8,854	329	55	4%	29%	31%	19%	17%	69%	60%	61%	62%	48%
Male	4,475	320	54	5%	34%	31%	17%	14%	66%	55%	58%	58%	45%
Female	4,370	338	55	3%	24%	31%	22%	21%	72%	64%	64%	65%	51%
Gender unknown	9	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	3	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	0	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	5	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	3	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	2	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	2	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	91	305	55	5%	49%	25%	9%	11%	57%	53%	59%	47%	41%
Guatemala	50	301	49	6%	46%	30%	12%	6%	56%	52%	53%	47%	40%
Mexico	896	319	58	7%	35%	27%	15%	16%	64%	57%	59%	56%	44%
Nicaragua	5	—	—	—	—	—	—	—	—	—	—	—	—
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	9	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	9	—	—	—	—	—	—	—	—	—	—	—	—
Spain	10	—	—	—	—	—	—	—	—	—	—	—	—
United States	7,203	330	54	3%	28%	31%	20%	18%	70%	60%	61%	63%	48%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	0	—	—	—	—	—	—	—	—	—	—	—	—
Other	31	287	54	23%	39%	23%	13%	3%	51%	46%	44%	44%	33%
Country unknown	532	333	54	3%	26%	32%	22%	18%	71%	61%	63%	63%	51%
Not economically disadvantaged	556	333	57	4%	26%	31%	17%	22%	70%	62%	63%	63%	49%
Economically disadvantaged	8,120	329	55	4%	29%	30%	19%	17%	69%	60%	61%	62%	48%
Economic status unknown	178	326	61	8%	25%	33%	17%	17%	68%	57%	61%	59%	46%
In U.S. schools < 12 months	1,382	298	52	11%	45%	26%	11%	7%	56%	50%	54%	47%	37%
In U.S. schools ≥ 12 months	7,472	335	54	2%	26%	31%	21%	19%	71%	62%	62%	65%	50%
Primary language instruction and ELD and/or SDAIE instruction	7,921	334	54	3%	27%	31%	21%	19%	71%	61%	62%	64%	50%
ELD instruction only	143	290	51	10%	55%	19%	10%	6%	52%	46%	52%	42%	36%
SDAIE instruction only	115	282	48	17%	54%	19%	6%	4%	49%	43%	47%	39%	34%
ELD instr. and SDAIE instr. but not primary language instr.	582	290	51	15%	48%	23%	8%	5%	52%	47%	52%	42%	34%
Other EL instructional services	17	284	39	12%	53%	29%	6%	0%	51%	45%	49%	39%	32%
None (EL only)	17	280	43	12%	47%	41%	0%	0%	52%	45%	50%	32%	32%
Program participation unknown	59	290	39	7%	58%	27%	7%	2%	54%	45%	51%	42%	35%
No special education	8,460	331	55	3%	28%	31%	20%	18%	70%	60%	62%	63%	49%
Special education	394	292	48	11%	52%	23%	10%	4%	55%	44%	46%	47%	34%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.3 Demographic Summary for RLA, Grade Three (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	8,867	334	53	4%	25%	34%	22%	15%	67%	53%	51%	61%	58%
Male	4,480	327	53	5%	28%	35%	19%	12%	64%	49%	49%	58%	56%
Female	4,376	341	53	3%	22%	33%	26%	17%	69%	56%	53%	63%	60%
Gender unknown	11	343	68	9%	18%	18%	36%	18%	66%	56%	60%	64%	62%
Argentina	4	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	14	362	55	0%	21%	14%	29%	36%	77%	65%	64%	69%	63%
Costa Rica	5	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	4	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	131	320	51	8%	34%	29%	21%	8%	63%	50%	50%	52%	47%
Guatemala	107	322	56	8%	28%	34%	17%	13%	63%	51%	48%	51%	50%
Mexico	1,041	331	56	5%	27%	32%	20%	15%	66%	53%	51%	56%	55%
Nicaragua	10	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	10	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	7	—	—	—	—	—	—	—	—	—	—	—	—
Spain	6	—	—	—	—	—	—	—	—	—	—	—	—
United States	7,027	335	52	3%	25%	35%	23%	14%	67%	53%	51%	62%	59%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	2	—	—	—	—	—	—	—	—	—	—	—	—
Other	41	305	51	20%	22%	41%	12%	5%	58%	45%	40%	46%	46%
Country unknown	448	341	55	4%	23%	31%	25%	18%	68%	55%	54%	64%	62%
Not economically disadvantaged	646	346	55	3%	19%	31%	26%	21%	70%	58%	56%	65%	62%
Economically disadvantaged	8,130	333	53	4%	25%	34%	22%	14%	66%	52%	51%	60%	58%
Economic status unknown	91	332	56	5%	29%	26%	24%	15%	67%	51%	52%	60%	56%
In U.S. schools < 12 months	1,284	316	53	9%	35%	31%	16%	10%	61%	49%	47%	49%	48%
In U.S. schools ≥ 12 months	7,583	337	53	3%	23%	35%	24%	16%	67%	53%	52%	63%	60%
Primary language instruction and ELD and/or SDAIE instruction	5,334	337	52	3%	24%	34%	23%	15%	67%	53%	51%	62%	60%
ELD instruction only	250	322	55	8%	28%	35%	16%	12%	62%	49%	48%	53%	54%
SDAIE instruction only	276	320	53	8%	32%	29%	22%	9%	63%	51%	46%	52%	51%
ELD instr. and SDAIE instr. but not primary language instr.	2,356	332	55	4%	27%	33%	21%	15%	66%	52%	51%	59%	57%
Other EL instructional services	466	334	52	4%	23%	36%	23%	14%	66%	53%	51%	62%	56%
None (EL only)	35	322	56	11%	26%	31%	17%	14%	63%	50%	49%	54%	53%
Program participation unknown	150	326	50	4%	27%	40%	21%	9%	64%	52%	48%	57%	55%
No special education	8,434	336	53	3%	24%	35%	23%	15%	67%	54%	52%	62%	59%
Special education	433	289	41	14%	52%	25%	7%	2%	49%	36%	37%	43%	42%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.4 Demographic Summary for RLA, Grade Three (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	6,259	333	53	4%	26%	34%	22%	14%	66%	52%	50%	60%	58%
Male	3,182	326	53	5%	29%	35%	18%	12%	64%	49%	49%	57%	56%
Female	3,067	339	53	3%	23%	32%	25%	17%	68%	56%	52%	62%	59%
Gender unknown	10	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	3	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	12	365	56	0%	25%	8%	25%	42%	78%	68%	60%	69%	65%
Costa Rica	4	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	98	312	50	9%	41%	28%	17%	5%	60%	48%	47%	48%	43%
Guatemala	79	317	58	11%	29%	29%	20%	10%	61%	51%	47%	49%	47%
Mexico	869	328	55	5%	29%	32%	19%	14%	66%	52%	50%	54%	54%
Nicaragua	6	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	7	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	6	—	—	—	—	—	—	—	—	—	—	—	—
United States	4,866	334	52	3%	25%	34%	23%	14%	66%	52%	51%	61%	59%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	2	—	—	—	—	—	—	—	—	—	—	—	—
Other	28	300	48	21%	21%	43%	11%	4%	58%	44%	39%	43%	42%
Country unknown	261	335	56	5%	28%	30%	20%	18%	67%	53%	52%	60%	60%
Not economically disadvantaged	432	343	54	3%	19%	33%	26%	19%	69%	57%	54%	63%	61%
Economically disadvantaged	5,745	332	53	4%	26%	34%	21%	14%	66%	52%	50%	60%	57%
Economic status unknown	82	333	55	6%	26%	27%	27%	15%	68%	52%	52%	60%	56%
In U.S. schools < 12 months	1,284	316	53	9%	35%	31%	16%	10%	61%	49%	47%	49%	48%
In U.S. schools ≥ 12 months	4,975	337	52	3%	24%	34%	23%	16%	67%	53%	51%	63%	60%
Primary language instruction and ELD and/or SDAIE instruction	5,334	337	52	3%	24%	34%	23%	15%	67%	53%	51%	62%	60%
ELD instruction only	125	317	58	10%	30%	36%	13%	12%	61%	49%	49%	48%	51%
SDAIE instruction only	114	308	53	12%	41%	22%	18%	6%	58%	47%	44%	46%	43%
ELD instr. and SDAIE instr. but not primary language instr.	613	308	51	9%	42%	29%	12%	8%	58%	47%	44%	46%	44%
Other EL instructional services	23	332	49	4%	30%	35%	9%	22%	68%	54%	55%	54%	53%
None (EL only)	24	325	55	8%	25%	33%	21%	13%	63%	49%	51%	56%	55%
Program participation unknown	26	301	60	19%	35%	19%	19%	8%	56%	42%	46%	40%	46%
No special education	5,973	335	53	4%	25%	34%	23%	15%	67%	53%	51%	61%	58%
Special education	286	288	42	15%	51%	25%	8%	1%	49%	35%	37%	43%	42%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.5 Demographic Summary for RLA, Grade Four (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	5,241	328	56	10%	22%	32%	21%	15%	64%	58%	49%	64%	49%
Male	2,619	317	55	14%	26%	32%	17%	11%	60%	54%	45%	60%	46%
Female	2,613	338	55	7%	18%	32%	24%	19%	68%	61%	54%	68%	53%
Gender unknown	9	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	2	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	13	363	51	0%	0%	46%	31%	23%	75%	72%	62%	75%	63%
Costa Rica	5	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	133	319	50	7%	31%	38%	14%	11%	61%	54%	49%	59%	47%
Guatemala	78	321	55	13%	23%	35%	18%	12%	61%	55%	46%	61%	49%
Mexico	884	325	54	11%	22%	34%	21%	12%	62%	57%	51%	62%	49%
Nicaragua	4	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	7	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	9	—	—	—	—	—	—	—	—	—	—	—	—
Spain	5	—	—	—	—	—	—	—	—	—	—	—	—
United States	3,681	327	55	11%	22%	31%	21%	15%	64%	58%	49%	65%	49%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	65	310	55	18%	25%	31%	17%	9%	60%	53%	44%	55%	43%
Country unknown	343	346	61	7%	17%	31%	18%	26%	70%	63%	55%	70%	56%
Not economically disadvantaged	430	342	61	8%	18%	30%	21%	23%	68%	63%	54%	68%	55%
Economically disadvantaged	4,722	326	55	11%	23%	32%	21%	14%	63%	57%	49%	64%	49%
Economic status unknown	89	334	53	6%	20%	35%	24%	16%	66%	61%	55%	66%	50%
In U.S. schools < 12 months	1,162	319	53	12%	24%	35%	19%	10%	60%	55%	50%	60%	47%
In U.S. schools ≥ 12 months	4,079	330	56	10%	22%	31%	21%	16%	65%	59%	49%	65%	50%
Primary language instruction and ELD and/or SDAIE instruction	3,017	329	55	10%	21%	31%	22%	15%	64%	58%	49%	65%	49%
ELD instruction only	217	317	57	15%	26%	33%	14%	12%	59%	53%	46%	59%	46%
SDAIE instruction only	193	322	56	13%	22%	32%	19%	14%	62%	55%	49%	61%	48%
ELD instr. and SDAIE instr. but not primary language instr.	1,499	325	55	10%	24%	33%	20%	13%	63%	57%	49%	63%	49%
Other EL instructional services	240	348	62	7%	15%	30%	22%	26%	70%	64%	56%	71%	55%
None (EL only)	22	321	69	9%	32%	27%	14%	18%	61%	55%	42%	56%	52%
Program participation unknown	53	313	54	13%	25%	40%	9%	13%	59%	52%	48%	57%	44%
No special education	4,942	330	55	9%	21%	33%	22%	16%	65%	59%	50%	65%	50%
Special education	298	282	47	33%	37%	19%	7%	4%	45%	41%	35%	47%	34%
Special education unknown	1	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.6 Demographic Summary for RLA, Grade Four (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	3,903	326	54	11%	22%	33%	21%	14%	63%	58%	49%	64%	49%
Male	1,963	316	54	14%	27%	32%	17%	10%	59%	54%	45%	60%	46%
Female	1,932	336	53	7%	18%	33%	25%	17%	67%	61%	53%	68%	52%
Gender unknown	8	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	2	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	12	367	51	0%	0%	42%	33%	25%	76%	72%	63%	75%	66%
Costa Rica	4	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	3	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	109	314	48	8%	32%	38%	13%	9%	60%	53%	47%	57%	45%
Guatemala	66	321	56	14%	20%	38%	17%	12%	60%	55%	47%	62%	48%
Mexico	763	325	54	10%	22%	34%	21%	13%	62%	56%	52%	62%	49%
Nicaragua	3	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	5	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	9	—	—	—	—	—	—	—	—	—	—	—	—
Spain	3	—	—	—	—	—	—	—	—	—	—	—	—
United States	2,677	327	55	11%	22%	32%	21%	14%	63%	58%	48%	64%	49%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	40	314	59	23%	20%	28%	20%	10%	60%	56%	47%	57%	45%
Country unknown	199	329	55	10%	22%	33%	18%	17%	65%	57%	49%	66%	50%
Not economically disadvantaged	275	337	56	7%	19%	31%	25%	19%	67%	62%	53%	67%	54%
Economically disadvantaged	3,545	325	54	11%	23%	33%	21%	13%	63%	57%	49%	63%	48%
Economic status unknown	83	337	53	5%	19%	35%	24%	17%	67%	62%	56%	67%	50%
In U.S. schools < 12 months	1,162	319	53	12%	24%	35%	19%	10%	60%	55%	50%	60%	47%
In U.S. schools ≥ 12 months	2,741	329	55	10%	22%	31%	22%	15%	64%	59%	49%	65%	49%
Primary language instruction and ELD and/or SDAIE instruction	3,017	329	55	10%	21%	31%	22%	15%	64%	58%	49%	65%	49%
ELD instruction only	124	311	53	15%	29%	37%	10%	8%	56%	53%	46%	56%	45%
SDAIE instruction only	104	315	57	13%	29%	33%	12%	13%	59%	53%	48%	55%	45%
ELD instr. and SDAIE instr. but not primary language instr.	587	319	50	11%	24%	36%	21%	8%	60%	55%	50%	60%	47%
Other EL instructional services	24	319	49	8%	21%	50%	13%	8%	58%	57%	46%	63%	47%
None (EL only)	18	325	71	6%	33%	28%	11%	22%	61%	56%	43%	58%	53%
Program participation unknown	29	306	49	10%	34%	34%	14%	7%	54%	51%	49%	54%	42%
No special education	3,721	328	54	9%	22%	33%	22%	14%	64%	58%	50%	65%	50%
Special education	181	279	48	36%	37%	15%	7%	4%	44%	40%	34%	44%	34%
Special education unknown	1	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.7 Demographic Summary for RLA, Grade Five (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	3,679	319	60	23%	18%	29%	19%	11%	52%	45%	53%	57%	49%
Male	1,917	309	60	30%	19%	26%	17%	9%	50%	42%	51%	53%	46%
Female	1,759	329	58	16%	17%	32%	22%	13%	55%	47%	56%	61%	53%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	7	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	8	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	131	316	60	25%	18%	29%	21%	7%	54%	41%	57%	55%	47%
Guatemala	82	318	54	18%	15%	38%	22%	7%	54%	42%	55%	58%	48%
Mexico	872	323	62	21%	18%	27%	20%	13%	54%	46%	58%	56%	51%
Nicaragua	13	344	45	0%	15%	38%	31%	15%	63%	53%	56%	62%	63%
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	8	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	6	–	–	–	–	–	–	–	–	–	–	–	–
Spain	14	379	55	0%	14%	21%	29%	36%	69%	61%	75%	80%	62%
United States	2,263	316	58	24%	19%	29%	19%	9%	51%	44%	51%	57%	49%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	50	306	66	34%	22%	22%	14%	8%	48%	40%	51%	50%	46%
Country unknown	213	326	65	21%	17%	29%	21%	12%	54%	48%	55%	59%	51%
Not economically disadvantaged	311	333	68	19%	15%	27%	22%	17%	57%	49%	57%	61%	52%
Economically disadvantaged	3,297	318	59	24%	18%	29%	19%	10%	52%	44%	53%	57%	49%
Economic status unknown	71	324	55	17%	20%	35%	20%	8%	55%	46%	55%	58%	50%
In U.S. schools < 12 months	1,108	323	62	22%	18%	27%	20%	13%	54%	45%	58%	56%	51%
In U.S. schools ≥ 12 months	2,571	317	59	24%	18%	30%	19%	9%	52%	44%	51%	57%	49%
Primary language instruction and ELD and/or SDAIE instruction	1,867	316	57	24%	19%	30%	19%	9%	52%	44%	51%	57%	48%
ELD instruction only	196	311	56	27%	19%	31%	15%	8%	49%	43%	51%	54%	48%
SDAIE instruction only	173	310	57	29%	18%	26%	21%	5%	51%	42%	53%	52%	46%
ELD instr. and SDAIE instr. but not primary language instr.	1,180	325	63	20%	18%	28%	20%	14%	54%	46%	56%	58%	51%
Other EL instructional services	186	332	66	19%	12%	31%	23%	16%	57%	47%	57%	61%	53%
None (EL only)	18	322	44	17%	11%	44%	28%	0%	52%	48%	60%	53%	52%
Program participation unknown	59	303	66	41%	20%	12%	17%	10%	46%	40%	49%	51%	47%
No special education	3,416	322	60	21%	18%	30%	20%	11%	53%	45%	54%	58%	50%
Special education	263	276	46	51%	24%	16%	10%	0%	38%	34%	38%	43%	37%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.8 Demographic Summary for RLA, Grade Five (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	2,743	317	59	24%	18%	29%	19%	10%	52%	44%	53%	56%	49%
Male	1,446	308	59	30%	19%	26%	17%	8%	49%	42%	51%	53%	46%
Female	1,296	327	57	17%	18%	32%	22%	11%	54%	47%	56%	60%	52%
Gender unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	6	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	7	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	110	316	60	25%	17%	29%	22%	6%	53%	41%	58%	55%	47%
Guatemala	63	317	57	22%	13%	37%	21%	8%	52%	43%	56%	57%	47%
Mexico	733	322	61	22%	18%	27%	20%	13%	53%	45%	58%	56%	50%
Nicaragua	10	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	6	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	6	–	–	–	–	–	–	–	–	–	–	–	–
Spain	14	379	55	0%	14%	21%	29%	36%	69%	61%	75%	80%	62%
United States	1,627	314	57	25%	19%	30%	18%	9%	51%	44%	50%	57%	48%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	39	301	66	38%	21%	21%	15%	5%	47%	38%	51%	48%	44%
Country unknown	113	315	61	27%	21%	24%	19%	8%	52%	45%	51%	55%	46%
Not economically disadvantaged	219	325	64	22%	15%	26%	23%	14%	55%	47%	56%	60%	49%
Economically disadvantaged	2,460	316	58	24%	19%	29%	19%	9%	51%	44%	53%	56%	49%
Economic status unknown	64	324	55	17%	19%	34%	22%	8%	55%	46%	56%	58%	50%
In U.S. schools < 12 months	1,108	323	62	22%	18%	27%	20%	13%	54%	45%	58%	56%	51%
In U.S. schools ≥ 12 months	1,635	313	56	25%	19%	30%	18%	7%	51%	43%	49%	56%	47%
Primary language instruction and ELD and/or SDAIE instruction	1,867	316	57	24%	19%	30%	19%	9%	52%	44%	51%	57%	48%
ELD instruction only	121	308	57	28%	21%	30%	12%	9%	49%	42%	53%	50%	46%
SDAIE instruction only	102	323	57	21%	16%	33%	23%	8%	55%	44%	59%	56%	50%
ELD instr. and SDAIE instr. but not primary language instr.	582	322	64	23%	18%	25%	21%	13%	53%	44%	59%	56%	50%
Other EL instructional services	19	325	64	21%	11%	32%	26%	11%	55%	46%	55%	59%	52%
None (EL only)	16	320	46	19%	13%	38%	31%	0%	52%	48%	58%	52%	52%
Program participation unknown	36	305	73	44%	17%	11%	14%	14%	46%	41%	50%	50%	48%
No special education	2,567	320	59	22%	18%	30%	20%	10%	53%	45%	54%	57%	50%
Special education	176	276	47	51%	23%	15%	10%	1%	39%	34%	39%	43%	36%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.9 Demographic Summary for RLA, Grade Six (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	2,193	325	63	17%	21%	30%	21%	12%	54%	54%	55%	56%	46%
Male	1,146	315	64	22%	23%	29%	16%	10%	51%	51%	51%	52%	43%
Female	1,043	336	61	11%	18%	32%	26%	14%	57%	57%	58%	60%	49%
Gender unknown	4	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	4	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	4	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	10	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	3	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	1	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	136	315	61	20%	27%	30%	13%	10%	51%	49%	54%	52%	43%
Guatemala	83	304	63	34%	17%	25%	14%	10%	48%	47%	52%	48%	39%
Mexico	661	334	64	13%	20%	28%	24%	15%	57%	57%	59%	57%	47%
Nicaragua	10	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	7	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	4	—	—	—	—	—	—	—	—	—	—	—	—
United States	1,068	321	62	17%	21%	32%	20%	10%	53%	53%	52%	56%	46%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	48	313	52	19%	19%	38%	21%	4%	53%	50%	48%	53%	45%
Country unknown	143	324	66	22%	15%	27%	24%	12%	53%	53%	53%	57%	46%
Not economically disadvantaged	261	355	70	11%	11%	28%	24%	26%	64%	63%	63%	65%	53%
Economically disadvantaged	1,896	321	61	17%	22%	30%	21%	10%	53%	53%	54%	55%	45%
Economic status unknown	36	297	57	31%	19%	31%	17%	3%	44%	46%	49%	47%	38%
In U.S. schools < 12 months	1,053	332	64	14%	19%	29%	23%	14%	57%	57%	59%	56%	47%
In U.S. schools ≥ 12 months	1,140	318	62	19%	22%	31%	19%	9%	52%	52%	50%	55%	45%
Primary language instruction and ELD and/or SDAIE instruction	850	316	57	19%	22%	31%	21%	7%	51%	51%	50%	55%	44%
ELD instruction only	200	330	68	17%	19%	31%	21%	14%	57%	56%	58%	55%	47%
SDAIE instruction only	109	311	62	22%	28%	26%	14%	10%	49%	50%	52%	51%	41%
ELD instr. and SDAIE instr. but not primary language instr.	884	333	67	14%	19%	29%	22%	15%	57%	56%	58%	57%	48%
Other EL instructional services	95	329	59	15%	18%	33%	23%	12%	52%	55%	53%	59%	50%
None (EL only)	15	334	60	13%	13%	40%	13%	20%	64%	54%	59%	57%	48%
Program participation unknown	40	325	72	20%	20%	33%	10%	18%	53%	56%	58%	53%	43%
No special education	2,064	327	63	16%	20%	30%	22%	12%	55%	55%	55%	56%	46%
Special education	128	287	46	30%	34%	26%	8%	2%	43%	43%	42%	44%	37%
Special education unknown	1	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.10 Demographic Summary for RLA, Grade Six (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	1,725	323	62	17%	21%	30%	21%	11%	54%	54%	55%	55%	45%
Male	916	314	62	21%	24%	28%	17%	10%	51%	51%	52%	52%	42%
Female	806	333	59	12%	18%	32%	25%	12%	56%	56%	58%	59%	48%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	4	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	125	315	62	21%	26%	30%	12%	10%	51%	49%	54%	52%	43%
Guatemala	71	301	64	38%	15%	21%	15%	10%	46%	47%	52%	47%	38%
Mexico	576	335	63	12%	21%	28%	24%	15%	58%	57%	60%	57%	48%
Nicaragua	5	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	5	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	5	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	792	318	57	17%	22%	33%	19%	8%	52%	52%	51%	54%	44%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	37	318	56	19%	16%	32%	27%	5%	53%	51%	50%	55%	47%
Country unknown	79	300	64	37%	18%	23%	16%	6%	45%	46%	49%	50%	38%
Not economically disadvantaged	194	353	69	10%	12%	30%	24%	24%	65%	62%	63%	63%	51%
Economically disadvantaged	1,501	319	60	18%	23%	30%	20%	9%	52%	53%	54%	54%	44%
Economic status unknown	30	297	58	27%	23%	30%	17%	3%	45%	46%	48%	46%	39%
In U.S. schools < 12 months	1,053	332	64	14%	19%	29%	23%	14%	57%	57%	59%	56%	47%
In U.S. schools ≥ 12 months	672	308	55	21%	25%	31%	17%	6%	49%	49%	48%	52%	42%
Primary language instruction and ELD and/or SDAIE instruction	850	316	57	19%	22%	31%	21%	7%	51%	51%	50%	55%	44%
ELD instruction only	141	334	71	18%	16%	28%	21%	16%	58%	56%	61%	56%	47%
SDAIE instruction only	91	315	61	19%	29%	27%	14%	11%	51%	51%	53%	53%	41%
ELD instr. and SDAIE instr. but not primary language instr.	589	331	65	15%	21%	29%	22%	14%	56%	56%	59%	55%	47%
Other EL instructional services	13	317	42	8%	23%	46%	23%	0%	50%	54%	53%	51%	46%
None (EL only)	13	339	59	8%	15%	46%	8%	23%	63%	57%	58%	58%	51%
Program participation unknown	28	324	70	14%	29%	29%	11%	18%	54%	57%	61%	50%	43%
No special education	1,641	325	62	16%	21%	31%	21%	11%	54%	54%	55%	55%	45%
Special education	83	283	48	37%	33%	20%	6%	4%	41%	40%	41%	43%	35%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.11 Demographic Summary for RLA, Grade Seven (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	1,754	330	60	10%	25%	29%	22%	14%	62%	54%	53%	60%	56%
Male	919	321	58	12%	30%	28%	19%	11%	60%	51%	50%	56%	52%
Female	831	341	60	7%	20%	29%	26%	17%	64%	57%	57%	64%	60%
Gender unknown	4	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	2	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	1	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	3	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	9	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	1	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	5	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	7	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	162	321	63	15%	30%	24%	17%	14%	57%	53%	51%	54%	52%
Guatemala	86	313	55	15%	34%	21%	23%	7%	55%	47%	49%	56%	51%
Mexico	714	340	62	7%	22%	28%	25%	18%	65%	57%	56%	62%	59%
Nicaragua	7	—	—	—	—	—	—	—	—	—	—	—	—
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	6	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	3	—	—	—	—	—	—	—	—	—	—	—	—
Spain	3	—	—	—	—	—	—	—	—	—	—	—	—
United States	603	323	56	10%	28%	31%	21%	10%	60%	52%	51%	59%	53%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	45	317	53	13%	20%	42%	18%	7%	58%	49%	48%	56%	55%
Country unknown	95	331	58	11%	24%	32%	18%	16%	61%	53%	51%	61%	59%
Not economically disadvantaged	208	347	63	8%	17%	28%	25%	23%	69%	59%	56%	65%	61%
Economically disadvantaged	1,465	329	60	10%	26%	29%	22%	13%	61%	54%	53%	59%	55%
Economic status unknown	81	320	55	9%	36%	27%	16%	12%	60%	51%	49%	56%	53%
In U.S. schools < 12 months	1,176	336	62	9%	24%	27%	24%	16%	64%	56%	55%	60%	58%
In U.S. schools ≥ 12 months	578	319	55	12%	28%	32%	18%	9%	57%	50%	49%	58%	53%
Primary language instruction and ELD and/or SDAIE instruction	440	329	54	10%	23%	31%	25%	11%	61%	53%	54%	61%	56%
ELD instruction only	145	326	59	14%	21%	27%	26%	12%	61%	55%	53%	57%	54%
SDAIE instruction only	158	325	60	13%	23%	31%	23%	9%	59%	53%	51%	59%	55%
ELD instr. and SDAIE instr. but not primary language instr.	806	330	64	10%	27%	28%	20%	16%	62%	54%	53%	59%	55%
Other EL instructional services	95	342	63	6%	24%	25%	23%	21%	64%	55%	55%	66%	60%
None (EL only)	45	345	54	4%	22%	29%	27%	18%	68%	59%	56%	62%	64%
Program participation unknown	65	336	52	0%	34%	28%	26%	12%	65%	56%	56%	60%	59%
No special education	1,691	332	60	9%	25%	29%	23%	14%	62%	55%	54%	60%	56%
Special education	61	287	44	23%	41%	26%	8%	2%	46%	39%	42%	48%	42%
Special education unknown	2	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.12 Demographic Summary for RLA, Grade Seven (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	1,414	333	60	9%	24%	28%	24%	15%	63%	55%	54%	60%	57%
Male	725	325	60	12%	28%	28%	20%	13%	61%	53%	52%	57%	54%
Female	685	342	59	6%	20%	29%	28%	17%	65%	58%	57%	64%	60%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	5	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	143	324	63	13%	29%	24%	17%	15%	58%	54%	52%	55%	53%
Guatemala	75	314	57	16%	31%	23%	23%	8%	55%	47%	50%	56%	52%
Mexico	626	340	62	8%	22%	27%	25%	18%	66%	57%	56%	62%	59%
Nicaragua	5	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	6	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	3	–	–	–	–	–	–	–	–	–	–	–	–
United States	437	331	55	7%	26%	31%	24%	12%	63%	54%	54%	61%	56%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	41	318	53	15%	17%	44%	20%	5%	58%	50%	48%	57%	54%
Country unknown	46	323	49	11%	28%	33%	20%	9%	63%	53%	50%	54%	55%
Not economically disadvantaged	181	351	63	6%	17%	29%	24%	24%	71%	60%	58%	66%	63%
Economically disadvantaged	1,163	331	60	9%	25%	28%	24%	13%	62%	55%	54%	60%	56%
Economic status unknown	70	314	51	10%	37%	27%	17%	9%	59%	50%	47%	54%	51%
In U.S. schools < 12 months	1,176	336	62	9%	24%	27%	24%	16%	64%	56%	55%	60%	58%
In U.S. schools ≥ 12 months	238	320	50	11%	26%	35%	21%	7%	58%	50%	50%	59%	53%
Primary language instruction and ELD and/or SDAIE instruction	440	329	54	10%	23%	31%	25%	11%	61%	53%	54%	61%	56%
ELD instruction only	124	333	58	11%	20%	27%	28%	14%	63%	58%	55%	59%	56%
SDAIE instruction only	147	328	60	12%	21%	33%	24%	10%	60%	54%	52%	59%	55%
ELD instr. and SDAIE instr. but not primary language instr.	596	337	65	8%	26%	26%	21%	19%	65%	56%	55%	60%	57%
Other EL instructional services	22	329	66	9%	36%	23%	18%	14%	60%	51%	55%	58%	56%
None (EL only)	39	349	53	5%	18%	28%	31%	18%	69%	60%	56%	65%	66%
Program participation unknown	46	335	48	0%	35%	26%	30%	9%	69%	56%	56%	57%	59%
No special education	1,383	334	60	9%	24%	28%	24%	15%	63%	55%	55%	60%	57%
Special education	30	288	50	27%	37%	23%	10%	3%	47%	39%	44%	46%	42%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.13 Demographic Summary for RLA, Grade Eight (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	1,358	328	57	7%	27%	33%	23%	10%	62%	52%	54%	62%	51%
Male	694	315	57	12%	31%	32%	18%	8%	58%	48%	50%	57%	47%
Female	660	341	55	3%	23%	33%	28%	13%	66%	56%	57%	67%	56%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	2	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	8	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	4	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	129	325	55	3%	35%	28%	25%	9%	60%	52%	55%	61%	47%
Guatemala	61	302	56	18%	33%	26%	18%	5%	52%	45%	46%	54%	42%
Mexico	646	334	57	6%	22%	35%	25%	12%	64%	54%	56%	64%	54%
Nicaragua	10	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	7	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	6	–	–	–	–	–	–	–	–	–	–	–	–
United States	362	319	54	9%	33%	34%	18%	7%	59%	48%	51%	60%	49%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	2	–	–	–	–	–	–	–	–	–	–	–	–
Other	42	312	58	17%	29%	29%	24%	2%	56%	53%	48%	54%	45%
Country unknown	66	323	61	11%	33%	23%	21%	12%	57%	49%	50%	63%	52%
Not economically disadvantaged	157	343	59	4%	20%	32%	29%	15%	67%	56%	59%	66%	55%
Economically disadvantaged	1,134	326	57	8%	28%	33%	22%	10%	61%	51%	53%	62%	51%
Economic status unknown	67	314	52	10%	30%	33%	24%	3%	56%	50%	54%	55%	44%
In U.S. schools < 12 months	904	335	58	6%	23%	33%	26%	12%	65%	54%	57%	64%	53%
In U.S. schools ≥ 12 months	454	313	53	11%	34%	32%	17%	6%	56%	47%	48%	57%	48%
Primary language instruction and ELD and/or SDAIE instruction	325	319	54	9%	30%	35%	18%	7%	58%	50%	51%	59%	49%
ELD instruction only	114	323	58	10%	29%	32%	18%	11%	59%	51%	52%	61%	48%
SDAIE instruction only	105	327	54	7%	28%	31%	28%	7%	61%	52%	55%	62%	51%
ELD instr. and SDAIE instr. but not primary language instr.	661	332	58	6%	26%	32%	24%	12%	63%	53%	55%	63%	53%
Other EL instructional services	78	333	61	10%	22%	32%	21%	15%	63%	51%	55%	66%	54%
None (EL only)	34	336	60	6%	26%	21%	35%	12%	63%	57%	56%	65%	52%
Program participation unknown	41	321	52	10%	24%	34%	29%	2%	61%	49%	55%	60%	48%
No special education	1,312	329	57	7%	27%	33%	23%	11%	62%	52%	54%	62%	52%
Special education	46	287	40	22%	39%	33%	7%	0%	49%	37%	36%	51%	43%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.14 Demographic Summary for RLA, Grade Eight (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	1,083	330	58	7%	26%	33%	24%	11%	63%	53%	55%	63%	52%
Male	549	318	58	11%	29%	33%	19%	9%	59%	50%	52%	58%	47%
Female	530	343	55	3%	22%	33%	29%	14%	67%	56%	58%	67%	56%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	2	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	8	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	4	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	122	325	55	3%	34%	28%	25%	9%	61%	52%	55%	62%	47%
Guatemala	57	305	57	16%	32%	28%	19%	5%	53%	46%	47%	55%	43%
Mexico	556	336	57	6%	22%	35%	25%	13%	65%	54%	56%	64%	54%
Nicaragua	6	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	6	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–
United States	241	325	55	7%	30%	34%	21%	8%	60%	50%	53%	62%	51%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	2	–	–	–	–	–	–	–	–	–	–	–	–
Other	32	321	61	13%	25%	28%	31%	3%	59%	55%	52%	56%	49%
Country unknown	29	304	59	14%	41%	24%	14%	7%	49%	44%	45%	56%	43%
Not economically disadvantaged	134	346	57	4%	17%	34%	29%	16%	69%	57%	60%	67%	56%
Economically disadvantaged	887	329	58	7%	26%	33%	23%	11%	62%	52%	54%	63%	52%
Economic status unknown	62	313	52	10%	32%	32%	23%	3%	55%	50%	54%	55%	43%
In U.S. schools < 12 months	904	335	58	6%	23%	33%	26%	12%	65%	54%	57%	64%	53%
In U.S. schools ≥ 12 months	179	306	50	12%	37%	33%	14%	4%	53%	45%	46%	56%	46%
Primary language instruction and ELD and/or SDAIE instruction	325	319	54	9%	30%	35%	18%	7%	58%	50%	51%	59%	49%
ELD instruction only	97	329	59	8%	25%	35%	19%	13%	62%	52%	54%	63%	50%
SDAIE instruction only	101	329	54	7%	25%	33%	29%	7%	63%	52%	56%	63%	51%
ELD instr. and SDAIE instr. but not primary language instr.	478	339	59	4%	23%	31%	27%	14%	65%	55%	58%	65%	54%
Other EL instructional services	20	340	50	5%	15%	40%	30%	10%	67%	53%	63%	69%	52%
None (EL only)	31	340	60	6%	23%	19%	39%	13%	66%	57%	57%	67%	54%
Program participation unknown	31	317	52	10%	29%	35%	23%	3%	57%	47%	54%	59%	46%
No special education	1,060	331	57	6%	25%	33%	24%	11%	63%	53%	55%	63%	52%
Special education	23	279	41	35%	35%	26%	4%	0%	42%	34%	36%	49%	39%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.15 Demographic Summary for RLA, Grade Nine (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	2,245	323	54	8%	26%	34%	21%	10%	66%	56%	54%	57%	49%
Male	1,307	315	54	10%	31%	32%	18%	9%	64%	54%	52%	54%	47%
Female	928	334	52	6%	20%	36%	27%	12%	70%	59%	57%	62%	52%
Gender unknown	10	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	25	351	55	4%	16%	20%	40%	20%	74%	70%	64%	61%	57%
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	426	320	51	8%	29%	36%	19%	9%	67%	53%	54%	55%	49%
Guatemala	312	294	49	17%	40%	28%	11%	4%	54%	45%	45%	49%	41%
Mexico	926	333	54	6%	21%	34%	26%	13%	70%	60%	57%	61%	52%
Nicaragua	9	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Peru	15	368	56	7%	7%	20%	27%	40%	83%	71%	66%	73%	63%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–
United States	334	327	51	6%	25%	35%	22%	12%	69%	58%	56%	58%	49%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	92	310	48	9%	35%	34%	18%	4%	62%	53%	51%	53%	44%
Country unknown	85	317	46	8%	26%	41%	21%	4%	63%	55%	50%	58%	47%
Not economically disadvantaged	366	329	56	6%	27%	31%	22%	14%	69%	58%	56%	59%	51%
Economically disadvantaged	1,839	322	53	8%	26%	34%	22%	10%	66%	56%	54%	57%	49%
Economic status unknown	40	315	53	8%	35%	35%	13%	10%	62%	54%	51%	55%	48%
In U.S. schools < 12 months	1,925	324	54	8%	26%	33%	22%	11%	67%	56%	54%	58%	50%
In U.S. schools ≥ 12 months	320	318	53	11%	26%	38%	17%	9%	64%	54%	53%	56%	47%
Primary language instruction and ELD and/or SDAIE instruction	471	321	56	10%	26%	30%	24%	9%	66%	56%	53%	57%	49%
ELD instruction only	201	314	56	10%	35%	27%	15%	11%	64%	52%	50%	55%	47%
SDAIE instruction only	297	327	52	6%	25%	38%	19%	12%	67%	57%	56%	60%	50%
ELD instr. and SDAIE instr. but not primary language instr.	1,035	323	53	8%	26%	34%	22%	10%	66%	56%	54%	57%	49%
Other EL instructional services	34	348	52	0%	18%	35%	26%	21%	70%	61%	65%	70%	56%
None (EL only)	62	329	52	3%	26%	37%	23%	11%	69%	57%	57%	59%	51%
Program participation unknown	145	327	49	4%	27%	40%	18%	11%	68%	57%	56%	59%	51%
No special education	2,236	323	54	8%	26%	34%	21%	10%	66%	56%	54%	57%	49%
Special education	9	–	–	–	–	–	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.16 Demographic Summary for RLA, Grade Nine (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	1,980	324	54	8%	26%	33%	22%	11%	67%	56%	54%	58%	50%
Male	1,166	316	54	10%	31%	32%	18%	10%	64%	54%	52%	54%	47%
Female	806	335	52	5%	20%	35%	28%	13%	71%	60%	57%	63%	53%
Gender unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	24	356	50	0%	17%	21%	42%	21%	76%	72%	65%	63%	58%
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	392	320	50	7%	29%	36%	20%	8%	67%	54%	54%	55%	49%
Guatemala	292	293	49	17%	41%	27%	11%	3%	53%	45%	44%	48%	41%
Mexico	798	335	55	6%	20%	33%	27%	14%	70%	61%	57%	61%	53%
Nicaragua	8	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Peru	14	367	58	7%	7%	21%	21%	43%	83%	70%	66%	73%	63%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	273	329	51	5%	24%	35%	23%	13%	70%	58%	56%	60%	51%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	82	310	49	9%	34%	35%	17%	5%	63%	53%	50%	54%	44%
Country unknown	78	318	46	8%	26%	42%	21%	4%	63%	55%	50%	59%	48%
Not economically disadvantaged	327	331	57	6%	27%	29%	22%	16%	69%	58%	56%	59%	52%
Economically disadvantaged	1,619	323	53	8%	26%	34%	22%	10%	66%	56%	54%	57%	49%
Economic status unknown	34	311	52	9%	35%	35%	12%	9%	61%	52%	50%	51%	47%
In U.S. schools < 12 months	1,925	324	54	8%	26%	33%	22%	11%	67%	56%	54%	58%	50%
In U.S. schools ≥ 12 months	55	321	61	13%	25%	31%	16%	15%	64%	55%	51%	59%	49%
Primary language instruction and ELD and/or SDAIE instruction	471	321	56	10%	26%	30%	24%	9%	66%	56%	53%	57%	49%
ELD instruction only	194	316	56	9%	35%	28%	16%	12%	65%	52%	51%	56%	48%
SDAIE instruction only	255	327	50	6%	25%	38%	21%	11%	68%	57%	56%	60%	49%
ELD instr. and SDAIE instr. but not primary language instr.	890	324	53	8%	25%	33%	23%	10%	67%	57%	54%	57%	50%
Other EL instructional services	29	352	54	0%	17%	34%	24%	24%	71%	62%	67%	71%	57%
None (EL only)	50	334	55	4%	24%	34%	24%	14%	72%	58%	57%	61%	53%
Program participation unknown	91	328	53	3%	31%	37%	15%	13%	68%	57%	55%	58%	51%
No special education	1,973	324	54	8%	26%	33%	22%	11%	67%	56%	54%	58%	50%
Special education	7	–	–	–	–	–	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.17 Demographic Summary for RLA, Grade Ten (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	1,357	325	55	7%	24%	33%	25%	10%	68%	61%	58%	57%	46%
Male	763	315	55	9%	31%	32%	20%	9%	65%	57%	56%	54%	44%
Female	590	337	53	5%	16%	34%	33%	13%	72%	66%	61%	62%	49%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	8	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	5	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	153	306	52	12%	33%	32%	18%	5%	61%	55%	57%	48%	40%
Guatemala	75	287	57	25%	31%	27%	13%	4%	52%	48%	48%	45%	38%
Mexico	627	331	53	5%	22%	35%	27%	11%	71%	63%	59%	59%	48%
Nicaragua	5	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	7	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	8	–	–	–	–	–	–	–	–	–	–	–	–
United States	377	328	54	6%	23%	32%	28%	11%	69%	62%	59%	59%	47%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	44	303	51	7%	39%	34%	16%	5%	58%	52%	54%	50%	41%
Country unknown	40	326	48	0%	35%	25%	33%	8%	66%	61%	59%	59%	48%
Not economically disadvantaged	221	337	53	5%	18%	31%	32%	15%	73%	64%	63%	62%	49%
Economically disadvantaged	1,100	323	55	8%	25%	33%	24%	10%	67%	60%	58%	56%	46%
Economic status unknown	36	306	48	8%	33%	33%	25%	0%	64%	54%	55%	52%	40%
In U.S. schools < 12 months	1,124	327	55	6%	23%	33%	26%	11%	69%	62%	59%	58%	47%
In U.S. schools ≥ 12 months	233	311	55	11%	30%	33%	20%	6%	62%	57%	55%	52%	43%
Primary language instruction and ELD and/or SDAIE instruction	314	322	54	9%	23%	36%	24%	9%	68%	60%	57%	56%	46%
ELD instruction only	144	323	59	9%	26%	31%	22%	13%	67%	60%	57%	57%	46%
SDAIE instruction only	79	325	56	5%	27%	33%	23%	13%	68%	63%	60%	55%	46%
ELD instr. and SDAIE instr. but not primary language instr.	665	325	56	6%	27%	31%	26%	11%	68%	61%	59%	57%	46%
Other EL instructional services	50	340	59	10%	16%	22%	36%	16%	68%	66%	62%	66%	50%
None (EL only)	39	328	56	8%	15%	36%	31%	10%	68%	61%	59%	61%	47%
Program participation unknown	66	326	43	6%	17%	45%	27%	5%	69%	61%	59%	58%	48%
No special education	1,347	325	55	7%	24%	33%	26%	10%	68%	61%	59%	58%	46%
Special education	10	–	–	–	–	–	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.18 Demographic Summary for RLA, Grade Ten (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	1,177	327	55	7%	23%	33%	26%	11%	69%	61%	59%	58%	47%
Male	659	317	55	8%	30%	33%	20%	9%	66%	57%	57%	54%	45%
Female	515	339	53	5%	15%	33%	34%	13%	72%	66%	62%	63%	50%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	8	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	5	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	128	305	53	13%	33%	30%	19%	5%	61%	54%	57%	48%	40%
Guatemala	68	290	57	24%	31%	26%	15%	4%	53%	49%	49%	45%	39%
Mexico	549	333	52	5%	20%	36%	28%	12%	72%	64%	59%	60%	49%
Nicaragua	5	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	7	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	8	–	–	–	–	–	–	–	–	–	–	–	–
United States	318	332	54	6%	22%	32%	29%	12%	70%	63%	60%	60%	48%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	40	305	53	8%	35%	35%	18%	5%	59%	52%	54%	52%	42%
Country unknown	33	327	49	0%	33%	24%	33%	9%	67%	62%	60%	58%	48%
Not economically disadvantaged	205	337	54	5%	18%	31%	32%	15%	73%	64%	62%	62%	49%
Economically disadvantaged	937	325	55	7%	24%	33%	25%	10%	68%	61%	58%	57%	47%
Economic status unknown	35	304	47	9%	34%	34%	23%	0%	63%	53%	55%	51%	39%
In U.S. schools < 12 months	1,124	327	55	6%	23%	33%	26%	11%	69%	62%	59%	58%	47%
In U.S. schools ≥ 12 months	53	307	58	17%	23%	36%	19%	6%	63%	55%	54%	48%	43%
Primary language instruction and ELD and/or SDAIE instruction	314	322	54	9%	23%	36%	24%	9%	68%	60%	57%	56%	46%
ELD instruction only	139	324	59	9%	24%	31%	22%	13%	68%	60%	58%	57%	46%
SDAIE instruction only	61	331	52	3%	23%	36%	23%	15%	70%	64%	61%	58%	46%
ELD instr. and SDAIE instr. but not primary language instr.	547	327	55	5%	26%	31%	26%	11%	69%	61%	59%	58%	47%
Other EL instructional services	42	345	57	10%	12%	21%	38%	19%	68%	69%	64%	68%	51%
None (EL only)	32	332	59	9%	13%	28%	38%	13%	70%	64%	62%	62%	46%
Program participation unknown	42	332	41	5%	14%	43%	33%	5%	72%	63%	61%	59%	50%
No special education	1,171	327	55	7%	23%	33%	26%	11%	69%	61%	59%	58%	47%
Special education	6	–	–	–	–	–	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.19 Demographic Summary for RLA, Grade Eleven (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All population valid scores	800	315	60	10%	30%	30%	21%	9%	59%	49%	58%	66%	54%
Male	465	307	62	13%	34%	26%	20%	7%	58%	48%	55%	62%	52%
Female	330	325	56	5%	25%	36%	23%	10%	62%	50%	62%	72%	57%
Gender unknown	5	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	15	340	62	7%	20%	27%	33%	13%	78%	52%	68%	70%	60%
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	76	290	55	17%	41%	25%	14%	3%	53%	42%	50%	61%	48%
Guatemala	53	279	47	17%	49%	26%	8%	0%	48%	45%	49%	53%	40%
Mexico	396	326	59	7%	25%	31%	26%	11%	62%	51%	61%	69%	58%
Nicaragua	2	–	–	–	–	–	–	–	–	–	–	–	–
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	8	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–	–	–	–	–	–
United States	201	311	58	10%	28%	37%	19%	5%	58%	47%	58%	65%	53%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	23	289	49	13%	52%	26%	4%	4%	50%	46%	54%	56%	43%
Country unknown	10	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	142	321	66	9%	32%	20%	25%	13%	60%	51%	59%	65%	56%
Economically disadvantaged	630	314	59	10%	30%	33%	20%	7%	59%	48%	58%	66%	54%
Economic status unknown	28	303	67	14%	32%	32%	14%	7%	57%	48%	54%	62%	49%
In U.S. schools < 12 months	637	315	61	10%	32%	28%	22%	9%	60%	49%	58%	66%	54%
In U.S. schools ≥ 12 months	163	311	56	10%	25%	40%	19%	6%	58%	46%	58%	66%	54%
Primary language instruction and ELD and/or SDAIE instruction	155	316	54	6%	34%	32%	23%	6%	61%	48%	60%	68%	54%
ELD instruction only	105	317	64	9%	30%	33%	17%	10%	60%	49%	58%	65%	55%
SDAIE instruction only	42	304	61	10%	38%	29%	14%	10%	57%	46%	53%	62%	52%
ELD instr. and SDAIE instr. but not primary language instr.	417	315	61	11%	28%	30%	22%	9%	59%	49%	58%	66%	55%
Other EL instructional services	24	320	71	13%	13%	42%	21%	13%	59%	52%	58%	66%	56%
None (EL only)	20	308	59	10%	45%	25%	15%	5%	63%	48%	59%	61%	49%
Program participation unknown	37	310	61	11%	41%	19%	24%	5%	57%	47%	58%	66%	51%
No special education	798	315	60	10%	30%	30%	21%	9%	59%	49%	58%	66%	54%
Special education	2	–	–	–	–	–	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.20 Demographic Summary for RLA, Grade Eleven (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	669	315	61	9%	32%	29%	21%	9%	60%	49%	58%	66%	54%
Male	392	307	63	13%	36%	24%	20%	8%	58%	48%	55%	62%	52%
Female	274	326	56	5%	26%	35%	24%	10%	63%	50%	63%	72%	56%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	15	340	62	7%	20%	27%	33%	13%	78%	52%	68%	70%	60%
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	68	289	57	18%	46%	18%	16%	3%	53%	42%	49%	60%	47%
Guatemala	45	278	50	20%	44%	27%	9%	0%	47%	46%	48%	52%	40%
Mexico	337	327	59	7%	26%	30%	26%	12%	63%	51%	61%	70%	58%
Nicaragua	2	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	7	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–	–	–	–	–	–
United States	150	309	58	9%	31%	35%	19%	5%	58%	47%	58%	64%	52%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	22	294	45	9%	55%	27%	5%	5%	52%	47%	55%	58%	44%
Country unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	127	320	66	9%	33%	20%	24%	14%	60%	51%	59%	66%	56%
Economically disadvantaged	518	314	59	9%	32%	31%	21%	8%	59%	48%	58%	66%	53%
Economic status unknown	24	311	62	13%	29%	38%	13%	8%	61%	50%	57%	64%	49%
In U.S. schools < 12 months	637	315	61	10%	32%	28%	22%	9%	60%	49%	58%	66%	54%
In U.S. schools ≥ 12 months	32	304	43	6%	34%	44%	16%	0%	59%	46%	57%	65%	48%
Primary language instruction and ELD and/or SDAIE instruction	155	316	54	6%	34%	32%	23%	6%	61%	48%	60%	68%	54%
ELD instruction only	101	317	65	9%	31%	33%	18%	10%	60%	50%	58%	65%	54%
SDAIE instruction only	36	305	61	8%	42%	25%	17%	8%	58%	48%	52%	62%	51%
ELD instr. and SDAIE instr. but not primary language instr.	318	314	63	11%	31%	26%	22%	10%	58%	49%	58%	65%	54%
Other EL instructional services	21	334	59	5%	14%	43%	24%	14%	63%	55%	62%	69%	60%
None (EL only)	16	310	59	6%	44%	31%	13%	6%	63%	47%	58%	65%	49%
Program participation unknown	22	313	64	14%	32%	18%	32%	5%	59%	47%	62%	64%	52%
No special education	668	315	61	9%	32%	29%	21%	9%	60%	49%	58%	66%	54%
Special education	1	–	–	–	–	–	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.21 Demographic Summary for Mathematics, Grade Two (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Addition, and Subtraction	Multiplication, Division, and Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All population valid scores	13,349	360	75	1%	20%	26%	32%	21%	65%	67%	59%	73%	74%
Male	6,739	359	76	1%	21%	26%	31%	21%	64%	67%	61%	73%	73%
Female	6,591	361	74	1%	19%	27%	32%	21%	66%	68%	58%	72%	74%
Gender unknown	19	328	79	11%	32%	16%	21%	21%	54%	62%	54%	64%	56%
Argentina	5	-	-	-	-	-	-	-	-	-	-	-	-
Bolivia	1	-	-	-	-	-	-	-	-	-	-	-	-
Brazil	0	-	-	-	-	-	-	-	-	-	-	-	-
Chile	2	-	-	-	-	-	-	-	-	-	-	-	-
Colombia	7	-	-	-	-	-	-	-	-	-	-	-	-
Costa Rica	4	-	-	-	-	-	-	-	-	-	-	-	-
Cuba	3	-	-	-	-	-	-	-	-	-	-	-	-
Ecuador	3	-	-	-	-	-	-	-	-	-	-	-	-
El Salvador	127	335	84	2%	36%	20%	24%	17%	56%	61%	52%	65%	66%
Guatemala	71	347	86	1%	32%	25%	27%	14%	60%	64%	54%	67%	69%
Mexico	1,136	343	77	3%	28%	25%	27%	16%	59%	63%	56%	69%	68%
Nicaragua	9	-	-	-	-	-	-	-	-	-	-	-	-
Panama	2	-	-	-	-	-	-	-	-	-	-	-	-
Paraguay	0	-	-	-	-	-	-	-	-	-	-	-	-
Peru	9	-	-	-	-	-	-	-	-	-	-	-	-
Puerto Rico	9	-	-	-	-	-	-	-	-	-	-	-	-
Spain	10	-	-	-	-	-	-	-	-	-	-	-	-
United States	11,049	362	74	1%	19%	27%	32%	21%	66%	68%	60%	73%	74%
Uruguay	0	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	0	-	-	-	-	-	-	-	-	-	-	-	-
Other	63	346	78	5%	21%	30%	25%	19%	59%	65%	56%	69%	70%
Country unknown	839	362	73	0%	19%	25%	34%	21%	66%	68%	61%	73%	74%
Not economically disadvantaged	866	369	78	1%	17%	25%	33%	25%	67%	70%	64%	75%	74%
Economically disadvantaged	12,242	359	75	1%	20%	26%	32%	21%	65%	67%	59%	73%	74%
Economic status unknown	241	352	79	3%	26%	24%	26%	22%	61%	66%	58%	70%	70%
In U.S. schools < 12 months	1,384	321	70	3%	39%	27%	22%	9%	52%	57%	52%	64%	62%
In U.S. schools ≥ 12 months	11,965	364	74	1%	18%	26%	33%	22%	66%	69%	60%	74%	75%
Primary language instruction and ELD and/or SDAIE instruction	7,915	365	75	1%	18%	26%	32%	23%	67%	69%	60%	74%	75%
ELD instruction only	349	347	76	3%	25%	24%	32%	16%	60%	64%	59%	70%	69%
SDAIE instruction only	544	354	75	1%	22%	27%	31%	19%	63%	67%	59%	71%	71%
ELD instr. and SDAIE instr. but not primary language instr.	3,293	356	76	1%	21%	27%	31%	20%	64%	67%	59%	71%	72%
Other EL instructional services	410	352	71	1%	23%	28%	30%	18%	64%	65%	57%	71%	73%
None (EL only)	40	349	88	5%	25%	25%	28%	18%	60%	66%	55%	66%	71%
Program participation unknown	798	339	69	1%	28%	29%	27%	14%	57%	63%	55%	68%	71%
No special education	12,746	362	74	1%	19%	26%	32%	21%	65%	68%	60%	73%	74%
Special education	603	315	73	5%	41%	26%	18%	10%	53%	54%	50%	61%	61%
Special education unknown	0	-	-	-	-	-	-	-	-	-	-	-	-

**Table 7.B.22 Demographic Summary for Mathematics, Grade Two (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Addition, and Subtraction	Multiplication, Division, and Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Target population valid scores	8,851	359	76	1%	21%	26%	31%	21%	65%	67%	59%	73%	73%
Male	4,476	358	77	1%	22%	26%	30%	21%	64%	66%	60%	73%	73%
Female	4,364	360	74	1%	20%	27%	32%	21%	66%	68%	58%	72%	74%
Gender unknown	11	335	84	9%	45%	0%	18%	27%	55%	62%	58%	67%	60%
Argentina	3	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	5	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	90	329	83	2%	42%	18%	23%	14%	54%	59%	53%	63%	64%
Guatemala	50	322	71	2%	44%	22%	28%	4%	53%	59%	48%	62%	61%
Mexico	897	342	77	3%	29%	26%	27%	16%	59%	62%	56%	69%	68%
Nicaragua	6	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	9	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	9	–	–	–	–	–	–	–	–	–	–	–	–
Spain	10	–	–	–	–	–	–	–	–	–	–	–	–
United States	7,194	361	75	1%	20%	26%	31%	22%	65%	68%	59%	73%	74%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	31	330	77	3%	26%	39%	23%	10%	52%	62%	52%	66%	64%
Country unknown	537	367	75	0%	19%	23%	34%	24%	67%	69%	62%	74%	74%
Not economically disadvantaged	552	364	79	1%	20%	23%	31%	25%	66%	68%	63%	74%	73%
Economically disadvantaged	8,118	359	76	1%	21%	26%	31%	21%	65%	67%	59%	73%	73%
Economic status unknown	181	360	80	3%	24%	21%	27%	25%	63%	69%	61%	71%	71%
In U.S. schools < 12 months	1,384	321	70	3%	39%	27%	22%	9%	52%	57%	52%	64%	62%
In U.S. schools ≥ 12 months	7,467	366	75	1%	18%	26%	33%	23%	67%	69%	60%	74%	75%
Primary language instruction and ELD and/or SDAIE instruction	7,915	365	75	1%	18%	26%	32%	23%	67%	69%	60%	74%	75%
ELD instruction only	142	316	73	5%	41%	26%	20%	8%	49%	56%	53%	62%	59%
SDAIE instruction only	116	306	66	2%	51%	24%	17%	6%	46%	54%	50%	58%	58%
ELD instr. and SDAIE instr. but not primary language instr.	585	311	67	4%	43%	29%	18%	7%	48%	55%	50%	61%	57%
Other EL instructional services	17	307	39	0%	47%	35%	18%	0%	53%	52%	39%	63%	63%
None (EL only)	17	295	52	6%	47%	35%	12%	0%	45%	55%	37%	54%	55%
Program participation unknown	59	309	62	0%	49%	27%	17%	7%	45%	55%	47%	63%	62%
No special education	8,454	361	75	1%	20%	26%	32%	21%	65%	68%	60%	73%	74%
Special education	397	316	75	5%	41%	25%	18%	10%	53%	54%	50%	61%	62%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.23 Demographic Summary for Mathematics, Grade Three (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Fractions, and Decimals	Addition, Subtraction, Multiplication, Division	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All population valid scores	8,787	364	75	2%	20%	25%	29%	23%	64%	69%	59%	72%	73%
Male	4,441	364	77	2%	20%	24%	29%	24%	64%	68%	59%	72%	72%
Female	4,335	364	73	2%	19%	26%	30%	23%	64%	70%	58%	73%	74%
Gender unknown	11	373	96	0%	18%	45%	9%	27%	63%	73%	63%	70%	65%
Argentina	4	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	14	364	81	0%	29%	14%	29%	29%	64%	66%	60%	74%	69%
Costa Rica	5	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	4	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	130	328	76	5%	37%	28%	18%	12%	53%	58%	49%	63%	63%
Guatemala	108	336	77	4%	32%	28%	21%	15%	55%	61%	49%	66%	65%
Mexico	1,045	353	79	4%	24%	24%	28%	20%	60%	67%	56%	69%	68%
Nicaragua	10	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	10	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	7	—	—	—	—	—	—	—	—	—	—	—	—
Spain	6	—	—	—	—	—	—	—	—	—	—	—	—
United States	7,007	367	74	1%	19%	26%	30%	24%	65%	70%	59%	73%	74%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	2	—	—	—	—	—	—	—	—	—	—	—	—
Other	41	319	65	5%	39%	29%	20%	7%	49%	57%	48%	63%	57%
Country unknown	384	366	82	3%	19%	24%	28%	26%	64%	68%	59%	73%	71%
Not economically disadvantaged	637	377	77	2%	15%	24%	30%	30%	67%	72%	63%	75%	78%
Economically disadvantaged	8,058	363	75	2%	20%	26%	29%	23%	64%	69%	58%	72%	72%
Economic status unknown	92	361	87	5%	20%	21%	27%	27%	60%	68%	58%	72%	70%
In U.S. schools < 12 months	1,282	328	73	6%	34%	26%	22%	13%	53%	60%	51%	62%	60%
In U.S. schools ≥ 12 months	7,505	370	74	1%	17%	25%	31%	25%	66%	71%	60%	74%	75%
Primary language instruction and ELD and/or SDAIE instruction	5,321	369	74	1%	18%	25%	31%	25%	65%	70%	60%	74%	74%
ELD instruction only	251	345	79	5%	28%	27%	23%	18%	58%	63%	54%	67%	67%
SDAIE instruction only	270	350	82	3%	30%	25%	24%	19%	60%	64%	55%	67%	67%
ELD instr. and SDAIE instr. but not primary language instr.	2,365	359	77	3%	22%	25%	28%	23%	62%	68%	58%	70%	71%
Other EL instructional services	408	356	69	0%	23%	29%	30%	18%	62%	69%	56%	70%	72%
None (EL only)	35	349	77	0%	31%	23%	23%	23%	60%	65%	58%	65%	66%
Program participation unknown	137	346	73	3%	23%	29%	31%	14%	58%	65%	53%	68%	67%
No special education	8,356	367	75	2%	19%	25%	30%	24%	64%	70%	60%	73%	74%
Special education	430	311	61	7%	43%	27%	15%	7%	50%	52%	44%	59%	57%
Special education unknown	1	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.24 Demographic Summary for Mathematics, Grade Three (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Fractions, and Decimals	Addition, Subtraction, Multiplication, Division	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Target population valid scores	6,243	362	75	2%	21%	25%	29%	23%	63%	69%	58%	72%	72%
Male	3,176	361	77	2%	21%	24%	28%	23%	63%	68%	59%	72%	71%
Female	3,057	362	73	2%	20%	26%	30%	22%	63%	69%	58%	73%	73%
Gender unknown	10	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	3	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	12	368	82	0%	25%	17%	25%	33%	64%	67%	60%	76%	70%
Costa Rica	4	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	97	320	77	7%	42%	25%	15%	10%	50%	56%	45%	61%	60%
Guatemala	79	324	77	5%	39%	24%	20%	11%	52%	56%	46%	63%	62%
Mexico	872	349	78	4%	26%	24%	28%	18%	59%	66%	55%	68%	66%
Nicaragua	6	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	7	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	6	—	—	—	—	—	—	—	—	—	—	—	—
United States	4,847	366	74	2%	19%	26%	30%	24%	64%	69%	59%	73%	73%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	2	—	—	—	—	—	—	—	—	—	—	—	—
Other	28	301	55	7%	46%	32%	11%	4%	43%	51%	42%	59%	52%
Country unknown	262	363	84	4%	20%	25%	27%	25%	64%	68%	57%	71%	70%
Not economically disadvantaged	428	373	77	2%	15%	25%	30%	28%	65%	71%	62%	74%	76%
Economically disadvantaged	5,732	361	75	2%	21%	25%	29%	22%	63%	68%	58%	72%	72%
Economic status unknown	83	362	88	6%	19%	18%	29%	28%	60%	68%	58%	73%	71%
In U.S. schools < 12 months	1,282	328	73	6%	34%	26%	22%	13%	53%	60%	51%	62%	60%
In U.S. schools ≥ 12 months	4,961	370	74	1%	17%	25%	31%	26%	66%	71%	60%	75%	75%
Primary language instruction and ELD and/or SDAIE instruction	5,321	369	74	1%	18%	25%	31%	25%	65%	70%	60%	74%	74%
ELD instruction only	126	325	78	8%	39%	23%	17%	13%	52%	57%	49%	61%	60%
SDAIE instruction only	112	323	69	6%	35%	28%	24%	7%	53%	60%	49%	60%	57%
ELD instr. and SDAIE instr. but not primary language instr.	611	318	71	8%	38%	26%	18%	10%	50%	58%	48%	58%	57%
Other EL instructional services	24	345	60	0%	29%	29%	29%	13%	56%	68%	56%	69%	66%
None (EL only)	24	354	74	0%	21%	29%	29%	21%	61%	68%	58%	68%	67%
Program participation unknown	25	296	75	12%	48%	16%	16%	8%	43%	52%	40%	53%	45%
No special education	5,955	364	75	2%	19%	25%	30%	24%	64%	69%	59%	73%	73%
Special education	287	311	64	7%	44%	27%	13%	8%	50%	52%	44%	60%	56%
Special education unknown	1	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.25 Demographic Summary for Mathematics, Grade Four (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Decimals, Fractions, and Negative Numbers	Operations and Factoring	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All population valid scores	5,140	363	77	5%	18%	23%	32%	22%	65%	59%	70%	69%	57%
Male	2,566	361	80	5%	20%	22%	31%	22%	66%	58%	69%	68%	55%
Female	2,566	364	74	4%	17%	24%	34%	21%	64%	60%	71%	70%	58%
Gender unknown	8	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	2	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	13	380	47	0%	0%	23%	62%	15%	71%	59%	77%	82%	65%
Costa Rica	5	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	131	331	76	8%	34%	27%	17%	15%	55%	51%	57%	66%	51%
Guatemala	78	339	77	13%	22%	23%	24%	18%	60%	57%	61%	62%	49%
Mexico	878	349	75	6%	22%	26%	29%	17%	61%	58%	65%	66%	55%
Nicaragua	4	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	7	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	9	—	—	—	—	—	—	—	—	—	—	—	—
Spain	5	—	—	—	—	—	—	—	—	—	—	—	—
United States	3,672	368	77	4%	17%	22%	34%	23%	66%	60%	72%	70%	58%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	65	333	71	9%	26%	28%	28%	9%	56%	49%	63%	64%	50%
Country unknown	259	366	79	4%	19%	22%	35%	21%	67%	60%	70%	69%	57%
Not economically disadvantaged	419	375	86	4%	20%	19%	31%	27%	67%	63%	72%	70%	59%
Economically disadvantaged	4,630	362	76	5%	18%	23%	33%	21%	65%	59%	70%	69%	57%
Economic status unknown	91	356	76	3%	19%	34%	25%	19%	64%	60%	65%	68%	56%
In U.S. schools < 12 months	1,156	334	74	10%	27%	25%	25%	12%	57%	54%	59%	63%	50%
In U.S. schools ≥ 12 months	3,984	371	76	3%	16%	22%	34%	24%	67%	61%	73%	71%	59%
Primary language instruction and ELD and/or SDAIE instruction	3,004	369	77	4%	16%	22%	34%	24%	67%	61%	73%	71%	58%
ELD instruction only	219	342	77	11%	21%	24%	27%	17%	60%	54%	63%	64%	52%
SDAIE instruction only	196	355	81	6%	22%	24%	26%	21%	62%	58%	66%	69%	55%
ELD instr. and SDAIE instr. but not primary language instr.	1,492	355	76	4%	22%	24%	31%	18%	63%	58%	67%	68%	55%
Other EL instructional services	166	358	80	4%	23%	23%	31%	18%	67%	57%	65%	69%	57%
None (EL only)	21	336	91	10%	33%	29%	10%	19%	61%	56%	48%	63%	56%
Program participation unknown	42	322	87	19%	29%	24%	19%	10%	52%	48%	55%	60%	49%
No special education	4,843	366	77	4%	17%	23%	33%	22%	66%	60%	71%	70%	57%
Special education	296	315	72	13%	39%	18%	22%	9%	53%	46%	54%	57%	47%
Special education unknown	1	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.26 Demographic Summary for Mathematics, Grade Four (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Decimals, Fractions, and Negative Numbers	Operations and Factoring	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Target population valid scores	3,885	361	78	5%	19%	23%	32%	21%	64%	59%	69%	69%	56%
Male	1,950	358	81	6%	21%	22%	29%	22%	65%	58%	68%	67%	55%
Female	1,927	363	75	4%	17%	24%	34%	21%	64%	60%	71%	70%	58%
Gender unknown	8	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	2	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	12	382	48	0%	0%	25%	58%	17%	71%	61%	77%	82%	69%
Costa Rica	4	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	3	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	3	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	107	326	76	10%	33%	31%	13%	13%	53%	49%	55%	65%	49%
Guatemala	66	337	80	14%	24%	21%	20%	21%	58%	57%	59%	63%	47%
Mexico	758	350	76	7%	22%	25%	29%	17%	61%	58%	65%	66%	55%
Nicaragua	3	—	—	—	—	—	—	—	—	—	—	—	—
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	5	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	9	—	—	—	—	—	—	—	—	—	—	—	—
Spain	3	—	—	—	—	—	—	—	—	—	—	—	—
United States	2,666	367	78	5%	17%	22%	33%	23%	66%	60%	72%	70%	57%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	40	333	73	10%	28%	25%	28%	10%	55%	50%	63%	64%	48%
Country unknown	199	355	73	5%	21%	26%	32%	17%	65%	57%	67%	67%	55%
Not economically disadvantaged	272	367	83	4%	21%	20%	31%	24%	66%	62%	70%	69%	56%
Economically disadvantaged	3,528	360	77	5%	19%	23%	32%	21%	64%	59%	69%	69%	56%
Economic status unknown	85	359	77	4%	18%	33%	26%	20%	65%	61%	66%	69%	56%
In U.S. schools < 12 months	1,156	334	74	10%	27%	25%	25%	12%	57%	54%	59%	63%	50%
In U.S. schools ≥ 12 months	2,729	372	76	4%	15%	22%	34%	25%	67%	61%	74%	71%	58%
Primary language instruction and ELD and/or SDAIE instruction	3,004	369	77	4%	16%	22%	34%	24%	67%	61%	73%	71%	58%
ELD instruction only	126	319	72	17%	25%	29%	19%	11%	54%	49%	55%	58%	47%
SDAIE instruction only	104	337	79	7%	31%	28%	21%	13%	56%	54%	59%	65%	50%
ELD instr. and SDAIE instr. but not primary language instr.	582	331	71	8%	30%	26%	25%	11%	57%	53%	58%	63%	49%
Other EL instructional services	24	359	82	8%	17%	21%	33%	21%	60%	60%	68%	74%	55%
None (EL only)	18	340	96	11%	33%	22%	11%	22%	61%	56%	51%	63%	57%
Program participation unknown	27	312	75	19%	33%	22%	19%	7%	52%	47%	53%	55%	46%
No special education	3,702	363	77	5%	18%	23%	32%	22%	65%	60%	70%	69%	57%
Special education	182	312	73	14%	40%	16%	20%	9%	51%	45%	53%	57%	47%
Special education unknown	1	—	—	—	—	—	—	—	—	—	—	—	—

**Table 7.B.27 Demographic Summary for Mathematics, Grade Five (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All population valid scores	3,589	347	86	12%	21%	23%	23%	21%	64%	50%	60%	50%	50%
Male	1,876	345	89	14%	20%	21%	23%	21%	63%	50%	59%	50%	50%
Female	1,710	350	83	9%	21%	25%	24%	21%	66%	50%	62%	49%	51%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	7	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	7	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	131	314	82	19%	30%	25%	16%	10%	58%	42%	52%	43%	46%
Guatemala	81	330	78	15%	28%	21%	23%	12%	62%	48%	53%	47%	49%
Mexico	865	335	90	16%	24%	22%	18%	19%	60%	50%	55%	48%	49%
Nicaragua	13	340	78	8%	38%	15%	15%	23%	58%	51%	52%	55%	58%
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	7	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	6	–	–	–	–	–	–	–	–	–	–	–	–
Spain	15	414	98	7%	7%	13%	13%	60%	74%	68%	73%	63%	62%
United States	2,248	355	83	9%	18%	24%	26%	23%	67%	51%	64%	51%	51%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	49	308	76	24%	22%	24%	22%	6%	56%	43%	48%	44%	42%
Country unknown	148	349	97	16%	17%	17%	26%	24%	63%	51%	60%	52%	50%
Not economically disadvantaged	304	352	95	13%	20%	18%	23%	25%	64%	53%	59%	52%	51%
Economically disadvantaged	3,214	347	85	12%	21%	24%	23%	21%	65%	50%	61%	50%	50%
Economic status unknown	71	340	83	11%	20%	27%	24%	18%	62%	52%	59%	46%	51%
In U.S. schools < 12 months	1,102	325	84	17%	28%	22%	19%	15%	57%	49%	52%	46%	48%
In U.S. schools ≥ 12 months	2,487	357	85	9%	17%	24%	26%	24%	68%	51%	64%	52%	51%
Primary language instruction and ELD and/or SDAIE instruction	1,858	351	82	10%	18%	25%	26%	21%	67%	50%	63%	50%	50%
ELD instruction only	195	332	82	13%	26%	24%	19%	17%	62%	48%	55%	47%	48%
SDAIE instruction only	172	330	87	16%	27%	22%	16%	20%	60%	49%	54%	48%	44%
ELD instr. and SDAIE instr. but not primary language instr.	1,174	348	91	13%	22%	21%	22%	22%	62%	52%	59%	51%	51%
Other EL instructional services	122	357	89	7%	23%	22%	25%	24%	69%	50%	64%	50%	53%
None (EL only)	18	296	74	22%	33%	33%	6%	6%	52%	44%	44%	41%	36%
Program participation unknown	50	317	79	24%	22%	22%	18%	14%	54%	47%	52%	44%	54%
No special education	3,323	351	86	11%	20%	23%	24%	22%	65%	51%	61%	51%	51%
Special education	266	297	74	26%	30%	24%	13%	7%	56%	38%	48%	40%	42%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.28 Demographic Summary for Mathematics, Grade Five (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Target population valid scores	2,728	341	83	13%	22%	24%	23%	18%	63%	49%	59%	49%	49%
Male	1,438	338	86	16%	21%	22%	22%	19%	62%	49%	57%	49%	49%
Female	1,289	343	80	10%	22%	26%	24%	18%	65%	49%	60%	48%	50%
Gender unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	6	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	110	305	76	21%	32%	25%	15%	7%	56%	40%	49%	42%	45%
Guatemala	63	322	77	17%	30%	19%	24%	10%	59%	47%	50%	46%	48%
Mexico	729	331	87	16%	26%	23%	18%	17%	59%	49%	54%	48%	48%
Nicaragua	10	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	5	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	6	–	–	–	–	–	–	–	–	–	–	–	–
Spain	15	414	98	7%	7%	13%	13%	60%	74%	68%	73%	63%	62%
United States	1,617	349	80	10%	19%	25%	26%	20%	66%	50%	62%	50%	51%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	39	303	76	26%	23%	26%	21%	5%	54%	44%	47%	42%	42%
Country unknown	113	336	88	18%	18%	18%	30%	17%	59%	49%	57%	50%	47%
Not economically disadvantaged	214	335	85	15%	23%	21%	23%	18%	61%	50%	55%	49%	50%
Economically disadvantaged	2,450	341	83	13%	22%	24%	23%	18%	63%	49%	59%	49%	49%
Economic status unknown	64	344	85	9%	19%	28%	23%	20%	64%	52%	60%	47%	52%
In U.S. schools < 12 months	1,102	325	84	17%	28%	22%	19%	15%	57%	49%	52%	46%	48%
In U.S. schools ≥ 12 months	1,626	352	81	10%	18%	25%	26%	21%	67%	49%	63%	50%	50%
Primary language instruction and ELD and/or SDAIE instruction	1,858	351	82	10%	18%	25%	26%	21%	67%	50%	63%	50%	50%
ELD instruction only	121	313	74	19%	31%	23%	15%	12%	58%	44%	50%	43%	46%
SDAIE instruction only	101	326	79	11%	34%	27%	16%	13%	58%	48%	52%	48%	46%
ELD instr. and SDAIE instr. but not primary language instr.	578	320	82	18%	29%	21%	18%	13%	56%	48%	50%	45%	47%
Other EL instructional services	19	325	113	21%	26%	16%	26%	11%	61%	45%	50%	46%	47%
None (EL only)	16	298	78	25%	25%	38%	6%	6%	53%	45%	44%	41%	36%
Program participation unknown	35	304	76	26%	29%	23%	11%	11%	49%	47%	44%	44%	54%
No special education	2,546	344	83	12%	21%	24%	24%	19%	64%	50%	59%	49%	50%
Special education	182	296	76	30%	25%	25%	14%	7%	56%	37%	48%	40%	40%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.29 Demographic Summary for Mathematics, Grade Six (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Ratios, Proportions, Percentages, and Negative Numbers	Operations with Problem Solving with Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All population valid scores	2,122	332	81	17%	22%	25%	19%	18%	58%	54%	56%	41%	42%
Male	1,112	331	83	18%	22%	23%	19%	18%	58%	54%	56%	41%	41%
Female	1,006	332	79	15%	22%	27%	18%	18%	59%	52%	56%	41%	44%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	4	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	10	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	136	292	76	36%	27%	18%	8%	10%	48%	41%	45%	34%	36%
Guatemala	84	300	67	25%	33%	23%	11%	8%	50%	48%	46%	34%	36%
Mexico	653	326	81	19%	25%	23%	17%	17%	57%	52%	54%	39%	42%
Nicaragua	8	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	7	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	5	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	1,045	344	80	12%	19%	27%	21%	22%	62%	57%	60%	45%	44%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	49	307	66	22%	31%	22%	20%	4%	49%	48%	53%	34%	37%
Country unknown	104	322	75	20%	20%	24%	22%	13%	57%	53%	53%	40%	39%
Not economically disadvantaged	259	359	95	14%	16%	22%	17%	31%	64%	59%	61%	47%	50%
Economically disadvantaged	1,828	328	78	17%	23%	25%	19%	16%	58%	53%	55%	40%	41%
Economic status unknown	35	313	83	26%	26%	17%	20%	11%	54%	51%	49%	35%	42%
In U.S. schools < 12 months	1,048	320	80	22%	24%	23%	16%	15%	55%	51%	53%	37%	42%
In U.S. schools ≥ 12 months	1,074	343	79	11%	20%	26%	22%	21%	62%	56%	59%	45%	43%
Primary language instruction and ELD and/or SDAIE instruction	825	334	71	12%	21%	28%	22%	17%	59%	55%	58%	43%	41%
ELD instruction only	194	332	81	19%	22%	23%	20%	17%	59%	53%	55%	40%	45%
SDAIE instruction only	108	299	78	33%	25%	19%	10%	13%	51%	44%	47%	33%	38%
ELD instr. and SDAIE instr. but not primary language instr.	882	335	89	18%	23%	22%	17%	21%	59%	54%	56%	42%	44%
Other EL instructional services	58	319	61	14%	26%	36%	14%	10%	59%	52%	53%	37%	36%
None (EL only)	16	329	88	31%	6%	25%	25%	13%	57%	54%	55%	39%	43%
Program participation unknown	39	310	76	21%	33%	26%	8%	13%	50%	48%	52%	36%	37%
No special education	2,001	334	81	16%	21%	24%	19%	19%	59%	54%	57%	42%	43%
Special education	120	296	60	23%	35%	25%	12%	5%	50%	46%	46%	34%	33%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.30 Demographic Summary for Mathematics, Grade Six (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Ratios, Proportions, Percentages, and Negative Numbers	Operations with Problem Solving with Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Target population valid scores	1,695	326	77	18%	23%	25%	19%	16%	57%	52%	55%	40%	41%
Male	901	325	79	20%	23%	22%	19%	16%	57%	53%	55%	40%	40%
Female	791	326	74	16%	23%	28%	18%	15%	57%	51%	55%	40%	43%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	4	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	125	290	78	38%	26%	18%	6%	11%	48%	40%	44%	34%	35%
Guatemala	72	297	67	28%	32%	24%	10%	7%	48%	47%	45%	34%	38%
Mexico	569	326	81	19%	24%	22%	18%	17%	57%	53%	54%	39%	42%
Nicaragua	5	–	–	–	–	–	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	5	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	5	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	770	335	73	13%	21%	27%	22%	18%	60%	54%	58%	42%	42%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	38	308	70	24%	29%	18%	24%	5%	49%	48%	54%	32%	39%
Country unknown	77	312	76	25%	23%	26%	16%	10%	54%	50%	50%	39%	37%
Not economically disadvantaged	195	345	88	17%	16%	23%	18%	26%	61%	55%	59%	44%	48%
Economically disadvantaged	1,471	323	75	18%	24%	25%	19%	14%	56%	52%	54%	39%	40%
Economic status unknown	29	315	89	31%	21%	14%	21%	14%	54%	51%	49%	37%	43%
In U.S. schools < 12 months	1,048	320	80	22%	24%	23%	16%	15%	55%	51%	53%	37%	42%
In U.S. schools ≥ 12 months	647	335	70	12%	21%	27%	23%	17%	60%	54%	58%	44%	41%
Primary language instruction and ELD and/or SDAIE instruction	825	334	71	12%	21%	28%	22%	17%	59%	55%	58%	43%	41%
ELD instruction only	136	321	87	25%	24%	21%	14%	16%	55%	51%	52%	38%	43%
SDAIE instruction only	90	302	81	34%	22%	18%	11%	14%	52%	45%	47%	34%	39%
ELD instr. and SDAIE instr. but not primary language instr.	589	320	81	22%	25%	22%	16%	15%	56%	51%	52%	37%	41%
Other EL instructional services	13	303	38	8%	46%	31%	15%	0%	50%	38%	55%	32%	37%
None (EL only)	14	334	90	29%	7%	29%	21%	14%	57%	54%	56%	40%	45%
Program participation unknown	28	303	82	29%	29%	21%	11%	11%	47%	45%	51%	36%	37%
No special education	1,615	327	77	18%	22%	25%	19%	16%	57%	52%	55%	40%	42%
Special education	79	296	64	27%	32%	24%	13%	5%	50%	47%	45%	36%	32%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.31 Demographic Summary for Mathematics, Grade Seven (Overall Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability	
All population valid scores	1,648	316	68	19%	28%	28%	17%	9%	48%	45%	48%	46%	46%	46%	
Male	876	316	69	19%	27%	28%	16%	9%	49%	43%	47%	47%	46%	46%	
Female	768	317	67	17%	29%	27%	18%	8%	48%	46%	49%	46%	45%	47%	
Gender unknown	4	—	—	—	—	—	—	—	—	—	—	—	—	—	
Argentina	2	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bolivia	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—	—	
Chile	3	—	—	—	—	—	—	—	—	—	—	—	—	—	
Colombia	9	—	—	—	—	—	—	—	—	—	—	—	—	—	
Costa Rica	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cuba	5	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ecuador	7	—	—	—	—	—	—	—	—	—	—	—	—	—	
El Salvador	156	296	56	28%	34%	23%	9%	6%	43%	38%	43%	41%	41%	41%	
Guatemala	82	287	54	29%	38%	22%	7%	4%	42%	41%	41%	37%	36%	39%	
Mexico	689	324	71	16%	25%	30%	17%	12%	51%	45%	48%	49%	49%	48%	
Nicaragua	7	—	—	—	—	—	—	—	—	—	—	—	—	—	
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—	—	
Peru	6	—	—	—	—	—	—	—	—	—	—	—	—	—	
Puerto Rico	3	—	—	—	—	—	—	—	—	—	—	—	—	—	
Spain	3	—	—	—	—	—	—	—	—	—	—	—	—	—	
United States	577	319	66	17%	28%	27%	21%	8%	49%	46%	49%	47%	45%	47%	
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—	—	
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other	43	294	68	33%	33%	19%	9%	7%	40%	42%	42%	41%	39%	46%	
Country unknown	52	308	49	15%	31%	33%	19%	2%	48%	44%	46%	43%	42%	44%	
Not economically disadvantaged	197	327	73	15%	27%	27%	20%	12%	50%	47%	49%	49%	49%	49%	
Economically disadvantaged	1,375	315	67	19%	28%	28%	16%	9%	48%	44%	47%	46%	45%	46%	
Economic status unknown	76	314	64	20%	33%	20%	21%	7%	48%	44%	49%	46%	43%	49%	
In U.S. schools < 12 months	1,137	315	68	19%	28%	27%	17%	9%	48%	42%	47%	46%	47%	47%	
In U.S. schools ≥ 12 months	511	318	67	17%	27%	29%	17%	9%	50%	49%	50%	46%	43%	44%	
Primary language instruction and ELD and/or SDAIE instruction	411	324	66	16%	23%	30%	22%	9%	50%	48%	51%	48%	46%	48%	
ELD instruction only	136	306	61	22%	26%	29%	16%	6%	46%	42%	46%	44%	43%	44%	
SDAIE instruction only	154	309	65	18%	34%	30%	12%	6%	46%	44%	43%	43%	45%	44%	
ELD instr. and SDAIE instr. but not primary language instr.	776	315	70	20%	30%	26%	15%	9%	48%	43%	47%	46%	45%	45%	
Other EL instructional services	67	329	75	21%	19%	25%	16%	18%	52%	47%	52%	49%	48%	51%	
None (EL only)	44	325	61	14%	23%	30%	27%	7%	47%	45%	50%	49%	52%	51%	
Program participation unknown	60	308	67	18%	37%	28%	8%	8%	46%	40%	45%	44%	45%	45%	
No special education	1,589	317	68	18%	28%	28%	17%	9%	49%	45%	48%	47%	46%	46%	
Special education	57	291	62	26%	32%	23%	18%	2%	39%	41%	46%	39%	40%	39%	
Special education unknown	2	—	—	—	—	—	—	—	—	—	—	—	—	—	

**Table 7.B.32 Demographic Summary for Mathematics, Grade Seven (Target Population)**

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability	
Target population valid scores	1,351	317	67	18%	28%	27%	18%	9%	48%	44%	48%	47%	46%	47%	
Male	701	318	69	19%	27%	28%	17%	10%	49%	43%	47%	48%	47%	46%	
Female	646	316	65	17%	29%	27%	19%	8%	48%	45%	48%	46%	46%	48%	
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–	–	
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–	–	
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–	–	
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Chile	3	–	–	–	–	–	–	–	–	–	–	–	–	–	
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–	–	
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–	–	
Cuba	5	–	–	–	–	–	–	–	–	–	–	–	–	–	
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–	–	
El Salvador	138	294	56	30%	35%	21%	9%	6%	42%	37%	43%	41%	41%	41%	
Guatemala	71	286	54	30%	39%	20%	8%	3%	42%	42%	40%	37%	36%	39%	
Mexico	606	323	69	16%	25%	30%	18%	11%	50%	44%	48%	48%	49%	48%	
Nicaragua	5	–	–	–	–	–	–	–	–	–	–	–	–	–	
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–	–	
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Peru	6	–	–	–	–	–	–	–	–	–	–	–	–	–	
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–	–	
Spain	3	–	–	–	–	–	–	–	–	–	–	–	–	–	
United States	417	324	67	15%	27%	26%	24%	8%	50%	47%	50%	49%	47%	49%	
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–	–	
Other	39	288	61	33%	36%	18%	8%	5%	38%	41%	41%	39%	39%	43%	
Country unknown	34	310	51	12%	32%	35%	18%	3%	45%	43%	45%	45%	45%	52%	
Not economically disadvantaged	173	329	72	14%	26%	27%	23%	11%	51%	47%	50%	50%	50%	50%	
Economically disadvantaged	1,112	316	67	19%	28%	28%	17%	9%	48%	44%	47%	46%	46%	46%	
Economic status unknown	66	309	55	20%	33%	23%	21%	3%	46%	42%	48%	45%	42%	50%	
In U.S. schools < 12 months	1,137	315	68	19%	28%	27%	17%	9%	48%	42%	47%	46%	47%	47%	
In U.S. schools ≥ 12 months	214	325	63	13%	26%	29%	24%	9%	51%	52%	53%	49%	45%	45%	
Primary language instruction and ELD and/or SDAIE instruction	411	324	66	16%	23%	30%	22%	9%	50%	48%	51%	48%	46%	48%	
ELD instruction only	116	308	63	21%	28%	28%	18%	6%	48%	41%	45%	44%	44%	45%	
SDAIE instruction only	143	311	66	17%	34%	30%	13%	6%	47%	44%	44%	44%	46%	44%	
ELD instr. and SDAIE instr. but not primary language instr.	577	317	71	20%	31%	24%	16%	10%	48%	42%	46%	47%	47%	47%	
Other EL instructional services	22	308	61	27%	23%	23%	23%	5%	49%	38%	50%	41%	45%	41%	
None (EL only)	38	329	62	13%	18%	34%	26%	8%	46%	46%	50%	50%	54%	54%	
Program participation unknown	44	298	47	20%	36%	32%	9%	2%	42%	35%	43%	43%	44%	44%	
No special education	1,322	318	67	18%	28%	28%	18%	9%	48%	44%	48%	47%	47%	47%	
Special education	28	282	78	39%	29%	7%	21%	4%	40%	37%	43%	39%	37%	35%	
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–	–	

**Table 7.B.33 Demographic Summary for Algebra I (Overall Population)**

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions	
All population valid scores	2,687	293	49	37%	26%	23%	10%	4%	44%	38%	43%	29%	
Grade 7	1,545	290	49	39%	25%	22%	10%	3%	44%	37%	42%	29%	
Grade 8	1,135	297	50	33%	26%	25%	11%	4%	45%	39%	46%	29%	
Grade 9	7	—	—	—	—	—	—	—	—	—	—	—	
Grade 10	1	—	—	—	—	—	—	—	—	—	—	—	
Grade 11	2	—	—	—	—	—	—	—	—	—	—	—	
Male	0	—	—	—	—	—	—	—	—	—	—	—	
Female	2	—	—	—	—	—	—	—	—	—	—	—	
Gender unknown	28	322	66	32%	11%	29%	7%	21%	53%	45%	54%	37%	
Argentina	2	—	—	—	—	—	—	—	—	—	—	—	
Bolivia	9	—	—	—	—	—	—	—	—	—	—	—	
Brazil	5	—	—	—	—	—	—	—	—	—	—	—	
Chile	432	279	42	48%	27%	17%	7%	1%	39%	34%	39%	26%	
Colombia	261	275	43	52%	27%	13%	6%	2%	37%	34%	38%	25%	
Costa Rica	1,179	299	49	31%	25%	28%	13%	3%	47%	39%	46%	31%	
Cuba	14	285	38	36%	29%	36%	0%	0%	39%	37%	43%	26%	
Ecuador	1	—	—	—	—	—	—	—	—	—	—	—	
El Salvador	1	—	—	—	—	—	—	—	—	—	—	—	
Guatemala	15	323	60	20%	20%	13%	27%	20%	60%	45%	53%	34%	
Mexico	3	—	—	—	—	—	—	—	—	—	—	—	
Nicaragua	2	—	—	—	—	—	—	—	—	—	—	—	
Panama	537	302	53	30%	27%	23%	13%	7%	48%	40%	46%	32%	
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	
Peru	2	—	—	—	—	—	—	—	—	—	—	—	
Puerto Rico	102	277	37	46%	28%	22%	3%	1%	38%	32%	38%	28%	
Spain	89	275	35	49%	27%	20%	3%	0%	39%	31%	36%	27%	
United States	446	296	52	36%	26%	23%	10%	5%	46%	37%	45%	30%	
Uruguay	2,138	293	49	37%	26%	24%	11%	4%	44%	38%	43%	29%	
Venezuela	103	282	40	47%	27%	17%	8%	1%	40%	33%	39%	30%	
Other	2,516	294	50	36%	26%	23%	11%	4%	45%	38%	44%	29%	
Country unknown	171	287	44	44%	21%	24%	9%	2%	43%	35%	41%	29%	
Not economically disadvantaged	689	291	47	38%	26%	23%	10%	3%	44%	37%	42%	29%	
Economically disadvantaged	286	295	51	36%	21%	26%	13%	3%	46%	39%	44%	29%	
Economic status unknown	302	293	49	35%	26%	25%	9%	5%	44%	38%	44%	28%	
In U.S. schools < 12 months	1,189	293	50	37%	26%	22%	11%	4%	44%	37%	44%	30%	
In U.S. schools ≥ 12 months	48	310	59	25%	29%	25%	10%	10%	49%	41%	50%	34%	
Primary language instruction and ELD and/or SDAIE instruction	56	294	53	41%	25%	14%	16%	4%	47%	38%	42%	30%	
ELD instruction only	117	289	44	37%	28%	25%	9%	1%	43%	36%	43%	29%	
SDAIE instruction only	2,671	293	49	37%	26%	23%	11%	4%	44%	38%	43%	29%	
ELD instr. and SDAIE instr. but not primary language instr.	16	274	38	75%	0%	19%	6%	0%	35%	38%	37%	22%	

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions	
Other EL instructional services	0	–	–	–	–	–	–	–	–	–	–	–	–
None (EL only)	2,687	293	49	37%	26%	23%	10%	4%	44%	38%	43%	29%	
Program participation unknown	1,545	290	49	39%	25%	22%	10%	3%	44%	37%	42%	29%	
No special education	1,135	297	50	33%	26%	25%	11%	4%	45%	39%	46%	29%	
Special education	7	–	–	–	–	–	–	–	–	–	–	–	
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	

**Table 7.B.34 Demographic Summary for Algebra I (Target Population)**

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
Target population valid scores	2,687	293	49	37%	26%	23%	10%	4%	44%	38%	43%	29%
Grade 7	1,545	290	49	39%	25%	22%	10%	3%	44%	37%	42%	29%
Grade 8	1,135	297	50	33%	26%	25%	11%	4%	45%	39%	46%	29%
Grade 9	7	–	–	–	–	–	–	–	–	–	–	–
Grade 10	1	–	–	–	–	–	–	–	–	–	–	–
Grade 11	2	–	–	–	–	–	–	–	–	–	–	–
Male	0	–	–	–	–	–	–	–	–	–	–	–
Female	2	–	–	–	–	–	–	–	–	–	–	–
Gender unknown	28	322	66	32%	11%	29%	7%	21%	53%	45%	54%	37%
Argentina	2	–	–	–	–	–	–	–	–	–	–	–
Bolivia	9	–	–	–	–	–	–	–	–	–	–	–
Brazil	5	–	–	–	–	–	–	–	–	–	–	–
Chile	432	279	42	48%	27%	17%	7%	1%	39%	34%	39%	26%
Colombia	261	275	43	52%	27%	13%	6%	2%	37%	34%	38%	25%
Costa Rica	1,179	299	49	31%	25%	28%	13%	3%	47%	39%	46%	31%
Cuba	14	285	38	36%	29%	36%	0%	0%	39%	37%	43%	26%
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–
El Salvador	1	–	–	–	–	–	–	–	–	–	–	–
Guatemala	15	323	60	20%	20%	13%	27%	20%	60%	45%	53%	34%
Mexico	3	–	–	–	–	–	–	–	–	–	–	–
Nicaragua	2	–	–	–	–	–	–	–	–	–	–	–
Panama	537	302	53	30%	27%	23%	13%	7%	48%	40%	46%	32%
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–
Peru	2	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	102	277	37	46%	28%	22%	3%	1%	38%	32%	38%	28%
Spain	89	275	35	49%	27%	20%	3%	0%	39%	31%	36%	27%
United States	446	296	52	36%	26%	23%	10%	5%	46%	37%	45%	30%
Uruguay	2,138	293	49	37%	26%	24%	11%	4%	44%	38%	43%	29%
Venezuela	103	282	40	47%	27%	17%	8%	1%	40%	33%	39%	30%
Other	2,516	294	50	36%	26%	23%	11%	4%	45%	38%	44%	29%
Country unknown	171	287	44	44%	21%	24%	9%	2%	43%	35%	41%	29%
Not economically disadvantaged	689	291	47	38%	26%	23%	10%	3%	44%	37%	42%	29%
Economically disadvantaged	286	295	51	36%	21%	26%	13%	3%	46%	39%	44%	29%
Economic status unknown	302	293	49	35%	26%	25%	9%	5%	44%	38%	44%	28%
In U.S. schools < 12 months	1,189	293	50	37%	26%	22%	11%	4%	44%	37%	44%	30%
In U.S. schools ≥ 12 months	48	310	59	25%	29%	25%	10%	10%	49%	41%	50%	34%
Primary language instruction and ELD and/or SDAIE instruction	56	294	53	41%	25%	14%	16%	4%	47%	38%	42%	30%
ELD instruction only	117	289	44	37%	28%	25%	9%	1%	43%	36%	43%	29%
SDAIE instruction only	2,671	293	49	37%	26%	23%	11%	4%	44%	38%	43%	29%
ELD instr. and SDAIE instr. but not primary language instr.	16	274	38	75%	0%	19%	6%	0%	35%	38%	37%	22%

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions	
Other EL instructional services	0	–	–	–	–	–	–	–	–	–	–	–	–
None (EL only)	2,687	293	49	37%	26%	23%	10%	4%	44%	38%	43%	29%	
Program participation unknown	1,545	290	49	39%	25%	22%	10%	3%	44%	37%	42%	29%	
No special education	1,135	297	50	33%	26%	25%	11%	4%	45%	39%	46%	29%	
Special education	7	–	–	–	–	–	–	–	–	–	–	–	
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	

**Table 7.B.35 Demographic Summary for Geometry (Overall Population)**

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
All population valid scores	320	313	77	20%	34%	19%	18%	10%	53%	38%	44%	38%
Grade 8	175	322	84	19%	33%	14%	21%	14%	54%	40%	47%	39%
Grade 9	142	303	64	20%	36%	25%	15%	4%	51%	36%	39%	36%
Grade 10	3	—	—	—	—	—	—	—	—	—	—	—
Grade 11	2	—	—	—	—	—	—	—	—	—	—	—
Male	0	—	—	—	—	—	—	—	—	—	—	—
Female	0	—	—	—	—	—	—	—	—	—	—	—
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
Argentina	4	—	—	—	—	—	—	—	—	—	—	—
Bolivia	0	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—
Colombia	31	283	70	42%	29%	16%	3%	10%	45%	29%	38%	32%
Costa Rica	14	283	40	29%	43%	21%	7%	0%	43%	34%	38%	30%
Cuba	150	323	81	16%	33%	18%	23%	10%	55%	40%	47%	39%
Ecuador	0	—	—	—	—	—	—	—	—	—	—	—
El Salvador	0	—	—	—	—	—	—	—	—	—	—	—
Guatemala	0	—	—	—	—	—	—	—	—	—	—	—
Mexico	4	—	—	—	—	—	—	—	—	—	—	—
Nicaragua	0	—	—	—	—	—	—	—	—	—	—	—
Panama	3	—	—	—	—	—	—	—	—	—	—	—
Paraguay	91	318	69	10%	40%	22%	19%	10%	55%	39%	44%	39%
Peru	0	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	0	—	—	—	—	—	—	—	—	—	—	—
Spain	8	—	—	—	—	—	—	—	—	—	—	—
United States	11	295	78	36%	18%	36%	0%	9%	49%	31%	32%	44%
Uruguay	65	320	70	14%	31%	22%	26%	8%	53%	40%	47%	41%
Venezuela	250	312	79	21%	34%	18%	16%	10%	53%	38%	43%	37%
Other	5	—	—	—	—	—	—	—	—	—	—	—
Country unknown	292	316	77	19%	33%	20%	19%	10%	53%	39%	44%	39%
Not economically disadvantaged	28	288	68	29%	43%	14%	7%	7%	50%	31%	37%	30%
Economically disadvantaged	97	313	81	20%	34%	21%	14%	11%	53%	36%	42%	40%
Economic status unknown	31	350	73	10%	19%	19%	35%	16%	62%	45%	56%	44%
In U.S. schools < 12 months	18	310	65	11%	44%	22%	17%	6%	54%	40%	39%	37%
In U.S. schools ≥ 12 months	140	310	78	20%	36%	19%	16%	10%	51%	39%	43%	37%
Primary language instruction and ELD and/or SDAIE instruction	18	304	56	22%	33%	17%	28%	0%	52%	33%	45%	33%
ELD instruction only	6	—	—	—	—	—	—	—	—	—	—	—
SDAIE instruction only	10	—	—	—	—	—	—	—	—	—	—	—

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
ELD instr. and SDAIE instr. but not primary language instr.	319	313	77	20%	34%	19%	18%	10%	53%	38%	44%	38%
Other EL instructional services	1	–	–	–	–	–	–	–	–	–	–	–
None (EL only)	0	–	–	–	–	–	–	–	–	–	–	–
Program participation unknown	320	313	77	20%	34%	19%	18%	10%	53%	38%	44%	38%
No special education	175	322	84	19%	33%	14%	21%	14%	54%	40%	47%	39%
Special education	142	303	64	20%	36%	25%	15%	4%	51%	36%	39%	36%
Special education unknown	3	–	–	–	–	–	–	–	–	–	–	–

**Table 7.B.36 Demographic Summary for Geometry (Target Population)**

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
All population valid scores	320	313	77	20%	34%	19%	18%	10%	53%	38%	44%	38%
Grade 8	175	322	84	19%	33%	14%	21%	14%	54%	40%	47%	39%
Grade 9	142	303	64	20%	36%	25%	15%	4%	51%	36%	39%	36%
Grade 10	3	—	—	—	—	—	—	—	—	—	—	—
Grade 11	2	—	—	—	—	—	—	—	—	—	—	—
Male	0	—	—	—	—	—	—	—	—	—	—	—
Female	0	—	—	—	—	—	—	—	—	—	—	—
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
Argentina	4	—	—	—	—	—	—	—	—	—	—	—
Bolivia	0	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—
Colombia	31	283	70	42%	29%	16%	3%	10%	45%	29%	38%	32%
Costa Rica	14	283	40	29%	43%	21%	7%	0%	43%	34%	38%	30%
Cuba	150	323	81	16%	33%	18%	23%	10%	55%	40%	47%	39%
Ecuador	0	—	—	—	—	—	—	—	—	—	—	—
El Salvador	0	—	—	—	—	—	—	—	—	—	—	—
Guatemala	0	—	—	—	—	—	—	—	—	—	—	—
Mexico	4	—	—	—	—	—	—	—	—	—	—	—
Nicaragua	0	—	—	—	—	—	—	—	—	—	—	—
Panama	3	—	—	—	—	—	—	—	—	—	—	—
Paraguay	91	318	69	10%	40%	22%	19%	10%	55%	39%	44%	39%
Peru	0	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	0	—	—	—	—	—	—	—	—	—	—	—
Spain	8	—	—	—	—	—	—	—	—	—	—	—
United States	11	295	78	36%	18%	36%	0%	9%	49%	31%	32%	44%
Uruguay	65	320	70	14%	31%	22%	26%	8%	53%	40%	47%	41%
Venezuela	250	312	79	21%	34%	18%	16%	10%	53%	38%	43%	37%
Other	5	—	—	—	—	—	—	—	—	—	—	—
Country unknown	292	316	77	19%	33%	20%	19%	10%	53%	39%	44%	39%
Not economically disadvantaged	28	288	68	29%	43%	14%	7%	7%	50%	31%	37%	30%
Economically disadvantaged	97	313	81	20%	34%	21%	14%	11%	53%	36%	42%	40%
Economic status unknown	31	350	73	10%	19%	19%	35%	16%	62%	45%	56%	44%
In U.S. schools < 12 months	18	310	65	11%	44%	22%	17%	6%	54%	40%	39%	37%
In U.S. schools ≥ 12 months	140	310	78	20%	36%	19%	16%	10%	51%	39%	43%	37%
Primary language instruction and ELD and/or SDAIE instruction	18	304	56	22%	33%	17%	28%	0%	52%	33%	45%	33%
ELD instruction only	6	—	—	—	—	—	—	—	—	—	—	—
SDAIE instruction only	10	—	—	—	—	—	—	—	—	—	—	—
ELD instr. and SDAIE instr. but not primary language instr.	319	313	77	20%	34%	19%	18%	10%	53%	38%	44%	38%

	No. Tested	Mean Scale Score	Std. Dev. of Number Correct Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry	
Other EL instructional services	1	—	—	—	—	—	—	—	—	—	—	—	—
None (EL only)	0	—	—	—	—	—	—	—	—	—	—	—	—
Program participation unknown	320	313	77	20%	34%	19%	18%	10%	53%	38%	44%	38%	
No special education	175	322	84	19%	33%	14%	21%	14%	54%	40%	47%	39%	
Special education	142	303	64	20%	36%	25%	15%	4%	51%	36%	39%	36%	
Special education unknown	3	—	—	—	—	—	—	—	—	—	—	—	

## Appendix 7.C—Types of Score Reports

**Table 7.C.1 Score Reports Reflecting STS Results**

<b>2013 STAR STS Printed Reports</b>	
<b>Description</b>	<b>Distribution</b>
<b>The STAR Student Report</b>	
<p>This report provides parents/guardians and teachers with the student's results, presented in tables and graphs. Data presented include the following:</p> <ul style="list-style-type: none"> <li>• Scale scores</li> <li>• Performance levels (advanced, proficient, basic, below basic, and far below basic)</li> <li>• Number and percent correct in each reporting cluster</li> <li>• Comparison of the student's scores on specific reporting clusters to the range of scores of students statewide who scored proficient on the total test</li> </ul> <p>Because students who take the STS must also take the grade-level CSTs or CMA, those students will likely receive two or as many as three Student Reports.</p>	<p>This report includes individual student results and is not distributed beyond parents/guardians and the student's school.</p> <p>Two copies of this report are provided for each student. One is for the student's current teacher and one is distributed by the school district to parents/guardians.</p>
<b>Student Record Label</b>	
<p>These reports are printed on adhesive labels to be affixed to the student's permanent school records. Each student shall have an individual record of accomplishment that includes STAR testing results (see California <i>EC</i> Section 60607[a]).</p> <p>Data presented include the following for each content area:</p> <ul style="list-style-type: none"> <li>• Scale scores</li> <li>• Performance levels (advanced, proficient, basic, below basic, and far below basic)</li> </ul>	<p>This report includes individual student results and is not distributed beyond the student's school.</p>
<b>Student Master List</b>	
<p>This report is an alphabetical roster that presents individual student results. The following data are summarized:</p> <ul style="list-style-type: none"> <li>• Percent correct for each reporting cluster within each content area tested</li> <li>• A scale score and a performance level for each content area tested</li> </ul>	<p>This report provides administrators and teachers with all students' results within each grade or within each grade and year-round schedule at a school.</p> <p>Because this report includes individual student results, it is not distributed beyond the student's school. It is recommended that Student Master List reports be retained until the grade level exits the school.</p>

<b>2013 STAR STS Printed Reports</b>	
<b>Description</b>	<b>Distribution</b>
<b>Student Master List Summary</b>	
<p>This report summarizes student results at the school, district, county, and state levels for each grade. It does not include any individual student information.</p> <p><b>Note:</b> Summaries for specific STS for mathematics across grades are provided in the Student Master List Summary—End-of-Course report.</p> <p>For each STS, the following data are summarized:</p> <ul style="list-style-type: none"> <li>• By content area tested:                             <ul style="list-style-type: none"> <li>– Number of students enrolled</li> <li>– Number and percent of students tested</li> <li>– Number and percent of valid scores</li> <li>– Number tested with scores</li> <li>– Mean percent correct</li> </ul> </li> <li>• Mean scale score</li> <li>• Scale score standard deviation</li> <li>• Number and percent of students scoring at each performance level</li> <li>• The number of items for each reporting cluster and the mean percent correct</li> </ul>	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is packaged for the school and one for the school district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p><b>Note:</b> The data in this report may be shared with parents/guardians, community members, and the media only if the data are for 11 or more students. It is recommended that summary reports be retained until the grade level exits the school.</p>
<b>Student Master List Summary—End-of-Course</b>	
<p>This report summarizes Student Master List information for the end-of-course STS for Algebra I, administered to students in grades seven through eleven, and Geometry, administered to students in grades eight through eleven, at the school, district, county, and state levels. It does not include any individual student information.</p> <p>For each of these STS, the following data are summarized by grade and content area:</p> <ul style="list-style-type: none"> <li>• By content area tested:                             <ul style="list-style-type: none"> <li>– Number of students enrolled</li> <li>– Number and percent of students tested</li> <li>– Number and percent of valid scores</li> <li>– Number tested with scores</li> <li>– Mean percent correct</li> <li>– Mean scale score</li> <li>– Scale score standard deviation</li> <li>– Number and percent of students scoring at each performance level</li> </ul> </li> <li>• The number of items for each reporting cluster and the mean percent correct</li> </ul>	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is packaged for the school and one for the school district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p><b>Note:</b> The data on this report may be shared with parents/guardians, community members, and the media only if the data are for 11 or more students. It is recommended that summary reports be retained until the grade level exits the school.</p>

2013 STAR STS Printed Reports	
Description	Distribution
<b>Subgroup Summary</b>	
<p>This set of reports disaggregates and reports results by the following subgroups:</p> <ul style="list-style-type: none"> <li>• All students</li> <li>• Disability status</li> <li>• Economic status</li> <li>• Gender</li> <li>• English proficiency</li> <li>• Primary ethnicity</li> </ul> <p>These reports contain no individual student-identifying information and are aggregated at the school, district, county, and state levels.</p> <p>For each subgroup within a report and for the total number of students, the following data are included for each test:</p> <ul style="list-style-type: none"> <li>• Total number tested in the subgroup</li> <li>• Percent of enrollment tested in the subgroup</li> <li>• Number and percent of valid scores</li> <li>• Number tested who received scores</li> <li>• Mean scale score</li> <li>• Scale score standard deviation</li> <li>• Number and percent of students scoring at each performance level</li> </ul>	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is packaged for the school and one for the school district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p><b>Note:</b> The data on this report may be shared with parents/guardians, community members, and the media only if the data are for 11 or more students. It is recommended that summary reports be retained until the grade level exits the school.</p>

## Chapter 8: Analyses

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This chapter summarizes the item- and test-level statistics obtained for the STS administered during the spring of 2013.

The statistics presented in this chapter are divided into five sections in the following order:

1. Classical Item Analyses
2. Reliability Analyses
3. Analyses in Support of Validity Evidence
4. Item Response Theory (IRT) Analyses
5. Differential Item Functioning (DIF) Analyses

Each of those sets of analyses is presented in the body of the text and in the appendixes as listed below.

1. Appendix 8.A on page 240 presents the classical item analyses, including proportion-correct value ( $p$ -value) and point-biserial correlation (Pt-Bis) for each item in each operational test. In addition, the average and median  $p$ -value and Pt-Bis for each operational test are presented in Table 8.1 on page 218.
2. Appendix 8.B on page 247 presents results of the reliability analyses of total test scores and subscores for the target population as a whole and for selected subgroups within the target population. Also presented are results of the analyses of the accuracy and consistency of the performance classifications.
3. Appendix 8.C on page 277 presents tables showing the correlation between scores obtained on the STS measured in the different content areas, which are provided as an example of the evidence of the validity of the interpretation and uses of STS scores. The results for the overall target population are presented in Table 8.6; the tables in Appendix 8.C summarize the results for various subgroups within the target population.
4. Appendix 8.D on page 293 presents the results of IRT analyses, including the distribution of items based on their fit to the Rasch model and the summaries of Rasch item difficulty statistics ( $b$ -values) for the operational and field-test items. In addition, the appendix presents the scoring tables for the STS in grades two through seven obtained as a result of the IRT equating process. Information related to the evaluation of linking items is presented in Table 8.7 on page 235; these linking items were used in the equating process discussed later in this chapter.
5. Appendix 8.E on page 310 presents the results of the DIF analyses applied to all operational and field-test items for which sufficient student samples were available. In this appendix, items flagged for significant DIF are listed. Also given are the distributions of items across DIF categories.

### Samples Used for the Analyses

STS analyses were conducted at different times after test administration and involved varying proportions of the full STS data. The majority of the analyses presented in this chapter, including the classical item analyses presented in Appendix 8.A, the reliability statistics included in Appendix 8.B, the content-area correlations presented in Appendix 8.C, the IRT results presented in Appendix 8.D, and the item-level DIF results presented in Appendix 8.E were calculated on the STS target population using the P2 data file. This data

file contained all test results except for the corrected demographic information (CDE, 2013), which only affected a few examinees.

Following the *Standards for Educational and Psychological Testing* (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 1999, Standard 6.4), the results of the classical item analyses and reliability analyses for the EOC mathematics tests in Algebra I and Geometry are also presented for the grade-specific population in addition to the overall target population. “Grade-specific population” refers to test-takers in the particular grade for which the course has been recommended by the SBE, that is, in grade eight for Algebra I and grade nine for Geometry. The item-level DIF and IRT analyses for the two EOC mathematics tests include all students taking these tests. No grade-specific DIF or IRT analyses were conducted for these tests.

The raw-score-to-scale-score conversion tables for the STS except for Geometry that are presented in Appendix 8.D were based on equating data available in early June 2013, which contained more than 30 percent of the test results for the target population. The raw-score-to-scale score conversion table for Geometry that is also presented in Appendix 8.D was developed using the pre-equating procedure and item parameters estimated in previous administrations (see details in pre-equating section in Chapter 2, starting on page 14).

## Classical Item Analyses

### Multiple-choice Items

The classical item statistics that included overall and item-by-item proportion-correct indices and the point-biserial correlation indices were computed for the operational items. The  $p$ -value of an item represents the proportion of examinees in the sample that answered an item correctly. The formula for  $p$ -value is:

$$p\text{-value}_i = \frac{N_{ic}}{N_i} \quad (8.1)$$

where,

$N_{ic}$  is the number of examinees that answered item  $i$  correctly, and

$N_i$  is the total number of examinees that attempted the item.

The point-biserial correlation is a special case of the Pearson product-moment correlation used to measure the strength of the relationship between two variables, one dichotomously and one continuously measured—in this case, the item score (right/wrong) and the total test score. The formula for the Pearson product-moment correlation is:

$$r_{X_i T} = \frac{\text{cov}(X_i, T)}{s_{X_i} s_T} \quad (8.2)$$

where,

$\text{cov}(X_i, T)$  is the covariance between the score of item  $i$  and total score  $T$ ,

$s_{X_i}$  is the standard deviation for the score of item  $i$ , and

$s_T$  is the standard deviation for total score  $T$ .

The classical statistics for the overall test are presented in Table 8.1. The item-by-item values for the indices are presented in Table 8.A.1 through Table 8.A.3, starting on page 240.

**Table 8.1 Mean and Median Proportion Correct and Point-Biserial Correlation**

Content Area	STS *	No. of Items	No. of Examinees	Mean		Median	
				<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
Reading/ Language Arts	2	65	8,854	0.62	0.44	0.61	0.45
	3	65	6,259	0.59	0.40	0.58	0.40
	4	75	3,903	0.58	0.42	0.59	0.43
	5	75	2,743	0.51	0.37	0.51	0.37
	6	75	1,725	0.52	0.37	0.52	0.38
	7	75	1,414	0.58	0.39	0.57	0.40
	8	75	1,083	0.56	0.38	0.54	0.38
	9	75	1,980	0.55	0.37	0.53	0.36
	10	75	1,177	0.57	0.35	0.57	0.36
	11	75	669	0.56	0.35	0.55	0.37
	Mathematics	2	65	8,851	0.68	0.42	0.69	0.43
3		65	6,243	0.66	0.44	0.67	0.46
4		65	3,885	0.65	0.44	0.65	0.45
5		65	2,728	0.54	0.37	0.52	0.37
6		65	1,695	0.50	0.38	0.50	0.38
7		65	1,351	0.47	0.34	0.48	0.36
Algebra I		65	2,687	0.40	0.32	0.39	0.33
Geometry	65	320	0.45	0.36	0.44	0.38	
Grade Specific	Algebra I – 8	65	398	0.38	0.31	0.38	0.33
	Geometry – 9	65	48	0.42	0.35	0.42	0.39

\* STS named by number only are grade-level tests.

## Reliability Analyses

Reliability focuses on the extent to which differences in test scores reflect true differences in the knowledge, ability, or skill being tested, rather than fluctuations due to chance or random factors. The variance in the distribution of test scores—essentially, the differences among individuals—is partly due to real differences in the knowledge, skill, or ability being tested (true-score variance) and partly due to random unsystematic errors in the measurement process (error variance).

The number used to describe reliability is an estimate of the proportion of the total variance that is true-score variance. Several different ways of estimating this proportion exist. The estimates of reliability reported here are internal-consistency measures, which are derived from analysis of the consistency of the performance of individuals on items within a test (internal-consistency reliability). Therefore, they apply only to the test form being analyzed. They do not take into account form-to-form variation due to equating limitations or lack of parallelism, nor are they responsive to day-to-day variation due, for example, to students' state of health or testing environment.

Reliability coefficients may range from 0 to 1. The higher the reliability coefficient for a set of scores, the more likely individuals would be to obtain very similar scores if they were retested. The formula for the internal-consistency reliability as measured by Cronbach's Alpha (Cronbach, 1951) is defined by equation 8.3:

$$\alpha = \frac{n}{n-1} \left[ 1 - \frac{\sum_{i=1}^n s_i^2}{s_t^2} \right] \quad (8.3)$$

where,

$n$  is the number of items,

$s_i^2$  is the variance of scores on the item  $i$ , and

$s_t^2$  is the variance of the total score.

The standard error of measurement (SEM) provides a measure of score instability in the score metric. The SEM was computed as shown in equation 8.4:

$$s_e = s_t \sqrt{1 - \alpha} \quad (8.4)$$

where,

$\alpha$  is the reliability estimated in equation 8.3, and

$s_t$  is the standard deviation of the total score (either the total raw score or scale score).

The SEM is particularly useful in determining the confidence interval (CI) that captures an examinee's true score. Assuming that measurement error is normally distributed, it can be said that upon infinite replications of the testing occasion, approximately 95 percent of the CIs of  $\pm 1.96$  SEM around the observed score would contain an examinee's true score (Crocker & Algina, 1986). For example, if an examinee's observed score on a given test equals 15 points, and the SEM equals 1.92, one can be 95 percent confident that the examinee's true score lies between 11 and 19 points ( $15 \pm 3.76$  rounded to the nearest integer).

Table 8.2 gives the reliability and SEM for each of the 18 operational STS, along with the number of items and examinees upon which those analyses were performed. The results for the grade-specific population for the EOC mathematics Algebra I and Geometry are also presented in this table.

**Table 8.2 Reliabilities and SEMs for the STS**

Content Area	STS *	Test Length	No. Examinees	Reliab.	Scale Score			Raw Score		
					Mean	SD	SEM	Mean	SD	SEM
Reading/ Language Arts	2	65	8,854	0.94	329	55	14.03	40.31	13.42	3.42
	3	65	6,259	0.92	333	53	15.21	38.11	12.29	3.51
	4	75	3,903	0.93	326	54	13.93	43.20	14.78	3.79
	5	75	2,743	0.91	317	59	17.15	38.04	13.50	3.94
	6	75	1,725	0.92	323	62	17.85	39.07	13.69	3.96
	7	75	1,414	0.92	333	60	16.49	43.18	14.01	3.84
	8	75	1,083	0.92	330	58	16.43	42.21	13.57	3.87
	9	75	1,980	0.91	324	54	16.03	41.53	12.94	3.84
	10	75	1,177	0.90	327	55	17.05	42.89	12.48	3.87
	11	75	669	0.90	315	61	19.23	41.71	12.36	3.92

Content Area	STS *	Test Length	No. Examinees	Reliab.	Scale Score			Raw Score		
					Mean	SD	SEM	Mean	SD	SEM
Mathematics	2	65	8,851	0.93	359	76	20.43	43.95	12.29	3.31
	3	65	6,243	0.93	362	75	19.29	43.15	12.66	3.24
	4	65	3,885	0.93	361	78	19.92	42.15	13.14	3.37
	5	65	2,728	0.90	341	83	26.49	35.18	11.45	3.64
	6	65	1,695	0.91	326	77	23.18	32.70	12.05	3.63
	7	65	1,351	0.88	317	67	23.08	30.42	10.77	3.69
	Algebra I	65	2,687	0.87	293	49	18.04	25.74	9.99	3.65
	Geometry	65	320	0.90	313	77	24.66	29.03	11.16	3.59
Grade-Specific	Algebra I – 8	65	398	0.86	289	48	17.94	24.98	9.76	3.65
	Geometry – 9	65	48	0.90	303	77	24.57	27.54	11.31	3.61

\* STS named by number only are grade-level tests.

### Intercorrelations, Reliabilities, and SEMs for Reporting Clusters

For each STS, number-correct scores are computed for four to six reporting clusters. The number of items within each reporting cluster is limited, and cluster scores alone should not be used in making inferences about individual students.

Intercorrelations and reliability estimates for the reporting clusters are presented in Table 8.B.1 and Table 8.B.2 starting on page 247. Results are also reported in these tables for grade-specific samples of the EOC Algebra I and Geometry tests. Consistent with results from previous years, the reliabilities across reporting clusters vary according to the number of items in each cluster.

### Subgroup Reliabilities and SEMs

The reliabilities of the 18 operational STS and the two grade-specific EOC mathematics STS were examined for various subgroups of the examinee population. The subgroups included in these analyses were defined by examinees' gender, economic status, provision of special services, length of attendance in U.S. schools, and EL program participation.

Reliabilities and SEM information for the total test scores and the reporting cluster scores are reported for each subgroup analysis. Table 8.B.3 through Table 8.B.7 present the overall test reliabilities for the various subgroups. Table 8.B.8 through Table 8.B.10 present the cluster-level reliabilities for the subgroups based on gender and economic status. The next set of tables, Table 8.B.11 through Table 8.B.13, shows the same analyses for the subgroups based on provision of special services and the length of attendance in U.S. schools. The last set of tables, Table 8.B.14 through Table 8.B.16, present the cluster-based reliabilities for the subgroups based on EL program participation.

Note that the reliabilities are reported only for samples that are comprised of 11 or more examinees. Also, in some cases, score reliabilities were not estimable and are presented in the tables as hyphens. Finally, results based on samples that contain 50 or fewer examinees should be interpreted with caution due to small sample sizes.

### Conditional Standard Errors of Measurement

As part of the IRT-based equating procedures, scale-score conversion tables and conditional standard errors of measurement (CSEMs) are produced. CSEMs for STS scale scores are based on IRT and are calculated by the IRTEQUATE module in a computer system called the Generalized Analysis System (GENASYS).

The CSEM is estimated as a function of measured ability. It is typically smaller in scale-score units toward the center of the scale in the test metric, where more items are located,

and larger at the extremes, where there are fewer items. An examinee's CSEM under the IRT framework is equal to the inverse of the square root of the test information function:

$$\text{CSEM}(\hat{\theta}) = \frac{1}{\sqrt{I(\hat{\theta})}} a \quad (8.5)$$

where,

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

$I(\hat{\theta})$  is the test information function at ability level  $\hat{\theta}$ .

The statistic is multiplied by  $a$ , where  $a$  is the original scaling factor needed to transform theta to the scale-score metric. The value of  $a$  varies by grade and content area.

SEMs vary across the scale. When a test has cut scores, it is important to provide CSEMs at the cut scores.

Table 8.3 presents the scale score CSEMs at the lowest score required for a student to be classified in the below basic, basic, proficient, and advanced performance levels for each STS.

The CSEMs tend to be higher at the advanced cut points for all tests. The pattern of lower values of CSEMs at the basic and proficient levels are expected since (1) more items tend to be of middle difficulty; and (2) items at the extremes still provide information toward the middle of the scale. This results in more precise scores in the middle of the scale and less precise scores in the extremes of the scale.

**Table 8.3 Scale Score CSEM at Performance-level Cut Points**

Content Area	STS *	Below Basic		Basic		Proficient		Advanced	
		Min. SS	CSEM	Min. SS	CSEM	Min. SS	CSEM	Min. SS	CSEM
Reading/Language Arts	2	242	14	300	12	350	14	386	17
	3	251	15	300	14	350	15	393	18
	4	256	14	300	13	350	14	387	16
	5	271	17	300	16	350	17	401	19
	6	260	18	300	17	350	17	401	19
	7	256	16	300	15	350	16	399	18
	8	248	17	300	15	350	16	401	19
	9	248	16	300	15	350	16	396	18
	10	240	18	300	16	350	17	394	19
	11	235	20	300	18	350	19	397	21
	Mathematics	2	217	19	300	17	350	18	417	23
3		229	18	300	16	350	17	421	22
4		243	19	300	17	350	18	420	22
5		245	27	300	25	350	25	416	26
6		251	23	300	22	350	22	403	23
7		257	23	300	22	350	21	415	24
Algebra I		270	19	300	18	350	17	398	19
Geometry		252	26	300	24	350	23	429	26

\* STS named by number only are grade-level tests.

## Decision Classification Analyses

The methodology used for estimating the reliability of classification decisions is described in Livingston and Lewis (1995) and is implemented using the ETS-proprietary computer program RELCLASS-COMP (Version 4.14).

Decision accuracy describes the extent to which examinees 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 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 were somehow known? RELCLASS-COMP also estimates decision accuracy using an estimated multivariate distribution of reported classifications on the current form of the exam and the classifications based on an all-forms average (true score).

Decision consistency describes the extent to which examinees are classified in the same way as they would be on the basis of a single form of a test other than the one for which data are available. Decision consistency answers the following question: What is the agreement between the classifications based on two nonoverlapping, equally difficult forms of the test? RELCLASS-COMP also estimates decision consistency using an estimated multivariate distribution of reported classifications on the current form of the exam and classifications on a hypothetical alternate form using the reliability of the test and strong true-score theory.

In each case, the 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 collapsing the multivariate distribution at the passing score boundary into an  $n$  by  $n$  table (where  $n$  is the number of performance levels) and summing the entries in the diagonal. Figure 8.1 and Figure 8.2 present the two scenarios graphically.

**Figure 8.1 Decision Accuracy for Achieving a Performance Level**

		Decision made on the form taken	
		Does not achieve a performance level	Achieves a performance level
True status on all-forms average	Does not achieve a performance level	Correct classification	Misclassification
	Achieves a performance level	Misclassification	Correct classification

**Figure 8.2 Decision Consistency for Achieving a Performance Level**

		Decision made on the alternate form taken	
		Does not achieve a performance level	Achieves a performance level
Decision made on the form taken	Does not achieve a performance level	Correct classification	Misclassification
	Achieves a performance level	Misclassification	Correct classification

The results of these analyses are presented in Table 8.B.17 through Table 8.B.36 in Appendix 8.B.

Each table includes the contingency tables for both accuracy and consistency of the various performance-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 below-proficient versus proficient and above, which are the critical categories for Adequate Yearly Progress (AYP) calculations for other tests in the STAR Program, and are also presented in the tables.

## Validity Evidence

Validity refers to the degree to which each interpretation or use of a test score is supported by evidence that is gathered (AERA, APA, & NCME, 1999; ETS, 2002). It is a central concern 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. It involves more than a single study or gathering of one particular kind of evidence. Validation involves multiple investigations and various kinds of evidence (AERA, APA, & NCME, 1999; Cronbach, 1971; ETS, 2002; Kane, 2006). The process begins with test design and continues through the entire assessment process, including item development and field testing, analyses of item and test data, test scaling, scoring, and score reporting.

This section presents the evidence gathered to support the intended uses and interpretations of scores for the STS testing program. The description is organized in the manner prescribed by *The Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999). These standards require a clear definition of the purpose of the test, which includes a description of the qualities—called constructs—that are to be assessed by a test, the population to be assessed, as well as how the scores are to be interpreted and used.

In addition, the *Standards* identify five kinds of evidence that can provide support for score interpretations and uses, which are as follows:

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.

These kinds of evidence are also defined as important elements of validity information in documents developed by the U.S. Department of Education for the peer review of testing programs administered by states in response to the Elementary and Secondary Education Act (USDOE, 2001).

The next section defines the purposes of the STS, followed by a description and discussion of the kinds of validity evidence that have been gathered.

## Purpose of the STS

As mentioned in Chapter 1, the purpose of the STS program is to permit students to demonstrate achievement of the California content standards in reading/language arts and mathematics through a primary language test in Spanish. The STS test results are not part of the federal and state accountability systems.

## The Constructs to Be Measured

The STS, administered in Spanish, are designed to show how well students perform relative to the California content standards. These content standards were approved by the SBE; they describe what students should know and be able to do at each grade level.

Test blueprints and specifications written to define the procedures used to measure the content standards provide an operational definition of the construct to which each set of standards refers—that is, they define, for each content area to be assessed, the tasks to be presented, the administration instructions to be given, and the rules used to score examinee responses. They control as many aspects of the measurement procedure as possible so that the testing conditions will remain the same over test administrations (Cronbach, 1971; Cronbach, Gleser, Nanda, & Rajaratnam, 1972) to minimize construct-irrelevant score variance (Messick, 1989). The content blueprints for the STS can be found on the CDE STAR STS Blueprints Web page at <http://www.cde.ca.gov/ta/tg/sr/stsblueprints.asp>. ETS has developed all STS test items to conform to the SBE-approved content standards and test blueprints.

## Interpretations and Uses of the Scores Generated

Total test scores expressed as scale scores, student performance levels, and subscores for each reporting cluster are generated for each grade-level and content-area test. The total test scale score is used to draw inferences about a student's achievement in the content area and to classify the achievement into one of five performance levels: advanced, proficient, basic, below basic, and far below basic.

Reporting cluster scores, also called subscores, are used to draw inferences about a student's achievement in each of several specific knowledge or skill areas covered by each test. Reporting cluster results compare an individual student's percent-correct score to the average percent-correct for the state as a whole. The range of scores for students who scored proficient on the total test is also provided for each cluster using a percent-correct metric. The reference points for this range are: (1) the average percent-correct for students who received the lowest score qualifying for the proficient performance level; and (2) the average percent-correct for students who received the lowest score qualifying for the advanced performance level, minus one percent. A detailed description of the uses and applications of STS scores is presented in Chapter 7, which starts on page 157.

The tests that make up the STAR Program, along with other assessments, provide results or score summaries that are used for different purposes. The three major purposes of the STS are:

1. Communicating with parents and guardians;
2. Informing decisions needed to support student achievement; and
3. Evaluating school programs.

These are the only uses and interpretations of scores for which validity evidence has been gathered. If the user wishes to interpret or use the scores in other ways, the user is cautioned that the validity of doing so has not been established (AERA, APA, & NCME, 1999, Standard 1.3). The user is advised to gather evidence to support these additional interpretations or uses (AERA, APA, & NCME, 1999, Standard 1.4).

## Intended Test Population(s)

The STS are targeted toward Spanish-speaking English learners who have been in school in the United States for less than 12 cumulative months or who receive instruction in

Spanish. However, all students who are English learners and whose primary language is Spanish are eligible to take the STS. The two distinct STS populations are the “target” and “nontarget/optional” populations. The target population consists of students receiving instruction in Spanish or students who have attended school in the United States for less than 12 months. These are cumulative, not necessarily consecutive, months. The nontarget/optional population consists of students who receive instruction in English and who have attended school in the United States for 12 cumulative months or longer.

Students in grades two through eleven are tested in RLA and mathematics. Students in grade seven who meet the criteria for taking the CST or CMA for Algebra I take the STS for Algebra I instead of the grade-level STS. Only those students whose parents/guardians have submitted written requests to exempt them from STAR Program testing do not take the tests.

## Validity Evidence Collected

### Evidence Based on Content

According to *The Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), analyses that demonstrate a strong relationship between the test content and the construct that the test was designed to measure can provide important evidence of validity. In current K–12 testing, the construct of interest usually is operationally defined by state content standards and the test blueprints that specify the content, format, and scoring of items that are admissible measures of the knowledge and skills described in the content standards. Evidence that the items meet these specifications and represent the domain of knowledge and skills referenced by the standards supports the inference that students’ scores on these items can appropriately be regarded as measures of the intended construct.

As noted in the AERA, APA, and NCME *Test Standards* (1999), evidence based on test content may involve logical analyses of test content in which experts judge the adequacy with which the test content conforms to the test specifications and represents the intended domain of content. Such reviews can also be used to determine whether the test content contains material that is not relevant to the construct of interest. Analyses of test content may also involve the use of empirical evidence of item quality.

Also to be considered in evaluating test content are the procedures used for test administration and test scoring. As Kane (2006, p. 29) has noted, although evidence that appropriate administration and scoring procedures have been used does not provide compelling evidence to support a particular score interpretation or use, such evidence may prove useful in refuting rival explanations of test results. Evidence based on content includes the following:

**Description of the state standards**—As was noted in Chapter 1, the SBE adopted rigorous content standards in 1997 and 1998 in four major content areas: ELA, history–social science, mathematics, and science. These standards were designed to guide instruction and learning for all students in the state and to bring California students to world-class levels of achievement. The STS program was instituted to permit students to demonstrate achievement of the content standards in reading/language arts and mathematics using a Spanish-language test.

**Specifications and blueprints**—ETS maintains item specifications for each STS. The item specifications describe the characteristics of the items that should be written to measure each content standard. A thorough description of the specifications can be found

in Chapter 3, starting on page 101. Once the items are developed and field-tested, ETS selects all STS test items to conform to the SBE-approved California content standards and test blueprints. Test blueprints for the STS were proposed by ETS and reviewed and approved by the Assessment Review Panels (ARPs), which are advisory panels to the CDE and ETS on areas related to item development for the STS. Test blueprints were also reviewed and approved by the CDE and presented to the SBE for adoption. There have been no recent changes in the blueprints for the STS. The test blueprints for the STS can be found on the CDE STAR STS Blueprints Web page at <http://www.cde.ca.gov/ta/tg/sr/stsblueprints.asp>.

**Item development process**— A detailed description of the item development process for the STS is presented in Chapter 3, starting on page 101.

**Item review process**—Chapter 3 explains in detail the extensive item review process applied to items written for use in the STS. In brief, items written for the STS undergo multiple review cycles and involve multiple groups of reviewers. One of the reviews is carried out by an external reviewer, that is, the ARPs. The ARPs are responsible for reviewing all newly developed items for alignment to the California content standards.

**Form construction process**—For each test, the content standards, blueprints, and test specifications are used as the basis for choosing items. Additional targets for item difficulty and discrimination that are used for test construction were defined in light of what are desirable statistical characteristics in test items and statistical evaluations of the STS items.

Guidelines for test construction were established with the goal of maintaining parallel forms to the greatest extent possible from year to year. Details can be found in Chapter 4, starting on page 112.

Additionally, an external review panel, the Statewide Pupil Assessment Review (SPAR), is responsible for reviewing and approving the achievement tests to be used statewide for the testing of students in California public schools, grades two through eleven. More information about the SPAR is given in Chapter 3, starting on page 108.

### **Evidence Based on Relations to Other Variables**

Empirical results concerning the relationships between the score on a test and measures of other variables external to the test can also provide evidence of validity when these relationships are found to be consistent with the definition of the construct that the test is intended to measure. As indicated in the *Test Standards* (AERA, APA, & NCME, 1999), the variables investigated can include other tests that measure the same construct and different constructs, criterion measures that scores on the test are expected to predict, as well as demographic characteristics of examinees that are expected to be related and unrelated to test performance.

### **Differential Item Functioning Analyses**

Analyses of DIF can provide evidence of the degree to which a score interpretation or use is valid for individuals who differ in particular demographic characteristics. For the STS, DIF analyses are performed on all operational items and all field-test items for which sufficient student samples were available.

The results of the DIF analyses are presented in Appendix 8.E, which starts on page 310. The vast majority of the items exhibited little or no significant DIF, suggesting that, in

general, scores based on the STS items would have the same meaning for individuals who differed in their demographic characteristics.

### Correlations Between Scores on the STS and Scores on the CSTs

Relationships between scores on measures intended to assess similar constructs provide evidence of convergent validity. For the STS in reading/language arts and mathematics, the evidence of convergent validity was obtained by examining the relationship between the STS and their CST counterparts. CSTs assess students in English–language arts, history–social science, mathematics, and science. All students who take the STS are also required to take the CSTs and/or CMA at their grade level; both tests measure the same California content standards.

The convergent validity evidence was collected using data from the 2013 administration of the CSTs and the STS. The examinees taking both tests were matched on the basis of a unique student identifier, except for a few cases that were matched on the basis of student name and a 14-digit school code. More than 84 percent of the STS examinees could be matched with their CST records; the matching rate was higher in the lower grades.

Correlations of scores on the STS with the associated CSTs were computed on the basis of both the overall STS population and the STS target population. A summary of the findings follows.

Table 8.4 presents correlations between scores on the 2013 STS for RLA and the scores on the CSTs for ELA. For the CST for ELA in grades four and seven, only multiple-choice questions are included for the analysis. As expected, the students' scores on the STS for RLA correlated moderately with their CST ELA scores. While both tests measure the common construct of reading ability, the STS for RLA measure reading skills in Spanish while the CSTs and CMA for ELA measure reading skills in English.

In general, correlations between scores at the elementary grade levels were higher than those in the middle and higher grade levels, which is due, in part, to the varying levels of internal consistency for these tests. As depicted by the results in Table 8.2, the internal consistency of STS for RLA was higher at the elementary grade levels.

**Table 8.4 Correlations between STS for RLA and CST for ELA**

Grade	Overall STS Population			Target STS Population		
	Total No. of Examinees	No. Matched	STS/CST	Total No. of Examinees	No. Matched	STS/CST
2	13,458	13,338	0.77	8,854	8,761	0.78
3	8,867	8,519	0.73	6,259	6,008	0.73
4	5,241	4,941	0.70	3,903	3,699	0.68
5	3,679	3,363	0.57	2,743	2,498	0.53
6	2,193	2,030	0.51	1,725	1,607	0.46
7	1,754	1,636	0.49	1,414	1,331	0.49
8	1,358	1,262	0.39	1,083	1,005	0.44
9	2,245	1,987	0.49	1,980	1,751	0.51
10	1,357	1,249	0.61	1,177	1,081	0.61
11	800	743	0.60	669	626	0.59

Table 8.5, on the next page, presents correlations between scores on 2013 STS for mathematics and scores on the CSTs for mathematics. The results show that, as expected, student scores on the STS for mathematics correlated highly with their CST mathematics

scores because these tests assess the same standards. The scores correlated more highly at the lower grade levels than at the higher grade levels. Similar to RLA, the variation in the levels of internal consistency partly explains such differences in the degree of correlation. As shown in Table 8.2, the internal consistency of STS for mathematics in grades two through seven declined as the grade level increased.

**Table 8.5 Correlations between STS for Mathematics Tests and CST for Mathematics Tests**

STS *	Overall STS Population			Target STS Population		
	No. of Examinees	No. of Examinees Matched	STS/CST	Total No. of Examinees	No. of Examinees Matched	STS/CST
<b>2</b>	13,349	13,240	0.87	8,851	8,766	0.87
<b>3</b>	8,787	8,480	0.88	6,243	6,023	0.88
<b>4</b>	5,140	4,900	0.87	3,885	3,721	0.88
<b>5</b>	3,589	3,304	0.85	2,728	2,507	0.84
<b>6</b>	2,122	1,974	0.82	1,695	1,586	0.81
<b>7</b>	1,648	1,534	0.79	1,351	1,271	0.79
<b>Algebra I</b>	3,076	2,577	0.78	2,687	2,249	0.78
<b>Geometry</b>	412	357	0.84	320	274	0.85

\* STS named by number only are grade-level tests.

### Correlations Between Content-area Test Scores

To the degree that students' content-area test scores correlate as expected, evidence of the validity in regarding those scores as measures of the intended constructs is provided. Table 8.6 on the next page provides the correlations between scores on the 2013 STS content-area tests and the numbers of students on which these correlations were based. Sample sizes for individual tests are shown in bold font on the diagonals of the correlation matrices, and the numbers of students on which the correlations were based are shown on the lower off-diagonals. The correlations are provided in the upper off-diagonals. Results are based on all students in the STS target population with valid STS scores and are provided by grade to account for different course-taking patterns in the upper grades.

Table 8.6 shows that in general, the content area correlations between RLA and mathematics ranged between 0.52 and 0.77 except for the correlations between grade seven RLA and Algebra I, which was 0.10. Results for these students appear to be consistent with expectations. In general, students' RLA scores correlated moderately with their mathematics scores in grades two through seven and less well with their scores on the more narrowly focused EOC content of the Algebra I and Geometry tests.

Table 8.C.1 through Table 8.C.16 in Appendix 8.C provide the content-area test score correlations by gender, economic status, length of attendance in U.S. schools, EL program participation, and special service utilization. Similar patterns of correlations between students' RLA and mathematics were found within the subgroups.

Note that while the correlations are reported only for samples that comprise 11 or more examinees, results based on samples that contain 50 or fewer examinees should be interpreted with caution due to small sample sizes. Correlations between scores on any two content area tests where 10 or fewer examinees have valid scores are expressed as hyphens. Correlations between scores on two content area tests that cannot be administered together to the same group of students are expressed as "N/A."

**Note:** Due to limited column space, test names were not repeated on the column heading of each correlation matrix in Table 8.6 and Table 8.C.1 through Table 8.C.16. Instead,

numerical headings, such as “1.” or “2.” were used (in the case of Grade 2 in Table 8.6, “1.” refers to “1. Reading/Language Arts” and “2.” refers to “2. Mathematics”).

**Table 8.6 STS Content-area Correlations (Target Valid Scores)**

Grade	STS	1.	2.	
2	1. Reading/Language Arts	8,854	0.74	
	2. Mathematics	8,808	8,851	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	6,259	0.77	
	2. Mathematics	6,217	6,243	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	3,903	0.71	
	2. Mathematics	3,877	3,885	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	2,743	0.62	
	2. Mathematics	2,721	2,728	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	1,725	0.66	
	2. Mathematics	1,691	1,695	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,414	0.69	0.10
	2. Mathematics	1,350	1,351	N/A
	3. Algebra I	18	N/A	18
Grade	STS	1.	2.	
8	1. Reading/Language Arts	1,083	0.53	
	2. Algebra I	398	398	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	1,980	0.58	0.52
	2. Algebra I	1,294	1,307	N/A
	3. Geometry	48	N/A	48
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	1,177	0.54	0.60
	2. Algebra I	647	654	N/A
	3. Geometry	168	N/A	170
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	669	0.56	0.65
	2. Algebra I	309	310	N/A
	3. Geometry	101	N/A	102

Correlations between the reporting cluster scores are presented in Table 8.B.1 and Table 8.B.2 for the 18 STS and the two grade-specific EOC mathematics tests of Algebra I and Geometry.

In general, moderate correlations between cluster scores should be expected since, by design, the clusters measure various aspects of the same construct. As also would be expected, the correlations were generally higher among clusters that assessed more similar skills than they were among clusters that assessed somewhat dissimilar skills. For example, in mathematics in grades two and three, the clusters related to number sense correlated

more highly with each other than they did with the cluster assessing statistics, data analysis, and probability.

### **Evidence Based on Response Processes**

As noted in the APA, AERA, and NCME *Standards* (1999), additional support for a particular score interpretation or use can be provided by theoretical and empirical evidence indicating that examinees are using the intended response processes when responding to the items in a test. This evidence may be gathered from interacting with examinees in order to understand what processes underlie their item responses.

### **Evidence Based on Internal Structure**

As suggested by the *Standards* (AERA, APA, & NCME, 1999), evidence of validity can also be obtained from studies of the properties of the item scores and the relationship between these scores and scores on components of the test. To the extent that the score properties and relationships found are consistent with the definition of the construct measured by the test, support is gained for interpreting these scores as measures of the construct.

For the STS, it is assumed that a single construct underlies the total scores obtained on each test. Evidence to support this assumption can be gathered from the results of item analyses, evaluations of internal consistency, and studies of model-data fit, dimensionality, and reliability.

With respect to the subscores that are reported, these scores are intended to reflect examinees' knowledge and/or skill in an area that is part of the construct underlying the total test. Analyses of the intercorrelations among the subscores themselves and between the subscores and total test score can be used for studying this aspect of the construct. Information about the internal consistency of the items on which each subscore is based is also useful to provide.

### **Classical Statistics**

Point-biserial correlations calculated for the items in a test show the degree to which the items discriminate between students with low and high scores on a test. To the degree that the correlations are high, evidence that the items assess the same construct is provided. As shown in Table 8.1, the mean point biserial was greater than 0.40 for STS in grades two through four and between 0.34 and 0.39 for all other tests. The exception was the EOC mathematics STS for Algebra I, where the mean point biserial was 0.32. The point biserials for the individual items in the STS are presented in Table 8.A.1 through Table 8.A.3.

Also germane to the validity of a score interpretation are the ranges of item difficulty for the items on which a test score will be based. The finding that items have difficulties that span the range of examinee ability provides evidence that examinees at all levels of ability are adequately measured by the items. Information on average item  $p$ -values is given in Table 8.1; individual item  $p$ -values are presented in Table 8.A.1 through Table 8.A.3. The distributions of IRT difficulty estimates,  $b$ -values, are given in Table 8.D.23 and Table 8.D.24 for operational items.

The data in Table 8.1 indicate that all STS, with the exception of the EOC mathematics tests, had  $p$ -values with means ranging from 0.47 to 0.68. The  $p$ -values for the EOC mathematics tests tend to be somewhat lower as compared with other tests. Taken together with the distribution of item  $b$ -values provided in Table 8.D.23 and Table 8.D.24, these results indicate a broad range of item difficulty that spans the ability scale.

## Reliability

Reliability is a prerequisite for validity. The finding of reliability in student scores supports the validity of the inference that the scores reflect a stable construct. This section will describe briefly findings concerning the total test level, as well as reliability results for the reporting clusters.

**Overall reliability**—The reliability analyses on each of the 18 operational STS are presented in Table 8.2. The results indicate that the reliabilities for the STS for RLA in grades two through nine and for mathematics tests in grades two through six were relatively high, ranging from 0.91 to 0.94. Reliability estimates for RLA in grades ten and eleven and the mathematics tests given in grades seven or higher were lower—ranging from 0.87 to 0.90.

**Reporting cluster reliabilities**—For each STS, number-correct scores are computed for the reporting clusters. The reliabilities of these scores are presented in Table 8.B.1 and Table 8.B.2 for the 18 STS. The reliabilities of reporting clusters are invariably lower than those for the total tests since they are based on fewer items. Consistent with the findings of previous years, the cluster reliabilities also are affected by the number of items in each cluster, with cluster scores based on fewer items having somewhat lower reliabilities than cluster scores based on more items.

Because the reliabilities of scores at the cluster level are lower, schools supplement the score results with other information when interpreting the results.

**Subgroup reliabilities**—The reliabilities of the 18 operational STS and the two grade-specific EOC mathematics tests were also examined for various subgroups of the examinee population that differed in their demographic characteristics. The characteristics considered were gender, ethnicity, economic status, provision of special services, length of attendance in U.S. schools, and EL program participation. The results of these analyses can be found in Table 8.B.3 through Table 8.B.7.

**Reliability of performance classifications**—The methodology used for estimating the reliability of classification decisions is described in the section “Decision Classification Analyses” on page 221. The results of these analyses are presented in Table 8.B.17 through Table 8.B.36 in Appendix 8.B; these tables start on page 270. When the classifications are collapsed to below-proficient versus proficient and above, which are the critical categories for AYP analyses for other testing programs in STAR, the proportion of students that were classified accurately ranged from 0.90 to 0.93 across all the STS. Similarly, the proportion of students that were classified consistently ranged from 0.87 to 0.90 for students classified into below-proficient versus proficient and advanced. These results represent high levels of decision accuracy and consistency.

## Evidence Based on Consequences of Testing

As observed in the *Standards*, tests are usually administered “with the expectation that some benefit will be realized from the intended use of the scores” (AERA, APA, & NCME, 1999, p. 18). When this is the case, evidence that the expected benefits accrue will provide support for the intended use of the scores. The CDE and ETS are in the process of determining what kinds of information can be gathered to assess the consequences of administration of the STS.

## IRT Analyses

### Post-equating

During the 2013 administration, The STS, with the exception of Geometry, were equated to a reference form using a common-item nonequivalent groups design and methods based on IRT. The “base” or “reference” calibrations for the STS were established by calibrating samples of data from a specific administration. Doing so established a scale to which subsequent item calibrations could be linked. The 2013 items were placed on the reference scale through a set of linking items that appeared in the 2012 operational forms and were readministered in 2013.

The procedures used for equating the STS involve three steps: item calibration, item parameter scaling, and production of raw-score-to-scale-score conversions using the scaled item parameters. ETS uses GENASYS for the IRT item calibration and equating work. As part of this system, a proprietary version of the PARSCALE computer program (Muraki & Bock, 1995) is used and parameterized to result in one-parameter calibrations. Research at ETS has suggested that PARSCALE calibrations done in this manner produce results that are virtually identical to results based on WINSTEPS (Way, Kubiak, Henderson, & Julian, 2002).

### Pre-equating

During the 2013 administration, pre-equating was conducted for Geometry due to the small sample size at the time of equating. The conversion table for Geometry was generated based on item parameter estimates that were placed on the reference scale in their previous administrations through the post-equating procedure described above.

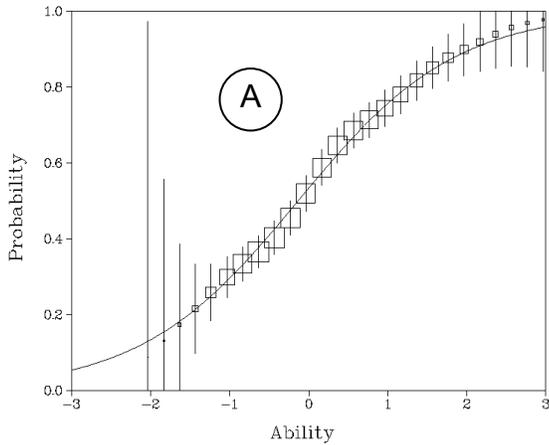
The details on all equating procedures are presented in Chapter 2 starting on page 13.

### IRT Model-Data Fit Analyses

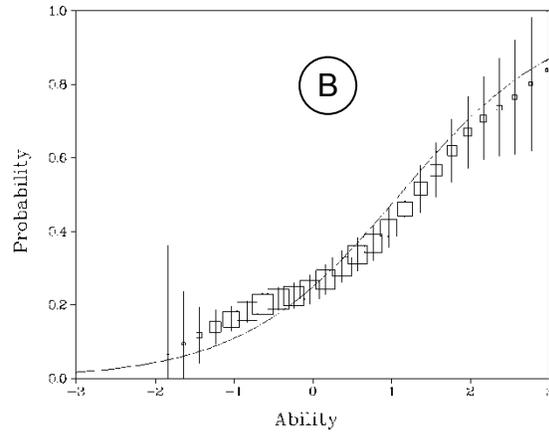
Because the Rasch model is used in equating the STS, an important part of IRT analyses is the assessment of model-data fit. ETS psychometricians classify operational and field-test items for the STS into discrete categories based on an evaluation of how well each item was fit by the Rasch model. The flagging procedure has categories of A, B, C, D, and F that are assigned based on an evaluation of graphical model-data fit information. Descriptors for each category are provided on page 234.

As an illustration, the IRT item characteristic curves and empirical data (item-ability regressions) for five CST items field-tested in 2005 are shown in Figure 8.3. These five items represent the various rating categories. The item number in the calibration and the ETS identification number for each item (“accession number”) are listed next to each item, along with the corresponding rating categories.

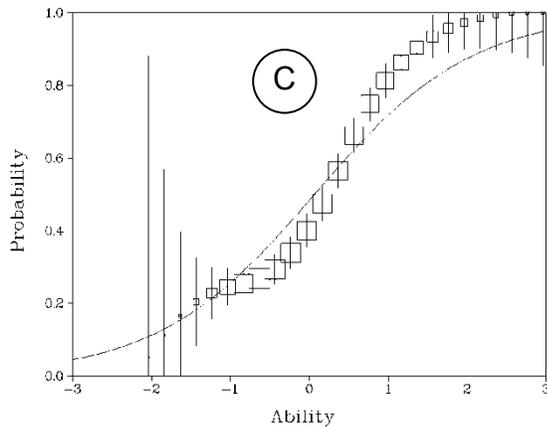
**Figure 8.3 Items from the 2005 CST for History–Social Science Grade Ten Field-test Calibration**



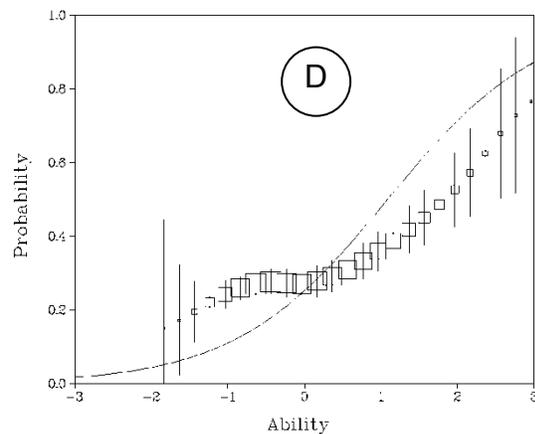
Version 30, Seq 29 (#236) CSV23487 4-Choice P+ = 0.563  
 $a = 0.588$  F,  $b = -0.135$ ,  $c = 0.000$  F, CHI = 5.41, N = 5,912



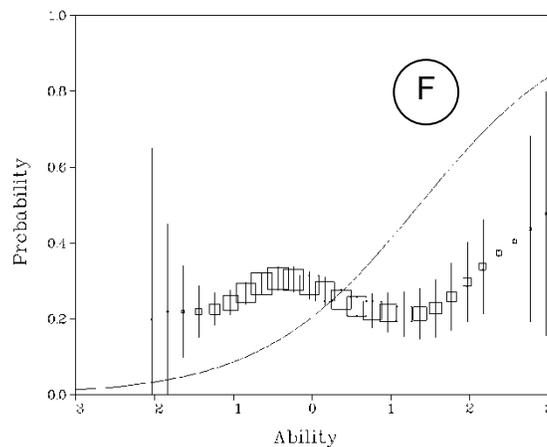
Version 1, Seq 28 (#61) CSV22589 4 Choice P+ = 0.307  
 $a = 0.588$  F,  $b = 1.104$ ,  $c = 0.000$  F, CHI = 66.70, N = 6,348



Version 18, Seq 30 (#165) CSV20282 4-Choice P+ = 0.523  
 $a = 0.588$  F,  $b = 0.066$ ,  $c = 0.000$  F, CHI = 208.99, N = 6,183



Version 9, Seq 32 (#113) CSV20317 4-Choice P+ = 0.314  
 $a = 0.588$  F,  $b = 1.089$ ,  $c = 0.000$  F, CHI = 361.31, N = 6,047



Version 21, Seq 31 (#184) CSV20311 4-Choice P+ = 0.263  
 $a = 0.588$  F,  $b = 1.356$ ,  $c = 0.000$  F, CHI = 1027.57, N = 6,277

**Flag A** (Item 236, CSV23487)

- Good fit of theoretical curve to empirical data along the entire ability range, may have some small divergence at the extremes
- Small Chi-square value relative to the other items in the calibration with similar sample sizes

**Flag B** (Item 061, CSV22589)

- Theoretical curve within error range across most of ability range, may have some small divergence at the extremes
- Acceptable Chi-square value relative to the other items in the calibration with similar sample sizes

**Flag C** (Item 165, CSV20282)

- Theoretical curve within error range at some regions and slightly outside of error range at remaining regions of ability range
- Moderate Chi-square value relative to the other items in the calibration with similar sample sizes
- This category often applies to items that appear to be functioning well but that are not well fit by the Rasch model

**Flag D** (Item 113, CSV20317)

- Theoretical curve outside of error range at some regions across ability range
- Large Chi-square value relative to the other items in the calibration with similar sample sizes

**Flag F** (Item 184, CSV20311)

- Theoretical curve outside of error range at most regions across ability range
- Probability of answering item correctly may be higher at lower ability than higher ability (U-shaped empirical curve)
- Very large Chi-square value relative to the other items with similar sample sizes and classical item statistics tend also to be very poor

In general, items with flagging categories of A, B, or C are all considered acceptable. Ratings of D are considered questionable, and the ratings of F indicate a poor model fit.

**Model-fit Assessment Results**

The model-fit assessment is performed twice in the administration cycle for all STS that are post-equated. The assessment is first performed before scoring tables are produced and released. The assessment is performed again as part of the final item analyses when much larger samples are available. The flags produced as a result of this assessment are placed in the item bank. The test developers are asked to avoid the items flagged as D if possible and to carefully review them if they must be used. Test developers are instructed to avoid using items rated F for operational test assembly without a review by a psychometrician and by CDE content specialists. During the 2013 administration, Geometry was pre-equated; therefore, the model-fit assessment was performed only once as part of the final item analyses.

The number of the operational items in each IRT model-data fit classification is presented in Table 8.D.1 and Table 8.D.2, which start on page 293. The fit classification information for the field-test items are presented in Table 8.D.3 and Table 8.D.4, which start on page 293.

## Evaluation of Scaling

Calibrations of the 2013 forms were scaled to the previously obtained reference scale estimates in the item bank using the Stocking and Lord (1983) procedure for the STS for RLA in grades two through eleven, the STS for Mathematics in grades two through seven, and Algebra I. Details on the scaling procedures are provided on page 14 in Chapter 2.

The linking process is carried out iteratively by inspecting differences between the transformed new and old (reference) estimates for the linking items and removing items for which the item difficulty estimates changed significantly. Items with large weighted root-mean-square differences (WRMSDs) between item characteristic curves (ICCs) on the basis of the old and new difficulty estimates are removed from the linking set. Based on established procedures, any linking items for which the WRMSD is greater than 0.125 are eliminated. This criterion has produced reasonable results over time in similar equating work done for other testing programs at ETS. For the 2013 STS, no linking items were eliminated.

Table 8.7 presents, for each STS, the number of linking items between the 2013 (new) and the test form to which it was linked (2012); the numbers of items removed from the linking item sets; the correlation between the final set of new and reference difficulty estimates for the linking items; and the average WRMSD statistic across the final set of linking items.

**Table 8.7 Evaluation of Common Items between New and Reference Test Forms**

Content Area	STS *	No. of Linking Items	Linking Items Removed	Final Correlation	WRMSD †
Reading/Language Arts	2	52	0	0.98	0.02
	3	51	0	0.99	0.02
	4	61	0	0.99	0.02
	5	64	0	0.99	0.02
	6	66	0	0.98	0.02
	7	63	0	0.99	0.02
	8	64	0	0.98	0.02
	9	60	0	0.99	0.02
	10	67	0	0.98	0.03
	11	63	0	0.98	0.03
	Mathematics	2	52	0	0.99	0.02
3		51	0	0.99	0.03
4		52	0	0.99	0.02
5		52	0	0.98	0.02
6		58	0	0.99	0.02
7		55	0	0.98	0.02
Algebra I		54	0	0.99	0.02

\* STS named by number only are grade-level tests.

† Average over retained items

## Summaries of Scaled IRT *b*-values

Once the IRT *b*-values are placed on the item bank scale, analyses are performed to assess the overall test difficulty, the difficulty level of reporting clusters, and the distribution of items in a particular range of item difficulty.

Table 8.D.5 through Table 8.D.20 present univariate statistics (mean, standard deviation, minimum, and maximum) for the scaled IRT *b*-values based on the FIA samples. The results for the overall test are presented separately for the operational items, the field-test items, and for each reporting cluster (operational items).

Table 8.D.23 through Table 8.D.26 show the distributions of operational and field-test items across 16 intervals of  $b$ -values. The intervals range from “greater than or equal to 3.5” to “less than  $-3.5$ ” points within each interval.

## Equating Results

As described on page 13 of Chapter 2, IRT equating procedures are used to transform the new form number-correct scores to their corresponding ability estimates based on item parameter estimates that were transformed to the base scale. These ability estimates can then be transformed to scale scores through linear transformation. The linear transformation parameters for the 2013 forms were developed based on standard setting using the 2008 operational forms for grades two through four, the 2009 operational forms for grades five through seven, and the 2011 operational forms for RLA in grades eight through eleven and EOC Algebra I and Geometry.

Complete raw-score-to-scale-score conversion tables for the 2013 STS are presented in Table 8.D.27 through Table 8.D.35 starting on page 301. The raw scores and corresponding transformed scale scores are listed in those tables. The scale scores were truncated at both ends of the scale so that the minimum reported scale score was 150 and the maximum reported scale score was 600. The scale scores defining the various performance-level cut points are presented in Table 2.1, which is in Chapter 2 on page 16.

## Differential Item Functioning Analyses

Analyses of DIF assess differences in the item performance of groups of students that differ in their demographic characteristics.

DIF analyses were performed on all operational items and all field-test items for which sufficient student samples were available. The sample size requirements for the DIF analyses were 100 in the focal group and 400 in the combined focal and reference groups. These sample sizes were based on standard operating procedures with respect to DIF analyses at ETS. The DIF analyses utilized the Mantel-Haenszel (MH) DIF statistic (Mantel & Haenszel, 1959; Holland & Thayer, 1985). This statistic is based on the estimate of constant odds ratio and is described as the following:

The  $\alpha_{MH}$  is the constant odds ratio taken from Dorans and Holland (1993, equation 7) and computed as:

$$\alpha_{MH} = \frac{\left( \sum_m R_{rm} \frac{W_{fm}}{N_{tm}} \right)}{\left( \sum_m R_{fm} \frac{W_{rm}}{N_{tm}} \right)} \quad (8.6)$$

$$MH\ D - DIF = -2.35 \ln[\alpha_{MH}] \quad (8.7)$$

where,

$R$  = number right,

$W$  = number wrong,

$N$  = total in:

$fm$  = focal group at ability  $m$ ,

$rm$  = reference group at ability  $m$ , and

$tm$  = total group at ability  $m$ .

Items analyzed for DIF at ETS are classified into one of three categories: A, B, or C. Category A contains items with negligible DIF. Category B contains items with slight to moderate DIF. Category C contains items with moderate to large values of DIF.

These categories have been used by ETS testing programs for more than 15 years. The definitions of the categories based on evaluations of the item-level MH D-DIF statistics are as follows:

<b>DIF Category</b>	<b>Definition</b>
A (negligible)	<ul style="list-style-type: none"> <li>• Absolute value of MH D-DIF is not significantly different from zero, or is less than one.</li> <li>• Positive values are classified as “A+” and negative values as “A-.”</li> </ul>
B (moderate)	<ul style="list-style-type: none"> <li>• Absolute value of MH D-DIF is significantly different from zero but not from one, and is at least one; OR</li> <li>• Absolute value of MH D-DIF is significantly different from one, but is less than 1.5.</li> <li>• Positive values are classified as “B+” and negative values as “B-.”</li> </ul>
C (large)	<ul style="list-style-type: none"> <li>• Absolute value of MH D-DIF is significantly different from one, and is at least 1.5.</li> <li>• Positive values are classified as “C+” and negative values as “C-.”</li> </ul>

The factors considered in the DIF analyses included gender and primary disability. The results of the DIF analyses are presented in Appendix 8.E, which starts on page 310.

Table 8.E.1 on page 310 lists the operational items exhibiting significant DIF (C-DIF). Table 8.E.2 on the same page represents the analogous list for the field-test items. Test developers are instructed to avoid selecting field-test items flagged as having shown C-DIF for future operational test forms unless their inclusion is deemed essential to meeting test-content specifications.

Table 8.E.3 through Table 8.E.8 show the distributions of operational items across the DIF category classifications for the STS. In these tables, classifications of B- or C- indicate DIF against a focal group; classifications of B+ and C+ indicate DIF in favor of a focal group. The last two columns of each table show the total number of items flagged for DIF in one or more comparisons.

Table 8.E.9 through Table 8.E.14 provide the analogous results for the field-test items.

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## Appendix 8.A—Classical Analyses

Table 8.A.1 Item-by-item *p*-value and Point Biserial for RLA

Item-by-item <i>p</i> -value and Point Biserial for RLA																				
STS	2		3		4		5		6		7		8		9		10		11	
Items	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.77	0.35	0.79	0.42	0.56	0.47	0.72	0.34	0.65	0.26	0.61	0.21	0.53	0.38	0.32	0.40	0.59	0.32	0.42	0.32
2	0.60	0.52	0.68	0.47	0.72	0.38	0.67	0.29	0.43	0.24	0.75	0.44	0.54	0.46	0.45	0.29	0.77	0.31	0.63	0.44
3	0.24	0.17	0.85	0.32	0.72	0.48	0.60	0.20	0.61	0.48	0.76	0.28	0.80	0.41	0.78	0.32	0.55	0.39	0.68	0.37
4	0.60	0.46	0.43	0.13	0.48	0.37	0.53	0.37	0.71	0.35	0.53	0.31	0.70	0.27	0.39	0.31	0.78	0.29	0.56	0.39
5	0.57	0.34	0.64	0.47	0.64	0.54	0.51	0.48	0.66	0.34	0.62	0.43	0.54	0.38	0.37	0.26	0.64	0.38	0.44	0.21
6	0.55	0.32	0.50	0.47	0.71	0.51	0.45	0.42	0.59	0.43	0.74	0.41	0.63	0.37	0.28	0.43	0.67	0.41	0.64	0.45
7	0.58	0.45	0.61	0.49	0.74	0.43	0.52	0.29	0.51	0.40	0.32	0.36	0.56	0.35	0.83	0.32	0.45	0.31	0.72	0.30
8	0.63	0.54	0.26	0.28	0.54	0.31	0.40	0.30	0.52	0.36	0.79	0.43	0.57	0.32	0.76	0.44	0.48	0.37	0.24	0.07
9	0.79	0.46	0.63	0.42	0.61	0.43	0.76	0.39	0.42	0.44	0.78	0.42	0.58	0.21	0.56	0.27	0.68	0.38	0.43	0.32
10	0.58	0.47	0.63	0.38	0.75	0.42	0.59	0.50	0.62	0.38	0.47	0.44	0.74	0.36	0.83	0.44	0.70	0.26	0.70	0.47
11	0.66	0.54	0.74	0.52	0.64	0.33	0.73	0.50	0.69	0.42	0.47	0.32	0.50	0.30	0.68	0.27	0.71	0.53	0.77	0.06
12	0.34	0.30	0.73	0.48	0.71	0.48	0.41	0.46	0.65	0.39	0.71	0.40	0.56	0.52	0.74	0.46	0.54	0.34	0.63	0.34
13	0.78	0.50	0.42	0.29	0.49	0.41	0.55	0.45	0.75	0.35	0.38	0.46	0.71	0.48	0.77	0.31	0.56	0.30	0.51	0.01
14	0.43	0.40	0.34	0.44	0.54	0.41	0.50	0.51	0.52	0.25	0.49	0.48	0.70	0.47	0.40	0.28	0.81	0.39	0.66	0.35
15	0.53	0.42	0.56	0.38	0.54	0.32	0.41	0.35	0.62	0.32	0.60	0.35	0.52	0.44	0.40	0.23	0.73	0.34	0.58	0.32
16	0.52	0.56	0.51	0.38	0.28	0.31	0.68	0.50	0.68	0.46	0.58	0.35	0.51	0.25	0.80	0.40	0.51	0.26	0.72	0.45
17	0.47	0.49	0.65	0.50	0.62	0.48	0.53	0.37	0.72	0.40	0.78	0.42	0.68	0.41	0.46	0.32	0.85	0.44	0.68	0.36
18	0.41	0.37	0.34	0.28	0.79	0.49	0.39	0.30	0.51	0.49	0.56	0.48	0.69	0.34	0.45	0.27	0.32	0.33	0.36	0.26
19	0.51	0.43	0.48	0.51	0.66	0.42	0.46	0.32	0.53	0.42	0.55	0.34	0.59	0.26	0.52	0.34	0.45	0.26	0.41	0.27
20	0.41	0.28	0.38	0.34	0.51	0.32	0.30	0.31	0.54	0.45	0.40	0.32	0.45	0.28	0.29	0.28	0.77	0.43	0.80	0.43
21	0.70	0.39	0.44	0.37	0.36	0.28	0.39	0.23	0.38	0.35	0.54	0.35	0.43	0.40	0.71	0.39	0.68	0.39	0.38	0.44
22	0.63	0.53	0.37	0.34	0.57	0.43	0.30	0.14	0.43	0.45	0.51	0.26	0.58	0.36	0.59	0.44	0.65	0.48	0.55	0.42
23	0.45	0.43	0.56	0.39	0.48	0.25	0.74	0.40	0.64	0.46	0.43	0.43	0.58	0.44	0.72	0.43	0.70	0.42	0.57	0.41
24	0.42	0.37	0.62	0.41	0.37	0.25	0.42	0.43	0.58	0.24	0.69	0.44	0.38	0.18	0.65	0.40	0.71	0.41	0.51	0.43
25	0.69	0.43	0.59	0.50	0.46	0.42	0.35	0.40	0.44	0.47	0.56	0.52	0.75	0.49	0.70	0.52	0.60	0.38	0.38	0.33
26	0.58	0.47	0.53	0.50	0.48	0.38	0.50	0.42	0.59	0.40	0.60	0.46	0.67	0.54	0.58	0.35	0.71	0.39	0.39	0.17
27	0.43	0.41	0.63	0.51	0.60	0.45	0.51	0.46	0.45	0.22	0.43	0.34	0.45	0.29	0.41	0.28	0.52	0.32	0.45	0.15
28	0.52	0.50	0.60	0.44	0.65	0.56	0.59	0.45	0.54	0.40	0.73	0.50	0.42	0.38	0.83	0.43	0.88	0.41	0.51	0.38
29	0.39	0.37	0.54	0.48	0.73	0.56	0.52	0.33	0.37	0.21	0.51	0.35	0.70	0.38	0.57	0.42	0.45	0.22	0.36	0.20
30	0.57	0.47	0.80	0.42	0.56	0.48	0.45	0.27	0.62	0.48	0.50	0.34	0.63	0.52	0.53	0.49	0.36	0.33	0.51	0.22
31	0.52	0.44	0.69	0.53	0.35	0.29	0.38	0.31	0.48	0.29	0.48	0.38	0.76	0.43	0.58	0.40	0.54	0.36	0.59	0.52
32	0.56	0.38	0.69	0.44	0.30	0.09	0.42	0.40	0.53	0.43	0.61	0.52	0.52	0.40	0.53	0.32	0.41	0.21	0.52	0.10

Item-by-item $p$ -value and Point Biserial for RLA																				
STS	2		3		4		5		6		7		8		9		10		11	
Items	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$ -value	Pt-Bis
33	0.42	0.36	0.73	0.40	0.46	0.35	0.55	0.47	0.50	0.44	0.67	0.26	0.68	0.45	0.41	0.33	0.68	0.42	0.32	0.18
34	0.62	0.54	0.37	0.35	0.46	0.42	0.61	0.52	0.82	0.46	0.59	0.51	0.55	0.35	0.50	0.29	0.58	0.31	0.60	0.37
35	0.38	0.45	0.43	0.40	0.31	0.12	0.60	0.55	0.69	0.54	0.36	0.19	0.30	0.28	0.74	0.42	0.61	0.43	0.47	0.48
36	0.50	0.40	0.31	0.33	0.58	0.35	0.59	0.34	0.46	0.26	0.48	0.38	0.38	0.36	0.46	0.33	0.58	0.37	0.73	0.47
37	0.47	0.50	0.34	0.27	0.72	0.51	0.55	0.46	0.70	0.40	0.68	0.49	0.38	0.39	0.39	0.34	0.42	0.36	0.51	0.33
38	0.65	0.43	0.48	0.42	0.86	0.50	0.71	0.49	0.51	0.32	0.49	0.30	0.57	0.45	0.44	0.30	0.81	0.49	0.41	0.34
39	0.62	0.52	0.65	0.42	0.65	0.52	0.50	0.43	0.58	0.54	0.59	0.41	0.51	0.47	0.52	0.43	0.64	0.43	0.72	0.24
40	0.50	0.56	0.52	0.38	0.58	0.35	0.79	0.47	0.68	0.42	0.73	0.40	0.80	0.49	0.41	0.29	0.38	0.30	0.70	0.37
41	0.49	0.52	0.38	0.42	0.70	0.49	0.64	0.34	0.61	0.40	0.79	0.40	0.65	0.29	0.43	0.34	0.70	0.38	0.61	0.34
42	0.43	0.39	0.58	0.34	0.67	0.45	0.79	0.46	0.54	0.36	0.56	0.47	0.77	0.39	0.45	0.18	0.56	0.22	0.64	0.40
43	0.48	0.38	0.50	0.45	0.42	0.35	0.62	0.48	0.54	0.41	0.57	0.38	0.47	0.32	0.50	0.36	0.61	0.45	0.88	0.46
44	0.28	0.26	0.51	0.37	0.64	0.55	0.50	0.34	0.48	0.19	0.56	0.47	0.44	0.23	0.34	0.21	0.52	0.36	0.37	0.30
45	0.37	0.29	0.38	0.52	0.57	0.49	0.57	0.29	0.43	0.32	0.69	0.39	0.88	0.39	0.65	0.50	0.51	0.42	0.51	0.38
46	0.41	0.44	0.50	0.47	0.45	0.37	0.68	0.49	0.47	0.35	0.49	0.37	0.56	0.37	0.51	0.27	0.66	0.47	0.59	0.41
47	0.56	0.53	0.53	0.36	0.27	0.22	0.55	0.41	0.36	0.32	0.71	0.41	0.39	0.19	0.77	0.43	0.37	0.29	0.62	0.43
48	0.49	0.38	0.40	0.31	0.30	0.25	0.49	0.32	0.62	0.36	0.79	0.43	0.54	0.41	0.58	0.40	0.52	0.29	0.52	0.46
49	0.41	0.33	0.63	0.58	0.57	0.42	0.53	0.36	0.53	0.33	0.72	0.34	0.91	0.30	0.65	0.39	0.39	0.19	0.53	0.45
50	0.30	0.39	0.53	0.31	0.72	0.56	0.53	0.43	0.68	0.51	0.64	0.52	0.56	0.37	0.57	0.45	0.51	0.23	0.57	0.30
51	0.49	0.50	0.56	0.52	0.58	0.49	0.47	0.33	0.42	0.37	0.75	0.43	0.39	0.43	0.49	0.30	0.42	0.31	0.44	0.25
52	0.35	0.28	0.48	0.32	0.71	0.40	0.44	0.33	0.58	0.34	0.69	0.53	0.57	0.45	0.72	0.43	0.55	0.42	0.55	0.38
53	0.47	0.50	0.31	0.30	0.53	0.53	0.75	0.43	0.54	0.39	0.69	0.44	0.80	0.46	0.37	0.37	0.33	0.24	0.44	0.28
54	0.40	0.40	0.34	0.30	0.43	0.33	0.29	0.26	0.54	0.40	0.76	0.44	0.78	0.34	0.60	0.27	0.52	0.38	0.61	0.39
55	0.50	0.49	0.51	0.35	0.58	0.50	0.56	0.33	0.47	0.37	0.39	0.33	0.68	0.43	0.69	0.41	0.57	0.36	0.46	0.47
56	0.41	0.47	0.51	0.54	0.60	0.51	0.63	0.39	0.57	0.53	0.53	0.50	0.67	0.52	0.53	0.36	0.38	0.35	0.28	0.28
57	0.43	0.46	0.61	0.54	0.53	0.51	0.45	0.34	0.43	0.37	0.52	0.47	0.69	0.52	0.70	0.32	0.80	0.30	0.64	0.44
58	0.51	0.47	0.54	0.36	0.39	0.35	0.57	0.50	0.41	0.32	0.36	0.24	0.58	0.36	0.28	0.31	0.66	0.37	0.43	0.44
59	0.47	0.37	0.42	0.51	0.55	0.26	0.66	0.53	0.43	0.37	0.50	0.50	0.43	0.35	0.50	0.36	0.57	0.43	0.72	0.41
60	0.49	0.50	0.45	0.34	0.31	0.28	0.56	0.47	0.67	0.42	0.55	0.48	0.55	0.43	0.48	0.46	0.37	0.28	0.65	0.42
61	0.39	0.54	0.39	0.24	0.64	0.46	0.49	0.40	0.72	0.50	0.53	0.35	0.71	0.34	0.54	0.40	0.36	0.17	0.75	0.31
62	0.39	0.43	0.67	0.49	0.44	0.31	0.38	0.36	0.49	0.50	0.56	0.42	0.63	0.43	0.80	0.38	0.82	0.49	0.58	0.39
63	0.45	0.20	0.31	0.18	0.64	0.60	0.47	0.37	0.62	0.45	0.65	0.44	0.46	0.33	0.63	0.53	0.73	0.50	0.59	0.44
64	0.59	0.36	0.48	0.50	0.41	0.42	0.54	0.39	0.47	0.36	0.68	0.50	0.51	0.33	0.74	0.49	0.44	0.28	0.73	0.47
65	0.35	0.41	0.39	0.25	0.49	0.35	0.30	0.32	0.53	0.33	0.47	0.46	0.55	0.34	0.68	0.34	0.64	0.27	0.52	0.35
66				0.51	0.40	0.55	0.49	0.59	0.48	0.73	0.42	0.73	0.45	0.50	0.41	0.30	0.27	0.37	0.36	
67				0.32	0.22	0.35	0.30	0.65	0.46	0.78	0.35	0.55	0.42	0.58	0.29	0.62	0.44	0.39	0.15	

Item-by-item $p$ -value and Point Biserial for RLA																				
STS	2		3		4		5		6		7		8		9		10		11	
Items	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$-value	Pt-Bis	$p$ -value	Pt-Bis
68					0.52	0.32	0.62	0.50	0.50	0.35	0.62	0.51	0.39	0.41	0.43	0.40	0.65	0.46	0.73	0.46
69					0.54	0.33	0.60	0.45	0.62	0.52	0.38	0.29	0.48	0.49	0.62	0.43	0.40	0.29	0.50	0.38
70					0.60	0.40	0.38	0.39	0.67	0.50	0.44	0.30	0.46	0.29	0.65	0.50	0.60	0.38	0.52	0.46
71					0.62	0.51	0.59	0.38	0.23	0.12	0.51	0.42	0.54	0.42	0.30	0.32	0.50	0.36	0.52	0.38
72					0.70	0.51	0.44	0.36	0.63	0.50	0.60	0.47	0.43	0.35	0.74	0.49	0.58	0.25	0.71	0.42
73					0.43	0.34	0.50	0.38	0.38	0.25	0.64	0.29	0.39	0.32	0.49	0.44	0.29	0.39	0.60	0.35
74					0.55	0.40	0.34	0.31	0.50	0.31	0.56	0.40	0.51	0.34	0.31	0.25	0.70	0.37	0.62	0.37
75					0.67	0.53	0.43	0.38	0.34	0.35	0.34	0.26	0.59	0.33	0.35	0.34	0.47	0.25	0.84	0.46

Table 8.A.2 Item-by-item *p*-value and Point Biserial for Mathematics

Item-by-item <i>p</i> -value and Point Biserial for Mathematics																
STS	2		3		4		5		6		7		Algebra I		Geometry	
Items	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	p-value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.40	0.41	0.83	0.46	0.90	0.25	0.43	0.11	0.50	0.50	0.51	0.38	0.67	0.18	0.28	0.39
2	0.66	0.46	0.51	0.50	0.55	0.49	0.74	0.46	0.72	0.41	0.64	0.35	0.37	0.50	0.65	0.24
3	0.62	0.42	0.65	0.47	0.50	0.44	0.86	0.23	0.67	0.42	0.50	0.25	0.40	0.18	0.66	0.43
4	0.74	0.39	0.79	0.39	0.38	0.31	0.50	0.32	0.44	0.20	0.35	0.40	0.38	0.34	0.63	0.36
5	0.55	0.47	0.68	0.52	0.63	0.42	0.46	0.45	0.60	0.29	0.54	0.41	0.51	0.26	0.44	0.18
6	0.43	0.49	0.58	0.56	0.67	0.49	0.36	0.33	0.54	0.43	0.36	0.18	0.32	0.26	0.59	0.45
7	0.78	0.40	0.69	0.53	0.53	0.41	0.37	0.37	0.48	0.51	0.18	0.15	0.61	0.47	0.23	0.29
8	0.77	0.44	0.61	0.59	0.50	0.39	0.45	0.42	0.47	0.47	0.53	0.25	0.45	0.37	0.32	0.42
9	0.59	0.47	0.31	0.52	0.53	0.40	0.44	0.42	0.50	0.38	0.49	0.33	0.20	0.32	0.73	0.44
10	0.45	0.38	0.39	0.51	0.86	0.39	0.32	0.41	0.35	0.33	0.42	0.38	0.43	0.32	0.70	0.35
11	0.70	0.45	0.45	0.51	0.52	0.49	0.58	0.33	0.65	0.39	0.51	0.37	0.48	0.45	0.84	0.38
12	0.72	0.38	0.65	0.56	0.60	0.52	0.59	0.45	0.64	0.42	0.77	0.42	0.49	0.47	0.47	0.49
13	0.54	0.44	0.59	0.52	0.45	0.41	0.57	0.54	0.46	0.39	0.43	0.35	0.38	0.43	0.65	0.47
14	0.51	0.53	0.59	0.58	0.28	0.29	0.38	0.17	0.52	0.41	0.38	0.24	0.34	0.37	0.73	0.42
15	0.73	0.41	0.53	0.32	0.46	0.49	0.76	0.29	0.59	0.49	0.38	0.40	0.57	0.45	0.38	0.41
16	0.46	0.47	0.56	0.50	0.73	0.46	0.40	0.31	0.50	0.48	0.34	0.14	0.34	0.30	0.47	0.31
17	0.69	0.44	0.51	0.48	0.45	0.15	0.80	0.17	0.81	0.37	0.46	0.36	0.62	0.43	0.67	0.49
18	0.49	0.35	0.21	0.18	0.46	0.41	0.74	0.40	0.53	0.51	0.34	0.25	0.28	0.17	0.32	0.28
19	0.46	0.43	0.23	0.20	0.67	0.51	0.58	0.51	0.43	0.46	0.39	0.37	0.47	0.38	0.42	0.28
20	0.58	0.38	0.76	0.39	0.62	0.47	0.59	0.51	0.59	0.41	0.65	0.47	0.38	0.32	0.54	0.52
21	0.63	0.44	0.46	0.50	0.40	0.19	0.46	0.34	0.60	0.44	0.62	0.47	0.30	0.22	0.61	0.28
22	0.74	0.34	0.63	0.41	0.51	0.40	0.49	0.41	0.42	0.41	0.31	0.37	0.21	0.31	0.53	0.43
23	0.46	0.46	0.58	0.50	0.36	0.28	0.32	0.38	0.53	0.39	0.47	0.28	0.41	0.29	0.32	0.04
24	0.34	0.38	0.71	0.42	0.54	0.45	0.54	0.42	0.35	0.34	0.48	0.42	0.28	0.24	0.18	0.17
25	0.48	0.48	0.49	0.52	0.82	0.41	0.49	0.30	0.43	0.35	0.55	0.42	0.30	0.31	0.46	0.31
26	0.45	0.37	0.45	0.54	0.66	0.45	0.45	0.31	0.54	0.31	0.55	0.47	0.43	0.40	0.25	0.41
27	0.46	0.47	0.74	0.54	0.46	0.40	0.47	0.19	0.45	0.29	0.41	0.39	0.59	0.37	0.43	0.24
28	0.41	0.32	0.74	0.42	0.76	0.40	0.44	0.43	0.35	0.37	0.43	0.40	0.40	0.37	0.65	0.38
29	0.71	0.25	0.21	0.31	0.54	0.40	0.57	0.41	0.49	0.55	0.39	0.41	0.45	0.41	0.42	0.30
30	0.51	0.37	0.65	0.42	0.47	0.46	0.48	0.41	0.61	0.50	0.24	0.31	0.45	0.31	0.43	0.19
31	0.59	0.41	0.75	0.39	0.47	0.40	0.68	0.49	0.62	0.48	0.46	0.51	0.33	0.18	0.51	0.50
32	0.37	0.41	0.63	0.39	0.75	0.48	0.65	0.52	0.40	0.28	0.38	0.23	0.56	0.49	0.16	0.33
33	0.52	0.42	0.44	0.40	0.53	0.46	0.42	0.42	0.66	0.45	0.70	0.47	0.52	0.42	0.45	0.50
34	0.49	0.53	0.48	0.46	0.62	0.40	0.48	0.52	0.26	0.30	0.47	0.33	0.53	0.35	0.35	0.42
35	0.50	0.42	0.64	0.55	0.64	0.51	0.68	0.52	0.48	0.43	0.48	0.42	0.39	0.34	0.55	0.40

STS	Item-by-item $p$ -value and Point Biserial for Mathematics															
	2		3		4		5		6		7		Algebra I		Geometry	
Items	$p$ -value	Pt-Bis	$p$ -value	Pt-Bis	$p$ -value	Pt-Bis	$p$ -value	Pt-Bis	$p$ -value	Pt-Bis	$p$ -value	Pt-Bis	$p$ -value	Pt-Bis	$p$ -value	Pt-Bis
36	0.67	0.37	0.45	0.48	0.58	0.49	0.52	0.26	0.69	0.48	0.37	0.21	0.26	0.30	0.52	0.44
37	0.31	0.26	0.41	0.56	0.60	0.60	0.53	0.43	0.63	0.38	0.66	0.41	0.69	0.27	0.35	0.38
38	0.53	0.46	0.69	0.52	0.56	0.58	0.60	0.42	0.33	0.32	0.49	0.28	0.40	0.41	0.40	0.26
39	0.64	0.53	0.39	0.43	0.63	0.54	0.40	0.45	0.61	0.62	0.59	0.36	0.35	0.26	0.21	0.32
40	0.48	0.46	0.61	0.48	0.59	0.61	0.48	0.45	0.65	0.47	0.39	0.24	0.53	0.48	0.42	0.45
41	0.47	0.37	0.85	0.24	0.51	0.51	0.41	0.30	0.55	0.59	0.40	0.38	0.25	0.30	0.54	0.39
42	0.83	0.38	0.43	0.43	0.62	0.60	0.45	0.29	0.72	0.47	0.80	0.32	0.37	0.34	0.53	0.52
43	0.47	0.33	0.31	0.35	0.49	0.48	0.58	0.37	0.57	0.48	0.64	0.41	0.43	0.53	0.37	0.36
44	0.42	0.34	0.39	0.52	0.61	0.53	0.37	0.35	0.42	0.35	0.24	0.21	0.43	0.21	0.62	0.48
45	0.41	0.43	0.59	0.37	0.67	0.52	0.59	0.40	0.39	0.39	0.33	0.31	0.36	0.32	0.40	0.49
46	0.82	0.31	0.77	0.34	0.57	0.61	0.49	0.35	0.49	0.30	0.39	0.37	0.32	0.34	0.68	0.39
47	0.47	0.46	0.65	0.28	0.53	0.45	0.43	0.33	0.36	0.37	0.29	0.24	0.36	0.35	0.48	0.49
48	0.54	0.31	0.87	0.38	0.54	0.48	0.41	0.29	0.33	0.29	0.44	0.38	0.52	0.45	0.32	0.43
49	0.66	0.31	0.46	0.37	0.58	0.45	0.45	0.29	0.49	0.30	0.54	0.41	0.56	0.41	0.31	0.14
50	0.59	0.35	0.45	0.45	0.78	0.40	0.44	0.34	0.27	0.43	0.52	0.34	0.47	0.42	0.40	0.20
51	0.64	0.38	0.59	0.40	0.59	0.42	0.41	0.26	0.43	0.28	0.55	0.40	0.40	0.42	0.18	0.28
52	0.59	0.39	0.88	0.33	0.53	0.21	0.42	0.35	0.30	0.27	0.54	0.47	0.43	0.42	0.47	0.42
53	0.64	0.50	0.47	0.41	0.78	0.38	0.62	0.32	0.41	0.32	0.25	0.34	0.19	0.15	0.35	0.33
54	0.61	0.48	0.53	0.50	0.53	0.40	0.36	0.32	0.26	0.31	0.39	0.20	0.27	0.19	0.40	0.31
55	0.88	0.28	0.66	0.36	0.66	0.43	0.43	0.34	0.33	0.36	0.46	0.43	0.24	0.17	0.39	0.44
56	0.48	0.51	0.80	0.32	0.61	0.41	0.47	0.29	0.50	0.41	0.57	0.26	0.18	0.13	0.25	0.38
57	0.53	0.47	0.45	0.43	0.82	0.39	0.66	0.28	0.33	0.38	0.26	0.15	0.30	0.15	0.22	0.42
58	0.79	0.37	0.59	0.48	0.60	0.45	0.43	0.36	0.48	0.55	0.55	0.36	0.35	0.33	0.44	0.34
59	0.73	0.49	0.39	0.31	0.44	0.30	0.66	0.41	0.52	0.41	0.52	0.36	0.40	0.24	0.59	0.36
60	0.57	0.46	0.77	0.42	0.53	0.32	0.34	0.32	0.37	0.30	0.49	0.30	0.25	0.27	0.51	0.38
61	0.66	0.37	0.49	0.52	0.66	0.44	0.44	0.48	0.45	0.37	0.41	0.33	0.29	0.07	0.47	0.42
62	0.70	0.45	0.72	0.52	0.66	0.45	0.52	0.29	0.41	0.36	0.55	0.39	0.25	0.12	0.31	0.20
63	0.77	0.37	0.69	0.33	0.73	0.46	0.62	0.38	0.46	0.36	0.58	0.41	0.35	0.37	0.43	0.44
64	0.64	0.51	0.73	0.50	0.35	0.29	0.51	0.35	0.41	0.31	0.52	0.37	0.37	0.28	0.47	0.45
65	0.26	0.38	0.36	0.36	0.28	0.20	0.26	0.37	0.33	0.18	0.31	0.31	0.40	0.25	0.33	0.08

**Table 8.A.3 Item-by-item *p*-value and Point Biserial for Grade-specific Mathematics**

Item-by-item <i>p</i> -value and Point Biserial for Grade-specific STS				
STS	Algebra I (Grade 8)		Geometry (Grade 9)	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.72	0.17	0.16	0.33
2	0.33	0.56	0.58	0.24
3	0.39	0.26	0.56	0.36
4	0.35	0.34	0.58	0.28
5	0.50	0.15	0.44	0.31
6	0.30	0.30	0.38	0.37
7	0.51	0.45	0.27	0.33
8	0.48	0.35	0.29	0.43
9	0.18	0.33	0.78	0.48
10	0.47	0.28	0.69	0.37
11	0.43	0.44	0.76	0.37
12	0.42	0.50	0.42	0.47
13	0.39	0.38	0.67	0.49
14	0.31	0.39	0.67	0.50
15	0.54	0.45	0.38	0.37
16	0.33	0.28	0.44	0.42
17	0.55	0.40	0.53	0.55
18	0.30	0.15	0.27	0.03
19	0.43	0.36	0.31	0.15
20	0.38	0.30	0.49	0.66
21	0.32	0.22	0.51	0.31
22	0.18	0.27	0.49	0.51
23	0.44	0.29	0.33	0.16
24	0.27	0.26	0.20	0.01
25	0.33	0.32	0.44	0.24
26	0.42	0.33	0.24	0.32
27	0.58	0.43	0.38	0.12
28	0.29	0.35	0.62	0.42
29	0.43	0.44	0.33	0.05
30	0.49	0.25	0.47	0.20
31	0.31	0.15	0.51	0.48
32	0.57	0.45	0.20	0.31
33	0.52	0.40	0.36	0.62
34	0.54	0.35	0.38	0.36
35	0.43	0.38	0.58	0.50
36	0.27	0.18	0.56	0.32
37	0.71	0.35	0.36	0.39
38	0.33	0.36	0.36	0.37
39	0.35	0.19	0.20	0.28
40	0.48	0.40	0.38	0.46
41	0.22	0.20	0.42	0.36
42	0.33	0.26	0.60	0.43
43	0.35	0.57	0.36	0.46
44	0.40	0.25	0.47	0.64
45	0.43	0.29	0.38	0.36
46	0.36	0.39	0.69	0.43
47	0.38	0.38	0.56	0.42
48	0.56	0.45	0.22	0.53
49	0.47	0.48	0.36	0.20
50	0.45	0.40	0.36	0.40
51	0.37	0.48	0.18	0.06
52	0.39	0.46	0.47	0.48
53	0.19	0.16	0.40	0.33
54	0.28	0.23	0.51	0.14
55	0.19	0.17	0.38	0.40

<b>Item-by-item <math>p</math>-value and Point Biserial for Grade-specific STS</b>				
<b>STS</b>	<b>Algebra I (Grade 8)</b>		<b>Geometry (Grade 9)</b>	
<b>Items</b>	<b><math>p</math>-value</b>	<b>Pt-Bis</b>	<b><math>p</math>-value</b>	<b>Pt-Bis</b>
56	0.18	0.07	0.29	0.25
57	0.31	0.07	0.18	0.22
58	0.35	0.33	0.51	0.33
59	0.35	0.14	0.60	0.44
60	0.26	0.34	0.67	0.49
61	0.29	0.13	0.51	0.40
62	0.19	0.23	0.44	0.38
63	0.28	0.45	0.38	0.23
64	0.35	0.29	0.49	0.39
65	0.39	0.23	0.27	0.25

## Appendix 8.B—Reliability Analyses

The reliabilities are reported only for samples that are comprised of 11 or more examinees. Also, in some cases in Appendix 8.B, score reliabilities were not estimable and are presented in the tables as hyphens. Finally, results based on samples that contain 50 or fewer examinees should be interpreted with caution due to small sample sizes.

**Table 8.B.1 Subscore Reliabilities and Intercorrelations for RLA**

Subscore Area	No. of Items	Intercorrelation					Reliab.	SEM
		1	2	3	4	5		
<b>Grade 2</b>								
1. Word Analysis and Vocabulary Development	22	1.00	.	.	.	.	0.82	2.04
2. Reading Comprehension	15	0.74	1.00	.	.	.	0.79	1.70
3. Literary Response and Analysis	6	0.58	0.59	1.00	.	.	0.51	1.11
4. Written Conventions	14	0.75	0.71	0.58	1.00	.	0.79	1.65
5. Writing Strategies	8	0.56	0.57	0.52	0.61	1.00	0.56	1.26
<b>Grade 3</b>								
1. Word Analysis and Vocabulary Development	20	1.00	.	.	.	.	0.80	1.92
2. Reading Comprehension	15	0.73	1.00	.	.	.	0.74	1.73
3. Literary Response and Analysis	8	0.62	0.64	1.00	.	.	0.49	1.23
4. Written Conventions	13	0.69	0.68	0.58	1.00	.	0.73	1.61
5. Writing Strategies	9	0.62	0.64	0.55	0.64	1.00	0.58	1.38
<b>Grade 4</b>								
1. Word Analysis and Vocabulary Development	18	1.00	.	.	.	.	0.79	1.82
2. Reading Comprehension	15	0.73	1.00	.	.	.	0.73	1.72
3. Literary Response and Analysis	9	0.57	0.59	1.00	.	.	0.57	1.36
4. Written Conventions	18	0.73	0.69	0.59	1.00	.	0.81	1.81
5. Writing Strategies	15	0.69	0.65	0.58	0.72	1.00	0.71	1.74
<b>Grade 5</b>								
1. Word Analysis and Vocabulary Development	14	1.00	.	.	.	.	0.73	1.65
2. Reading Comprehension	16	0.69	1.00	.	.	.	0.69	1.82
3. Literary Response and Analysis	12	0.68	0.65	1.00	.	.	0.71	1.53
4. Written Conventions	17	0.69	0.63	0.64	1.00	.	0.78	1.81
5. Writing Strategies	16	0.66	0.63	0.64	0.71	1.00	0.70	1.81
<b>Grade 6</b>								
1. Word Analysis and Vocabulary Development	13	1.00	.	.	.	.	0.75	1.57
2. Reading Comprehension	17	0.74	1.00	.	.	.	0.75	1.84
3. Literary Response and Analysis	12	0.62	0.64	1.00	.	.	0.61	1.57
4. Written Conventions	16	0.68	0.66	0.57	1.00	.	0.78	1.77
5. Writing Strategies	17	0.65	0.66	0.55	0.67	1.00	0.69	1.89
<b>Grade 7</b>								
1. Word Analysis and Vocabulary Development	11	1.00	.	.	.	.	0.72	1.40
2. Reading Comprehension	18	0.72	1.00	.	.	.	0.75	1.88
3. Literary Response and Analysis	13	0.66	0.72	1.00	.	.	0.67	1.63
4. Written Conventions	16	0.68	0.66	0.65	1.00	.	0.77	1.73
5. Writing Strategies	17	0.69	0.68	0.65	0.73	1.00	0.76	1.81
<b>Grade 8</b>								
1. Word Analysis and Vocabulary Development	9	1.00	.	.	.	.	0.61	1.29
2. Reading Comprehension	18	0.65	1.00	.	.	.	0.72	1.92
3. Literary Response and Analysis	15	0.63	0.69	1.00	.	.	0.72	1.73
4. Written Conventions	16	0.62	0.64	0.62	1.00	.	0.71	1.71
5. Writing Strategies	17	0.64	0.67	0.66	0.69	1.00	0.75	1.84

<b>Grade 9</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.65	1.13
2. Reading Comprehension	18	0.63	1.00	.	.	.	0.72	1.88
3. Literary Response and Analysis	16	0.61	0.67	1.00	.	.	0.66	1.78
4. Written Conventions	13	0.61	0.61	0.58	1.00	.	0.69	1.58
5. Writing Strategies	20	0.62	0.66	0.61	0.68	1.00	0.73	2.03
<b>Grade 10</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.63	1.13
2. Reading Comprehension	18	0.63	1.00	.	.	.	0.75	1.88
3. Literary Response and Analysis	16	0.57	0.64	1.00	.	.	0.64	1.75
4. Written Conventions	13	0.61	0.65	0.56	1.00	.	0.69	1.59
5. Writing Strategies	20	0.59	0.62	0.55	0.62	1.00	0.65	2.08
<b>Grade 11</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.59	1.23
2. Reading Comprehension	19	0.55	1.00	.	.	.	0.54	2.03
3. Literary Response and Analysis	17	0.66	0.61	1.00	.	.	0.72	1.85
4. Written Conventions	9	0.52	0.50	0.58	1.00	.	0.62	1.25
5. Writing Strategies	22	0.65	0.58	0.67	0.65	1.00	0.78	2.11

**Table 8.B.2 Subscore Reliabilities and Intercorrelations for Mathematics**

Subscore Area	No. of Items	Intercorrelation						Reliab.	SEM
		1	2	3	4	5	6		
<b>Grade 2</b>									
1. Number Sense: Place Value, Addition, and Subtraction	15	1.00	.	.	.	.	–	0.76	1.71
2. Number Sense: Multiplication, Division, and Fractions	23	0.72	1.00	.	.	.	–	0.83	2.07
3. Algebra and Functions	6	0.55	0.59	1.00	.	.	–	0.51	1.10
4. Measurement and Geometry	14	0.65	0.71	0.52	1.00	.	–	0.72	1.60
5. Statistics, Data Analysis, and Probability	7	0.63	0.67	0.50	0.67	1.00	–	0.61	1.10
<b>Grade 3</b>									
1. Number Sense: Place Value, Fractions, and Decimals	16	1.00	.	.	.	.	–	0.77	1.66
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.78	1.00	.	.	.	–	0.84	1.66
3. Algebra and Functions	12	0.71	0.75	1.00	.	.	–	0.76	1.47
4. Measurement and Geometry	16	0.68	0.71	0.65	1.00	.	–	0.74	1.70
5. Statistics, Data Analysis, and Probability	5	0.61	0.61	0.62	0.62	1.00	–	0.55	0.94
<b>Grade 4</b>									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	1.00	.	.	.	.	–	0.76	1.76
2. Number Sense: Operations, and Factoring	14	0.67	1.00	.	.	.	–	0.76	1.65
3. Algebra and Functions	18	0.69	0.68	1.00	.	.	–	0.88	1.75
4. Measurement and Geometry	12	0.55	0.53	0.61	1.00	.	–	0.72	1.48
5. Statistics, Data Analysis, and Probability	4	0.49	0.44	0.49	0.46	1.00	–	0.33	0.87
<b>Grade 5</b>									
1. Number Sense: Estimation, Percents, and Factoring	12	1.00	.	.	.	.	–	0.57	1.53
2. Number Sense: Operations with Fractions and Decimals	17	0.59	1.00	.	.	.	–	0.75	1.86
3. Algebra and Functions	17	0.62	0.67	1.00	.	.	–	0.77	1.85
4. Measurement and Geometry	15	0.52	0.61	0.63	1.00	.	–	0.64	1.79
5. Statistics, Data Analysis, and Probability	4	0.37	0.45	0.46	0.43	1.00	–	0.38	0.90
<b>Grade 6</b>									
1. Number Sense: Ratios, Proportions, Percentages, and Negative Numbers	15	1.00	.	.	.	.	–	0.78	1.69
2. Number Sense: Operations with Problem Solving with Fractions	10	0.61	1.00	.	.	.	–	0.66	1.42
3. Algebra and Functions	19	0.69	0.63	1.00	.	.	–	0.82	1.90
4. Measurement and Geometry	10	0.52	0.47	0.52	1.00	.	–	0.58	1.42
5. Statistics, Data Analysis, and Probability	11	0.56	0.52	0.59	0.53	1.00	–	0.66	1.50
<b>Grade 7</b>									
1. Number Sense: Rational Numbers	14	1.00	.	.	.	.	–	0.61	1.75
2. Number Sense: Exponent, Powers and Roots	8	0.51	1.00	.	.	.	–	0.57	1.21
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.47	0.48	1.00	.	.	–	0.51	1.42
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.59	0.49	0.51	1.00	.	–	0.72	1.74
5. Measurement and Geometry	13	0.51	0.43	0.44	0.62	1.00	–	0.63	1.66
6. Statistics, Data Analysis, and Probability	5	0.45	0.39	0.39	0.48	0.47	1.00	0.46	1.01

Subscore Area	No. of Items	Intercorrelation						Reliab.	SEM
		1	2	3	4	5	6		
<b>Algebra I</b>									
1. Number Properties, Operations, and Linear Equations	17	1.00	.	.	.	–	–	0.71	1.86
2. Graphing and Systems of Linear Equations	14	0.55	1.00	.	.	–	–	0.60	1.69
3. Quadratics and Polynomials	21	0.66	0.58	1.00	.	–	–	0.76	2.07
4. Functions and Rational Expressions	13	0.42	0.37	0.47	1.00	–	–	0.34	1.59
<b>Geometry</b>									
1. Logic and Geometric Proofs	23	1.00	.	.	.	–	–	0.77	2.11
2. Volume and Area Formulas	11	0.54	1.00	.	.	–	–	0.62	1.45
3. Angle Relationships, Constructions, and Lines	16	0.68	0.61	1.00	.	–	–	0.73	1.79
4. Trigonometry	15	0.63	0.53	0.61	1.00	–	–	0.68	1.72
<b>Algebra I – 8</b>									
1. Number Properties, Operations, and Linear Equations	17	1.00	.	.	.	–	–	0.71	1.85
2. Graphing and Systems of Linear Equations	14	0.55	1.00	.	.	–	–	0.57	1.69
3. Quadratics and Polynomials	21	0.65	0.56	1.00	.	–	–	0.75	2.06
4. Functions and Rational Expressions	13	0.42	0.35	0.50	1.00	–	–	0.36	1.57
<b>Geometry – 9</b>									
1. Logic and Geometric Proofs	23	1.00	.	.	.	–	–	0.77	2.14
2. Volume and Area Formulas	11	0.50	1.00	.	.	–	–	0.57	1.48
3. Angle Relationships, Constructions, and Lines	16	0.77	0.57	1.00	.	–	–	0.77	1.75
4. Trigonometry	15	0.71	0.38	0.55	1.00	–	–	0.66	1.75

**Table 8.B.3 Reliabilities and SEMs by Gender**

Content Area	STS *	Male			Female		
		N	Reliab.	SEM	N	Reliab.	SEM
Reading/ Language Arts	2	4,475	0.93	3.48	4,370	0.93	3.35
	3	3,182	0.92	3.55	3,067	0.92	3.47
	4	1,963	0.93	3.84	1,932	0.93	3.73
	5	1,446	0.92	3.94	1,296	0.91	3.93
	6	916	0.92	3.97	806	0.91	3.95
	7	725	0.92	3.89	685	0.92	3.79
	8	549	0.92	3.90	530	0.91	3.83
	9	1,166	0.91	3.87	806	0.90	3.79
	10	659	0.90	3.91	515	0.90	3.80
	11	392	0.91	3.94	274	0.88	3.87
	Mathematics	2	4,476	0.93	3.32	4,364	0.92
3		3,176	0.94	3.25	3,057	0.93	3.23
4		1,950	0.94	3.38	1,927	0.93	3.35
5		1,438	0.91	3.64	1,289	0.89	3.64
6		901	0.92	3.61	791	0.90	3.64
7		701	0.89	3.69	646	0.88	3.69
Algebra I		1,545	0.86	3.66	1,135	0.87	3.64
Geometry		175	0.91	3.56	142	0.85	3.64
Grade-Specific	Algebra I – 8	222	0.84	3.66	175	0.88	3.63
	Geometry – 9	25	0.92	3.57	23	0.84	3.66

\* STS named by number only are grade-level tests.

**Table 8.B.4 Reliabilities and SEMs by Economic Status**

Content Area	STS *	Not Disadvantaged			Disadvantaged		
		N	Reliab.	SEM	N	Reliab.	SEM
Reading/ Language Arts	2	556	0.94	3.38	8,120	0.93	3.42
	3	432	0.92	3.45	5,745	0.92	3.52
	4	275	0.94	3.72	3,545	0.93	3.79
	5	219	0.93	3.88	2,460	0.91	3.94
	6	194	0.93	3.81	1,501	0.91	3.98
	7	181	0.93	3.73	1,163	0.92	3.86
	8	134	0.91	3.81	887	0.92	3.87
	9	327	0.92	3.82	1,619	0.91	3.85
	10	205	0.90	3.83	937	0.90	3.87
	11	127	0.92	3.88	518	0.89	3.92
	Mathematics	2	552	0.93	3.28	8,118	0.93
3		428	0.94	3.17	5,732	0.93	3.25
4		272	0.94	3.31	3,528	0.93	3.37
5		214	0.90	3.64	2,450	0.90	3.64
6		195	0.93	3.56	1,471	0.90	3.64
7		173	0.89	3.67	1,112	0.88	3.69
Algebra I		446	0.88	3.65	2,138	0.87	3.65
Geometry		65	0.88	3.63	250	0.90	3.58
Grade-Specific	Algebra I – 8	47	0.89	3.64	304	0.86	3.64
	Geometry – 9	17	0.90	3.55	31	0.89	3.63

\* STS named by number only are grade-level tests.

**Table 8.B.5 Reliabilities and SEMs by Special Services**

Content Area	STS *	No Special Services			Special Services		
		N	Reliab.	SEM	N	Reliab.	SEM
Reading/Language Arts	2	8,460	0.93	3.41	394	0.92	3.60
	3	5,973	0.92	3.50	286	0.87	3.68
	4	3,721	0.93	3.78	181	0.92	3.91
	5	2,567	0.91	3.93	176	0.87	3.97
	6	1,641	0.92	3.96	83	0.87	4.01
	7	1,383	0.92	3.84	30	0.90	4.01
	8	1,060	0.92	3.87	23	0.85	3.95
	9	1,973	0.91	3.84	7	–	–
	10	1,171	0.90	3.87	6	–	–
	11	668	0.90	3.92	1	–	–
	Mathematics	2	8,454	0.93	3.30	397	0.93
3		5,955	0.93	3.23	287	0.92	3.50
4		3,702	0.93	3.36	182	0.93	3.57
5		2,546	0.90	3.64	182	0.88	3.68
6		1,615	0.91	3.63	79	0.87	3.65
7		1,322	0.88	3.69	28	0.91	3.63
Algebra I		2,671	0.87	3.65	16	0.79	3.66
Geometry		319	0.90	3.59	1	–	–
Grade-Specific	Algebra I – 8	392	0.86	3.65	6	–	–
	Geometry – 9	48	0.90	3.61	0	–	–

\* STS named by number only are grade-level tests.

**Table 8.B.6 Reliabilities and SEMs by Attendance in U.S. Schools**

Content Area	STS *	In U.S. Schools < 12 Months			In U.S. Schools ≥ 12 Months		
		N	Reliab.	SEM	N	Reliab.	SEM
Reading/Language Arts	2	1,382	0.93	3.58	7,472	0.93	3.39
	3	1,284	0.92	3.58	4,975	0.92	3.48
	4	1,162	0.93	3.82	2,741	0.94	3.76
	5	1,108	0.92	3.89	1,635	0.91	3.95
	6	1,053	0.92	3.91	672	0.90	4.01
	7	1,176	0.93	3.82	238	0.90	3.96
	8	904	0.92	3.85	179	0.90	3.96
	9	1,925	0.91	3.84	55	0.93	3.81
	10	1,124	0.90	3.87	53	0.91	3.91
	11	637	0.90	3.91	32	0.81	4.10
	Mathematics	2	1,384	0.92	3.52	7,467	0.92
3		1,282	0.93	3.41	4,961	0.93	3.18
4		1,156	0.93	3.51	2,729	0.93	3.30
5		1,102	0.90	3.67	1,626	0.90	3.60
6		1,048	0.92	3.62	647	0.90	3.62
7		1,137	0.88	3.68	214	0.87	3.70
Algebra I		2,516	0.87	3.65	171	0.84	3.67
Geometry	292	0.90	3.59	28	0.87	3.58	
Grade-Specific	Algebra I – 8	301	0.86	3.63	97	0.85	3.69
	Geometry – 9	45	0.90	3.62	3	–	–

\* STS named by number only are grade-level tests.

Table 8.B.7 Reliabilities and SEMs by English Learner Program Participation

Content Area	STS *	Primary language instruction and ELD and/or SDAIE instruction			ELD instruction only			SDAIE instruction only			ELD instr. and SDAIE instr. but not primary language instr.			Other EL Instruct. Services			None (EL only)		
		N	Rel.	SEM	N	Rel.	SEM	N	Rel.	SEM	N	Rel.	SEM	N	Rel.	SEM	N	Rel.	SEM
Reading/ Language Arts	2	7,921	0.93	3.39	143	0.92	3.60	115	0.91	3.61	582	0.92	3.59	17	0.89	3.73	17	0.90	3.64
	3	5,334	0.92	3.49	125	0.93	3.56	114	0.92	3.58	613	0.91	3.61	23	0.91	3.47	24	0.93	3.55
	4	3,017	0.94	3.76	124	0.93	3.88	104	0.94	3.83	587	0.92	3.84	24	0.92	3.87	18	0.95	3.81
	5	1,867	0.91	3.94	121	0.91	3.96	102	0.91	3.91	582	0.93	3.88	19	0.93	3.87	16	0.88	4.01
	6	850	0.91	3.99	141	0.93	3.87	91	0.91	3.96	589	0.92	3.90	13	0.84	4.08	13	0.91	3.93
	7	440	0.91	3.90	124	0.92	3.85	147	0.93	3.85	596	0.93	3.80	22	0.93	3.85	39	0.91	3.73
	8	325	0.91	3.92	97	0.92	3.87	101	0.91	3.88	478	0.92	3.82	20	0.90	3.89	31	0.93	3.83
	9	471	0.92	3.83	194	0.92	3.86	255	0.90	3.84	890	0.91	3.85	29	0.91	3.70	50	0.91	3.82
	10	314	0.90	3.89	139	0.92	3.85	61	0.89	3.87	547	0.90	3.87	42	0.92	3.75	32	0.92	3.76
	11	155	0.87	3.96	101	0.91	3.91	36	0.90	3.95	318	0.91	3.91	21	0.89	3.90	16	0.90	3.89
	Mathematics	2	7,915	0.92	3.28	142	0.92	3.53	116	0.92	3.54	585	0.92	3.55	17	0.80	3.71	17	0.89
3		5,321	0.93	3.20	126	0.94	3.41	112	0.93	3.47	611	0.93	3.45	24	0.91	3.41	24	0.93	3.31
4		3,004	0.93	3.31	126	0.93	3.55	104	0.93	3.54	582	0.92	3.53	24	0.94	3.33	18	0.95	3.41
5		1,858	0.90	3.61	121	0.87	3.70	101	0.88	3.73	578	0.89	3.68	19	0.94	3.52	16	0.88	3.67
6		825	0.90	3.63	136	0.92	3.62	90	0.92	3.58	589	0.92	3.61	13	0.65	3.85	14	0.93	3.62
7		411	0.88	3.70	116	0.87	3.72	143	0.87	3.71	577	0.89	3.66	22	0.86	3.75	38	0.87	3.67
Algebra I		689	0.85	3.67	286	0.88	3.64	302	0.87	3.64	1,189	0.87	3.65	48	0.90	3.63	56	0.89	3.64
Geometry		97	0.91	3.56	31	0.89	3.55	18	0.86	3.67	140	0.90	3.60	18	0.82	3.63	6	–	–
Grade-Specific	Algebra I – 8	142	0.85	3.69	30	0.87	3.56	38	0.89	3.59	165	0.87	3.64	10	–	–	6	–	–
	Geometry – 9	14	0.92	3.44	6	–	–	3	–	–	20	0.84	3.71	1	–	–	2	–	–

\* STS named by number only are grade-level tests.

**Table 8.B.8 Subscore Reliabilities and SEM for RLA by Gender/Economic Status**

Subscore Area	No. of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 2</b>									
1. Word Analysis and Vocabulary Development	22	0.83	1.92	0.82	1.83	0.82	1.87	0.82	1.88
2. Reading Comprehension	15	0.78	1.69	0.80	1.61	0.82	1.62	0.79	1.65
3. Literary Response and Analysis	6	0.55	1.08	0.54	1.05	0.55	1.06	0.55	1.07
4. Written Conventions	14	0.81	1.60	0.81	1.54	0.84	1.53	0.81	1.57
5. Writing Strategies	8	0.61	1.28	0.63	1.27	0.65	1.26	0.62	1.28
<b>Grade 3</b>									
1. Word Analysis and Vocabulary Development	20	0.78	1.89	0.78	1.82	0.78	1.82	0.78	1.86
2. Reading Comprehension	15	0.74	1.74	0.75	1.70	0.76	1.69	0.75	1.72
3. Literary Response and Analysis	8	0.47	1.25	0.50	1.23	0.48	1.23	0.49	1.24
4. Written Conventions	13	0.74	1.58	0.74	1.55	0.76	1.53	0.74	1.57
5. Writing Strategies	9	0.63	1.34	0.62	1.32	0.64	1.31	0.63	1.34
<b>Grade 4</b>									
1. Word Analysis and Vocabulary Development	18	0.81	1.82	0.80	1.74	0.79	1.75	0.81	1.78
2. Reading Comprehension	15	0.77	1.73	0.76	1.69	0.77	1.68	0.77	1.71
3. Literary Response and Analysis	9	0.58	1.36	0.59	1.35	0.63	1.34	0.60	1.36
4. Written Conventions	18	0.80	1.83	0.79	1.74	0.81	1.75	0.80	1.79
5. Writing Strategies	15	0.70	1.74	0.72	1.73	0.77	1.70	0.71	1.74
<b>Grade 5</b>									
1. Word Analysis and Vocabulary Development	14	0.81	1.82	0.80	1.74	0.79	1.75	0.81	1.78
2. Reading Comprehension	16	0.77	1.73	0.76	1.69	0.77	1.68	0.77	1.71
3. Literary Response and Analysis	12	0.58	1.36	0.59	1.35	0.63	1.34	0.60	1.36
4. Written Conventions	17	0.80	1.83	0.79	1.74	0.81	1.75	0.80	1.79
5. Writing Strategies	16	0.70	1.74	0.72	1.73	0.77	1.70	0.71	1.74
<b>Grade 6</b>									
1. Word Analysis and Vocabulary Development	13	0.73	1.61	0.69	1.60	0.73	1.53	0.70	1.61
2. Reading Comprehension	17	0.74	1.88	0.72	1.86	0.74	1.82	0.73	1.88
3. Literary Response and Analysis	12	0.64	1.59	0.56	1.59	0.63	1.53	0.60	1.60
4. Written Conventions	16	0.76	1.81	0.74	1.78	0.80	1.70	0.75	1.81
5. Writing Strategies	17	0.68	1.90	0.67	1.91	0.75	1.87	0.67	1.91
<b>Grade 7</b>									
1. Word Analysis and Vocabulary Development	11	0.72	1.43	0.70	1.40	0.70	1.34	0.71	1.43
2. Reading Comprehension	18	0.73	1.91	0.75	1.88	0.74	1.86	0.74	1.90
3. Literary Response and Analysis	13	0.66	1.65	0.67	1.61	0.65	1.61	0.67	1.63
4. Written Conventions	16	0.74	1.78	0.75	1.70	0.76	1.68	0.75	1.75
5. Writing Strategies	17	0.75	1.84	0.74	1.79	0.78	1.75	0.74	1.83
<b>Grade 8</b>									
1. Word Analysis and Vocabulary Development	9	0.65	1.32	0.57	1.29	0.67	1.23	0.61	1.31
2. Reading Comprehension	18	0.73	1.93	0.70	1.92	0.71	1.92	0.73	1.92
3. Literary Response and Analysis	15	0.74	1.73	0.67	1.74	0.73	1.70	0.71	1.74
4. Written Conventions	16	0.71	1.76	0.69	1.68	0.66	1.69	0.72	1.72
5. Writing Strategies	17	0.73	1.85	0.73	1.84	0.70	1.85	0.75	1.84
<b>Grade 9</b>									
1. Word Analysis and Vocabulary Development	8	0.66	1.15	0.62	1.09	0.62	1.13	0.66	1.13
2. Reading Comprehension	18	0.71	1.89	0.73	1.85	0.74	1.85	0.72	1.88
3. Literary Response and Analysis	16	0.67	1.79	0.62	1.76	0.64	1.79	0.66	1.78

Subscore Area	No. of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
4. Written Conventions	13	0.69	1.60	0.66	1.56	0.71	1.57	0.69	1.59
5. Writing Strategies	20	0.74	2.04	0.71	2.03	0.77	2.02	0.72	2.04
<b>Grade 10</b>									
1. Word Analysis and Vocabulary Development	8	0.63	1.18	0.61	1.08	0.57	1.10	0.63	1.14
2. Reading Comprehension	18	0.75	1.91	0.74	1.82	0.75	1.85	0.76	1.88
3. Literary Response and Analysis	16	0.66	1.76	0.59	1.74	0.59	1.74	0.65	1.76
4. Written Conventions	13	0.68	1.62	0.69	1.56	0.71	1.58	0.69	1.60
5. Writing Strategies	20	0.66	2.07	0.63	2.09	0.65	2.08	0.65	2.08
<b>Grade 11</b>									
1. Word Analysis and Vocabulary Development	8	0.66	1.23	0.42	1.24	0.67	1.21	0.56	1.24
2. Reading Comprehension	19	0.53	2.04	0.52	2.03	0.61	2.02	0.49	2.04
3. Literary Response and Analysis	17	0.73	1.86	0.67	1.82	0.73	1.84	0.71	1.85
4. Written Conventions	9	0.61	1.29	0.57	1.20	0.59	1.28	0.63	1.25
5. Writing Strategies	22	0.78	2.13	0.78	2.10	0.80	2.09	0.77	2.12

**Table 8.B.9 Subscore Reliabilities and SEM for Mathematics by Gender/Economic Status**

Subscore Area	No. of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 2</b>									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.79	1.62	0.78	1.61	0.78	1.61	0.78	1.61
2. Number Sense: Multiplication, Division, and Fractions	23	0.84	1.96	0.84	1.94	0.85	1.94	0.84	1.95
3. Algebra and Functions	6	0.61	1.05	0.57	1.06	0.62	1.03	0.59	1.06
4. Measurement and Geometry	14	0.71	1.50	0.69	1.51	0.73	1.48	0.70	1.51
5. Statistics, Data Analysis, and Probability	7	0.62	0.99	0.59	0.98	0.66	0.98	0.60	0.99
<b>Grade 3</b>									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.59	0.77	1.58	0.77	1.55	0.77	1.59
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.84	1.59	0.83	1.57	0.83	1.57	0.83	1.58
3. Algebra and Functions	12	0.77	1.44	0.76	1.44	0.79	1.40	0.77	1.44
4. Measurement and Geometry	16	0.74	1.59	0.72	1.59	0.75	1.55	0.73	1.60
5. Statistics, Data Analysis, and Probability	5	0.58	0.84	0.54	0.82	0.58	0.79	0.56	0.83
<b>Grade 4</b>									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.78	1.72	0.73	1.74	0.77	1.70	0.75	1.73
2. Number Sense: Operations and Factoring	14	0.79	1.61	0.80	1.58	0.81	1.57	0.80	1.60
3. Algebra and Functions	18	0.89	1.64	0.88	1.62	0.89	1.59	0.88	1.63
4. Measurement and Geometry	12	0.74	1.42	0.71	1.40	0.77	1.38	0.73	1.42
5. Statistics, Data Analysis, and Probability	4	0.38	0.86	0.32	0.82	0.30	0.87	0.35	0.84
<b>Grade 5</b>									
1. Number Sense: Estimation, Percents, and Factoring	12	0.63	1.49	0.61	1.47	0.61	1.50	0.62	1.48
2. Number Sense: Operations with Fractions and Decimals	17	0.75	1.87	0.70	1.89	0.74	1.88	0.72	1.88
3. Algebra and Functions	17	0.80	1.79	0.77	1.80	0.80	1.80	0.79	1.79
4. Measurement and Geometry	15	0.65	1.79	0.63	1.80	0.62	1.79	0.64	1.80
5. Statistics, Data Analysis, and Probability	4	0.40	0.91	0.31	0.91	0.43	0.90	0.35	0.91
<b>Grade 6</b>									
1. Number Sense: Ratios, Proportions, Percentages, and Negative Numbers	15	0.77	1.69	0.74	1.70	0.81	1.62	0.74	1.71
2. Number Sense: Operations with Problem Solving with Fractions	10	0.68	1.42	0.61	1.44	0.68	1.42	0.65	1.43
3. Algebra and Functions	19	0.82	1.88	0.80	1.90	0.82	1.87	0.80	1.89
4. Measurement and Geometry	10	0.60	1.43	0.55	1.44	0.66	1.42	0.56	1.44
5. Statistics, Data Analysis, and Probability	11	0.64	1.50	0.63	1.50	0.73	1.46	0.61	1.51
<b>Grade 7</b>									
1. Number Sense: Rational Numbers	14	0.63	1.74	0.58	1.75	0.60	1.75	0.61	1.75
2. Number Sense: Exponent, Powers, and Roots	8	0.60	1.20	0.55	1.21	0.62	1.19	0.57	1.20
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.54	1.43	0.51	1.42	0.59	1.41	0.52	1.42

Subscore Area	No. of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.73	1.73	0.69	1.76	0.75	1.72	0.71	1.75
5. Measurement and Geometry	13	0.63	1.66	0.63	1.65	0.63	1.66	0.62	1.66
6. Statistics, Data Analysis, and Probability	5	0.43	1.03	0.45	1.01	0.49	1.01	0.44	1.02
<b>Algebra I</b>									
1. Number Properties, Operations, and Linear Equations	17	0.70	1.87	0.71	1.85	0.72	1.86	0.71	1.86
2. Graphing and Systems of Linear Equations	14	0.58	1.69	0.60	1.69	0.63	1.68	0.59	1.69
3. Quadratics and Polynomials	21	0.75	2.07	0.77	2.07	0.78	2.07	0.76	2.07
4. Functions and Rational Expressions	13	0.33	1.60	0.37	1.58	0.42	1.59	0.33	1.59
<b>Geometry</b>									
1. Logic and Geometric Proofs	23	0.82	2.07	0.67	2.17	0.70	2.14	0.79	2.11
2. Volume and Area Formulas	11	0.64	1.45	0.53	1.45	0.58	1.46	0.63	1.44
3. Angle Relationships, Constructions, and Lines	16	0.76	1.78	0.63	1.80	0.69	1.83	0.74	1.78
4. Trigonometry	15	0.71	1.71	0.60	1.74	0.70	1.72	0.68	1.72

**Table 8.B.10 Subscore Reliabilities and SEM for Grade-specific Tests by Gender/Economic Status**

Subscore Area	No. of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Algebra I – 8</b>									
1. Number Properties, Operations, and Linear Equations	17	0.69	1.87	0.72	1.84	0.68	1.90	0.72	1.84
2. Graphing and Systems of Linear Equations	14	0.53	1.68	0.58	1.70	0.72	1.68	0.53	1.70
3. Quadratics and Polynomials	21	0.70	2.09	0.78	2.05	0.80	2.05	0.75	2.07
4. Functions and Rational Expressions	13	0.42	1.58	0.35	1.57	0.37	1.55	0.34	1.58
<b>Geometry – 9</b>									
1. Logic and Geometric Proofs	23	0.82	2.09	0.69	2.19	0.75	2.06	0.76	2.16
2. Volume and Area Formulas	11	0.60	1.48	0.53	1.46	0.56	1.47	0.58	1.47
3. Angle Relationships, Constructions, and Lines	16	0.80	1.74	0.58	1.78	0.82	1.73	0.67	1.79
4. Trigonometry	15	0.71	1.74	0.58	1.76	0.71	1.69	0.61	1.75

**Table 8.B.11 Subscore Reliabilities and SEM for RLA by Special Services/Attendance in U.S. Schools**

Subscore Area	No. of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥ 12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 2</b>									
1. Word Analysis and Vocabulary Development	22	0.82	1.87	0.82	2.03	0.82	2.04	0.81	1.84
2. Reading Comprehension	15	0.80	1.65	0.71	1.75	0.79	1.70	0.79	1.64
3. Literary Response and Analysis	6	0.55	1.06	0.45	1.13	0.51	1.11	0.55	1.06
4. Written Conventions	14	0.82	1.57	0.76	1.67	0.79	1.65	0.81	1.56
5. Writing Strategies	8	0.62	1.27	0.49	1.26	0.56	1.26	0.62	1.28
<b>Grade 3</b>									
1. Word Analysis and Vocabulary Development	20	0.78	1.85	0.75	2.01	0.80	1.92	0.77	1.84
2. Reading Comprehension	15	0.75	1.72	0.53	1.77	0.74	1.73	0.75	1.71
3. Literary Response and Analysis	8	0.49	1.24	0.29	1.28	0.49	1.23	0.49	1.24
4. Written Conventions	13	0.74	1.56	0.66	1.64	0.73	1.61	0.73	1.55
5. Writing Strategies	9	0.62	1.33	0.56	1.38	0.58	1.38	0.62	1.32
<b>Grade 4</b>									
1. Word Analysis and Vocabulary Development	18	0.80	1.77	0.79	1.90	0.79	1.82	0.82	1.76
2. Reading Comprehension	15	0.77	1.71	0.73	1.74	0.73	1.72	0.79	1.69
3. Literary Response and Analysis	9	0.59	1.36	0.51	1.34	0.57	1.36	0.61	1.35
4. Written Conventions	18	0.79	1.78	0.77	1.90	0.81	1.81	0.79	1.77
5. Writing Strategies	15	0.71	1.74	0.64	1.72	0.71	1.74	0.72	1.73
<b>Grade 5</b>									
1. Word Analysis and Vocabulary Development	14	0.70	1.67	0.54	1.71	0.73	1.65	0.68	1.69
2. Reading Comprehension	16	0.67	1.83	0.55	1.82	0.69	1.82	0.65	1.83
3. Literary Response and Analysis	12	0.70	1.55	0.58	1.58	0.71	1.53	0.68	1.57
4. Written Conventions	17	0.75	1.83	0.69	1.90	0.78	1.81	0.73	1.84
5. Writing Strategies	16	0.68	1.83	0.58	1.83	0.70	1.81	0.67	1.84
<b>Grade 6</b>									
1. Word Analysis and Vocabulary Development	13	0.72	1.60	0.55	1.67	0.75	1.57	0.63	1.65
2. Reading Comprehension	17	0.73	1.87	0.64	1.90	0.75	1.84	0.68	1.90
3. Literary Response and Analysis	12	0.61	1.59	0.49	1.62	0.61	1.57	0.54	1.63
4. Written Conventions	16	0.76	1.80	0.63	1.84	0.78	1.77	0.72	1.82
5. Writing Strategies	17	0.68	1.91	0.54	1.89	0.69	1.89	0.65	1.92
<b>Grade 7</b>									
1. Word Analysis and Vocabulary Development	11	0.71	1.42	0.72	1.46	0.72	1.40	0.63	1.49
2. Reading Comprehension	18	0.74	1.89	0.67	1.93	0.75	1.88	0.71	1.94
3. Literary Response and Analysis	13	0.67	1.63	0.59	1.69	0.67	1.63	0.65	1.66
4. Written Conventions	16	0.75	1.74	0.66	1.87	0.77	1.73	0.61	1.81
5. Writing Strategies	17	0.75	1.82	0.64	1.92	0.76	1.81	0.71	1.87
<b>Grade 8</b>									
1. Word Analysis and Vocabulary Development	9	0.62	1.30	0.57	1.32	0.61	1.29	0.59	1.35
2. Reading Comprehension	18	0.72	1.93	0.60	1.90	0.72	1.92	0.69	1.94
3. Literary Response and Analysis	15	0.71	1.74	0.51	1.80	0.72	1.73	0.59	1.79
4. Written Conventions	16	0.72	1.72	0.59	1.84	0.71	1.71	0.69	1.79
5. Writing Strategies	17	0.74	1.85	0.57	1.88	0.75	1.84	0.68	1.88

Subscore Area	No. of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥ 12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 9</b>									
1. Word Analysis and Vocabulary Development	8	0.65	1.13	–	–	0.65	1.13	0.67	1.15
2. Reading Comprehension	18	0.73	1.88	–	–	0.72	1.88	0.79	1.85
3. Literary Response and Analysis	16	0.66	1.78	–	–	0.66	1.78	0.72	1.77
4. Written Conventions	13	0.69	1.59	–	–	0.69	1.58	0.69	1.58
5. Writing Strategies	20	0.73	2.03	–	–	0.73	2.03	0.78	2.01
<b>Grade 10</b>									
1. Word Analysis and Vocabulary Development	8	0.63	1.14	–	–	0.63	1.13	0.64	1.21
2. Reading Comprehension	18	0.75	1.88	–	–	0.75	1.88	0.79	1.87
3. Literary Response and Analysis	16	0.64	1.76	–	–	0.64	1.75	0.63	1.76
4. Written Conventions	13	0.69	1.60	–	–	0.69	1.59	0.68	1.65
5. Writing Strategies	20	0.65	2.08	–	–	0.65	2.08	0.72	2.06
<b>Grade 11</b>									
1. Word Analysis and Vocabulary Development	8	0.59	1.23	–	–	0.59	1.23	0.43	1.29
2. Reading Comprehension	19	0.52	2.04	–	–	0.54	2.03	0.06	2.14
3. Literary Response and Analysis	17	0.72	1.85	–	–	0.72	1.85	0.69	1.90
4. Written Conventions	9	0.61	1.25	–	–	0.62	1.25	0.53	1.31
5. Writing Strategies	22	0.78	2.12	–	–	0.78	2.11	0.62	2.23

**Table 8.B.12 Subscore Reliabilities and SEM for Mathematics by Special Services/Attendance in U.S. Schools**

Subscore Area	No. of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 2</b>									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.78	1.61	0.79	1.68	0.76	1.71	0.78	1.59
2. Number Sense: Multiplication, Division, and Fractions	23	0.84	1.94	0.85	2.05	0.83	2.07	0.84	1.92
3. Algebra and Functions	6	0.59	1.05	0.54	1.09	0.51	1.10	0.60	1.05
4. Measurement and Geometry	14	0.69	1.50	0.75	1.59	0.72	1.60	0.68	1.49
5. Statistics, Data Analysis, and Probability	7	0.60	0.98	0.66	1.07	0.61	1.10	0.58	0.96
<b>Grade 3</b>									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.77	1.58	0.73	1.71	0.77	1.66	0.75	1.56
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.83	1.57	0.78	1.75	0.84	1.66	0.83	1.56
3. Algebra and Functions	12	0.77	1.44	0.69	1.50	0.76	1.47	0.76	1.43
4. Measurement and Geometry	16	0.73	1.58	0.70	1.75	0.74	1.70	0.70	1.55
5. Statistics, Data Analysis, and Probability	5	0.56	0.82	0.52	0.93	0.55	0.94	0.53	0.79
<b>Grade 4</b>									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.75	1.72	0.78	1.81	0.76	1.76	0.74	1.71
2. Number Sense: Operations and Factoring	14	0.80	1.59	0.73	1.68	0.76	1.65	0.80	1.57
3. Algebra and Functions	18	0.88	1.62	0.86	1.82	0.88	1.75	0.87	1.57
4. Measurement and Geometry	12	0.72	1.41	0.74	1.50	0.72	1.48	0.72	1.38
5. Statistics, Data Analysis, and Probability	4	0.34	0.84	0.45	0.86	0.33	0.87	0.34	0.83
<b>Grade 5</b>									
1. Number Sense: Estimation, Percents, and Factoring	12	0.62	1.48	0.63	1.51	0.57	1.53	0.62	1.44
2. Number Sense: Operations with Fractions and Decimals	17	0.72	1.88	0.62	1.89	0.75	1.86	0.71	1.89
3. Algebra and Functions	17	0.79	1.79	0.77	1.85	0.77	1.85	0.78	1.74
4. Measurement and Geometry	15	0.64	1.80	0.48	1.81	0.64	1.79	0.64	1.80
5. Statistics, Data Analysis, and Probability	4	0.36	0.91	0.22	0.92	0.38	0.90	0.35	0.91
<b>Grade 6</b>									
1. Number Sense: Ratios, Proportions, Percentages, and Negative Numbers	15	0.76	1.69	0.62	1.78	0.78	1.69	0.72	1.70
2. Number Sense: Operations with Problem Solving with Fractions	10	0.65	1.43	0.61	1.43	0.66	1.42	0.62	1.43
3. Algebra and Functions	19	0.81	1.89	0.72	1.93	0.82	1.90	0.79	1.85
4. Measurement and Geometry	10	0.57	1.44	0.62	1.39	0.58	1.42	0.56	1.46
5. Statistics, Data Analysis, and Probability	11	0.64	1.50	0.37	1.49	0.66	1.50	0.60	1.50
<b>Grade 7</b>									
1. Number Sense: Rational Numbers	14	0.60	1.75	0.71	1.70	0.61	1.75	0.59	1.75
2. Number Sense: Exponent, Powers, and Roots	8	0.57	1.20	0.58	1.21	0.57	1.21	0.53	1.19
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.52	1.42	0.68	1.43	0.51	1.42	0.57	1.42

Subscore Area	No. of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.72	1.74	0.61	1.80	0.72	1.74	0.67	1.77
5. Measurement and Geometry	13	0.62	1.66	0.69	1.61	0.63	1.66	0.60	1.66
6. Statistics, Data Analysis, and Probability	5	0.44	1.02	0.40	0.98	0.46	1.01	0.30	1.05
<b>Algebra I</b>									
1. Number Properties, Operations, and Linear Equations	17	0.71	1.86	0.65	1.86	0.71	1.86	0.68	1.88
2. Graphing and Systems of Linear Equations	14	0.59	1.69	0.58	1.73	0.60	1.69	0.47	1.71
3. Quadratics and Polynomials	21	0.76	2.07	0.45	2.15	0.76	2.07	0.74	2.07
4. Functions and Rational Expressions	13	0.35	1.59	-0.68	1.51	0.34	1.59	0.41	1.58
<b>Geometry</b>									
1. Logic and Geometric Proofs	23	0.77	2.11	–	–	0.77	2.11	0.75	2.15
2. Volume and Area Formulas	11	0.61	1.45	–	–	0.62	1.45	0.50	1.39
3. Angle Relationships, Constructions, and Lines	16	0.73	1.79	–	–	0.73	1.79	0.68	1.79
4. Trigonometry	15	0.68	1.72	–	–	0.68	1.72	0.50	1.73

**Table 8.B.13 Subscore Reliabilities and SEM for Grade-specific Tests by Special Services/Attendance in U.S. Schools**

Subscore Area	No. of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Algebra I – 8</b>									
1. Number Properties, Operations, and Linear Equations	17	0.71	1.86	–	–	0.71	1.85	0.71	1.87
2. Graphing and Systems of Linear Equations	14	0.56	1.69	–	–	0.57	1.69	0.51	1.70
3. Quadratics and Polynomials	21	0.75	2.07	–	–	0.75	2.06	0.73	2.10
4. Functions and Rational Expressions	13	0.39	1.58	–	–	0.36	1.57	0.44	1.61
<b>Geometry – 9</b>									
1. Logic and Geometric Proofs	23	0.78	2.13	–	–	0.77	2.14	–	–
2. Volume and Area Formulas	11	0.56	1.47	–	–	0.57	1.48	–	–
3. Angle Relationships, Constructions, and Lines	16	0.76	1.76	–	–	0.77	1.75	–	–
4. Trigonometry	15	0.66	1.74	–	–	0.66	1.75	–	–

Table 8.B.14 Subscore Reliabilities and SEM for RLA by English Learner Program Participation

Subscore Reliabilities and SEM for RLA by EL Program Participation													
Subscore Area	No. of Items	Primary language instruction and ELD and/or SDAIE instruction		ELD instruction only		SDAIE instruction only		ELD instr. and SDAIE instr. but not primary language instr.		Other EL Instruct. Services		None (EL only)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 2</b>													
1. Word Analysis and Vocabulary Development	22	0.81	1.85	0.78	2.10	0.82	2.04	0.81	2.06	0.68	2.22	0.75	2.12
2. Reading Comprehension	15	0.79	1.64	0.78	1.72	0.76	1.72	0.79	1.71	0.81	1.68	0.78	1.75
3. Literary Response and Analysis	6	0.55	1.06	0.54	1.11	0.42	1.13	0.54	1.10	0.36	1.18	0.59	1.10
4. Written Conventions	14	0.81	1.56	0.80	1.63	0.73	1.67	0.75	1.67	0.60	1.72	0.63	1.63
5. Writing Strategies	8	0.62	1.28	0.58	1.24	0.51	1.25	0.53	1.24	0.12	1.33	0.55	1.25
<b>Grade 3</b>													
1. Word Analysis and Vocabulary Development	20	0.78	1.84	0.79	1.92	0.78	1.97	0.80	1.96	0.64	1.88	0.83	1.90
2. Reading Comprehension	15	0.75	1.71	0.75	1.74	0.76	1.71	0.73	1.75	0.78	1.66	0.78	1.73
3. Literary Response and Analysis	8	0.49	1.24	0.63	1.20	0.53	1.23	0.45	1.24	0.44	1.25	0.62	1.20
4. Written Conventions	13	0.73	1.56	0.73	1.61	0.72	1.61	0.71	1.62	0.79	1.55	0.80	1.52
5. Writing Strategies	9	0.62	1.32	0.63	1.36	0.63	1.35	0.53	1.39	0.55	1.32	0.28	1.44
<b>Grade 4</b>													
1. Word Analysis and Vocabulary Development	18	0.82	1.76	0.78	1.86	0.82	1.82	0.77	1.83	0.78	1.86	0.87	1.73
2. Reading Comprehension	15	0.78	1.69	0.73	1.74	0.74	1.74	0.72	1.72	0.69	1.77	0.79	1.72
3. Literary Response and Analysis	9	0.61	1.35	0.56	1.36	0.46	1.39	0.53	1.37	0.71	1.28	0.58	1.39
4. Written Conventions	18	0.80	1.77	0.81	1.84	0.84	1.80	0.79	1.83	0.79	1.81	0.83	1.89
5. Writing Strategies	15	0.72	1.73	0.65	1.77	0.73	1.72	0.70	1.74	0.75	1.70	0.84	1.65
<b>Grade 5</b>													
1. Word Analysis and Vocabulary Development	14	0.69	1.68	0.69	1.68	0.63	1.68	0.74	1.65	0.78	1.59	0.62	1.71
2. Reading Comprehension	16	0.66	1.83	0.67	1.82	0.65	1.84	0.69	1.82	0.69	1.83	0.62	1.83
3. Literary Response and Analysis	12	0.68	1.56	0.68	1.57	0.67	1.55	0.73	1.52	0.77	1.51	0.25	1.64
4. Written Conventions	17	0.73	1.83	0.75	1.88	0.79	1.80	0.79	1.81	0.72	1.84	0.59	1.93
5. Writing Strategies	16	0.68	1.84	0.62	1.84	0.66	1.81	0.71	1.80	0.77	1.77	0.66	1.86

<b>Subscore Reliabilities and SEM for RLA by EL Program Participation</b>													
<b>Subscore Area</b>	<b>No. of Items</b>	<b>Primary language instruction and ELD and/or SDAIE instruction</b>		<b>ELD instruction only</b>		<b>SDAIE instruction only</b>		<b>ELD instr. and SDAIE instr. but not primary language instr.</b>		<b>Other EL Instruct. Services</b>		<b>None (EL only)</b>	
		<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>
<b>Grade 6</b>													
1. Word Analysis and Vocabulary Development	13	0.66	1.63	0.81	1.51	0.74	1.57	0.75	1.57	0.06	1.75	0.74	1.54
2. Reading Comprehension	17	0.71	1.89	0.79	1.81	0.75	1.86	0.74	1.85	0.71	1.89	0.75	1.85
3. Literary Response and Analysis	12	0.59	1.61	0.65	1.55	0.61	1.61	0.60	1.57	0.45	1.56	0.55	1.58
4. Written Conventions	16	0.73	1.81	0.76	1.79	0.77	1.81	0.79	1.77	0.75	1.82	0.70	1.77
5. Writing Strategies	17	0.67	1.92	0.71	1.88	0.58	1.92	0.70	1.88	0.54	1.96	0.68	1.95
<b>Grade 7</b>													
1. Word Analysis and Vocabulary Development	11	0.68	1.45	0.76	1.39	0.69	1.45	0.72	1.39	0.70	1.46	0.70	1.36
2. Reading Comprehension	18	0.74	1.91	0.71	1.91	0.75	1.89	0.76	1.88	0.67	1.95	0.55	1.90
3. Literary Response and Analysis	13	0.67	1.64	0.65	1.64	0.69	1.62	0.67	1.62	0.71	1.60	0.63	1.64
4. Written Conventions	16	0.66	1.78	0.80	1.71	0.76	1.76	0.78	1.72	0.81	1.72	0.76	1.66
5. Writing Strategies	17	0.72	1.85	0.74	1.83	0.75	1.82	0.77	1.80	0.82	1.77	0.77	1.70
<b>Grade 8</b>													
1. Word Analysis and Vocabulary Development	9	0.60	1.34	0.60	1.33	0.63	1.28	0.61	1.29	0.65	1.28	0.74	1.24
2. Reading Comprehension	18	0.73	1.93	0.68	1.96	0.71	1.93	0.73	1.91	0.67	1.98	0.76	1.90
3. Literary Response and Analysis	15	0.69	1.77	0.73	1.73	0.64	1.76	0.73	1.72	0.57	1.78	0.69	1.75
4. Written Conventions	16	0.70	1.76	0.71	1.71	0.73	1.71	0.71	1.70	0.71	1.63	0.74	1.68
5. Writing Strategies	17	0.70	1.87	0.79	1.82	0.73	1.86	0.76	1.83	0.72	1.87	0.72	1.88
<b>Grade 9</b>													
1. Word Analysis and Vocabulary Development	8	0.66	1.13	0.62	1.16	0.67	1.11	0.65	1.13	0.72	1.03	0.71	1.07
2. Reading Comprehension	18	0.73	1.87	0.73	1.90	0.70	1.86	0.73	1.87	0.70	1.85	0.74	1.87
3. Literary Response and Analysis	16	0.67	1.78	0.69	1.79	0.64	1.77	0.66	1.78	0.61	1.73	0.62	1.79
4. Written Conventions	13	0.72	1.58	0.71	1.59	0.64	1.59	0.68	1.59	0.63	1.49	0.68	1.56
5. Writing Strategies	20	0.73	2.03	0.76	2.02	0.71	2.04	0.73	2.04	0.82	1.92	0.69	2.05

Subscore Reliabilities and SEM for RLA by EL Program Participation													
Subscore Area	No. of Items	Primary language instruction and ELD and/or SDAIE instruction		ELD instruction only		SDAIE instruction only		ELD instr. and SDAIE instr. but not primary language instr.		Other EL Instruct. Services		None (EL only)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 10</b>													
1. Word Analysis and Vocabulary Development	8	0.56	1.18	0.69	1.11	0.46	1.16	0.65	1.13	0.72	1.10	0.55	1.10
2. Reading Comprehension	18	0.77	1.88	0.78	1.87	0.61	1.91	0.75	1.88	0.81	1.75	0.77	1.85
3. Literary Response and Analysis	16	0.61	1.78	0.71	1.73	0.68	1.71	0.65	1.75	0.48	1.76	0.64	1.68
4. Written Conventions	13	0.70	1.60	0.67	1.63	0.60	1.66	0.69	1.59	0.79	1.46	0.80	1.49
5. Writing Strategies	20	0.63	2.08	0.69	2.05	0.68	2.09	0.65	2.09	0.77	2.00	0.65	2.10
<b>Grade 11</b>													
1. Word Analysis and Vocabulary Development	8	0.53	1.24	0.66	1.22	0.67	1.19	0.58	1.24	0.58	1.24	0.59	1.20
2. Reading Comprehension	19	0.46	2.05	0.51	2.05	0.54	2.03	0.55	2.03	0.50	2.02	0.50	2.01
3. Literary Response and Analysis	17	0.69	1.86	0.76	1.80	0.61	1.94	0.73	1.84	0.60	1.87	0.65	1.87
4. Written Conventions	9	0.61	1.24	0.55	1.29	0.52	1.32	0.64	1.25	0.59	1.23	0.71	1.24
5. Writing Strategies	22	0.74	2.15	0.81	2.10	0.72	2.15	0.78	2.12	0.81	2.08	0.74	2.13

**Table 8.B.15 Subscore Reliabilities and SEM for Mathematics by English Learner Program Participation**

Subscore Reliabilities and SEM for Mathematics by EL Program Participation													
Subscore Area	# of Items	Primary Language Instruction and ELD and/or SDAIE Instruction		ELD Instruction Only		SDAIE Instruction Only		ELD Instr. and SDAIE Instr. but not Primary Language Instr.		Other EL Instruct. Services		None (EL only)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 2</b>													
1. Number Sense: Place Value, Addition, and Subtraction	15	0.78	1.60	0.71	1.74	0.72	1.71	0.74	1.71	0.65	1.75	0.57	1.67
2. Number Sense: Multiplication, Division, and Fractions	23	0.84	1.93	0.84	2.07	0.83	2.07	0.82	2.09	0.66	2.22	0.81	2.11
3. Algebra and Functions	6	0.60	1.05	0.46	1.11	0.55	1.09	0.50	1.10	-0.79	1.25	0.17	1.09
4. Measurement and Geometry	14	0.69	1.49	0.75	1.59	0.69	1.63	0.72	1.62	0.67	1.68	0.60	1.72
5. Statistics, Data Analysis, and Probability	7	0.59	0.97	0.58	1.13	0.55	1.15	0.57	1.14	0.51	1.02	0.50	1.15
<b>Grade 3</b>													
1. Number Sense: Place Value, Fractions, and Decimals	16	0.76	1.56	0.79	1.64	0.75	1.69	0.78	1.68	0.69	1.69	0.66	1.63
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.83	1.56	0.83	1.71	0.84	1.67	0.83	1.68	0.79	1.64	0.78	1.67
3. Algebra and Functions	12	0.76	1.43	0.78	1.47	0.77	1.47	0.75	1.47	0.76	1.43	0.72	1.48
4. Measurement and Geometry	16	0.71	1.56	0.77	1.67	0.67	1.74	0.72	1.72	0.46	1.74	0.84	1.56
5. Statistics, Data Analysis, and Probability	5	0.54	0.80	0.59	0.93	0.58	0.94	0.50	0.97	0.56	0.90	0.47	0.90
<b>Grade 4</b>													
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.74	1.71	0.76	1.79	0.74	1.79	0.75	1.76	0.79	1.73	0.78	1.71
2. Number Sense: Operations and Factoring	14	0.80	1.58	0.76	1.64	0.77	1.65	0.73	1.67	0.81	1.61	0.69	1.68
3. Algebra and Functions	18	0.88	1.58	0.87	1.78	0.87	1.77	0.87	1.78	0.92	1.56	0.91	1.70
4. Measurement and Geometry	12	0.72	1.39	0.76	1.49	0.71	1.48	0.71	1.49	0.71	1.34	0.77	1.44
5. Statistics, Data Analysis, and Probability	4	0.35	0.83	0.44	0.87	0.36	0.87	0.28	0.88	0.33	0.87	0.41	0.87

Subscore Reliabilities and SEM for Mathematics by EL Program Participation													
Subscore Area	# of Items	Primary Language Instruction and ELD and/or SDAIE Instruction		ELD Instruction Only		SDAIE Instruction Only		ELD Instr. and SDAIE Instr. but not Primary Language Instr.		Other EL Instruct. Services		None (EL only)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Grade 5</b>													
1. Number Sense: Estimation, Percents, and Factoring	12	0.62	1.45	0.53	1.55	0.47	1.57	0.57	1.54	0.63	1.47	0.30	1.58
2. Number Sense: Operations with Fractions and Decimals	17	0.72	1.88	0.70	1.86	0.67	1.92	0.74	1.86	0.83	1.75	0.77	1.85
3. Algebra and Functions	17	0.79	1.75	0.71	1.89	0.75	1.87	0.76	1.86	0.76	1.87	0.65	1.89
4. Measurement and Geometry	15	0.65	1.80	0.61	1.79	0.66	1.79	0.60	1.80	0.79	1.74	0.68	1.76
5. Statistics, Data Analysis, and Probability	4	0.35	0.91	0.19	0.93	0.30	0.92	0.41	0.89	0.53	0.86	-1.26	0.95
<b>Grade 6</b>													
1. Number Sense: Ratios, Proportions, Percentages, and Negative Numbers	15	0.72	1.70	0.78	1.70	0.81	1.66	0.78	1.69	0.61	1.83	0.82	1.67
2. Number Sense: Operations with Problem Solving with Fractions	10	0.62	1.43	0.69	1.42	0.73	1.37	0.64	1.43	0.69	1.42	0.78	1.34
3. Algebra and Functions	19	0.79	1.87	0.84	1.88	0.81	1.89	0.82	1.90	0.78	1.91	0.81	1.93
4. Measurement and Geometry	10	0.58	1.45	0.61	1.42	0.42	1.43	0.58	1.42	-0.48	1.48	0.68	1.40
5. Statistics, Data Analysis, and Probability	11	0.60	1.51	0.69	1.48	0.67	1.48	0.66	1.49	0.43	1.58	0.61	1.55
<b>Grade 7</b>													
1. Number Sense: Rational Numbers	14	0.59	1.76	0.62	1.76	0.54	1.76	0.64	1.73	0.54	1.80	0.64	1.74
2. Number Sense: Exponent, Powers, and Roots	8	0.57	1.21	0.45	1.26	0.55	1.21	0.60	1.19	0.56	1.22	0.47	1.19
3. Algebra and Functions: Quantitative Relationships, and Evaluating Expressions	10	0.54	1.43	0.41	1.45	0.52	1.41	0.55	1.41	0.30	1.47	0.36	1.44

<b>Subscore Reliabilities and SEM for Mathematics by EL Program Participation</b>													
<b>Subscore Area</b>	<b># of Items</b>	<b>Primary Language Instruction and ELD and/or SDAIE Instruction</b>		<b>ELD Instruction Only</b>		<b>SDAIE Instruction Only</b>		<b>ELD Instr. and SDAIE Instr. but not Primary Language Instr.</b>		<b>Other EL Instruct. Services</b>		<b>None (EL only)</b>	
		<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>	<b>Reliab.</b>	<b>SEM</b>
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.69	1.76	0.73	1.73	0.70	1.74	0.74	1.73	0.66	1.77	0.68	1.74
5. Measurement and Geometry	13	0.61	1.66	0.57	1.66	0.59	1.68	0.67	1.64	0.46	1.73	0.59	1.63
6. Statistics, Data Analysis, and Probability	5	0.44	1.02	0.42	1.03	0.42	1.02	0.46	1.01	0.19	1.09	0.47	1.01
<b>Algebra I</b>													
1. Number Properties, Operations, and Linear Equations	17	0.68	1.87	0.73	1.85	0.70	1.86	0.72	1.86	0.79	1.79	0.76	1.84
2. Graphing and Systems of Linear Equations	14	0.59	1.69	0.61	1.70	0.55	1.71	0.59	1.69	0.69	1.69	0.73	1.63
3. Quadratics and Polynomials	21	0.72	2.08	0.77	2.07	0.79	2.05	0.77	2.06	0.81	2.03	0.79	2.04
4. Functions and Rational Expressions	13	0.33	1.60	0.45	1.56	0.36	1.57	0.34	1.60	0.19	1.70	0.09	1.64
<b>Geometry</b>													
1. Logic and Geometric Proofs	23	0.78	2.09	0.76	2.03	0.78	2.15	0.77	2.13	0.67	2.17	–	–
2. Volume and Area Formulas	11	0.65	1.41	0.62	1.46	0.63	1.43	0.61	1.46	0.57	1.42	–	–
3. Angle Relationships, Constructions, and Lines	16	0.74	1.78	0.69	1.77	0.62	1.82	0.74	1.77	0.58	1.83	–	–
4. Trigonometry	15	0.70	1.73	0.67	1.76	0.69	1.71	0.68	1.72	0.56	1.68	–	–

**Table 8.B.16 Subscore Reliabilities and SEM for Grade-specific Tests by English Learner Program Participation**

Subscore Reliabilities and SEM for Grade Specific Tests by EL Program Participation													
Subscore Area	No. of Items	Primary Language Instruction and ELD and/or SDAIE Instruction		ELD Instruction Only		SDAIE Instruction Only		ELD Instr. and SDAIE Instr. but not Primary Language Instr.		Other EL Instruct. Services		None (EL only)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
<b>Algebra I – 8</b>													
1. Number Properties, Operations, and Linear Equations	17	0.69	1.88	0.73	1.82	0.73	1.84	0.72	1.85	–	–	–	–
2. Graphing and Systems of Linear Equations	14	0.53	1.71	0.47	1.67	0.55	1.72	0.61	1.67	–	–	–	–
3. Quadratics and Polynomials	21	0.72	2.08	0.78	2.03	0.82	2.02	0.74	2.09	–	–	–	–
4. Functions and Rational Expressions	13	0.40	1.62	0.45	1.50	0.45	1.49	0.32	1.58	–	–	–	–
<b>Geometry – 9</b>													
1. Logic and Geometric Proofs	23	0.83	1.95	–	–	–	–	0.66	2.22	–	–	–	–
2. Volume and Area Formulas	11	0.67	1.38	–	–	–	–	0.58	1.45	–	–	–	–
3. Angle Relationships, Constructions, and Lines	16	0.76	1.73	–	–	–	–	0.67	1.81	–	–	–	–
4. Trigonometry	15	0.70	1.76	–	–	–	–	0.32	1.82	–	–	–	–

**Table 8.B.17 Reliability of Classification for RLA, Grade Two**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–16	0.04	0.02	0.00	0.00	0.00	0.06
	17–33	0.01	0.27	0.04	0.00	0.00	0.33
	34–47	0.00	0.02	0.26	0.02	0.00	0.30
<b>All-forms Average</b>	48–54	0.00	0.01	0.04	0.10	0.02	0.17
	55–65	0.00	0.00	0.00	0.03	0.11	0.14
<b>Estimated Proportion Correctly Classified: Total = 0.78, Proficient &amp; Above = 0.93</b>							
<b>Decision Consistency</b>	0–16	0.04	0.02	0.00	0.00	0.00	0.06
	17–33	0.03	0.25	0.05	0.00	0.00	0.33
	34–47	0.00	0.04	0.22	0.03	0.00	0.30
<b>Alternate Form</b>	48–54	0.00	0.01	0.05	0.08	0.03	0.17
	55–65	0.00	0.00	0.00	0.03	0.11	0.14
<b>Estimated Proportion Consistently Classified: Total = 0.70, Proficient &amp; Above = 0.90</b>							

**Table 8.B.18 Reliability of Classification for RLA, Grade Three**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–17	0.02	0.03	0.00	0.00	0.00	0.05
	18–30	0.01	0.22	0.04	0.00	0.00	0.27
	31–43	0.00	0.04	0.26	0.03	0.00	0.33
<b>All-forms Average</b>	44–52	0.00	0.00	0.04	0.15	0.02	0.21
	53–65	0.00	0.00	0.00	0.03	0.11	0.14
<b>Estimated Proportion Correctly Classified: Total = 0.76, Proficient &amp; Above = 0.93</b>							
<b>Decision Consistency</b>	0–17	0.02	0.03	0.00	0.00	0.00	0.05
	18–30	0.03	0.19	0.05	0.00	0.00	0.27
	31–43	0.00	0.05	0.22	0.05	0.00	0.33
<b>Alternate Form</b>	44–52	0.00	0.00	0.05	0.12	0.03	0.21
	53–65	0.00	0.00	0.00	0.03	0.10	0.14
<b>Estimated Proportion Consistently Classified: Total = 0.66, Proficient &amp; Above = 0.90</b>							

**Table 8.B.19 Reliability of Classification for RLA, Grade Four**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–22	0.08	0.03	0.00	0.00	0.00	0.11
	23–35	0.02	0.19	0.03	0.00	0.00	0.24
	36–51	0.00	0.03	0.27	0.03	0.00	0.33
<b>All-forms Average</b>	52–60	0.00	0.00	0.04	0.13	0.03	0.19
	61–75	0.00	0.00	0.00	0.02	0.11	0.13
<b>Estimated Proportion Correctly Classified: Total = 0.76, Proficient &amp; Above = 0.93</b>							
<b>Decision Consistency</b>	0–22	0.07	0.04	0.00	0.00	0.00	0.11
	23–35	0.03	0.16	0.04	0.00	0.00	0.24
	36–51	0.00	0.05	0.24	0.04	0.00	0.33
<b>Alternate Form</b>	52–60	0.00	0.00	0.05	0.10	0.04	0.19
	61–75	0.00	0.00	0.00	0.03	0.10	0.13
<b>Estimated Proportion Consistently Classified: Total = 0.67, Proficient &amp; Above = 0.90</b>							

**Table 8.B.20 Reliability of Classification for RLA, Grade Five**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–26	0.16	0.04	0.00	0.00	0.00	0.20
	27–33	0.04	0.09	0.04	0.00	0.00	0.18
	34–46	0.00	0.04	0.22	0.03	0.00	0.28
<b>All-forms Average</b>	47–57	0.00	0.00	0.04	0.14	0.02	0.20
	58–75	0.00	0.00	0.00	0.03	0.10	0.14
<b>Estimated Proportion Correctly Classified: Total = 0.72, Proficient &amp; Above = 0.93</b>							
<b>Decision Consistency</b>	0–26	0.15	0.05	0.01	0.00	0.00	0.20
	27–33	0.05	0.07	0.05	0.00	0.00	0.18
	34–46	0.01	0.05	0.18	0.05	0.00	0.28
<b>Alternate Form</b>	47–57	0.00	0.00	0.05	0.12	0.03	0.20
	58–75	0.00	0.00	0.00	0.03	0.10	0.14
<b>Estimated Proportion Consistently Classified: Total = 0.62, Proficient &amp; Above = 0.90</b>							

**Table 8.B.21 Reliability of Classification for RLA, Grade Six**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–24	0.10	0.04	0.00	0.00	0.00	0.14
	25–33	0.03	0.12	0.04	0.00	0.00	0.19
	34–46	0.00	0.04	0.22	0.04	0.00	0.29
<b>All-forms Average</b>	47–57	0.00	0.00	0.04	0.16	0.03	0.23
	58–75	0.00	0.00	0.00	0.03	0.12	0.15
<b>Estimated Proportion Correctly Classified: Total = 0.72, Proficient &amp; Above = 0.92</b>							
<b>Decision Consistency</b>	0–24	0.09	0.04	0.01	0.00	0.00	0.14
	25–33	0.04	0.10	0.05	0.00	0.00	0.19
	34–46	0.00	0.05	0.18	0.05	0.00	0.29
<b>Alternate Form</b>	47–57	0.00	0.00	0.05	0.14	0.04	0.23
	58–75	0.00	0.00	0.00	0.03	0.12	0.15
<b>Estimated Proportion Consistently Classified: Total = 0.62, Proficient &amp; Above = 0.89</b>							

**Table 8.B.22 Reliability of Classification for RLA, Grade Seven**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–23	0.06	0.03	0.00	0.00	0.00	0.10
	24–35	0.02	0.18	0.04	0.00	0.00	0.25
	36–48	0.00	0.03	0.21	0.03	0.00	0.28
<b>All-forms Average</b>	49–59	0.00	0.00	0.04	0.17	0.02	0.23
	60–75	0.00	0.00	0.00	0.03	0.12	0.15
<b>Estimated Proportion Correctly Classified: Total = 0.74, Proficient &amp; Above = 0.93</b>							
<b>Decision Consistency</b>	0–23	0.06	0.04	0.00	0.00	0.00	0.10
	24–35	0.04	0.15	0.05	0.00	0.00	0.25
	36–48	0.00	0.05	0.18	0.05	0.00	0.28
<b>Alternate Form</b>	49–59	0.00	0.00	0.05	0.14	0.04	0.23
	60–75	0.00	0.00	0.00	0.03	0.11	0.15
<b>Estimated Proportion Consistently Classified: Total = 0.65, Proficient &amp; Above = 0.90</b>							

**Table 8.B.23 Reliability of Classification for RLA, Grade Eight**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–21	0.03	0.03	0.00	0.00	0.00	0.06
	22–34	0.01	0.20	0.04	0.00	0.00	0.25
	35–48	0.00	0.03	0.26	0.03	0.00	0.33
<b>All-forms Average</b>	49–59	0.00	0.00	0.04	0.18	0.02	0.25
	60–75	0.00	0.00	0.00	0.02	0.09	0.11
<b>Estimated Proportion Correctly Classified: Total = 0.76, Proficient &amp; Above = 0.92</b>							
<b>Decision Consistency</b>	0–21	0.03	0.03	0.00	0.00	0.00	0.06
	22–34	0.03	0.17	0.05	0.00	0.00	0.25
	35–48	0.00	0.05	0.23	0.05	0.00	0.33
<b>Alternate Form</b>	49–59	0.00	0.00	0.05	0.15	0.04	0.25
	60–75	0.00	0.00	0.00	0.03	0.09	0.11
<b>Estimated Proportion Consistently Classified: Total = 0.67, Proficient &amp; Above = 0.89</b>							

**Table 8.B.24 Reliability of Classification for RLA, Grade Nine**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–22	0.05	0.03	0.00	0.00	0.00	0.08
	23–35	0.02	0.21	0.04	0.00	0.00	0.26
	36–48	0.00	0.04	0.26	0.04	0.00	0.33
<b>All-forms Average</b>	49–58	0.00	0.00	0.04	0.16	0.02	0.22
	59–75	0.00	0.00	0.00	0.03	0.07	0.10
<b>Estimated Proportion Correctly Classified: Total = 0.75, Proficient &amp; Above = 0.92</b>							
<b>Decision Consistency</b>	0–22	0.05	0.03	0.00	0.00	0.00	0.08
	23–35	0.03	0.18	0.06	0.00	0.00	0.26
	36–48	0.00	0.06	0.22	0.05	0.00	0.33
<b>Alternate Form</b>	49–58	0.00	0.00	0.05	0.13	0.03	0.22
	59–75	0.00	0.00	0.00	0.03	0.07	0.10
<b>Estimated Proportion Consistently Classified: Total = 0.65, Proficient &amp; Above = 0.89</b>							

**Table 8.B.25 Reliability of Classification for RLA, Grade Ten**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–22	0.04	0.02	0.00	0.00	0.00	0.07
	23–36	0.01	0.20	0.04	0.00	0.00	0.24
	37–48	0.00	0.04	0.24	0.04	0.00	0.32
<b>All-forms Average</b>	49–58	0.00	0.00	0.05	0.19	0.02	0.26
	59–75	0.00	0.00	0.00	0.04	0.07	0.11
<b>Estimated Proportion Correctly Classified: Total = 0.74, Proficient &amp; Above = 0.91</b>							
<b>Decision Consistency</b>	0–22	0.04	0.03	0.00	0.00	0.00	0.07
	23–36	0.02	0.17	0.05	0.00	0.00	0.24
	37–48	0.00	0.06	0.20	0.06	0.00	0.32
<b>Alternate Form</b>	49–58	0.00	0.00	0.06	0.15	0.04	0.26
	59–75	0.00	0.00	0.00	0.04	0.07	0.11
<b>Estimated Proportion Consistently Classified: Total = 0.63, Proficient &amp; Above = 0.87</b>							

**Table 8.B.26 Reliability of Classification for RLA, Grade Eleven**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–24	0.07	0.03	0.00	0.00	0.00	0.10
	25–38	0.02	0.24	0.04	0.00	0.00	0.30
	39–49	0.00	0.04	0.22	0.04	0.00	0.30
<b>All-forms Average</b>	50–58	0.00	0.00	0.04	0.15	0.02	0.22
	59–75	0.00	0.00	0.00	0.03	0.06	0.09
<b>Estimated Proportion Correctly Classified: Total = 0.73, Proficient &amp; Above = 0.91</b>							
<b>Decision Consistency</b>	0–24	0.06	0.03	0.00	0.00	0.00	0.10
	25–38	0.03	0.21	0.06	0.00	0.00	0.30
	39–49	0.00	0.06	0.18	0.06	0.00	0.30
<b>Alternate Form</b>	50–58	0.00	0.00	0.06	0.12	0.04	0.22
	59–75	0.00	0.00	0.00	0.03	0.05	0.09
<b>Estimated Proportion Consistently Classified: Total = 0.62, Proficient &amp; Above = 0.88</b>							

**Table 8.B.27 Reliability of Classification for Mathematics, Grade Two**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–16	0.01	0.01	0.00	0.00	0.00	0.02
	17–33	0.00	0.20	0.04	0.00	0.00	0.24
	34–44	0.00	0.03	0.20	0.04	0.00	0.26
<b>All-forms Average</b>	45–55	0.00	0.00	0.04	0.23	0.02	0.30
	56–65	0.00	0.00	0.00	0.04	0.15	0.18
<b>Estimated Proportion Correctly Classified: Total = 0.78, Proficient &amp; Above = 0.92</b>							
<b>Decision Consistency</b>	0–16	0.01	0.01	0.00	0.00	0.00	0.02
	17–33	0.01	0.18	0.05	0.00	0.00	0.24
	34–44	0.00	0.05	0.16	0.05	0.00	0.26
<b>Alternate Form</b>	45–55	0.00	0.00	0.05	0.20	0.04	0.30
	56–65	0.00	0.00	0.00	0.04	0.14	0.18
<b>Estimated Proportion Consistently Classified: Total = 0.69, Proficient &amp; Above = 0.89</b>							

**Table 8.B.28 Reliability of Classification for Mathematics, Grade Three**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–17	0.01	0.02	0.00	0.00	0.00	0.03
	18–32	0.01	0.20	0.03	0.00	0.00	0.24
	33–43	0.00	0.03	0.18	0.04	0.00	0.25
<b>All-forms Average</b>	44–54	0.00	0.00	0.04	0.21	0.02	0.27
	55–65	0.00	0.00	0.00	0.03	0.18	0.21
<b>Estimated Proportion Correctly Classified: Total = 0.78, Proficient &amp; Above = 0.93</b>							
<b>Decision Consistency</b>	0–17	0.01	0.02	0.00	0.00	0.00	0.03
	18–32	0.02	0.18	0.04	0.00	0.00	0.24
	33–43	0.00	0.05	0.16	0.05	0.00	0.25
<b>Alternate Form</b>	44–54	0.00	0.00	0.05	0.18	0.04	0.27
	55–65	0.00	0.00	0.00	0.04	0.17	0.21
<b>Estimated Proportion Consistently Classified: Total = 0.69, Proficient &amp; Above = 0.90</b>							

**Table 8.B.29 Reliability of Classification for Mathematics, Grade Four**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–19	0.04	0.03	0.00	0.00	0.00	0.06
	20–31	0.02	0.17	0.04	0.00	0.00	0.23
	32–42	0.00	0.03	0.18	0.03	0.00	0.25
<b>All-forms Average</b>	43–54	0.00	0.00	0.04	0.23	0.03	0.30
	55–65	0.00	0.00	0.00	0.03	0.14	0.17
<b>Estimated Proportion Correctly Classified: Total = 0.76, Proficient &amp; Above = 0.92</b>							
<b>Decision Consistency</b>	0–19	0.03	0.03	0.00	0.00	0.00	0.06
	20–31	0.03	0.15	0.05	0.00	0.00	0.23
	32–42	0.00	0.05	0.15	0.05	0.00	0.25
<b>Alternate Form</b>	43–54	0.00	0.00	0.05	0.20	0.04	0.30
	55–65	0.00	0.00	0.00	0.04	0.13	0.17
<b>Estimated Proportion Consistently Classified: Total = 0.67, Proficient &amp; Above = 0.90</b>							

**Table 8.B.30 Reliability of Classification for Mathematics, Grade Five**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–21	0.09	0.05	0.00	0.00	0.00	0.14
	22–29	0.04	0.15	0.05	0.00	0.00	0.23
	30–37	0.00	0.05	0.13	0.04	0.00	0.21
<b>All-forms Average</b>	38–46	0.00	0.00	0.05	0.14	0.02	0.21
	47–65	0.00	0.00	0.00	0.03	0.17	0.20
<b>Estimated Proportion Correctly Classified: Total = 0.68, Proficient &amp; Above = 0.91</b>							
<b>Decision Consistency</b>	0–21	0.08	0.05	0.01	0.00	0.00	0.14
	22–29	0.05	0.12	0.06	0.01	0.00	0.24
	30–37	0.01	0.05	0.10	0.05	0.00	0.22
<b>Alternate Form</b>	38–46	0.00	0.01	0.05	0.11	0.04	0.21
	47–65	0.00	0.00	0.00	0.04	0.16	0.20
<b>Estimated Proportion Consistently Classified: Total = 0.57, Proficient &amp; Above = 0.88</b>							

**Table 8.B.31 Reliability of Classification for Mathematics, Grade Six**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–20	0.14	0.04	0.01	0.00	0.00	0.19
	21–28	0.03	0.12	0.06	0.01	0.01	0.23
	29–37	0.00	0.03	0.15	0.04	0.00	0.23
<b>All-forms Average</b>	38–46	0.00	0.00	0.03	0.12	0.01	0.16
	47–65	0.00	0.00	0.01	0.04	0.14	0.19
<b>Estimated Proportion Correctly Classified: Total = 0.68, Proficient &amp; Above = 0.90</b>							
<b>Decision Consistency</b>	0–20	0.14	0.04	0.01	0.00	0.00	0.19
	21–28	0.05	0.10	0.06	0.01	0.01	0.23
	29–37	0.00	0.05	0.12	0.05	0.00	0.23
<b>Alternate Form</b>	38–46	0.00	0.00	0.04	0.10	0.03	0.16
	47–65	0.00	0.00	0.01	0.05	0.13	0.19
<b>Estimated Proportion Consistently Classified: Total = 0.58, Proficient &amp; Above = 0.87</b>							

**Table 8.B.32 Reliability of Classification for Mathematics, Grade Seven**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–20	0.15	0.04	0.00	0.00	0.00	0.19
	21–27	0.04	0.15	0.08	0.02	0.01	0.28
	28–36	0.00	0.04	0.20	0.04	0.00	0.28
	37–47	0.00	0.00	0.02	0.14	0.00	0.16
<b>All-forms Average</b>	48–65	0.00	0.00	0.01	0.03	0.04	0.08
	<b>Estimated Proportion Correctly Classified: Total = 0.68, Proficient &amp; Above = 0.91</b>						
<b>Decision Consistency</b>	0–20	0.14	0.04	0.01	0.00	0.00	0.19
	21–27	0.06	0.12	0.08	0.02	0.01	0.28
	28–36	0.00	0.06	0.16	0.06	0.00	0.28
	37–47	0.00	0.00	0.04	0.12	0.01	0.16
<b>Alternate Form</b>	48–65	0.00	0.00	0.01	0.03	0.04	0.08
	<b>Estimated Proportion Consistently Classified: Total = 0.58, Proficient &amp; Above = 0.87</b>						

**Table 8.B.33 Reliability of Classification for Algebra I**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–20	0.26	0.08	0.02	0.01	0.00	0.36
	21–26	0.04	0.14	0.07	0.01	0.00	0.26
	27–37	0.00	0.02	0.21	0.00	0.00	0.24
	38–47	0.00	0.00	0.04	0.07	0.00	0.11
<b>All-forms Average</b>	48–65	0.00	0.01	0.01	0.02	0.01	0.04
	<b>Estimated Proportion Correctly Classified: Total = 0.69, Proficient &amp; Above = 0.93</b>						
<b>Decision Consistency</b>	0–20	0.25	0.08	0.03	0.01	0.00	0.36
	21–26	0.07	0.10	0.08	0.01	0.00	0.26
	27–37	0.00	0.04	0.17	0.02	0.00	0.24
	38–47	0.00	0.00	0.04	0.06	0.01	0.11
<b>Alternate Form</b>	48–65	0.00	0.01	0.01	0.01	0.01	0.04
	<b>Estimated Proportion Consistently Classified: Total = 0.60, Proficient &amp; Above = 0.90</b>						

**Table 8.B.34 Reliability of Classification for Geometry**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–19	0.15	0.04	0.00	0.00	0.00	0.20
	20–26	0.04	0.16	0.08	0.03	0.01	0.32
	27–34	0.00	0.02	0.16	0.03	0.00	0.21
	35–46	0.00	0.00	0.02	0.17	0.00	0.19
<b>All-forms Average</b>	47–65	0.00	0.00	0.01	0.03	0.04	0.08
	<b>Estimated Proportion Correctly Classified: Total = 0.68, Proficient &amp; Above = 0.91</b>						
<b>Decision Consistency</b>	0–19	0.15	0.05	0.00	0.00	0.00	0.20
	20–26	0.06	0.13	0.09	0.03	0.01	0.32
	27–34	0.00	0.04	0.12	0.05	0.00	0.21
	35–46	0.00	0.00	0.04	0.15	0.01	0.19
<b>Alternate Form</b>	47–65	0.00	0.00	0.01	0.03	0.05	0.08
	<b>Estimated Proportion Consistently Classified: Total = 0.59, Proficient &amp; Above = 0.87</b>						

**Table 8.B.35 Reliability of Classification for Algebra I – Grade 8**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–19	0.25	0.07	0.02	0.00	0.00	0.34
	20–25	0.05	0.15	0.08	0.01	0.00	0.29
	26–36	0.00	0.02	0.21	0.00	0.00	0.23
	37–46	0.00	0.00	0.04	0.07	0.00	0.11
<b>All-forms Average</b>	47–65	0.00	0.01	0.01	0.02	0.01	0.04
	<b>Estimated Proportion Correctly Classified: Total = 0.68, Proficient &amp; Above = 0.93</b>						
<b>Decision Consistency</b>	0–19	0.24	0.07	0.03	0.01	0.00	0.34
	20–25	0.07	0.11	0.09	0.01	0.00	0.29
	26–36	0.00	0.04	0.17	0.02	0.00	0.23
	37–46	0.00	0.00	0.04	0.06	0.00	0.11
<b>Alternate Form</b>	47–65	0.00	0.01	0.01	0.01	0.01	0.04
	<b>Estimated Proportion Consistently Classified: Total = 0.59, Proficient &amp; Above = 0.90</b>						

**Table 8.B.36 Reliability of Classification for Geometry – Grade 9**

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
<b>Decision Accuracy</b>	0–19	0.22	0.07	0.02	0.01	0.00	0.31
	20–26	0.03	0.16	0.07	0.01	0.00	0.27
	27–34	0.00	0.00	0.12	0.00	0.00	0.13
	35–46	0.00	0.00	0.05	0.17	0.01	0.23
<b>All-forms Average</b>	47–65	0.00	0.00	0.00	0.02	0.03	0.06
	<b>Estimated Proportion Correctly Classified: Total = 0.70, Proficient &amp; Above = 0.91</b>						
<b>Decision Consistency</b>	0–19	0.21	0.07	0.02	0.01	0.00	0.31
	20–26	0.05	0.13	0.07	0.02	0.00	0.27
	27–34	0.00	0.02	0.09	0.02	0.00	0.13
	35–46	0.00	0.01	0.06	0.15	0.02	0.23
<b>Alternate Form</b>	47–65	0.00	0.00	0.00	0.02	0.03	0.06
	<b>Estimated Proportion Consistently Classified: Total = 0.60, Proficient &amp; Above = 0.88</b>						

## Appendix 8.C—Validity Analyses

Note that while the correlations are reported only for samples that comprise 11 or more examinees, results based on samples that contain 50 or fewer examinees should be interpreted with caution due to small sample sizes. Correlations between scores on any two content-area tests where 10 or fewer examinees took the tests are expressed as hyphens. Correlations between scores on two content-area tests that cannot be administered together to the same group of students are expressed as “N/A.”

Table 8.C.1 STS Content Area Correlations (Female)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	4,370	0.74	
	2. Mathematics	4,347	4,364	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	3,067	0.77	
	2. Mathematics	3,050	3,057	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	1,932	0.74	
	2. Mathematics	1,924	1,927	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	1,296	0.60	
	2. Mathematics	1,285	1,289	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	806	0.64	
	2. Mathematics	789	791	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	685	0.68	0.13
	2. Mathematics	645	646	N/A
	3. Algebra I	13	N/A	13
Grade	STS	1.	2.	
8	1. Reading/Language Arts	530	0.54	
	2. Algebra I	175	175	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	806	0.54	0.77
	2. Algebra I	523	529	N/A
	3. Geometry	23	N/A	23
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	515	0.55	0.60
	2. Algebra I	286	289	N/A
	3. Geometry	78	N/A	79
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	274	0.60	0.53
	2. Algebra I	129	129	N/A
	3. Geometry	40	N/A	40

**Table 8.C.2 STS Content Area Correlations (Male)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>4,475</b>	0.75	
	<b>2. Mathematics</b>	4,452	<b>4,476</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>3,182</b>	0.77	
	<b>2. Mathematics</b>	3,157	<b>3,176</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>1,963</b>	0.70	
	<b>2. Mathematics</b>	1,945	<b>1,950</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>1,446</b>	0.64	
	<b>2. Mathematics</b>	1,435	<b>1,438</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>916</b>	0.69	
	<b>2. Mathematics</b>	899	<b>901</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>725</b>	0.71	–
	<b>2. Mathematics</b>	701	<b>701</b>	N/A
	<b>3. Algebra I</b>	5	N/A	<b>5</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>549</b>	0.5	
	<b>2. Algebra I</b>	222	<b>222</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>1,166</b>	0.60	0.41
	<b>2. Algebra I</b>	765	<b>772</b>	N/A
	<b>3. Geometry</b>	25	N/A	<b>25</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>659</b>	0.53	0.61
	<b>2. Algebra I</b>	361	<b>365</b>	N/A
	<b>3. Geometry</b>	89	N/A	<b>90</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>392</b>	0.54	0.70
	<b>2. Algebra I</b>	180	<b>181</b>	N/A
	<b>3. Geometry</b>	59	N/A	<b>60</b>

**Table 8.C.3 STS Content Area Correlations (Not Economically Disadvantaged)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>556</b>	0.76	
	<b>2. Mathematics</b>	551	<b>552</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>432</b>	0.76	
	<b>2. Mathematics</b>	427	<b>428</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>275</b>	0.74	
	<b>2. Mathematics</b>	272	<b>272</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>219</b>	0.67	
	<b>2. Mathematics</b>	213	<b>214</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>194</b>	0.74	
	<b>2. Mathematics</b>	193	<b>195</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>181</b>	0.71	–
	<b>2. Mathematics</b>	173	<b>173</b>	N/A
	<b>3. Algebra I</b>	0	N/A	N/A
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>134</b>	0.46	
	<b>2. Algebra I</b>	47	<b>47</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>327</b>	0.60	0.22
	<b>2. Algebra I</b>	231	<b>235</b>	N/A
	<b>3. Geometry</b>	17	N/A	<b>17</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>205</b>	0.58	0.59
	<b>2. Algebra I</b>	104	<b>104</b>	N/A
	<b>3. Geometry</b>	31	N/A	<b>31</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>127</b>	0.58	0.60
	<b>2. Algebra I</b>	60	<b>60</b>	N/A
	<b>3. Geometry</b>	17	N/A	<b>17</b>

**Table 8.C.4 STS Content Area Correlations (Economically Disadvantaged)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>8,120</b>	0.74	
	<b>2. Mathematics</b>	8,079	<b>8,118</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>5,745</b>	0.76	
	<b>2. Mathematics</b>	5,709	<b>5,732</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>3,545</b>	0.71	
	<b>2. Mathematics</b>	3,522	<b>3,528</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>2,460</b>	0.62	
	<b>2. Mathematics</b>	2,444	<b>2,450</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>1,501</b>	0.64	
	<b>2. Mathematics</b>	1,469	<b>1,471</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>1,163</b>	0.69	-0.03
	<b>2. Mathematics</b>	1,111	<b>1,112</b>	N/A
	<b>3. Algebra I</b>	16	N/A	<b>16</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>887</b>	0.57	
	<b>2. Algebra I</b>	304	<b>304</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>1,619</b>	0.58	0.73
	<b>2. Algebra I</b>	1,039	<b>1,047</b>	N/A
	<b>3. Geometry</b>	31	N/A	<b>31</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>937</b>	0.54	0.62
	<b>2. Algebra I</b>	525	<b>531</b>	N/A
	<b>3. Geometry</b>	135	N/A	<b>137</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>518</b>	0.56	0.66
	<b>2. Algebra I</b>	239	<b>240</b>	N/A
	<b>3. Geometry</b>	81	N/A	<b>82</b>

**Table 8.C.5 STS Content Area Correlations (Economic Status unknown)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>178</b>	0.76	
	<b>2. Mathematics</b>	178	<b>181</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>82</b>	0.80	
	<b>2. Mathematics</b>	81	<b>83</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>83</b>	0.77	
	<b>2. Mathematics</b>	83	<b>85</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>64</b>	0.55	
	<b>2. Mathematics</b>	64	<b>64</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>30</b>	0.63	
	<b>2. Mathematics</b>	29	<b>29</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>70</b>	0.60	–
	<b>2. Mathematics</b>	66	<b>66</b>	N/A
	<b>3. Algebra I</b>	2	N/A	<b>2</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>62</b>	0.24	
	<b>2. Algebra I</b>	47	<b>47</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>34</b>	0.34	–
	<b>2. Algebra I</b>	24	<b>25</b>	N/A
	<b>3. Geometry</b>	0	N/A	<b>0</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>35</b>	0.19	–
	<b>2. Algebra I</b>	18	<b>19</b>	N/A
	<b>3. Geometry</b>	2	N/A	<b>2</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>24</b>	–	–
	<b>2. Algebra I</b>	10	<b>10</b>	N/A
	<b>3. Geometry</b>	3	N/A	<b>3</b>

**Table 8.C.6 STS Content Area Correlations (In U.S. Schools  $\geq$  12 Months)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>7,472</b>	0.72	
	<b>2. Mathematics</b>	7,438	<b>7,467</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>4,975</b>	0.75	
	<b>2. Mathematics</b>	4,944	<b>4,961</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>2,741</b>	0.70	
	<b>2. Mathematics</b>	2,723	<b>2,729</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>1,635</b>	0.60	
	<b>2. Mathematics</b>	1,619	<b>1,626</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>672</b>	0.61	
	<b>2. Mathematics</b>	647	<b>647</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>238</b>	0.61	–
	<b>2. Mathematics</b>	214	<b>214</b>	N/A
	<b>3. Algebra I</b>	10	N/A	<b>10</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>179</b>	0.47	
	<b>2. Algebra I</b>	97	<b>97</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>55</b>	0.56	–
	<b>2. Algebra I</b>	31	<b>32</b>	N/A
	<b>3. Geometry</b>	3	N/A	<b>3</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>53</b>	0.55	0.45
	<b>2. Algebra I</b>	20	<b>21</b>	N/A
	<b>3. Geometry</b>	16	N/A	<b>16</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>32</b>	0.45	–
	<b>2. Algebra I</b>	11	<b>11</b>	N/A
	<b>3. Geometry</b>	9	N/A	<b>9</b>

Table 8.C.7 STS Content Area Correlations (In U.S. Schools &lt; 12 Months)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	1,382	0.72	
	2. Mathematics	1,370	1,384	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	1,284	0.78	
	2. Mathematics	1,273	1,282	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	1,162	0.76	
	2. Mathematics	1,154	1,156	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	1,108	0.70	
	2. Mathematics	1,102	1,102	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	1,053	0.74	
	2. Mathematics	1,044	1,048	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,176	0.71	–
	2. Mathematics	1,136	1,137	N/A
	3. Algebra I	8	N/A	8
Grade	STS	1.	2.	
8	1. Reading/Language Arts	904	0.57	
	2. Algebra I	301	301	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	1,925	0.58	0.50
	2. Algebra I	1,263	1,275	N/A
	3. Geometry	45	N/A	45
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	1,124	0.54	0.62
	2. Algebra I	627	633	N/A
	3. Geometry	152	N/A	154
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	637	0.57	0.65
	2. Algebra I	298	299	N/A
	3. Geometry	92	N/A	93

**Table 8.C.8 STS Content Area Correlations (Primary Language Instruction and ELD and/or SDAIE Instruction)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>7,921</b>	0.73	
	<b>2. Mathematics</b>	7,885	<b>7,915</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>5,334</b>	0.75	
	<b>2. Mathematics</b>	5,302	<b>5,321</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>3,017</b>	0.70	
	<b>2. Mathematics</b>	2,998	<b>3,004</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>1,867</b>	0.60	
	<b>2. Mathematics</b>	1,851	<b>1,858</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>850</b>	0.59	
	<b>2. Mathematics</b>	825	<b>825</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>440</b>	0.64	0.42
	<b>2. Mathematics</b>	411	<b>411</b>	N/A
	<b>3. Algebra I</b>	12	N/A	<b>12</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>325</b>	0.38	
	<b>2. Algebra I</b>	142	<b>142</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>471</b>	0.54	0.71
	<b>2. Algebra I</b>	296	<b>301</b>	N/A
	<b>3. Geometry</b>	14	N/A	<b>14</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>314</b>	0.49	0.51
	<b>2. Algebra I</b>	168	<b>169</b>	N/A
	<b>3. Geometry</b>	55	N/A	<b>56</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>155</b>	0.47	0.80
	<b>2. Algebra I</b>	65	<b>65</b>	N/A
	<b>3. Geometry</b>	26	N/A	<b>27</b>

Table 8.C.9 STS Content Area Correlations (ELD Instruction Only)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	143	0.67	
	2. Mathematics	140	142	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	125	0.81	
	2. Mathematics	125	126	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	124	0.77	
	2. Mathematics	124	126	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	121	0.63	
	2. Mathematics	121	121	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	141	0.76	
	2. Mathematics	135	136	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	124	0.71	–
	2. Mathematics	116	116	N/A
	3. Algebra I	2	N/A	2
Grade	STS	1.	2.	
8	1. Reading/Language Arts	97	0.68	
	2. Algebra I	30	30	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	194	0.70	–
	2. Algebra I	114	114	N/A
	3. Geometry	6	N/A	6
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	139	0.56	0.62
	2. Algebra I	80	82	N/A
	3. Geometry	16	N/A	16
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	101	0.58	–
	2. Algebra I	58	58	N/A
	3. Geometry	9	N/A	9

**Table 8.C.10 STS Content Area Correlations (SDAIE Instruction Only)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>115</b>	0.68	
	<b>2. Mathematics</b>	115	<b>116</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>114</b>	0.74	
	<b>2. Mathematics</b>	112	<b>112</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>104</b>	0.75	
	<b>2. Mathematics</b>	104	<b>104</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>102</b>	0.70	
	<b>2. Mathematics</b>	101	<b>101</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>91</b>	0.76	
	<b>2. Mathematics</b>	90	<b>90</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>147</b>	0.72	–
	<b>2. Mathematics</b>	143	<b>143</b>	N/A
	<b>3. Algebra I</b>	1	N/A	<b>1</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>101</b>	0.67	
	<b>2. Algebra I</b>	38	<b>38</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>255</b>	0.60	–
	<b>2. Algebra I</b>	200	<b>200</b>	N/A
	<b>3. Geometry</b>	3	N/A	<b>3</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>61</b>	0.47	–
	<b>2. Algebra I</b>	40	<b>41</b>	N/A
	<b>3. Geometry</b>	8	N/A	<b>8</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>36</b>	0.58	–
	<b>2. Algebra I</b>	22	<b>22</b>	N/A
	<b>3. Geometry</b>	7	N/A	<b>7</b>

**Table 8.C.11 STS Content Area Correlations (ELD Instruction and SDAIE Instruction but not Primary Language Instruction)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>582</b>	0.69	
	<b>2. Mathematics</b>	575	<b>585</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>613</b>	0.77	
	<b>2. Mathematics</b>	606	<b>611</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>587</b>	0.77	
	<b>2. Mathematics</b>	582	<b>582</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>582</b>	0.72	
	<b>2. Mathematics</b>	578	<b>578</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>589</b>	0.74	
	<b>2. Mathematics</b>	587	<b>589</b>	
	<b>3. Algebra I</b>	3	N/A	<b>3</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>596</b>	0.72	–
	<b>2. Mathematics</b>	576	<b>577</b>	N/A
	<b>3. Algebra I</b>	3	N/A	<b>3</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>478</b>	0.61	
	<b>2. Algebra I</b>	165	<b>165</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>890</b>	0.57	0.71
	<b>2. Algebra I</b>	563	<b>570</b>	N/A
	<b>3. Geometry</b>	20	N/A	<b>20</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>547</b>	0.57	0.68
	<b>2. Algebra I</b>	306	<b>307</b>	N/A
	<b>3. Geometry</b>	70	N/A	<b>71</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>318</b>	0.59	0.67
	<b>2. Algebra I</b>	143	<b>144</b>	N/A
	<b>3. Geometry</b>	49	N/A	<b>49</b>

**Table 8.C.12 STS Content Area Correlations (Other EL Instructional Services)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>17</b>	<b>0.55</b>	
	<b>2. Mathematics</b>	<b>17</b>	<b>17</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>23</b>	<b>0.75</b>	
	<b>2. Mathematics</b>	<b>23</b>	<b>24</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>24</b>	<b>0.64</b>	
	<b>2. Mathematics</b>	<b>24</b>	<b>24</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>19</b>	<b>0.78</b>	
	<b>2. Mathematics</b>	<b>19</b>	<b>19</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>13</b>	<b>0.41</b>	
	<b>2. Mathematics</b>	<b>13</b>	<b>13</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>22</b>	<b>0.78</b>	<b>–</b>
	<b>2. Mathematics</b>	<b>22</b>	<b>22</b>	<b>N/A</b>
	<b>3. Algebra I</b>	<b>0</b>	<b>N/A</b>	<b>N/A</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>20</b>	<b>–</b>	
	<b>2. Algebra I</b>	<b>10</b>	<b>10</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>29</b>	<b>0.39</b>	<b>–</b>
	<b>2. Algebra I</b>	<b>20</b>	<b>20</b>	<b>N/A</b>
	<b>3. Geometry</b>	<b>1</b>	<b>N/A</b>	<b>1</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>42</b>	<b>0.63</b>	<b>0.67</b>
	<b>2. Algebra I</b>	<b>15</b>	<b>15</b>	<b>N/A</b>
	<b>3. Geometry</b>	<b>13</b>	<b>N/A</b>	<b>13</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>21</b>	<b>–</b>	<b>–</b>
	<b>2. Algebra I</b>	<b>3</b>	<b>3</b>	<b>N/A</b>
	<b>3. Geometry</b>	<b>4</b>	<b>N/A</b>	<b>4</b>

Table 8.C.13 STS Content Area Correlations (None [EL only])

Grade	STS	1.	2.	
2	1. Reading/Language Arts	17	0.59	
	2. Mathematics	17	17	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	24	0.56	
	2. Mathematics	24	24	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	18	0.82	
	2. Mathematics	18	18	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	16	0.34	
	2. Mathematics	16	16	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	13	0.81	
	2. Mathematics	13	14	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	39	0.81	–
	2. Mathematics	38	38	N/A
	3. Algebra I	0	N/A	N/A
Grade	STS	1.	2.	
8	1. Reading/Language Arts	31	–	
	2. Algebra I	6	6	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	50	0.71	–
	2. Algebra I	29	29	N/A
	3. Geometry	2	N/A	2
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	32	0.39	–
	2. Algebra I	16	16	N/A
	3. Geometry	2	N/A	2
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	16	–	–
	2. Algebra I	5	5	N/A
	3. Geometry	2	N/A	2

**Table 8.C.14 STS Content Area Correlations (Program Participation unknown)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>59</b>	0.67	
	<b>2. Mathematics</b>	59	<b>59</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>26</b>	0.77	
	<b>2. Mathematics</b>	25	<b>25</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>29</b>	0.64	
	<b>2. Mathematics</b>	27	<b>27</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>36</b>	0.74	
	<b>2. Mathematics</b>	35	<b>35</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>28</b>	0.81	
	<b>2. Mathematics</b>	28	<b>28</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>46</b>	0.53	–
	<b>2. Mathematics</b>	44	<b>44</b>	N/A
	<b>3. Algebra I</b>	0	N/A	N/A
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>31</b>	–	
	<b>2. Algebra I</b>	7	<b>7</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>91</b>	0.57	–
	<b>2. Algebra I</b>	72	<b>73</b>	N/A
	<b>3. Geometry</b>	2	N/A	<b>2</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>42</b>	0.61	–
	<b>2. Algebra I</b>	22	<b>24</b>	N/A
	<b>3. Geometry</b>	4	N/A	<b>4</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>22</b>	0.73	–
	<b>2. Algebra I</b>	13	<b>13</b>	N/A
	<b>3. Geometry</b>	4	N/A	<b>4</b>

Table 8.C.15 STS Content Area Correlations (No Special Education)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	8,460	0.74	
	2. Mathematics	8,419	<b>8,454</b>	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	5,973	0.76	
	2. Mathematics	5,937	<b>5,955</b>	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	3,721	0.71	
	2. Mathematics	3,698	<b>3,702</b>	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	2,567	0.61	
	2. Mathematics	2,545	<b>2,546</b>	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	1,641	0.66	
	2. Mathematics	1,611	<b>1,615</b>	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,383	0.69	0.12
	2. Mathematics	1,321	<b>1,322</b>	N/A
	3. Algebra I	16	N/A	<b>16</b>
Grade	STS	1.	2.	
8	1. Reading/Language Arts	1,060	0.53	
	2. Algebra I	392	<b>392</b>	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	1,973	0.58	0.52
	2. Algebra I	1,289	<b>1,302</b>	N/A
	3. Geometry	48	N/A	<b>48</b>
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	1,171	0.54	0.60
	2. Algebra I	645	<b>652</b>	N/A
	3. Geometry	167	N/A	<b>169</b>
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	668	0.56	0.65
	2. Algebra I	308	<b>309</b>	N/A
	3. Geometry	101	N/A	<b>102</b>

**Table 8.C.16 STS Content Area Correlations (Special Education)**

<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>2</b>	<b>1. Reading/Language Arts</b>	<b>394</b>	0.70	
	<b>2. Mathematics</b>	389	<b>397</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>3</b>	<b>1. Reading/Language Arts</b>	<b>286</b>	0.72	
	<b>2. Mathematics</b>	280	<b>287</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>4</b>	<b>1. Reading/Language Arts</b>	<b>181</b>	0.73	
	<b>2. Mathematics</b>	178	<b>182</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>5</b>	<b>1. Reading/Language Arts</b>	<b>176</b>	0.59	
	<b>2. Mathematics</b>	176	<b>182</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>6</b>	<b>1. Reading/Language Arts</b>	<b>83</b>	0.49	
	<b>2. Mathematics</b>	79	<b>79</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>7</b>	<b>1. Reading/Language Arts</b>	<b>30</b>	0.78	–
	<b>2. Mathematics</b>	28	<b>28</b>	N/A
	<b>3. Algebra I</b>	2	N/A	<b>2</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	
<b>8</b>	<b>1. Reading/Language Arts</b>	<b>23</b>	–	
	<b>2. Algebra I</b>	6	<b>6</b>	
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>9</b>	<b>1. Reading/Language Arts</b>	<b>7</b>	–	–
	<b>2. Algebra I</b>	5	<b>5</b>	N/A
	<b>3. Geometry</b>	N/A	N/A	N/A
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>10</b>	<b>1. Reading/Language Arts</b>	<b>6</b>	–	–
	<b>2. Algebra I</b>	2	<b>2</b>	N/A
	<b>3. Geometry</b>	1	N/A	<b>1</b>
<b>Grade</b>	<b>STS</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
<b>11</b>	<b>1. Reading/Language Arts</b>	<b>1</b>	–	–
	<b>2. Algebra I</b>	1	<b>1</b>	N/A
	<b>3. Geometry</b>	N/A	N/A	N/A

## Appendix 8.D—IRT Analyses

**Table 8.D.1 IRT Model-Data Fit Distribution for RLA (operational items)**

Op. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	25	38%	25	38%	19	25%	20	27%	27	36%	25	33%	29	39%	16	21%	32	43%	29	39%
B	12	18%	16	25%	23	31%	18	24%	22	29%	24	32%	26	35%	22	29%	23	31%	12	16%
C	26	40%	23	35%	32	43%	36	48%	23	31%	24	32%	20	27%	35	47%	20	27%	29	39%
D	2	3%	1	2%	1	1%	1	1%	3	4%	2	3%	0	0%	2	3%	0	0%	3	4%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	3%
Total	65	100%	65	100%	75	100%	75	100%	75	100%	75	100%	75	100%	75	100%	75	100%	75	100%

**Table 8.D.2 IRT Model-Data Fit Distribution for Mathematics (operational items)**

Op. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Algebra I		Geometry	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	32	49%	23	35%	20	31%	10	15%	11	17%	29	45%	19	29%	7	11%
B	22	34%	16	25%	21	32%	28	43%	25	38%	17	26%	17	26%	13	20%
C	10	15%	23	35%	23	35%	27	42%	29	45%	17	26%	25	38%	42	65%
D	1	2%	3	5%	1	2%	0	0%	0	0%	2	3%	4	6%	2	3%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%
Total	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%

**Table 8.D.3 IRT Model-Data Fit Distribution for RLA (field-test items)**

FT. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	11	15%	16	22%	1	2%	1	3%	0	0%	0	0%	1	4%	2	7%	2	8%	1	8%
B	15	21%	13	18%	6	11%	4	11%	6	25%	4	17%	5	21%	3	10%	3	13%	2	17%
C	27	38%	28	39%	37	69%	18	50%	12	50%	10	42%	8	33%	11	37%	13	54%	4	33%
D	17	24%	11	15%	5	9%	5	14%	3	13%	4	17%	5	21%	7	23%	4	17%	3	25%
F	2	3%	4	6%	5	9%	8	22%	3	13%	6	25%	5	21%	7	23%	2	8%	2	17%
Total	72	100%	72	100%	54	100%	36	100%	24	100%	24	100%	24	100%	30	100%	24	100%	12	100%

**Table 8.D.4 IRT Model-Data Fit Distribution for Mathematics (field-test items)**

FT. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Algebra I		Geometry	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	22	31%	20	28%	2	4%	2	6%	3	13%	2	8%	10	33%	1	17%
B	13	18%	11	15%	2	4%	5	14%	3	13%	3	13%	3	10%	0	0%
C	22	31%	18	25%	21	39%	18	50%	7	29%	10	42%	7	23%	3	50%
D	13	18%	14	19%	18	33%	8	22%	7	29%	2	8%	3	10%	0	0%
F	2	3%	9	13%	11	20%	3	8%	4	17%	7	29%	7	23%	2	33%
Total	72	100%	72	100%	54	100%	36	100%	24	100%	24	100%	30	100%	6	100%

**Table 8.D.5 IRT *b*-values for RLA, Grade Two**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	22	-0.95	0.88	-2.70	1.19
Reading Comprehension	15	-0.37	0.60	-1.49	0.45
Literary Response and Analysis	6	-0.45	0.60	-1.46	0.29
Written Conventions	14	-0.47	0.35	-1.27	-0.04
Writing Strategies	8	0.25	0.38	-0.36	0.78
All operational items	65	-0.52	0.74	-2.70	1.19
Field-test items	72	-0.14	0.81	-1.78	1.75

**Table 8.D.6 IRT *b*-values for RLA, Grade Three**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	20	-0.72	0.85	-2.58	0.77
Reading Comprehension	15	0.04	0.59	-1.16	0.91
Literary Response and Analysis	8	0.10	1.05	-1.74	0.98
Written Conventions	13	-0.34	0.52	-1.31	0.41
Writing Strategies	9	-0.22	0.52	-1.12	0.48
All operational items	65	-0.30	0.77	-2.58	0.98
Field-test items	72	0.02	0.75	-2.09	1.32

**Table 8.D.7 IRT *b*-values for RLA, Grade Four**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	18	-0.47	0.64	-1.26	0.95
Reading Comprehension	15	-0.17	0.40	-0.82	0.54
Literary Response and Analysis	9	0.24	0.56	-0.72	0.91
Written Conventions	18	-0.51	0.70	-2.03	0.97
Writing Strategies	15	0.27	0.65	-0.93	1.26
All operational items	75	-0.18	0.68	-2.03	1.26
Field-test items	54	0.68	0.51	-0.60	1.93

**Table 8.D.8 IRT *b*-values for RLA, Grade Five**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	14	-0.07	0.62	-1.14	1.10
Reading Comprehension	16	0.30	0.50	-0.85	1.11
Literary Response and Analysis	12	-0.13	0.46	-0.95	0.79
Written Conventions	17	-0.30	0.57	-1.64	0.77
Writing Strategies	16	0.08	0.54	-1.06	0.94
All operational items	75	-0.02	0.57	-1.64	1.11
Field-test items	36	0.67	0.54	-0.55	1.37

**Table 8.D.9 IRT *b*-values for RLA, Grade Six**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	13	-0.15	0.57	-1.36	0.70
Reading Comprehension	17	-0.14	0.46	-0.85	0.72
Literary Response and Analysis	12	-0.20	0.46	-1.03	0.44
Written Conventions	16	-0.20	0.39	-0.87	0.39
Writing Strategies	17	0.27	0.42	-0.37	1.10
All operational items	75	-0.07	0.48	-1.36	1.10
Field-test items	24	0.41	0.75	-1.04	1.58

**Table 8.D.10 IRT *b*-values for RLA, Grade Seven**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	11	-0.51	0.54	-1.37	0.41
Reading Comprehension	18	-0.10	0.65	-1.22	1.06
Literary Response and Analysis	13	-0.08	0.56	-1.20	0.72
Written Conventions	16	-0.36	0.63	-1.41	0.71
Writing Strategies	17	-0.19	0.67	-1.31	0.92
All operational items	75	-0.23	0.62	-1.41	1.06
Field-test items	24	0.58	0.74	-1.10	1.96

**Table 8.D.11 IRT *b*-values for RLA, Grade Eight**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	9	-0.55	0.53	-1.17	0.34
Reading Comprehension	18	-0.07	0.56	-0.77	1.13
Literary Response and Analysis	15	-0.18	0.57	-1.44	0.71
Written Conventions	16	-0.61	0.81	-2.35	0.48
Writing Strategies	17	-0.03	0.64	-1.49	0.72
All operational items	75	-0.26	0.67	-2.35	1.13
Field-test items	24	0.25	1.04	-1.38	2.18

**Table 8.D.12 IRT *b*-values for RLA, Grade Nine**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	-0.75	0.88	-1.70	1.11
Reading Comprehension	18	-0.23	0.78	-1.71	1.17
Literary Response and Analysis	16	-0.12	0.84	-1.47	0.95
Written Conventions	13	-0.27	0.68	-1.25	0.99
Writing Strategies	20	0.12	0.61	-0.97	1.21
All operational items	75	-0.18	0.77	-1.71	1.21
Field-test items	30	0.62	0.83	-1.22	2.35

**Table 8.D.13 IRT *b*-values for RLA, Grade Ten**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	-0.87	0.81	-2.06	0.41
Reading Comprehension	18	-0.42	0.45	-0.91	0.49
Literary Response and Analysis	16	-0.35	0.88	-1.77	0.98
Written Conventions	13	-0.27	0.59	-1.42	1.10
Writing Strategies	20	0.26	0.54	-0.85	1.06
All operational items	75	-0.25	0.72	-2.06	1.10
Field-test items	24	0.63	0.78	-1.37	1.92

**Table 8.D.14 IRT *b*-values for RLA, Grade Eleven**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	-0.41	0.67	-1.49	0.65
Reading Comprehension	19	0.10	0.68	-1.26	1.35
Literary Response and Analysis	17	-0.33	0.55	-1.01	0.69
Written Conventions	9	-0.77	0.81	-2.09	0.31
Writing Strategies	22	-0.12	0.53	-1.06	1.13
All operational items	75	-0.22	0.67	-2.09	1.35
Field-test items	12	0.42	0.78	-0.74	1.43

**Table 8.D.15 IRT *b*-values for Mathematics, Grade Two**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Addition, and Subtraction	15	-0.61	0.72	-2.35	0.19
Multiplication, Division, and Fractions	23	-0.76	0.82	-2.58	1.06
Algebra and Functions	6	-0.29	0.64	-1.15	0.21
Measurement and Geometry	14	-1.08	0.72	-2.69	-0.20
Statistics, Data Analysis, and Probability	7	-1.14	1.01	-2.23	0.93
All operational items	65	-0.79	0.80	-2.69	1.06
Field-test items	72	-0.65	1.11	-3.08	1.86

**Table 8.D.16 IRT *b*-values for Mathematics, Grade Three**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Fractions, and Decimals	16	-0.46	1.30	-2.58	1.68
Addition, Subtraction, Multiplication, Division	16	-0.70	0.62	-1.78	0.67
Algebra and Functions	12	-0.14	0.94	-2.18	1.32
Measurement and Geometry	16	-0.99	0.91	-2.66	0.22
Statistics, Data Analysis, and Probability	5	-1.00	1.19	-2.02	0.77
All operational items	65	-0.63	1.01	-2.66	1.68
Field-test items	72	0.20	1.29	-2.83	2.60

**Table 8.D.17 IRT *b*-values for Mathematics, Grade Four**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Decimals, Fractions, and Negative Numbers	17	-0.54	0.93	-2.24	1.02
Operations and Factoring	14	-0.20	0.55	-1.47	0.30
Algebra and Functions	18	-0.75	0.35	-1.45	-0.13
Measurement and Geometry	12	-0.75	0.69	-1.87	0.25
Statistics, Data Analysis, and Probability	4	-0.08	1.32	-1.40	1.15
All operational items	65	-0.53	0.73	-2.24	1.15
Field-test items	54	0.87	1.00	-1.25	3.01

**Table 8.D.18 IRT *b*-values for Mathematics, Grade Five**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Estimation, Percents, and Factoring	12	-0.65	0.89	-2.36	0.47
Operations with Fractions and Decimals	17	0.10	0.48	-0.89	0.86
Algebra and Functions	17	-0.37	0.55	-1.32	0.51
Measurement and Geometry	15	0.12	0.45	-0.77	0.73
Statistics, Data Analysis, and Probability	4	0.09	0.68	-0.74	0.91
All operational items	65	-0.16	0.66	-2.36	0.91
Field-test items	36	0.50	0.87	-1.62	2.25

**Table 8.D.19 IRT *b*-values for Mathematics, Grade Six**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Ratios, Proportions, Percentages, and Negative Numbers	15	-0.40	0.63	-1.86	0.58
Operations with Problem Solving with Fractions	10	-0.15	0.46	-1.01	0.49
Algebra and Functions	19	-0.29	0.67	-1.43	0.71
Measurement and Geometry	10	0.45	0.40	-0.08	1.13
Statistics, Data Analysis, and Probability	11	0.37	0.36	-0.13	0.93
All operational items	65	-0.07	0.63	-1.86	1.13
Field-test items	24	0.83	0.87	-0.53	2.40

**Table 8.D.20 IRT *b*-values for Mathematics, Grade Seven**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.10	0.41	-0.60	0.77
Exponents, Powers, and Roots	8	0.32	0.99	-1.42	1.67
Quant. Relationships and Evaluating Expressions	10	0.13	0.81	-1.49	1.17
Multistep Problems, Graphing, and Functions	15	0.18	0.54	-0.90	1.28
Measurement and Geometry	13	0.20	0.51	-0.28	1.26
Statistics, Data Analysis, and Probability	5	0.17	0.49	-0.22	0.91
All operational items	65	0.18	0.60	-1.49	1.67
Field-test items	24	0.99	0.58	-0.02	2.45

**Table 8.D.21 IRT *b*-values for Mathematics, Algebra I**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Number Properties, Operations, and Linear Equations	17	0.16	0.58	-0.85	1.44
Graphing and Systems of Linear Equations	14	0.48	0.48	-0.49	1.37
Quadratics and Polynomials	21	0.20	0.50	-0.98	1.09
Functions and Rational Expressions	13	0.89	0.40	0.34	1.51
All operational items	65	0.39	0.57	-0.98	1.51
Field-test items	30	0.89	0.63	-1.06	1.71

**Table 8.D.22. IRT *b*-values for Mathematics, Geometry**

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Logic and Geometric Proofs	23	-0.04	0.82	-1.66	1.40
Volume and Area Formulas	11	0.68	0.79	-0.60	2.06
Angle Relationships, Constructions, and Lines	16	0.38	0.59	-0.72	1.58
Trigonometry	15	0.67	0.56	-0.25	1.78
All operational items	65	0.35	0.76	-1.66	2.06
Field-test items	6	0.46	0.31	0.12	0.96

**Table 8.D.23 Distribution of IRT Difficulty (*b*-values) for RLA (operational items)**

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
≥3.5	0	0	0	0	0	0	0	0	0	0
3.0 < 3.5	0	0	0	0	0	0	0	0	0	0
2.5 < 3.0	0	0	0	0	0	0	0	0	0	0
2.0 < 2.5	0	0	0	0	0	0	0	0	0	0
1.5 < 2.0	0	0	0	0	0	0	0	0	0	0
1.0 < 1.5	1	0	1	3	1	1	1	4	2	2
0.5 < 1.0	2	11	14	10	9	9	9	13	11	9
0.0 < 0.5	11	13	14	24	24	18	17	17	16	17
-0.5 < 0.0	23	19	21	23	26	22	23	16	17	23
-1.0 < -0.5	14	10	19	11	13	14	15	12	19	15
-1.5 < -1.0	9	8	4	3	2	11	8	10	6	7
-2.0 < -1.5	2	2	1	1	0	0	0	3	3	1
-2.5 < -2.0	2	1	1	0	0	0	2	0	1	1
-3.0 < -2.5	1	1	0	0	0	0	0	0	0	0
-3.5 < -3.0	0	0	0	0	0	0	0	0	0	0
< -3.5	0	0	0	0	0	0	0	0	0	0
Total	65	65	75	75	75	75	75	75	75	75

**Table 8.D.24 Distribution of IRT *b*-values for Mathematics (operational items)**

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Algebra I	Geometry
≥3.5	0	0	0	0	0	0	0	0
3.0 < 3.5	0	0	0	0	0	0	0	0
2.5 < 3.0	0	0	0	0	0	0	0	0
2.0 < 2.5	0	0	0	0	0	0	0	1
1.5 < 2.0	0	1	0	0	0	1	1	4
1.0 < 1.5	1	3	2	0	1	4	9	5
0.5 < 1.0	1	4	2	8	9	15	17	16
0.0 < 0.5	11	7	10	23	21	21	23	19
-0.5 < 0.0	13	12	19	18	19	16	11	10
-1.0 < -0.5	15	17	16	9	9	6	4	8
-1.5 < -1.0	14	6	10	5	5	2	0	1
-2.0 < -1.5	3	8	3	1	1	0	0	1
-2.5 < -2.0	5	4	3	1	0	0	0	0
-3.0 < -2.5	2	3	0	0	0	0	0	0
-3.5 < -3.0	0	0	0	0	0	0	0	0
< -3.5	0	0	0	0	0	0	0	0
Total	65	65	65	65	65	65	65	65

**Table 8.D.25 Distribution of IRT *b*-values for RLA (field-test items)**

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
≥ 3.5	0	0	0	0	0	0	0	0	0	0
3.0 – < 3.5	0	0	0	0	0	0	0	0	0	0
2.5 – < 3.0	0	0	0	0	0	0	0	0	0	0
2.0 – < 2.5	0	0	0	0	0	0	2	1	0	0
1.5 – < 2.0	2	0	4	0	1	3	1	2	4	0
1.0 – < 1.5	5	6	8	13	6	3	3	7	3	2
0.5 – < 1.0	5	15	26	11	4	8	4	7	6	5
0.0 – < 0.5	22	22	12	7	6	5	3	6	9	0
–0.5 – < 0.0	14	13	2	3	4	4	5	5	0	4
–1.0 – < –0.5	10	11	2	2	2	0	1	1	1	1
–1.5 – < –1.0	12	2	0	0	1	1	5	1	1	0
–2.0 – < –1.5	2	2	0	0	0	0	0	0	0	0
–2.5 – < –2.0	0	1	0	0	0	0	0	0	0	0
–3.0 – < –2.5	0	0	0	0	0	0	0	0	0	0
–3.5 – < –3.0	0	0	0	0	0	0	0	0	0	0
< –3.5	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>72</b>	<b>72</b>	<b>54</b>	<b>36</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>30</b>	<b>24</b>	<b>12</b>

**Table 8.D.26 Distribution of IRT *b*-values for Mathematics (field-test items)**

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Algebra I	Geometry
≥ 3.5	0	0	0	0	0	0	0	0
3.0 – < 3.5	0	0	1	0	0	0	0	0
2.5 – < 3.0	0	1	1	0	0	0	0	0
2.0 – < 2.5	0	4	3	1	4	1	0	0
1.5 – < 2.0	1	6	8	3	0	3	7	0
1.0 – < 1.5	6	10	16	6	6	7	8	0
0.5 – < 1.0	6	13	8	9	5	9	7	2
0.0 – < 0.5	7	10	8	7	4	3	6	4
–0.5 – < 0.0	10	4	1	5	4	1	1	0
–1.0 – < –0.5	12	8	5	3	1	0	0	0
–1.5 – < –1.0	13	8	3	1	0	0	1	0
–2.0 – < –1.5	8	4	0	1	0	0	0	0
–2.5 – < –2.0	5	3	0	0	0	0	0	0
–3.0 – < –2.5	3	1	0	0	0	0	0	0
–3.5 – < –3.0	1	0	0	0	0	0	0	0
< –3.5	0	0	0	0	0	0	0	0
<b>Total</b>	<b>72</b>	<b>72</b>	<b>54</b>	<b>36</b>	<b>24</b>	<b>24</b>	<b>30</b>	<b>6</b>

## Scaling and Equating Results

Table 8.D.27 New Conversions for RLA, Grades Two and Three

Grade 2										Grade 3									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	33	189	-0.4746	298.4645	298	0	0	N/A	150.0000	150	33	156	-0.2431	310.0341	310
1	0	-4.9648	150.0000	150	34	163	-0.4061	301.7395	302	1	0	-4.7666	150.0000	150	34	145	-0.1735	313.6641	314
2	0	-4.2412	150.0000	150	35	187	-0.3375	305.0207	305	2	0	-4.0423	150.0000	150	35	164	-0.1037	317.3003	317
3	0	-3.8057	150.0000	150	36	202	-0.2686	308.3138	308	3	0	-3.6060	150.0000	150	36	157	-0.0338	320.9491	321
4	0	-3.4882	154.3830	154	37	153	-0.1994	311.6250	312	4	0	-3.2877	151.2604	151	37	160	0.0366	324.6170	325
5	0	-3.2357	166.4586	166	38	209	-0.1296	314.9605	315	5	0	-3.0343	164.4751	164	38	181	0.1074	328.3108	328
6	0	-3.0242	176.5699	177	39	181	-0.0592	318.3270	318	6	0	-2.8220	175.5489	176	39	181	0.1789	332.0377	332
7	0	-2.8411	185.3242	185	40	206	0.0120	321.7308	322	7	0	-2.6380	185.1446	185	40	150	0.2511	335.8053	336
8	5	-2.6787	193.0855	193	41	175	0.0842	325.1814	325	8	0	-2.4747	193.6581	194	41	168	0.3243	339.6216	340
9	8	-2.5323	200.0883	200	42	173	0.1575	328.6851	329	9	7	-2.3273	201.3466	201	42	158	0.3986	343.4952	343
10	13	-2.3983	206.4946	206	43	184	0.2321	332.2513	332	10	5	-2.1923	208.3858	208	43	176	0.4741	347.4355	347
11	19	-2.2743	212.4199	212	44	207	0.3082	335.8895	336	11	7	-2.0673	214.9015	215	44	145	0.5512	351.4563	351
12	22	-2.1587	217.9499	218	45	221	0.3860	339.6125	340	12	15	-1.9506	220.9876	221	45	142	0.6300	355.5653	356
13	47	-2.0499	223.1505	223	46	218	0.4659	343.4307	343	13	25	-1.8408	226.7143	227	46	166	0.7108	359.7775	360
14	54	-1.9469	228.0718	228	47	222	0.5481	347.3589	347	14	31	-1.7368	232.1382	232	47	146	0.7938	364.1082	364
15	75	-1.8490	232.7557	233	48	254	0.6329	351.4136	351	15	35	-1.6378	237.3037	237	48	169	0.8795	368.5750	369
16	96	-1.7553	237.2353	237	49	228	0.7207	355.6137	356	16	62	-1.5430	242.2469	242	49	154	0.9682	373.1986	373
17	114	-1.6653	241.5379	242	50	264	0.8121	359.9818	360	17	69	-1.4519	246.9977	247	50	167	1.0603	378.0033	378
18	103	-1.5785	245.6866	246	51	233	0.9075	364.5445	365	18	73	-1.3640	251.5811	252	51	128	1.1565	383.0179	383
19	122	-1.4946	249.7009	250	52	259	1.0077	369.3345	369	19	115	-1.2789	256.0182	256	52	150	1.2573	388.2786	388
20	146	-1.4131	253.5976	254	53	233	1.1135	374.3917	374	20	110	-1.1963	260.3276	260	53	151	1.3637	393.8279	394
21	143	-1.3337	257.3911	257	54	238	1.2259	379.7655	380	21	112	-1.1158	264.5242	265	54	141	1.4767	399.7209	400
22	141	-1.2562	261.0945	261	55	243	1.3464	385.5259	386	22	117	-1.0372	268.6226	269	55	116	1.5977	406.0275	406
23	152	-1.1805	264.7182	265	56	233	1.4766	391.7508	392	23	127	-0.9603	272.6348	273	56	108	1.7283	412.8394	413
24	169	-1.1061	268.2732	268	57	220	1.6189	398.5568	399	24	116	-0.8848	276.5722	277	57	92	1.8710	420.2804	420
25	163	-1.0330	271.7683	272	58	218	1.7768	406.1031	406	25	144	-0.8105	280.4437	280	58	72	2.0291	428.5278	429
26	160	-0.9610	275.2118	275	59	176	1.9550	414.6262	415	26	139	-0.7373	284.2592	284	59	65	2.2076	437.8318	438
27	156	-0.8899	278.6115	279	60	154	2.1612	424.4847	424	27	139	-0.6651	288.0268	288	60	47	2.4138	448.5880	449
28	168	-0.8195	281.9746	282	61	120	2.4080	436.2850	436	28	145	-0.5936	291.7543	292	61	45	2.6606	461.4549	461
29	148	-0.7498	285.3076	285	62	82	2.7191	451.1585	451	29	137	-0.5228	295.4490	295	62	44	2.9716	477.6726	478
30	171	-0.6806	288.6180	289	63	54	3.1479	471.6588	472	30	150	-0.4524	299.1177	299	63	14	3.3999	500.0114	500
31	166	-0.6117	291.9096	292	64	26	3.8640	505.8947	506	31	151	-0.3824	302.7672	303	64	7	4.1155	537.3282	537
32	163	-0.5431	295.1898	295	65	5	N/A	600.0000	600	32	162	-0.3127	306.4039	306	65	1	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

**Table 8.D.28 New Conversions for RLA, Grades Four and Five**

Grade 4										Grade 5									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	38	72	-0.1572	305.9568	306	0	0	N/A	150.0000	150	38	58	0.0104	315.5376	316
1	0	-4.7001	150.0000	150	39	68	-0.0985	309.1085	309	1	0	-4.4914	150.0000	150	39	63	0.0680	319.4014	319
2	0	-3.9864	150.0000	150	40	66	-0.0398	312.2665	312	2	0	-3.7796	150.0000	150	40	64	0.1257	323.2723	323
3	0	-3.5602	150.0000	150	41	93	0.0191	315.4342	315	3	0	-3.3552	150.0000	150	41	62	0.1835	327.1555	327
4	0	-3.2517	150.0000	150	42	89	0.0784	318.6181	319	4	1	-3.0484	150.0000	150	42	61	0.2416	331.0565	331
5	0	-3.0077	152.7382	153	43	82	0.1379	321.8204	322	5	0	-2.8059	150.0000	150	43	60	0.3001	334.9806	335
6	0	-2.8044	163.6639	164	44	82	0.1980	325.0465	325	6	0	-2.6041	150.0000	150	44	51	0.3590	338.9336	339
7	0	-2.6292	173.0803	173	45	60	0.2585	328.3012	328	7	0	-2.4302	151.6895	152	45	62	0.4184	342.9216	343
8	0	-2.4746	181.3929	181	46	82	0.3197	331.5894	332	8	0	-2.2768	161.9867	162	46	61	0.4784	346.9507	347
9	0	-2.3355	188.8657	189	47	75	0.3816	334.9164	335	9	1	-2.1390	171.2388	171	47	68	0.5391	351.0276	351
10	4	-2.2088	195.6778	196	48	73	0.4443	338.2879	338	10	2	-2.0134	179.6694	180	48	49	0.6007	355.1592	355
11	2	-2.0920	201.9577	202	49	89	0.5080	341.7119	342	11	2	-1.8977	187.4383	187	49	51	0.6632	359.3566	359
12	6	-1.9833	207.8003	208	50	90	0.5728	345.1927	345	12	3	-1.7901	194.6642	195	50	51	0.7267	363.6238	364
13	15	-1.8814	213.2784	213	51	94	0.6387	348.7387	349	13	8	-1.6892	201.4355	201	51	44	0.7915	367.9717	368
14	9	-1.7852	218.4472	218	52	96	0.7061	352.3580	352	14	11	-1.5941	207.8234	208	52	45	0.8576	372.4106	372
15	20	-1.6940	223.3524	223	53	85	0.7749	356.0598	356	15	20	-1.5038	213.8834	214	53	42	0.9253	376.9520	377
16	22	-1.6069	228.0302	228	54	107	0.8455	359.8544	360	16	24	-1.4177	219.6605	220	54	54	0.9946	381.6087	382
17	39	-1.5236	232.5105	233	55	98	0.9181	363.7532	364	17	41	-1.3353	225.1917	225	55	48	1.0659	386.3951	386
18	43	-1.4434	236.8180	237	56	96	0.9928	367.7696	368	18	39	-1.2562	230.5077	231	56	44	1.1394	391.3277	391
19	55	-1.3661	240.9737	241	57	85	1.0700	371.9187	372	19	51	-1.1798	235.6352	236	57	32	1.2153	396.4246	396
20	49	-1.2913	244.9954	245	58	92	1.1500	376.2180	376	20	56	-1.1059	240.5945	241	58	38	1.2941	401.7114	402
21	64	-1.2187	248.8992	249	59	78	1.2331	380.6871	381	21	52	-1.0342	245.4064	245	59	35	1.3760	407.2102	407
22	82	-1.1480	252.6967	253	60	79	1.3200	385.3555	385	22	58	-0.9645	250.0869	250	60	33	1.4615	412.9530	413
23	66	-1.0791	256.4011	256	61	76	1.4110	390.2472	390	23	57	-0.8965	254.6505	255	61	32	1.5513	418.9770	419
24	76	-1.0117	260.0224	260	62	63	1.5068	395.4003	395	24	66	-0.8301	259.1101	259	62	25	1.6459	425.3269	425
25	62	-0.9457	263.5698	264	63	74	1.6084	400.8592	401	25	90	-0.7650	263.4770	263	63	21	1.7461	432.0583	432
26	83	-0.8810	267.0516	267	64	56	1.7167	406.6797	407	26	73	-0.7012	267.7616	268	64	21	1.8531	439.2409	439
27	71	-0.8173	270.4761	270	65	59	1.8330	412.9335	413	27	82	-0.6385	271.9732	272	65	16	1.9682	446.9634	447
28	66	-0.7545	273.8481	274	66	59	1.9592	419.7139	420	28	61	-0.5767	276.1214	276	66	15	2.0931	455.3511	455
29	55	-0.6926	277.1754	277	67	43	2.0976	427.1560	427	29	64	-0.5158	280.2111	280	67	9	2.2302	464.5547	465
30	56	-0.6315	280.4636	280	68	52	2.2515	435.4297	435	30	69	-0.4556	284.2517	284	68	6	2.3828	474.8010	475
31	70	-0.5709	283.7182	284	69	17	2.4259	444.8005	445	31	76	-0.3960	288.2496	288	69	4	2.5559	486.4171	486
32	62	-0.5109	286.9442	287	70	21	2.6281	455.6735	456	32	76	-0.3370	292.2113	292	70	5	2.7568	499.9068	500
33	72	-0.4513	290.1464	290	71	1	2.8711	468.7310	469	33	79	-0.2785	296.1425	296	71	2	2.9985	516.1307	516
34	67	-0.3921	293.3294	293	72	10	3.1783	485.2445	485	34	58	-0.2203	300.0491	300	72	1	3.3044	536.6676	537
35	69	-0.3332	296.4977	296	73	2	3.6029	508.0707	508	35	71	-0.1624	303.9366	304	73	2	3.7277	565.0820	565
36	69	-0.2744	299.6555	300	74	0	4.3150	546.3473	546	36	65	-0.1047	307.8104	308	74	0	4.4385	600.0000	600
37	85	-0.2158	302.8072	303	75	0	N/A	600.0000	600	37	52	-0.0471	311.6758	312	75	0	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

Table 8.D.29 New Conversions for RLA, Grades Six and Seven

Grade 6										Grade 7									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	38	51	-0.0437	316.4692	316	0	0	N/A	150.0000	150	38	26	-0.1957	310.0169	310
1	0	-4.4856	150.0000	150	39	37	0.0125	320.4227	320	1	0	-4.7162	150.0000	150	39	30	-0.1373	313.6579	314
2	0	-3.7760	150.0000	150	40	38	0.0688	324.3843	324	2	0	-4.0046	150.0000	150	40	32	-0.0788	317.3057	317
3	0	-3.3536	150.0000	150	41	46	0.1254	328.3589	328	3	0	-3.5804	150.0000	150	41	30	-0.0201	320.9642	321
4	0	-3.0488	150.0000	150	42	29	0.1822	332.3524	332	4	0	-3.2736	150.0000	150	42	26	0.0389	324.6413	325
5	0	-2.8083	150.0000	150	43	37	0.2393	336.3703	336	5	0	-3.0311	150.0000	150	43	35	0.0982	328.3391	328
6	0	-2.6085	150.0000	150	44	40	0.2969	340.4187	340	6	0	-2.8292	150.0000	150	44	27	0.1580	332.0638	332
7	0	-2.4366	150.0000	150	45	38	0.3550	344.5037	345	7	0	-2.6552	156.6983	157	45	26	0.2182	335.8211	336
8	0	-2.2851	158.8960	159	46	38	0.4137	348.6319	349	8	0	-2.5017	166.2702	166	46	38	0.2791	339.6167	340
9	0	-2.1491	168.4546	168	47	36	0.4732	352.8101	353	9	0	-2.3637	174.8744	175	47	27	0.3407	343.4568	343
10	0	-2.0253	177.1551	177	48	42	0.5334	357.0456	357	10	0	-2.2378	182.7187	183	48	43	0.4032	347.3478	347
11	2	-1.9114	185.1648	185	49	37	0.5946	361.3499	361	11	1	-2.1218	189.9513	190	49	34	0.4665	351.2968	351
12	6	-1.8055	192.6079	193	50	36	0.6569	365.7270	366	12	0	-2.0138	196.6816	197	50	42	0.5310	355.3150	355
13	3	-1.7064	199.5767	200	51	26	0.7204	370.1886	370	13	2	-1.9126	202.9937	203	51	31	0.5966	359.4063	359
14	5	-1.6130	206.1460	206	52	28	0.7852	374.7453	375	14	6	-1.8170	208.9508	209	52	20	0.6636	363.5819	364
15	9	-1.5244	212.3737	212	53	35	0.8515	379.4089	379	15	4	-1.7263	214.6057	215	53	30	0.7321	367.8526	368
16	22	-1.4400	218.3070	218	54	28	0.9196	384.1930	384	16	3	-1.6398	220.0000	220	54	28	0.8023	372.2302	372
17	15	-1.3592	223.9844	224	55	28	0.9895	389.1126	389	17	6	-1.5569	225.1680	225	55	34	0.8745	376.7280	377
18	20	-1.2817	229.4381	229	56	33	1.0617	394.1850	394	18	14	-1.4771	230.1380	230	56	30	0.9488	381.3616	381
19	31	-1.2069	234.6954	235	57	27	1.1363	399.4298	399	19	14	-1.4002	234.9341	235	57	27	1.0256	386.1484	386
20	34	-1.1346	239.7795	240	58	23	1.2137	404.8691	405	20	11	-1.3257	239.5767	240	58	32	1.1052	391.1089	391
21	32	-1.0644	244.7097	245	59	25	1.2942	410.5346	411	21	16	-1.2534	244.0835	244	59	28	1.1879	396.2666	396
22	38	-0.9963	249.5039	250	60	17	1.3784	416.4534	416	22	27	-1.1830	248.4699	248	60	35	1.2743	401.6526	402
23	40	-0.9298	254.1770	254	61	16	1.4668	422.6659	423	23	23	-1.1144	252.7487	253	61	23	1.3649	407.2983	407
24	36	-0.8648	258.7424	259	62	15	1.5600	429.2192	429	24	19	-1.0473	256.9322	257	62	22	1.4603	413.2466	413
25	29	-0.8013	263.2121	263	63	18	1.6589	436.1714	436	25	33	-0.9815	261.0311	261	63	22	1.5614	419.5490	420
26	47	-0.7389	267.5967	268	64	16	1.7645	443.5956	444	26	30	-0.9170	265.0545	265	64	12	1.6692	426.2705	426
27	53	-0.6776	271.9059	272	65	18	1.8781	451.5849	452	27	23	-0.8535	269.0117	269	65	17	1.7851	433.4941	433
28	37	-0.6172	276.1495	276	66	12	2.0017	460.2682	460	28	33	-0.7910	272.9090	273	66	22	1.9108	441.3284	441
29	32	-0.5577	280.3332	280	67	12	2.1373	469.8063	470	29	20	-0.7293	276.7548	277	67	17	2.0487	449.9282	450
30	54	-0.4990	284.4663	284	68	3	2.2885	480.4356	480	30	26	-0.6683	280.5555	281	68	13	2.2022	459.4933	459
31	43	-0.4408	288.5556	289	69	7	2.4601	492.4988	492	31	33	-0.6080	284.3173	284	69	4	2.3760	470.3303	470
32	42	-0.3831	292.6076	293	70	2	2.6596	506.5252	507	32	26	-0.5482	288.0459	288	70	10	2.5778	482.9096	483
33	33	-0.3260	296.6286	297	71	2	2.8998	523.4095	523	33	39	-0.4888	291.7470	292	71	4	2.8201	498.0128	498
34	36	-0.2691	300.6245	301	72	1	3.2042	544.8124	545	34	30	-0.4298	295.4257	295	72	4	3.1270	517.1415	517
35	49	-0.2126	304.6009	305	73	1	3.6260	574.4689	574	35	31	-0.3710	299.0871	299	73	1	3.5512	543.5838	544
36	40	-0.1562	308.5636	309	74	0	4.3354	600.0000	600	36	30	-0.3125	302.7363	303	74	1	4.2628	587.9419	588
37	39	-0.0999	312.5179	313	75	0	N/A	600.0000	600	37	31	-0.2541	306.3779	306	75	0	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

**Table 8.D.30 New Conversions for RLA, Grades Eight and Nine**

Grade 8										Grade 9									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	38	22	-0.2179	311.6616	312	0	0	N/A	150.0000	150	38	57	-0.1407	308.6013	309
1	0	-4.8061	150.0000	150	39	22	-0.1592	315.3488	315	1	0	-4.7807	150.0000	150	39	58	-0.0798	312.3317	312
2	0	-4.0891	150.0000	150	40	29	-0.1004	319.0409	319	2	0	-4.0651	150.0000	150	40	35	-0.0188	316.0666	316
3	0	-3.6599	150.0000	150	41	29	-0.0415	322.7427	323	3	0	-3.6368	150.0000	150	41	44	0.0424	319.8122	320
4	0	-3.3486	150.0000	150	42	24	0.0177	326.4586	326	4	0	-3.3261	150.0000	150	42	53	0.1038	323.5718	324
5	0	-3.1019	150.0000	150	43	24	0.0772	330.1962	330	5	0	-3.0797	150.0000	150	43	52	0.1655	327.3512	327
6	0	-2.8962	150.0000	150	44	27	0.1371	333.9585	334	6	0	-2.8739	150.0000	150	44	53	0.2276	331.1554	331
7	0	-2.7187	154.5972	155	45	18	0.1975	337.7518	338	7	0	-2.6962	152.1316	152	45	41	0.2903	334.9900	335
8	0	-2.5619	164.4459	164	46	20	0.2585	341.5821	342	8	0	-2.5389	161.7629	162	46	46	0.3535	338.8606	339
9	0	-2.4209	173.3040	173	47	29	0.3201	345.4556	345	9	0	-2.3972	170.4405	170	47	57	0.4174	342.7734	343
10	0	-2.2922	181.3825	181	48	34	0.3826	349.3791	349	10	3	-2.2677	178.3687	178	48	56	0.4821	346.7349	347
11	0	-2.1736	188.8318	189	49	24	0.4460	353.3595	353	11	2	-2.1481	185.6929	186	49	58	0.5477	350.7518	351
12	3	-2.0633	195.7634	196	50	20	0.5104	357.4076	357	12	3	-2.0365	192.5209	193	50	54	0.6144	354.8354	355
13	1	-1.9598	202.2631	202	51	23	0.5761	361.5283	362	13	4	-1.9318	198.9351	199	51	49	0.6822	358.9893	359
14	2	-1.8621	208.3950	208	52	21	0.6430	365.7326	366	14	6	-1.8328	204.9978	205	52	40	0.7514	363.2248	363
15	5	-1.7695	214.2136	214	53	32	0.7114	370.0313	370	15	3	-1.7387	210.7610	211	53	51	0.8221	367.5523	368
16	5	-1.6812	219.7613	220	54	16	0.7816	374.4363	374	16	12	-1.6488	216.2653	216	54	28	0.8944	371.9835	372
17	4	-1.5966	225.0733	225	55	26	0.8536	378.9613	379	17	11	-1.5625	221.5446	222	55	39	0.9687	376.5317	377
18	8	-1.5153	230.1787	230	56	21	0.9278	383.6216	384	18	11	-1.4795	226.6268	227	56	41	1.0452	381.2118	381
19	12	-1.4369	235.1023	235	57	26	1.0045	388.4350	388	19	21	-1.3994	231.5356	232	57	40	1.1240	386.0413	386
20	12	-1.3611	239.8651	240	58	23	1.0839	393.4223	393	20	21	-1.3217	236.2910	236	58	37	1.2057	391.0396	391
21	20	-1.2875	244.4853	244	59	27	1.1664	398.6072	399	21	30	-1.2462	240.9114	241	59	26	1.2905	396.2330	396
22	7	-1.2160	248.9793	249	60	15	1.2526	404.0202	404	22	28	-1.1728	245.4092	245	60	40	1.3789	401.6467	402
23	22	-1.1462	253.3592	253	61	15	1.3429	409.6941	410	23	29	-1.1011	249.7998	250	61	34	1.4715	407.3154	407
24	16	-1.0781	257.6388	258	62	13	1.4381	415.6715	416	24	35	-1.0309	254.0944	254	62	29	1.5689	413.2802	413
25	18	-1.0114	261.8286	262	63	16	1.5390	422.0045	422	25	44	-0.9622	258.3035	258	63	23	1.6720	419.5918	420
26	21	-0.9459	265.9384	266	64	16	1.6465	428.7586	429	26	28	-0.8947	262.4361	262	64	16	1.7818	426.3139	426
27	28	-0.8816	269.9779	270	65	10	1.7621	436.0173	436	27	32	-0.8283	266.5009	267	65	16	1.8996	433.5279	434
28	21	-0.8183	273.9528	274	66	6	1.8874	443.8904	444	28	40	-0.7629	270.5062	271	66	7	2.0272	441.3400	441
29	16	-0.7559	277.8725	278	67	5	2.0250	452.5329	453	29	46	-0.6984	274.4574	274	67	7	2.1671	449.9060	450
30	25	-0.6943	281.7435	282	68	5	2.1781	462.1470	462	30	45	-0.6346	278.3622	278	68	8	2.3224	459.4172	459
31	24	-0.6333	285.5723	286	69	9	2.3516	473.0414	473	31	38	-0.5715	282.2267	282	69	6	2.4981	470.1767	470
32	32	-0.5729	289.3648	289	70	5	2.5530	485.6903	486	32	51	-0.5089	286.0567	286	70	2	2.7018	482.6455	483
33	22	-0.5130	293.1266	293	71	3	2.7948	500.8820	501	33	49	-0.4468	289.8575	290	71	0	2.9461	497.6034	498
34	26	-0.4535	296.8634	297	72	1	3.1012	520.1255	520	34	40	-0.3852	293.6344	294	72	0	3.2546	516.4959	516
35	31	-0.3944	300.5802	301	73	0	3.5250	546.7385	547	35	45	-0.3238	297.3924	297	73	0	3.6806	542.5763	543
36	24	-0.3354	304.2822	304	74	0	4.2361	591.4002	591	36	42	-0.2626	301.1364	301	74	0	4.3940	586.2587	586
37	22	-0.2766	307.9744	308	75	0	N/A	600.0000	600	37	58	-0.2016	304.8711	305	75	0	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

Table 8.D.31 New Conversions for RLA, Grades Ten and Eleven

Grade 10										Grade 11									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	38	32	-0.2102	304.7353	305	0	0	N/A	150.0000	150	38	18	-0.1851	296.0833	296
1	0	-4.8082	150.0000	150	39	33	-0.1503	308.6965	309	1	0	-4.7579	150.0000	150	39	16	-0.1260	300.5114	301
2	0	-4.0932	150.0000	150	40	30	-0.0904	312.6640	313	2	0	-4.0431	150.0000	150	40	14	-0.0667	304.9472	305
3	0	-3.6656	150.0000	150	41	33	-0.0303	316.6431	317	3	0	-3.6159	150.0000	150	41	18	-0.0072	309.3966	309
4	0	-3.3557	150.0000	150	42	35	0.0301	320.6391	321	4	0	-3.3064	150.0000	150	42	13	0.0525	313.8658	314
5	0	-3.1101	150.0000	150	43	36	0.0908	324.6573	325	5	0	-3.0614	150.0000	150	43	21	0.1125	318.3607	318
6	0	-2.9053	150.0000	150	44	29	0.1519	328.7035	329	6	0	-2.8571	150.0000	150	44	19	0.1730	322.8878	323
7	0	-2.7285	150.0000	150	45	33	0.2135	332.7836	333	7	0	-2.6809	150.0000	150	45	20	0.2340	327.4538	327
8	0	-2.5723	150.0000	150	46	29	0.2758	336.9037	337	8	0	-2.5252	150.0000	150	46	22	0.2957	332.0657	332
9	0	-2.4316	157.6796	158	47	33	0.3387	341.0704	341	9	0	-2.3852	150.0000	150	47	17	0.3580	336.7309	337
10	0	-2.3032	166.1786	166	48	29	0.4025	345.2907	345	10	0	-2.2575	150.0000	150	48	17	0.4212	341.4572	341
11	0	-2.1847	174.0224	174	49	28	0.4671	349.5719	350	11	0	-2.1398	150.0000	150	49	15	0.4852	346.2532	346
12	2	-2.0744	181.3279	181	50	29	0.5329	353.9257	354	12	0	-2.0301	158.0060	158	50	13	0.5504	351.1323	351
13	1	-1.9708	188.1845	188	51	34	0.5998	358.3568	358	13	0	-1.9273	165.7022	166	51	18	0.6168	356.0992	356
14	4	-1.8730	194.6595	195	52	37	0.6681	362.8769	363	14	1	-1.8302	172.9664	173	52	14	0.6845	361.1676	361
15	6	-1.7801	200.8095	201	53	42	0.7379	367.4973	367	15	3	-1.7381	179.8624	180	53	21	0.7538	366.3502	366
16	6	-1.6914	206.6787	207	54	34	0.8094	372.2306	372	16	1	-1.6502	186.4407	186	54	16	0.8247	371.6613	372
17	4	-1.6064	212.3039	212	55	24	0.8828	377.0911	377	17	6	-1.5660	192.7426	193	55	19	0.8976	377.1171	377
18	9	-1.5247	217.7154	218	56	29	0.9584	382.0951	382	18	5	-1.4850	198.8028	199	56	15	0.9727	382.7360	383
19	8	-1.4458	222.9389	223	57	24	1.0365	387.2612	387	19	8	-1.4069	204.6505	205	57	19	1.0503	388.5392	389
20	13	-1.3694	227.9963	228	58	26	1.1173	392.6112	393	20	7	-1.3312	210.3104	210	58	7	1.1306	394.5513	395
21	16	-1.2952	232.9067	233	59	29	1.2013	398.1697	398	21	10	-1.2578	215.8041	216	59	8	1.2141	400.7998	401
22	12	-1.2230	237.6868	238	60	26	1.2889	403.9703	404	22	5	-1.1864	221.1504	221	60	10	1.3013	407.3242	407
23	15	-1.1526	242.3495	242	61	18	1.3807	410.0459	410	23	8	-1.1167	226.3648	226	61	9	1.3926	414.1602	414
24	12	-1.0837	246.9089	247	62	11	1.4773	416.4420	416	24	9	-1.0486	231.4625	231	62	6	1.4888	421.3599	421
25	16	-1.0162	251.3761	251	63	9	1.5796	423.2134	423	25	10	-0.9819	236.4562	236	63	15	1.5907	428.9853	429
26	13	-0.9500	255.7612	256	64	11	1.6886	430.4291	430	26	15	-0.9164	241.3574	241	64	1	1.6993	437.1144	437
27	23	-0.8848	260.0742	260	65	8	1.8056	438.1771	438	27	12	-0.8520	246.1775	246	65	2	1.8160	445.8469	446
28	25	-0.8207	264.3215	264	66	5	1.9324	446.5727	447	28	14	-0.7886	250.9237	251	66	1	1.9425	455.3131	455
29	16	-0.7574	268.5123	269	67	5	2.0715	455.7805	456	29	10	-0.7260	255.6064	256	67	4	2.0813	465.6999	466
30	13	-0.6948	272.6538	273	68	4	2.2261	466.0122	466	30	13	-0.6642	260.2338	260	68	3	2.2356	477.2459	477
31	26	-0.6329	276.7524	277	69	1	2.4010	477.5937	478	31	18	-0.6030	264.8132	265	69	0	2.4103	490.3199	490
32	24	-0.5715	280.8144	281	70	1	2.6039	491.0242	491	32	13	-0.5423	269.3517	269	70	0	2.6129	505.4865	505
33	20	-0.5106	284.8457	285	71	0	2.8472	507.1328	507	33	19	-0.4821	273.8560	274	71	0	2.8560	523.6822	524
34	19	-0.4501	288.8521	289	72	0	3.1552	527.5176	528	34	18	-0.4223	278.3326	278	72	0	3.1638	546.7169	547
35	19	-0.3899	292.8390	293	73	0	3.5804	555.6662	556	35	17	-0.3628	282.7877	283	73	0	3.5889	578.5299	579
36	34	-0.3299	296.8117	297	74	0	4.2930	600.0000	600	36	20	-0.3035	287.2273	287	74	0	4.3014	600.0000	600
37	34	-0.2700	300.7754	301	75	0	N/A	600.0000	600	37	16	-0.2443	291.6572	292	75	0	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

**Table 8.D.32 New Conversions for Mathematics, Grades Two and Three**

Grade 2										Grade 3									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	<b>33</b>	174	-0.7559	295.8814	296	0	0	N/A	150.0000	150	<b>33</b>	137	-0.5953	303.6447	304
1	0	-5.2866	150.0000	150	<b>34</b>	169	-0.6856	300.3465	300	1	0	-5.2452	150.0000	150	<b>34</b>	123	-0.5205	308.0538	308
2	0	-4.5640	150.0000	150	<b>35</b>	196	-0.6152	304.8230	305	2	0	-4.5203	150.0000	150	<b>35</b>	125	-0.4455	312.4739	312
3	0	-4.1289	150.0000	150	<b>36</b>	187	-0.5446	309.3146	309	3	0	-4.0827	150.0000	150	<b>36</b>	127	-0.3702	316.9124	317
4	1	-3.8116	150.0000	150	<b>37</b>	166	-0.4736	313.8305	314	4	0	-3.7627	150.0000	150	<b>37</b>	146	-0.2945	321.3770	321
5	0	-3.5589	150.0000	150	<b>38</b>	233	-0.4021	318.3777	318	5	0	-3.5072	150.0000	150	<b>38</b>	143	-0.2181	325.8759	326
6	0	-3.3469	150.0000	150	<b>39</b>	225	-0.3299	322.9684	323	6	0	-3.2923	150.0000	150	<b>39</b>	159	-0.1411	330.4176	330
7	1	-3.1631	150.0000	150	<b>40</b>	239	-0.2569	327.6098	328	7	0	-3.1055	155.6723	156	<b>40</b>	161	-0.0632	335.0111	335
8	0	-2.9999	153.2034	153	<b>41</b>	200	-0.1829	332.3120	332	8	1	-2.9391	165.4792	165	<b>41</b>	163	0.0158	339.6648	340
9	0	-2.8524	162.5823	163	<b>42</b>	242	-0.1078	337.0859	337	9	0	-2.7883	174.3674	174	<b>42</b>	139	0.0960	344.3935	344
10	4	-2.7172	171.1762	171	<b>43</b>	208	-0.0314	341.9434	342	10	2	-2.6498	182.5330	183	<b>43</b>	153	0.1776	349.2043	349
11	2	-2.5920	179.1368	179	<b>44</b>	241	0.0465	346.8978	347	11	3	-2.5211	190.1174	190	<b>44</b>	156	0.2608	354.1113	354
12	7	-2.4750	186.5775	187	<b>45</b>	251	0.1262	351.9637	352	12	7	-2.4006	197.2247	197	<b>45</b>	174	0.3460	359.1282	359
13	16	-2.3648	193.5841	194	<b>46</b>	232	0.2079	357.1575	357	13	6	-2.2868	203.9343	204	<b>46</b>	156	0.4332	364.2741	364
14	16	-2.2604	200.2240	200	<b>47</b>	229	0.2919	362.4973	362	14	13	-2.1786	210.3087	210	<b>47</b>	142	0.5230	369.5633	370
15	21	-2.1609	206.5514	207	<b>48</b>	217	0.3785	368.0092	368	15	25	-2.0754	216.3959	216	<b>48</b>	158	0.6155	375.0180	375
16	32	-2.0656	212.6087	213	<b>49</b>	293	0.4683	373.7135	374	16	27	-1.9763	222.2373	222	<b>49</b>	177	0.7113	380.6627	381
17	47	-1.9740	218.4330	218	<b>50</b>	257	0.5615	379.6422	380	17	53	-1.8808	227.8658	228	<b>50</b>	165	0.8107	386.5258	387
18	52	-1.8856	224.0542	224	<b>51</b>	249	0.6588	385.8309	386	18	40	-1.7884	233.3091	233	<b>51</b>	194	0.9145	392.6414	393
19	53	-1.8000	229.4981	229	<b>52</b>	279	0.7610	392.3231	392	19	54	-1.6988	238.5905	239	<b>52</b>	173	1.0232	399.0506	399
20	73	-1.7168	234.7865	235	<b>53</b>	262	0.8687	399.1722	399	20	57	-1.6117	243.7305	244	<b>53</b>	168	1.1378	405.8037	406
21	88	-1.6357	239.9386	240	<b>54</b>	231	0.9831	406.4452	406	21	73	-1.5266	248.7464	249	<b>54</b>	160	1.2592	412.9615	413
22	88	-1.5566	244.9712	245	<b>55</b>	238	1.1055	414.2273	414	22	76	-1.4433	253.6538	254	<b>55</b>	165	1.3890	420.6143	421
23	103	-1.4791	249.8991	250	<b>56</b>	229	1.2377	422.6365	423	23	88	-1.3617	258.4668	258	<b>56</b>	184	1.5288	428.8570	429
24	88	-1.4030	254.7365	255	<b>57</b>	247	1.3821	431.8183	432	24	71	-1.2814	263.1962	263	<b>57</b>	167	1.6811	437.8355	438
25	86	-1.3282	259.4934	259	<b>58</b>	254	1.5421	441.9880	442	25	94	-1.2024	267.8544	268	<b>58</b>	163	1.8493	447.7473	448
26	110	-1.2544	264.1824	264	<b>59</b>	226	1.7225	453.4558	453	26	88	-1.1244	272.4514	272	<b>59</b>	152	2.0381	458.8785	459
27	144	-1.1816	268.8135	269	<b>60</b>	236	1.9309	466.7064	467	27	84	-1.0473	276.9965	277	<b>60</b>	165	2.2555	471.6933	472
28	131	-1.1095	273.3961	273	<b>61</b>	214	2.1799	482.5416	483	28	103	-0.9710	281.4986	281	<b>61</b>	142	2.5138	486.9202	487
29	148	-1.0381	277.9391	278	<b>62</b>	183	2.4934	502.4708	502	29	89	-0.8952	285.9661	286	<b>62</b>	112	2.8368	505.9593	506
30	137	-0.9671	282.4510	282	<b>63</b>	140	2.9245	529.8804	530	30	110	-0.8198	290.4068	290	<b>63</b>	95	3.2780	531.9690	532
31	148	-0.8965	286.9399	287	<b>64</b>	81	3.6428	575.5525	576	31	122	-0.7448	294.8298	295	<b>64</b>	62	4.0070	574.9398	575
32	183	-0.8261	291.4138	291	<b>65</b>	44	N/A	600.0000	600	32	131	-0.6700	299.2391	299	<b>65</b>	20	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

Table 8.D.33 New Conversions for Mathematics, Grades Four and Five

Grade 4										Grade 5									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	33	80	-0.5083	307.0058	307	0	0	N/A	150.0000	150	33	71	-0.1135	323.3210	323
1	0	-4.9543	150.0000	150	34	75	-0.4399	311.5124	312	1	0	-4.5713	150.0000	150	34	99	-0.0463	329.6505	330
2	0	-4.2357	150.0000	150	35	79	-0.3713	316.0295	316	2	0	-3.8486	150.0000	150	35	83	0.0210	335.9886	336
3	0	-3.8045	150.0000	150	36	69	-0.3024	320.5649	321	3	0	-3.4139	150.0000	150	36	72	0.0885	342.3494	342
4	0	-3.4910	150.0000	150	37	70	-0.2332	325.1270	325	4	0	-3.0974	150.0000	150	37	86	0.1563	348.7423	349
5	1	-3.2419	150.0000	150	38	79	-0.1634	329.7244	330	5	0	-2.8457	150.0000	150	38	66	0.2247	355.1805	355
6	0	-3.0335	150.0000	150	39	82	-0.0929	334.3663	334	6	0	-2.6351	150.0000	150	39	83	0.2937	361.6768	362
7	0	-2.8531	152.5841	153	40	83	-0.0216	339.0623	339	7	0	-2.4529	150.0000	150	40	73	0.3634	368.2449	368
8	1	-2.6931	163.1165	163	41	88	0.0507	343.8229	344	8	0	-2.2914	150.0000	150	41	84	0.4340	374.8993	375
9	2	-2.5488	172.6214	173	42	91	0.1241	348.6591	349	9	0	-2.1459	150.0000	150	42	71	0.5058	381.6556	382
10	3	-2.4167	181.3200	181	43	75	0.1989	353.5833	354	10	1	-2.0128	150.0000	150	43	65	0.5788	388.5351	389
11	5	-2.2945	189.3694	189	44	94	0.2752	358.6088	359	11	5	-1.8897	156.0087	156	44	59	0.6533	395.5519	396
12	1	-2.1804	196.8860	197	45	103	0.3533	363.7502	364	12	8	-1.7750	166.8182	167	45	69	0.7295	402.7294	403
13	12	-2.0730	203.9593	204	46	98	0.4334	369.0293	369	13	13	-1.6671	176.9775	177	46	62	0.8076	410.0919	410
14	8	-1.9713	210.6572	211	47	97	0.5159	374.4597	374	14	8	-1.5651	186.5872	187	47	49	0.8881	417.6672	418
15	14	-1.8744	217.0361	217	48	104	0.6010	380.0662	380	15	24	-1.4681	195.7276	196	48	48	0.9711	425.4872	425
16	24	-1.7817	223.1408	223	49	115	0.6892	385.8750	386	16	32	-1.3753	204.4641	204	49	63	1.0571	433.5890	434
17	43	-1.6926	229.0084	229	50	106	0.7810	391.9171	392	17	44	-1.2863	212.8507	213	50	45	1.1465	442.0163	442
18	49	-1.6067	234.6697	235	51	121	0.8768	398.2294	398	18	39	-1.2005	220.9335	221	51	43	1.2400	450.8192	451
19	44	-1.5234	240.1512	240	52	102	0.9774	404.8568	405	19	45	-1.1175	228.7483	229	52	46	1.3382	460.0716	460
20	52	-1.4426	245.4753	245	53	115	1.0837	411.8544	412	20	61	-1.0370	236.3303	236	53	48	1.4419	469.8412	470
21	42	-1.3639	250.6615	251	54	99	1.1966	419.2908	419	21	69	-0.9587	243.7075	244	54	21	1.5522	480.2304	480
22	71	-1.2869	255.7279	256	55	118	1.3176	427.2601	427	22	69	-0.8823	250.9050	251	55	17	1.6704	491.3659	491
23	54	-1.2116	260.6877	261	56	103	1.4484	435.8721	436	23	77	-0.8076	257.9447	258	56	26	1.7983	503.4130	503
24	49	-1.1377	265.5561	266	57	101	1.5913	445.2866	445	24	75	-0.7343	264.8467	265	57	28	1.9383	516.5943	517
25	60	-1.0650	270.3452	270	58	94	1.7498	455.7229	456	25	70	-0.6623	271.6299	272	58	14	2.0937	531.2361	531
26	65	-0.9933	275.0664	275	59	106	1.9286	467.4992	467	26	75	-0.5914	278.3079	278	59	13	2.2694	547.7835	548
27	78	-0.9225	279.7294	280	60	87	2.1356	481.1304	481	27	84	-0.5214	284.8980	285	60	11	2.4729	566.9535	567
28	64	-0.8524	284.3445	284	61	70	2.3831	497.4311	497	28	83	-0.4523	291.4139	291	61	11	2.7168	589.9337	590
29	64	-0.7829	288.9208	289	62	65	2.6949	517.9670	518	29	59	-0.3837	297.8687	298	62	9	3.0251	600.0000	600
30	62	-0.7139	293.4667	293	63	57	3.1244	546.2526	546	30	85	-0.3157	304.2749	304	63	5	3.4507	600.0000	600
31	70	-0.6452	297.9919	298	64	19	3.8406	593.4195	593	31	70	-0.2481	310.6446	311	64	4	4.1635	600.0000	600
32	95	-0.5767	302.5016	303	65	7	N/A	600.0000	600	32	88	-0.1807	316.9895	317	65	0	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

Table 8.D.34 New Conversions for Mathematics, Grades Six and Seven

Grade 6										Grade 7									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	33	48	-0.0227	325.6961	326	0	0	N/A	150.0000	150	33	33	0.2123	330.9187	331
1	0	-4.4508	150.0000	150	34	60	0.0447	331.2682	331	1	0	-4.1805	150.0000	150	34	38	0.2792	336.4743	336
2	0	-3.7318	150.0000	150	35	37	0.1122	336.8531	337	2	0	-3.4630	150.0000	150	35	45	0.3463	342.0439	342
3	0	-3.3004	150.0000	150	36	49	0.1800	342.4570	342	3	0	-3.0332	150.0000	150	36	32	0.4136	347.6376	348
4	0	-2.9867	150.0000	150	37	33	0.2481	348.0917	348	4	0	-2.7211	150.0000	150	37	31	0.4814	353.2660	353
5	0	-2.7376	150.0000	150	38	51	0.3168	353.7677	354	5	0	-2.4734	150.0000	150	38	23	0.5498	358.9398	359
6	0	-2.5293	150.0000	150	39	40	0.3860	359.4964	359	6	1	-2.2666	150.0000	150	39	31	0.6188	364.6705	365
7	1	-2.3491	150.0000	150	40	38	0.4561	365.2895	365	7	0	-2.0879	150.0000	150	40	23	0.6886	370.4700	370
8	1	-2.1895	150.0000	150	41	38	0.5271	371.1599	371	8	0	-1.9297	153.0726	153	41	17	0.7595	376.3512	376
9	2	-2.0456	158.4366	158	42	32	0.5992	377.1209	377	9	0	-1.7871	164.9104	165	42	25	0.8315	382.3277	382
10	3	-1.9139	169.3230	169	43	31	0.6726	383.1924	383	10	2	-1.6568	175.7291	176	43	18	0.9048	388.4182	388
11	13	-1.7921	179.3907	179	44	33	0.7475	389.3850	389	11	6	-1.5364	185.7272	186	44	20	0.9797	394.6355	395
12	9	-1.6785	188.7854	189	45	20	0.8241	395.7199	396	12	6	-1.4241	195.0528	195	45	20	1.0563	401.0003	401
13	18	-1.5717	197.6201	198	46	31	0.9027	402.2185	402	13	10	-1.3185	203.8183	204	46	15	1.1350	407.5338	408
14	15	-1.4706	205.9819	206	47	32	0.9836	408.9050	409	14	15	-1.2186	212.1115	212	47	19	1.2160	414.2600	414
15	33	-1.3743	213.9408	214	48	25	1.0671	415.8073	416	15	26	-1.1236	220.0029	220	48	23	1.2997	421.2097	421
16	30	-1.2822	221.5532	222	49	21	1.1536	422.9579	423	16	27	-1.0327	227.5486	228	49	17	1.3865	428.4130	428
17	44	-1.1938	228.8667	229	50	26	1.2435	430.3935	430	17	27	-0.9454	234.7962	235	50	14	1.4768	435.9097	436
18	49	-1.1085	235.9179	236	51	28	1.3375	438.1677	438	18	47	-0.8612	241.7848	242	51	9	1.5712	443.7464	444
19	44	-1.0260	242.7422	243	52	19	1.4362	446.3283	446	19	37	-0.7798	248.5478	249	52	8	1.6703	451.9795	452
20	48	-0.9459	249.3674	249	53	15	1.5404	454.9472	455	20	41	-0.7007	255.1137	255	53	5	1.7751	460.6784	461
21	37	-0.8678	255.8180	256	54	20	1.6513	464.1110	464	21	44	-0.6237	261.5072	262	54	12	1.8865	469.9300	470
22	51	-0.7917	262.1157	262	55	14	1.7700	473.9306	474	22	66	-0.5485	267.7502	268	55	7	2.0060	479.8454	480
23	41	-0.7171	268.2794	268	56	17	1.8985	484.5510	485	23	52	-0.4749	273.8617	274	56	3	2.1352	490.5771	491
24	55	-0.6440	274.3264	274	57	12	2.0390	496.1743	496	24	56	-0.4027	279.8601	280	57	5	2.2766	502.3159	502
25	44	-0.5721	280.2729	280	58	15	2.1950	509.0703	509	25	72	-0.3316	285.7583	286	58	3	2.4335	515.3419	515
26	55	-0.5012	286.1307	286	59	7	2.3713	523.6445	524	26	54	-0.2616	291.5725	292	59	3	2.6107	530.0600	530
27	48	-0.4313	291.9146	292	60	7	2.5754	540.5214	541	27	34	-0.1924	297.3156	297	60	3	2.8159	547.0934	547
28	55	-0.3621	297.6366	298	61	6	2.8199	560.7392	561	28	55	-0.1240	302.9997	303	61	2	3.0618	567.5101	568
29	50	-0.2935	303.3078	303	62	0	3.1288	586.2854	586	29	38	-0.0561	308.6361	309	62	3	3.3719	593.2603	593
30	56	-0.2254	308.9391	309	63	3	3.5551	600.0000	600	30	36	0.0114	314.2363	314	63	0	3.7994	600.0000	600
31	40	-0.1576	314.5409	315	64	0	4.2686	600.0000	600	31	42	0.0785	319.8095	320	64	1	4.5145	600.0000	600
32	45	-0.0901	320.1239	320	65	0	N/A	600.0000	600	32	49	0.1454	325.3671	325	65	0	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

Table 8.D.35 New Conversions for Algebra I and Geometry

Algebra I										Geometry									
Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Dist.	Theta	Scale Score	Rprtd Score
0	0	N/A	150.0000	150	33	55	0.4268	327.5124	328	0	0	N/A	150.0000	150	33	5	0.4002	337.7248	338
1	0	-3.9255	150.0000	150	34	48	0.4930	331.9408	332	1	0	-4.0699	150.0000	150	34	6	0.4687	343.8192	344
2	1	-3.2111	150.0000	150	35	45	0.5593	336.3798	336	2	0	-3.3487	150.0000	150	35	9	0.5374	349.9251	350
3	0	-2.7840	150.0000	150	36	39	0.6259	340.8376	341	3	0	-2.9153	150.0000	150	36	6	0.6063	356.0533	356
4	0	-2.4744	150.0000	150	37	33	0.6930	345.3225	345	4	0	-2.5998	150.0000	150	37	3	0.6756	362.2151	362
5	0	-2.2291	150.0000	150	38	38	0.7606	349.8430	350	5	0	-2.3489	150.0000	150	38	4	0.7454	368.4220	368
6	0	-2.0244	163.5339	164	39	38	0.8288	354.4103	354	6	0	-2.1390	150.0000	150	39	4	0.8158	374.6864	375
7	2	-1.8476	175.3594	175	40	32	0.8979	359.0305	359	7	0	-1.9572	150.0000	150	40	9	0.8871	381.0213	381
8	3	-1.6912	185.8225	186	41	22	0.9679	363.7135	364	8	0	-1.7961	150.0000	150	41	4	0.9593	387.4405	387
9	8	-1.5503	195.2481	195	42	23	1.0391	368.4761	368	9	0	-1.6507	155.3591	155	42	7	1.0326	393.9602	394
10	9	-1.4216	203.8609	204	43	29	1.1116	373.3250	373	10	2	-1.5177	167.1883	167	43	2	1.1072	400.5939	401
11	23	-1.3026	211.8203	212	44	25	1.1856	378.2756	378	11	2	-1.3946	178.1329	178	44	4	1.1833	407.3612	407
12	31	-1.1916	219.2441	219	45	19	1.2613	383.3426	383	12	1	-1.2797	188.3510	188	45	2	1.2611	414.2818	414
13	54	-1.0873	226.2230	226	46	26	1.3391	388.5453	389	13	2	-1.1716	197.9649	198	46	3	1.3410	421.3812	421
14	73	-0.9886	232.8255	233	47	30	1.4191	393.9009	394	14	6	-1.0692	207.0660	207	47	3	1.4231	428.6827	429
15	104	-0.8947	239.1089	239	48	11	1.5018	399.4327	399	15	6	-0.9718	215.7321	216	48	4	1.5078	436.2174	436
16	124	-0.8049	245.1183	245	49	18	1.5875	405.1673	405	16	7	-0.8785	224.0239	224	49	0	1.5956	444.0204	444
17	101	-0.7186	250.8911	251	50	11	1.6768	411.1357	411	17	12	-0.7889	231.9921	232	50	1	1.6868	452.1334	452
18	132	-0.6354	256.4585	256	51	10	1.7700	417.3752	417	18	10	-0.7025	239.6787	240	51	1	1.7821	460.6059	461
19	162	-0.5548	261.8469	262	52	7	1.8680	423.9310	424	19	15	-0.6188	247.1196	247	52	4	1.8821	469.4981	469
20	162	-0.4766	267.0790	267	53	10	1.9716	430.8587	431	20	14	-0.5375	254.3454	254	53	6	1.9876	478.8841	479
21	143	-0.4004	272.1744	272	54	8	2.0817	438.2279	438	21	17	-0.4584	261.3829	261	54	3	2.0998	488.8566	489
22	107	-0.3260	277.1515	277	55	9	2.1999	446.1327	446	22	11	-0.3811	268.2553	268	55	2	2.2199	499.5399	500
23	128	-0.2532	282.0225	282	56	4	2.3277	454.6855	455	23	15	-0.3054	274.9841	275	56	4	2.3498	511.0847	511
24	140	-0.1818	286.8034	287	57	4	2.4677	464.0479	464	24	15	-0.2312	281.5858	282	57	0	2.4917	523.7054	524
25	94	-0.1115	291.5062	292	58	1	2.6231	474.4427	474	25	16	-0.1582	288.0787	288	58	1	2.6491	537.6980	538
26	81	-0.0422	296.1420	296	59	4	2.7987	486.1940	486	26	20	-0.0862	294.4778	294	59	1	2.8267	553.4938	553
27	79	0.0263	300.7212	301	60	0	3.0024	499.8160	500	27	4	-0.0151	300.7987	301	60	0	3.0323	571.7767	572
28	76	0.0940	305.2533	305	61	0	3.2464	516.1457	516	28	8	0.0552	307.0498	307	61	0	3.2784	593.6585	594
29	67	0.1612	309.7474	310	62	1	3.5548	536.7708	537	29	11	0.1249	313.2480	313	62	1	3.5887	600.0000	600
30	51	0.2279	314.2122	314	63	1	3.9805	565.2558	565	30	7	0.1941	319.4036	319	63	0	4.0165	600.0000	600
31	71	0.2944	318.6560	319	64	0	4.6932	600.0000	600	31	11	0.2630	325.5276	326	64	0	4.7311	600.0000	600
32	60	0.3606	323.0867	323	65	0	N/A	600.0000	600	32	9	0.3316	331.6311	332	65	0	N/A	600.0000	600

Note: Performance-level cut scores are highlighted.

## Appendix 8.E—DIF Analyses

**Table 8.E.1 Operational Items Exhibiting Significant DIF**

Content Area	Accession No.	Grade	Item Seq	MHD-DIF	Comparison	In Favor Of
Reading/Language Arts	STR30672.OSA	10	69	-1.70	MALE/FEMALE	MALE
	STR30626.OSA	11	71	-1.93	MALE/FEMALE	MALE
Mathematics	STM10758	3	62	-1.61	MALE/FEMALE	MALE
	STM10742	4	1	-2.60	NON-D/DIS	NON-DISABILITY
	STM14883	5	4	-1.90	MALE/FEMALE	MALE

**Table 8.E.2 Field-test Items Exhibiting Significant DIF**

Content Area	Accession No.	Grade	Item Seq	MHD-DIF	Comparison	In Favor Of
Mathematics	STM14352	2	63	-2.07	MALE/FEMALE	MALE
	STM15706	2	40	-2.01	MALE/FEMALE	MALE
	STM15883	3	34	-1.93	MALE/FEMALE	MALE

**Table 8.E.3 DIF Classifications for RLA, Grades Two through Four (operational items)**

DIF category	Grade 2						Grade 3						Grade 4						
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	3	
A-	35	54	30	46	34	52	32	49	30	46	28	43	40	53	34	45	33	44	
A+	30	46	35	54	31	48	33	51	35	54	37	57	35	47	38	51	39	52	
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	75	100	75	100	75	100	

**Table 8.E.4 DIF Classifications for RLA, Grades Five through Seven (operational items)**

DIF category	Grade 5						Grade 6						Grade 7						
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B-	0	0	4	5	4	5	0	0	0	0	0	0	2	3	0	0	2	3	
A-	37	49	33	44	30	40	34	45	0	0	34	45	37	49	0	0	37	49	
A+	38	51	37	49	40	53	41	55	0	0	41	55	35	47	0	0	35	47	
B+	0	0	1	1	1	1	0	0	0	0	0	0	1	1	0	0	1	1	
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small N	0	0	0	0	0	0	0	0	75	100	0	0	0	0	75	100	0	0	
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	

Table 8.E.5 DIF Classifications for RLA, Grades Eight through Eleven (operational Items)

DIF category	Grade 8						Grade 9						Grade 10						Grade 11						
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	1	0	0	1	1
B-	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	2	3	0	0	2	3	
A-	38	51	0	0	38	51	35	47	0	0	35	47	34	45	0	0	34	45	34	45	0	0	34	45	
A+	37	49	0	0	37	49	38	51	0	0	38	51	39	52	0	0	39	52	36	48	0	0	36	48	
B+	0	0	0	0	0	0	1	1	0	0	1	1	1	1	0	0	1	1	2	3	0	0	2	3	
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small N	0	0	75	100	0	0	0	0	75	100	0	0	0	0	75	100	0	0	0	0	75	100	0	0	
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	

**Table 8.E.6 DIF Classifications for Mathematics, Grades Two through Four (operational items)**

DIF category	Grade 2						Grade 3						Grade 4					
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	1	2	0	0	1	2	0	0	1	2	1	2
B-	2	3	1	2	3	5	2	3	1	2	3	5	1	2	4	6	5	8
A-	20	31	29	45	24	37	31	48	27	42	25	38	27	42	21	32	20	31
A+	43	66	34	52	37	57	30	46	36	55	34	52	34	52	38	58	35	54
B+	0	0	1	2	1	2	1	2	1	2	2	3	3	5	1	2	4	6
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

**Table 8.E.7 DIF Classifications for Mathematics, Grades Five through Seven (operational items)**

DIF category	Grade 5						Grade 6						Grade 7					
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	2	3	5	4	6	3	5	0	0	3	5	1	2	0	0	1	2
A-	27	42	30	46	30	46	27	42	0	0	27	42	29	45	0	0	29	45
A+	36	55	30	46	28	43	33	51	0	0	33	51	33	51	0	0	33	51
B+	0	0	2	3	2	3	2	3	0	0	2	3	2	3	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	65	100	0	0	0	0	65	100	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

**Table 8.E.8 DIF Classifications for Algebra I and Geometry (operational items)**

DIF category	Algebra I						Geometry					
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	2	0	0	1	2	0	0	0	0	0	0
A-	27	42	0	0	27	42	0	0	0	0	0	0
A+	37	57	0	0	37	57	0	0	0	0	0	0
B+	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	65	100	0	0	65	100	65	100	65	100
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100

**Table 8.E.9 DIF Classifications for RLA, Grades Two through Four (field-test items)**

DIF category	Grade 2						Grade 3						Grade 4						
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	2	3	4	6	0	0	4	6	2	4	0	0	2	4	
A-	34	47	0	0	34	47	25	35	0	0	25	35	24	44	0	0	24	44	
A+	36	50	0	0	36	50	42	58	0	0	42	58	22	41	0	0	22	41	
B+	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small N	0	0	72	100	0	0	0	0	72	100	0	0	6	11	54	100	6	11	
TOTAL	72	100	72	100	72	100	72	100	72	100	72	100	54	100	54	100	54	100	

**Table 8.E.10 DIF Classifications for RLA, Grades Five through Seven (field-test items)**

DIF category	Grade 5						Grade 6						Grade 7						
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B-	0	0	0	0	0	0	1	4	0	0	1	4	0	0	0	0	0	0	
A-	19	53	0	0	19	53	11	46	0	0	11	46	0	0	0	0	0	0	
A+	15	42	0	0	15	42	12	50	0	0	12	50	0	0	0	0	0	0	
B+	2	6	0	0	2	6	0	0	0	0	0	0	0	0	0	0	0	0	
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small N	0	0	36	100	0	0	0	0	24	100	0	0	24	100	24	100	24	100	
TOTAL	36	100	36	100	36	100	24	100	24	100	24	100	24	100	24	100	24	100	

**Table 8.E.11 DIF Classifications for RLA, Grades Eight through Eleven (field-test items)**

DIF category	Grade 8						Grade 9						Grade 10						Grade 11					
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	1	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
A-	0	0	0	0	0	0	2	7	0	0	2	7	0	0	0	0	0	0	0	0	0	0	0	0
A+	0	0	0	0	0	0	9	30	0	0	9	30	0	0	0	0	0	0	0	0	0	0	0	0
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	24	100	24	100	24	100	18	60	30	100	18	60	24	100	24	100	24	100	12	100	12	100	12	100
TOTAL	24	100	24	100	24	100	30	100	30	100	30	100	24	100	24	100	24	100	12	100	12	100	12	100

**Table 8.E.12 DIF Classifications for Mathematics, Grades Two through Four (field-test items)**

DIF category	Grade 2						Grade 3						Grade 4					
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	2	3	0	0	2	3	1	1	0	0	1	1	0	0	0	0	0	0
B-	4	6	0	0	4	6	7	10	0	0	7	10	3	6	0	0	3	6
A-	33	46	0	0	33	46	34	47	0	0	34	47	21	39	0	0	21	39
A+	31	43	0	0	31	43	29	40	0	0	29	40	24	44	0	0	24	44
B+	2	3	0	0	2	3	1	1	0	0	1	1	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	72	100	0	0	0	0	72	100	0	0	6	11	54	100	6	11
TOTAL	72	100	72	100	72	100	72	100	72	100	72	100	54	100	54	100	54	100

**Table 8.E.13 DIF Classifications for Mathematics, Grades Five through Seven (field-test items)**

DIF category	Grade 5						Grade 6						Grade 7							
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total			
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.		
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B-	3	8	0	0	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	
A-	16	44	0	0	16	44	6	25	0	0	6	25	0	0	0	0	0	0	0	
A+	17	47	0	0	17	47	10	42	0	0	10	42	0	0	0	0	0	0	0	
B+	0	0	0	0	0	0	2	8	0	0	2	8	0	0	0	0	0	0	0	
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small N	0	0	36	100	0	0	6	25	24	100	6	25	24	100	24	100	24	100	24	100
TOTAL	36	100	36	100	36	100	24	100	24	100	24	100	24	100	24	100	24	100	24	100

**Table 8.E.14 DIF Classifications for Algebra I and Geometry (field-test items)**

DIF category	Algebra I						Geometry					
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0
A-	16	53	0	0	16	53	0	0	0	0	0	0
A+	13	43	0	0	13	43	0	0	0	0	0	0
B+	1	3	0	0	1	3	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	30	100	0	0	6	100	6	100	6	100
TOTAL	30	100	30	100	30	100	6	100	6	100	6	100

## Chapter 9: Quality Control Procedures

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Rigorous quality control procedures were implemented throughout the test development, administration, scoring, and reporting processes. As part of this effort, ETS maintains an Office of Testing Integrity (OTI) that resides in the ETS legal department. The OTI provides quality assurance services for all testing programs administered by ETS. In addition, the Office of Professional Standards Compliance at ETS publishes and maintains the *ETS Standards for Quality and Fairness*, which supports the OTI's goals and activities. The purposes of the *ETS Standards for Quality and Fairness* are to help ETS design, develop, and deliver technically sound, fair, and useful products and services; and to help the public and auditors evaluate those products and services.

In addition, each department at ETS that is involved in the testing cycle designs and implements an independent set of procedures to ensure the quality of its products. In the next sections, these procedures are described.

### Quality Control of Item Development

The item development process for the STS is described in detail in Chapter 3, starting on page 101. The next sections highlight elements of the process devoted specifically to the quality control of item development.

#### Item Specifications

ETS maintains item specifications for each STS and has developed an item utilization plan to guide the development of the items for each content area. Item writing emphasis is determined in consultation with the CDE. Adherence to the specifications ensures the maintenance of quality and consistency in the item development process.

#### Item Writers

The items for each STS are written by item writers who have a thorough understanding of the California content standards. The item writers are carefully screened and selected by senior ETS content staff and approved by the CDE. Only those with strong content and teaching backgrounds are invited to participate in an extensive training program for item writers.

#### Internal Contractor Reviews

Once items have been written, ETS assessment specialists make sure that each item goes through an intensive internal review process. Every step of this process is designed to produce items that exceed industry standards for quality. It includes three rounds of content reviews, two rounds of editorial reviews, an internal fairness review, and a high-level review and approval by a content-area director. A carefully designed and monitored workflow and detailed checklists help to ensure that all items meet the specifications for the process.

#### Content Review

ETS assessment specialists make sure that the test items and related materials comply with ETS's written guidelines for clarity, style, accuracy, and appropriateness and with approved item specifications.

The artwork and graphics for the items are created during the internal content review period so assessment specialists can evaluate the correctness and appropriateness of the art early in the item development process. ETS selects visuals that are relevant to the item content

and that are easily understood so students do not struggle to determine the purpose or meaning of the questions.

### **Editorial Review**

Another step in the ETS internal review process involves a team of specially trained editors who check questions for clarity, correctness of language, grade-level appropriateness of language, adherence to style guidelines, and conformity to acceptable item-writing practices. The editorial review also includes rounds of copyediting and proofreading. ETS strives for error-free items beginning with the initial rounds of review.

### **Fairness Review**

One of the final steps in the ETS internal review process is to have all items and stimuli reviewed for fairness. Only ETS staff members who have participated in the ETS Fairness Training, a rigorous internal training course, conduct this bias and sensitivity review. These staff members have been trained to identify and eliminate test questions that contain content that could be construed as offensive to, or biased against, members of specific ethnic, racial, or gender groups.

### **Assessment Director Review**

As a final quality control step, the content area's assessment director or another senior-level content reviewer will read each item before it is presented to the CDE.

### **Assessment Review Panel Review**

The ARPs are panels that advise the CDE and ETS on areas related to item development for the STS. The ARPs are responsible for reviewing all newly developed items for alignment to the California content standards. The ARPs also review the items for accuracy of content, clarity of phrasing, and quality. See page 105 in Chapter 3 for additional information on the function of ARPs within the item-review process.

### **Statewide Pupil Assessment Review Panel Review**

The SPAR panel is responsible for reviewing and approving the achievement tests that are to be used statewide for the testing of students in California public schools in grades two through eleven. The SPAR panel representatives ensure that the test items conform to the requirements of *EC* Section 60602. See page 108 in Chapter 3 for additional information on the function of the SPAR panel within the item-review process.

### **Data Review of Field-tested Items**

ETS field tests newly developed items to obtain statistical information about item performance. This information is used to evaluate items that are candidates for use in operational test forms. The items and item statistics are examined carefully at data review meetings, where content experts discuss items that have poor statistics and do not meet the psychometric criteria for item quality. The CDE defines the criteria for acceptable or unacceptable item statistics. These criteria ensure that the item (1) has an appropriate level of difficulty for the target population; (2) discriminates well between examinees that differ in ability; and (3) conforms well to the statistical model underlying the measurement of the intended constructs. The results of analyses for differential item functioning (DIF) are used to make judgments about the appropriateness of items for various subgroups.

The ETS content experts make recommendations about whether to accept or reject each item for inclusion in the California item bank. The CDE content experts review the recommendations and make the final decision on each item.

## Quality Control of the Item Bank

After the data review, items are placed in the item bank along with their statistics and reviewers' evaluations of their quality. ETS then delivers the items to the CDE through the California electronic item bank. The item bank database is maintained by a staff of application systems programmers, led by the Item Bank Manager, at ETS. All processes are logged; all change requests—including item bank updates for item availability status—are tracked; and all output and California item bank deliveries are quality-controlled for accuracy.

Quality of the item bank and secure transfer of the California item bank to the CDE are very important. The ETS internal item bank database resides on a server within the ETS firewall; access to the SQL Server database is strictly controlled by means of system administration. The electronic item banking application includes a login/password system to authorize access to the database or designated portions of the database. In addition, only users authorized to access the specific database are able to use the item bank. Users are authorized by a designated administrator at the CDE and at ETS.

ETS has extensive experience in accurate and secure data transfer of many types, including CDs, secure remote hosting, secure Web access, and secure file transfer protocol (SFTP), which is the current method used to deliver the California electronic item bank to the CDE. In addition, all files posted on the SFTP site by the item bank staff are encrypted with a password.

The measures taken for ensuring the accuracy, confidentiality, and security of electronic files are as follows:

- Electronic forms of test content, documentation, and item banks are backed up electronically, with the backup media kept off site, to prevent loss from system breakdown or a natural disaster.
- The offsite backup files are kept in secure storage, with access limited to authorized personnel only.
- Advanced network security measures are used to prevent unauthorized electronic access to the item bank.

## Quality Control of Test Form Development

The ETS Assessment Development group is committed to providing the highest quality product to the students of California and has in place a number of quality control (QC) checks to ensure that outcome. During the item development process, there are multiple senior reviews of items and passages, including one by the assessment director. Test forms certification is a formal quality control process established as a final checkpoint prior to printing. In it, content, editorial, and senior development staff review test forms for accuracy and clueing issues.

ETS also includes quality checks throughout preparation of the form planners. A form planner specifications document is developed by the test development team lead with input from ETS's item bank and statistics groups; this document is then reviewed by all team members who build forms at a training session specific to form planners before the form-building process starts. After trained content team members sign off on a form planner, a representative from the internal QC group reviews each file for accuracy against the

specifications document. Assessment directors review and sign off on form planners prior to processing.

As processes are refined and enhanced, ETS will implement further QC checks as appropriate.

## Quality Control of Test Materials

### Collecting Test Materials

Once the tests are administered, school districts return scorable and nonscorable materials within five working days after the last selected testing day of each test administration period. The freight return kits provided to the districts contain color-coded labels identifying scorable and nonscorable materials and labels with bar-coded information identifying the school and district. The school districts apply the appropriate labels and 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.

All scorable materials are delivered to the Pearson scanning and scoring facilities in Iowa City, Iowa. The nonscorable materials, including test booklets, are returned to the Security Processing Department in Pearson's Cedar Rapids, Iowa, facility. ETS and Pearson closely monitor the return of materials. The STAR Technical Assistance Center (TAC) at ETS monitors returns and notifies school districts that do not return their materials in a timely manner. STAR TAC contacts the district STAR coordinators and works with them to facilitate the return of the test materials.

### Processing Test Materials

Upon receipt of the test materials, Pearson uses precise inventory and test processing systems, in addition to quality assurance procedures, to maintain an up-to-date accounting of all the testing materials within its facilities. The materials are removed carefully from the shipping cartons and examined for a number of conditions, including physical damage, shipping errors, and omissions. A visual inspection to compare the number of students recorded on the School and Grade Identification (SGID) sheets with the number of answer documents in the stack is also conducted.

Pearson's image scanning process captures security information electronically and compares scorable material quantities reported on the SGIDs to actual documents scanned. School districts are contacted by phone if there are any missing shipments or the quantity of materials returned appears to be less than expected.

## Quality Control of Scanning

Before any STAR documents are scanned, Pearson conducts a complete check of the scanning system. ETS and Pearson create test decks for every test and form. Each test deck consists of approximately 25 answer documents marked to cover response ranges, demographic data, blanks, double marks, and other responses. Fictitious students are created to verify that each marking possibility is processed correctly by the scanning program. The output file generated as a result of this activity is thoroughly checked against each answer document after each stage to verify that the scanner is capturing marks correctly. When the program output is confirmed to match the expected results, a scan program release form is signed and the scan program is placed in the production environment under configuration management.

The intensity levels of each scanner are constantly monitored for quality control purposes. Intensity diagnostics sheets are run before and during each batch to verify that the scanner is working properly. In the event that a scanner fails to properly pick up items on the diagnostic sheets, the scanner is recalibrated to work properly before being allowed to continue processing student documents.

Documents received in poor condition (torn, folded, or water-stained) that could not be fed through the high-speed scanners are either scanned using a flat-bed scanner or keyed into the system manually.

### **Post-scanning Edits**

After scanning, there are three opportunities for demographic data to be edited:

- After scanning, by Pearson online editors
- After Pearson online editing, by district STAR coordinators (demographic edit)
- After paper reporting, by district STAR coordinators

Demographic edits completed by the Pearson editors and by the district STAR coordinators online are included in the data used for the paper reporting and for the technical reports.

## **Quality Control of Image Editing**

Prior to submitting any STAR operational documents through the image editing process, Pearson creates a mock set of documents to test all of the errors listed in the edit specifications. The set of test documents is used to verify that each image of the document is saved so that an editor would be able to review the documents through an interactive interface. The edits are confirmed to show the appropriate error, the correct image to edit the item, and the appropriate problem and resolution text that instructs the editor on the actions that should be taken.

Once the set of mock test documents is created, the image edit system completes the following procedures:

1. Scan the set of test documents.
2. Verify that the images from the documents are saved correctly.
3. Verify that the appropriate problem and resolution text displays for each type of error.
4. Submit the post-edit program to assure that all errors have been corrected.

Pearson checks the post file against expected results to ensure the appropriate corrections are made. The post file will have all keyed corrections and any defaults from the edit specifications.

## **Quality Control of Answer Document Processing and Scoring**

### **Accountability of Answer Documents**

In addition to the quality control checks carried out in scanning and image editing, the following manual quality checks are conducted to verify that the answer documents are correctly attributed to the students, schools, districts, and subgroups:

- Grade counts are compared to the District Master File Sheets.
- Document counts are compared to the School Master File Sheets.
- Document counts are compared to the SGIDs.

Any discrepancies identified in the steps outlined above are followed up by Pearson staff with the school districts for resolution.

### **Processing of Answer Documents**

Prior to processing operational answer documents and executing subsequent data processing programs, ETS conducts an end-to-end test. As part of this test, ETS prepares approximately 700 test cases covering all tests and many scenarios designed to exercise particular business rule logic. ETS marks answer documents for those 700 test cases. They are then scanned, scored, and aggregated. The results at various inspection points are checked by psychometricians and Data Quality Services staff. Additionally, a post-scan test file of approximately 50,000 records across the STAR Program is scored and aggregated to test a broader range of scoring and aggregation scenarios. These procedures assure that students and school districts receive the correct scores when the actual scoring process is carried out.

### **Scoring and Reporting Specifications**

ETS develops standardized scoring procedures and specifications so testing materials are processed and scored accurately. These documents include:

- General Reporting Specifications
- Form Planner Specifications
- Aggregation Rules
- “What If” . . . List
- Edit Specifications
- Reporting Cluster Names and Item Numbers

Each of these documents is explained in detail in Chapter 7, starting on page 157. The scoring specifications are reviewed and revised by the CDE, ETS, and Pearson each year. After a version that all parties endorse is finalized, the CDE issues a formal approval of the scoring and reporting specifications.

### **Storing Answer Documents**

After the answer documents have been scanned, edited, and scored, and have cleared the clean-post process, they are palletized and placed in the secure storage facilities at Pearson. The materials are stored until October 31 of each year, after which ETS requests permission to destroy the materials. After receiving CDE approval, the materials are destroyed in a secure manner.

## **Quality Control of Psychometric Processes**

### **Score Key Verification Procedures**

ETS and Pearson take various necessary measures to ascertain that the scoring keys are applied to the student responses as expected and the student scores are computed accurately. Scoring keys, provided in the form planners, are produced by ETS and verified thoroughly by performing multiple quality control checks. The form planners contain the information about an assembled test form; other information in the form planner includes the test name, administration year, subscore identification, and standards and statistics associated with each item. The quality control checks that are performed before keys are finalized are listed on page 158 in Chapter 7.

## Quality Control of Item Analyses and the Equating Process

The psychometric analyses conducted at ETS undergo comprehensive quality checks by a team of psychometricians and data analysts. Detailed checklists are consulted by members of the team for each of the statistical procedures performed on each STS. Quality assurance checks also include a comparison of the current year's statistics to statistics from previous years. The results of preliminary classical item analyses that provide a check on scoring keys are also reviewed by a senior psychometrician. The items that are flagged for questionable statistical attributes are sent to test development staff for their review; their comments are reviewed by the psychometricians before items are approved to be included in the equating process.

The results of the equating process are reviewed by a psychometric manager in addition to the aforementioned team of psychometricians and data analysts. If the senior psychometrician and the manager reach a consensus that an equating result does not conform to the norm, special binders are prepared for review by senior psychometric advisors at ETS, along with several pieces of informative analyses to facilitate the process.

A few additional checks are performed for the calibration, scaling, and scoring table creation processes, as described below.

### Calibrations

During the calibration that is described in more detail in Chapter 2 starting on page 14, checks are made to ascertain that the correct options for the analyses are selected. Checks are also made on the number of items, number of examinees with valid scores, IRT Rasch item difficulty estimates, standard errors for the Rasch item difficulty estimates, and the match of selected statistics to the results on the same statistics obtained during preliminary item analyses. Psychometricians also perform detailed reviews of plots and statistics to investigate if the model fit the data.

### Scaling

During the scaling process, checks are made to ensure the following:

- The correct items are used for linking;
- The scaling evaluation process, including stability analysis and subsequent removal of items from the linking set (if any), is implemented according to specification (see details in the “Evaluation of Scaling” section in Chapter 8, on page 235); and
- The resulting scaling constants are correctly applied to transform the new item difficulty estimates onto the item bank scale.

### Scoring Tables

Once the equating activities are complete and raw-score-to-scale score conversion tables are generated, the psychometricians carry out quality control checks on each scoring table. Scoring tables are checked to verify the following:

- All raw scores are included in the tables;
- Scale scores increase as raw scores increase;
- The minimum reported scale score is 150 and maximum reported scale score is 600; and
- The cut points for the performance levels are correctly identified.

As a check on the reasonableness of the performance levels, psychometricians compare results from the current year with results from the past year at the cut points and the

percentage of students in each performance level within the equating samples. After all quality control steps are completed and any differences are resolved, a senior psychometrician inspects the scoring tables as the final step in quality control before ETS delivers them to Pearson.

During the current administration of the STS for Geometry only, the item parameter estimates derived from previous item analyses are used to pre-equate the 2013 results. However, key checks and classical item analyses and associated quality assurance checks are conducted on the current data.

### **Score Verification Process**

Pearson utilizes the raw-to-scale scoring tables to assign scale scores for each student. ETS verifies Pearson's scale scores by independently generating the scale scores for students in a small number of school districts and comparing these scores with those generated by Pearson. The selection of districts is based on the availability of data for all schools included in those districts, known as "pilot districts."

### **Year-to-Year Comparison Analyses**

Year-to-year comparison analyses are conducted each year for quality control of the scoring procedure in general and as reasonableness checks for the STS results. The year-to-year comparison analyses uses over 90 percent of the entire testing population to look at the tendencies and trends for the state as a whole as well as a few large districts.

The results of the year-to-year comparison analyses are provided to the CDE, and their reasonableness is jointly discussed. Any anomalies in the results are investigated further, and scores are released only after explanations that satisfy both the CDE and ETS are obtained.

### **Offloads to Test Development**

The statistics based on classical item analyses and the IRT analyses are obtained at two different times in the testing cycle. The first time, the statistics are obtained on the equating samples to ensure the quality of equating and then on larger sample sizes to ensure the stability of the statistics that are to be used for future test assembly. Statistics used to generate DIF flags are also obtained from the larger samples. The resulting classical, IRT, and DIF statistics for all items are provided to test development staff in specially designed Excel spreadsheets called "statistical offloads." The offloads are thoroughly checked by the psychometric staff before their release for test development review.

## **Quality Control of Reporting**

For the quality control of various STAR student and summary reports, four general areas are evaluated, including the following:

1. Comparing report formats to input sources from the CDE-approved samples
2. Validating and verifying the report data by querying the appropriate student data
3. Evaluating the production print execution performance by comparing the number of report copies, sequence of report order, and offset characteristics to the CDE's requirements
4. Proofreading reports by the CDE, ETS, and Pearson prior to any school district mailings

All reports are required to include a single, accurate CDS code, a charter school number (if applicable), a school district name, and a school name. All elements conform to the CDE's

official 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. The CDS Master File is provided by the CDE to ETS throughout the year as updates are available.

After the reports are validated against the CDE's requirements, a set of reports for pilot districts is provided to the CDE and ETS for review and approval. Pearson sends paper reports on the actual report forms, foldered as they are expected to look in production. The CDE and ETS review and sign off on the report package after a thorough review.

Upon the CDE's approval of the reports generated from the pilot districts, Pearson proceeds with the first production batch test. The first production batch is selected to validate a subset of school districts that contains examples of key reporting characteristics representative of the state as a whole. The first production batch test incorporates CDE-selected school districts and provides the last check prior to generating all reports and mailing them to the districts.

### **Excluding 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 answer documents that, for example, indicate the student tested but marked no answers, 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 (for example, for a grade eight mathematics test where the specific mathematics test is unknown) are also covered in the specifications.

## Reference

Educational Testing Service. (2002). *ETS standards for quality and fairness*. Princeton, NJ: Author.

# Chapter 10: Historical Comparisons

## Base Year Comparisons

Historical comparisons of the STS results are routinely performed to identify the trends in examinee performance and test characteristics over time. Such comparisons were performed for RLA and mathematics in grades two through seven over a period of the three most recent years of administration—2011, 2012, and 2013—and the base year.

The indicators of examinee performance include the mean and standard deviation of scale scores, observed score ranges, and the percentage of examinees classified into proficient and advanced performance levels. Test characteristics are compared by looking at the mean proportion correct, overall reliability and SEM, as well as the mean IRT *b*-value for each STS.

The base year of each STS refers to the year in which the base score scale was established. Operational forms administered in the years following the base year are linked to the base year score scale using procedures described in Chapter 2.

The base years for the STS are presented in Table 10.1.

**Table 10.1 Base Years for STS**

Content Area	STS	Base Year
Reading/Language Arts	2	2009
	3	2009
	4	2009
	5	2010
	6	2010
	7	2010
	8	2013
	9	2013
	10	2013
	11	2013
	Mathematics	2	2009
3		2009
4		2009
5		2010
6		2010
7		2010
Algebra I		2013
Geometry		2013

The base years differ over STS by grade. Reasons for these differences are as follows:

- The STS for RLA and mathematics in grades two through four were first administered operationally in spring 2007. Percent-correct scores were reported in the 2007 and 2008 administrations. A standard setting was held in fall 2008 to establish new cut scores for the below basic, basic, proficient, and advanced performance levels. Spring 2009 was the first administration in which test results were reported using the new scales and cut scores for the four performance levels (below basic, basic, proficient, and advanced); thus, 2009 became the base year for these tests.
- The STS for RLA and mathematics in grades five through seven were first administered operationally in spring 2008. Percent-correct scores were reported in the 2008 and 2009 administrations. A standard setting was held in fall 2009 to establish new cut scores for

the below basic, basic, proficient, and advanced performance levels. Spring 2010 was the first administration in which test results were reported using the new scales and cut scores for the four performance levels (below basic, basic, proficient, and advanced); thus, 2010 became the base year for these tests.

- The STS for RLA in grades eight through eleven and EOC Algebra I and Geometry were first administered operationally in spring 2009. Percent-correct scores were reported in the 2009 through 2012 administrations. The performance standards for those tests were developed in November 2011 and adopted by the SBE in July 2012. Spring 2013 was the first administration in which test results were reported using the new scales and cut scores for the four performance levels (below basic, basic, proficient, and advanced); thus, 2013 became the base year for these tests.

## Examinee Performance

Table 10.A.1 on page 329 contains the number of examinees assessed and the means and standard deviations of examinees' scale scores in the base year and subsequent administrations for each grade-level STS in grades two through seven for the base year and in 2011, 2012, and 2013. As noted in previous chapters, the STS reporting scales range from 150 to 600 for all content areas.

STS scale scores are used to classify student results into one of five performance levels: far below basic, below basic, basic, proficient, and advanced. The percentages of students qualifying for the proficient and advanced levels are presented in Table 10.A.2 for grade-level STS in grades two through seven; please note that this information may differ slightly from information found on the CDE's STAR reporting Web page at <http://star.cde.ca.gov> due to differing dates on which data were accessed. The goal is for all students to achieve at or above the proficient level by 2014. This goal for all students is consistent with school growth targets for state accountability and the federal requirements under the Elementary and Secondary Education Act.

Table 10.A.3 and Table 10.A.4 show the distribution of scale scores observed from the base year to 2013 for the STS in RLA in grades two through four and in grades five through seven, respectively; Table 10.A.5 and Table 10.A.6 show these data for mathematics. Frequency counts are provided for each scale score interval of 30. A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range. For all STS, a minimum score of 300 is required for a student to reach the basic level of performance, and a minimum score of 350 is required for a student to reach the proficient level of performance.

## Test Characteristics

The item and test analysis results of the STS over the comparison years indicate that the STS meets the technical criteria established in professional standards for high-stakes tests. In addition, every year, efforts are made to improve the technical quality of each STS. The item and test analysis results are provided for the base year of each STS and the subsequent administrations through 2013; specifically, for the base year and the 2011, 2012, and 2013 administrations for grades two through seven grade-level tests.

Table 10.B.1 in Appendix 10.B, which starts on page 332, presents the average proportion-correct values for the STS operational items in grades two through seven grade-level tests from the base year to 2013. The mean proportion correct is affected by both the difficulty of the items and the abilities of the students administered the items.

Table 10.B.2 and show the mean equated IRT  $b$ -values for the STS operational items in grades two through seven grade-level tests from the base year to 2013. The mean equated IRT  $b$ -values reflect only average item difficulty. Please note that comparisons of mean  $b$ -values should be made only within a given test; they should not be compared across grade levels or content areas.

The average point-biserial correlations for grades two through seven grade-level STS operational tests in the base year, 2011, 2012, and 2013 are presented in Table 10.B.3. The reliabilities and standard error of measurement (SEM) expressed in raw score units for the grade-level STS operational tests in grades two through seven in the base year, 2011, 2012, and 2013 appear in Table 10.B.4. Like the average proportion correct, point-biserial correlations and reliabilities are affected by both item characteristics and student characteristics.

## Appendix 10.A—Historical Comparisons Tables, Examinee Performance

**Table 10.A.1 Number of Examinees Tested, Scale Score Means, and Standard Deviations of STS Across Base Year, 2011, 2012, and 2013, Grades Two through Seven**

Content Area	STS	Number of Examinees (valid scores)				Scale Score Mean and Standard Deviation							
						Base		2011		2012		2013	
		Base	2011	2012	2013	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Reading/ Language Arts	2	13,300	10,783	10,628	8,854	333	53	331	55	333	57	329	55
	3	8,992	7,596	6,770	6,259	333	51	333	51	335	55	333	53
	4	4,897	4,411	4,431	3,903	325	51	327	54	327	53	326	54
	5	3,049	2,898	2,875	2,743	318	56	319	60	323	63	317	59
	6	1,962	1,918	1,768	1,725	318	54	322	57	325	61	323	62
	7	1,587	1,462	1,456	1,414	322	52	331	54	330	56	333	60
Mathematics	2	13,250	10,771	10,621	8,851	360	72	365	73	363	75	359	76
	3	8,940	7,585	6,775	6,243	359	74	368	75	366	75	362	75
	4	4,893	4,409	4,430	3,885	359	72	368	75	365	76	361	78
	5	3,043	2,889	2,872	2,728	349	88	350	85	356	94	341	83
	6	1,952	1,905	1,759	1,695	332	77	332	77	331	79	326	77
	7	1,549	1,457	1,412	1,351	316	63	321	65	323	69	317	67

**Table 10.A.2 Percentage of Proficient and Above and Percentage of Advanced Across Base Year, 2011, 2012, and 2013, Grades Two through Seven**

Content Area	STS	% Proficient and Above				% Advanced			
		Base	2011	2012	2013	Base	2011	2012	2013
Reading/ Language Arts	2	40%	39%	40%	37%	17%	15%	18%	17%
	3	37%	35%	40%	36%	13%	13%	15%	14%
	4	35%	36%	36%	35%	12%	15%	14%	14%
	5	29%	30%	32%	29%	9%	10%	13%	10%
	6	28%	33%	34%	32%	7%	9%	11%	11%
	7	31%	36%	37%	38%	8%	10%	12%	15%
Mathematics	2	54%	57%	53%	52%	21%	24%	23%	21%
	3	51%	56%	58%	52%	19%	25%	22%	23%
	4	52%	58%	56%	53%	19%	25%	23%	21%
	5	46%	48%	49%	42%	22%	21%	25%	18%
	6	38%	35%	38%	34%	17%	16%	17%	16%
	7	27%	31%	30%	27%	8%	9%	11%	9%

**Table 10.A.3 Observed Score Distributions of the STS Across Base Year, 2011, 2012, and 2013 for RLA (Grades Two through Four)**

Observed Score Distributions	RLA Grade 2				RLA Grade 3				RLA Grade 4			
	Base	2011	2012	2013	Base	2011	2012	2013	Base	2011	2012	2013
570–600	8	9	15	5	2	1	6	1	0	0	0	0
540–569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	0
510–539	N/A	N/A	N/A	N/A	7	7	4	7	1	N/A	N/A	N/A
480–509	18	56	47	26	23	15	21	14	1	6	4	12
450–479	150	176	92	136	100	82	118	89	19	32	35	22
420–449	385	360	565	274	404	304	280	276	105	115	100	171
390–419	1,320	1,013	1,152	847	646	552	556	516	364	393	373	328
360–389	2,187	1,599	1,545	1,470	1382	1306	1155	1,080	818	731	747	635
330–359	3,203	2,314	2,082	1,534	2032	1685	1462	1,120	1,007	834	907	684
300–329	2,416	1,946	1,987	1,649	1860	1593	1324	1,276	955	902	871	766
270–299	1,941	1,742	1,615	1,484	1587	1272	957	1,097	846	670	659	588
240–269	1,231	1,110	1,164	1,090	812	663	685	658	584	511	537	537
210–239	409	413	340	313	126	111	193	113	181	206	186	148
180–209	29	44	24	26	11	5	9	12	15	10	11	12
150–179	3	1	0	0	0	0	0	0	0	0	0	0

A frequency count of “N/A” indicates that there are no obtainable scale scores within that scale-score range.

**Table 10.A.4 Observed Score Distributions of the STS Across Base Year, 2011, 2012, and 2013 for RLA (Grades Five through Seven)**

Observed Score Distributions	RLA Grade 5				RLA Grade 6				RLA Grade 7			
	Base	2011	2012	2013	Base	2011	2012	2013	Base	2011	2012	2013
570–600	0	0	1	0	0	0	1	1	0	0	0	1
540–569	0	4	2	2	0	0	0	1	0	0	1	1
510–539	2	4	9	3	1	1	4	2	0	1	0	4
480–509	10	17	20	9	4	3	4	12	3	2	5	14
450–479	27	41	58	30	11	17	31	42	8	18	23	34
420–449	116	120	123	83	50	76	88	65	49	75	62	73
390–419	186	187	253	214	148	145	129	125	122	113	131	140
360–389	359	355	284	284	207	306	256	218	224	234	211	169
330–359	511	425	456	463	369	325	303	260	251	289	274	268
300–329	602	557	558	493	412	326	306	336	327	290	275	240
270–299	583	562	479	507	388	345	310	294	327	226	259	238
240–269	460	397	431	452	271	241	215	256	208	166	162	182
210–239	169	212	164	175	88	123	95	97	66	47	52	41
180–209	23	16	37	26	13	7	23	16	1	1	1	9
150–179	1	1	0	2	0	3	3	0	1	0	0	0

**Table 10.A.5 Observed Score Distributions of the STS Across Base Year, 2011, 2012, and 2013 for Mathematics (Grades Two through Four)**

Observed Score Distributions	Mathematics Grade 2				Mathematics Grade 3				Mathematics Grade 4			
	Base	2011	2012	2013	Base	2011	2012	2013	Base	2011	2012	2013
570–600	130	141	171	125	42	109	105	82	28	24	21	26
540–569	N/A	N/A	N/A	N/A	86	N/A	N/A	N/A	20	32	38	57
510–539	322	174	191	140	136	115	110	95	48	55	71	65
480–509	272	424	485	397	365	326	331	254	130	172	167	157
450–479	580	556	607	462	442	662	369	317	342	390	345	200
420–449	1,437	932	1,005	730	657	688	602	679	381	432	391	322
390–419	1,648	1,387	1,263	1,010	1,235	978	973	695	668	639	634	543
360–389	1,977	1,940	1,651	1,245	1,146	990	943	798	686	604	628	517
330–359	2,289	1,736	1,460	1,374	1,487	1,253	1,089	1,105	875	604	571	592
300–329	1,894	1,450	1,667	1,415	1,361	1,021	899	801	620	575	577	468
270–299	1,345	1,147	1,195	921	1,115	749	728	727	527	426	472	463
240–269	978	591	553	707	632	500	426	459	384	300	368	312
210–239	290	238	282	257	198	164	177	212	149	133	128	138
180–209	78	48	83	60	35	28	21	18	32	21	14	21
150–179	10	7	8	8	3	2	2	1	3	2	5	4

A frequency count of “N/A” indicates that there are no obtainable scale scores within that scale-score range.

**Table 10.A.6 Observed Score Distributions of the STS Across Base Year, 2011, 2012, and 2013 for Mathematics (Grades Five through Seven)**

Observed Score Distributions	Mathematics Grade 5				Mathematics Grade 6				Mathematics Grade 7			
	Base	2011	2012	2013	Base	2011	2012	2013	Base	2011	2012	2013
570 – 600	49	50	76	29	16	9	14	3	2	3	3	4
540 – 569	54	25	27	24	11	15	17	13	4	3	7	5
510 – 539	75	68	107	42	14	19	18	7	6	6	13	6
480 – 509	62	76	130	64	36	51	23	44	5	15	11	15
450 – 479	190	122	162	137	56	61	74	49	38	31	44	25
420 – 449	171	207	203	156	100	94	75	94	41	63	71	63
390 – 419	327	284	269	239	189	176	152	108	98	103	72	74
360 – 389	311	395	374	376	218	206	208	172	154	139	136	114
330 – 359	395	432	267	406	271	247	221	270	192	200	201	202
300 – 329	474	395	381	314	291	305	265	239	325	294	261	220
270 – 299	338	323	307	371	304	293	262	257	311	295	258	268
240 – 269	289	266	279	290	253	257	246	221	224	187	221	235
210 – 239	210	164	198	189	143	123	129	156	128	102	92	95
180 – 209	81	59	72	64	39	40	49	42	20	15	17	22
150 – 179	17	23	20	27	11	9	6	20	1	1	5	3

## Appendix 10.B—Historical Comparisons Tables, Test Characteristics

**Table 10.B.1 Average Proportion Correct for Operational Test Items Across Base Year, 2011, 2012, and 2013, Grades Two through Seven**

Content Area	Grade-level STS	Average <i>p</i> -value			
		Base	2011	2012	2013
Reading/Language Arts	2	0.65	0.64	0.64	0.62
	3	0.59	0.58	0.61	0.59
	4	0.57	0.59	0.59	0.58
	5	0.49	0.51	0.52	0.51
	6	0.48	0.51	0.52	0.52
	7	0.53	0.55	0.56	0.58
	Mathematics	2	0.67	0.69	0.70	0.68
3		0.66	0.67	0.68	0.66
4		0.63	0.66	0.65	0.65
5		0.54	0.55	0.54	0.54
6		0.50	0.50	0.51	0.50
7		0.44	0.46	0.48	0.47

**Table 10.B.2 Overall IRT *b*-values for Operational Test Items Across Base Year, 2011, 2012, and 2013, Grades Two through Seven**

Content Area	Grade-level STS	Mean IRT <i>b</i> -value			
		Base	2011	2012	2013
Reading/Language Arts	2	-0.59	-0.59	-0.55	-0.52
	3	-0.31	-0.26	-0.39	-0.30
	4	-0.18	-0.24	-0.23	-0.18
	5	0.09	0.00	-0.02	-0.02
	6	0.05	-0.03	-0.03	-0.07
	7	-0.16	-0.16	-0.18	-0.23
	Mathematics	2	-0.77	-0.78	-0.85	-0.79
3		-0.62	-0.56	-0.58	-0.63
4		-0.48	-0.48	-0.49	-0.53
5		-0.06	-0.08	0.02	-0.16
6		0.04	0.00	-0.04	-0.07
7		0.29	0.28	0.18	0.18

**Table 10.B.3 Average Point-Biserial Correlation for Operational Test Items Across Base Year, 2011, 2012, and 2013, Grades Two through Seven**

Content Area	Grade-level STS	Average Point-Biserial Correlation			
		Base	2011	2012	2013
Reading/Language Arts	2	0.43	0.44	0.45	0.44
	3	0.39	0.39	0.41	0.40
	4	0.39	0.41	0.40	0.42
	5	0.36	0.38	0.39	0.37
	6	0.33	0.36	0.37	0.37
	7	0.35	0.36	0.37	0.39
Mathematics	2	0.40	0.41	0.41	0.42
	3	0.44	0.44	0.44	0.44
	4	0.41	0.43	0.43	0.44
	5	0.39	0.37	0.41	0.37
	6	0.37	0.38	0.38	0.38
	7	0.33	0.33	0.35	0.34

**Table 10.B.4 Score Reliabilities (Cronbach's Alpha) and Standard Error of Measurement (SEM) Across Base Year, 2011, 2012, and 2013, Grades Two through Seven**

Content Area	Grade-level STS	Reliability				SEM			
		Base	2011	2012	2013	Base	2011	2012	2013
Reading/ Language Arts	2	0.93	0.93	0.94	0.94	3.34	3.38	3.38	3.42
	3	0.91	0.91	0.92	0.92	3.51	3.55	3.47	3.51
	4	0.93	0.93	0.93	0.93	3.79	3.78	3.78	3.79
	5	0.91	0.92	0.92	0.91	3.96	3.94	3.91	3.94
	6	0.89	0.91	0.91	0.92	3.95	3.95	3.95	3.96
	7	0.90	0.91	0.92	0.92	3.89	3.87	3.87	3.84
Mathematics	2	0.92	0.92	0.92	0.93	3.31	3.28	3.27	3.31
	3	0.93	0.94	0.94	0.93	3.30	3.24	3.26	3.24
	4	0.92	0.93	0.93	0.93	3.42	3.33	3.36	3.37
	5	0.91	0.90	0.92	0.90	3.62	3.65	3.56	3.64
	6	0.91	0.91	0.91	0.91	3.61	3.62	3.61	3.63
	7	0.87	0.88	0.89	0.88	3.69	3.68	3.70	3.69