California Department of Education
Assessment Development and Administration Division

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Technical Report
Spring 2011 Administration

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Acronyms and Initialisms Used in the *STS Technical Report*

ADA	Americans with Disabilities Act	ICC	item characteristic curve
AERA	American Educational Research Association	IEP	individualized education program
APA	American Psychological Association	IRT	item response theory
ARP	Assessment Review Panel	IT	Information Technology
API	Academic Performance Index	LEA	local education agency
ASL	American Sign Language	MH DIF	Mantel-Haenszel DIF
AYP	Adequate Yearly Progress	MCE	Manually Coded English
CAHSEE	California High School Exit Examination	NCME	National Council on Measurement in Education
CAPA	California Alternate Performance Assessment	NPS	nonsecure, nonsectarian school
CCR	California *Code of Regulations*	NSLP	National School Lunch Program
CDE	California Department of Education	OTI	Office of Testing Integrity
CDS	county/district/school	*p*-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
DIF	differential item functioning	RLA	reading/language arts
DFA	*Directions for Administration*	SBE	State Board of Education
DOK	depth of knowledge	SD	standard deviation
DPLT	designated primary language test	SDAIE	specially designed academic instruction in English
DQS	Data Quality Services	SEM	standard error of measurement
EL	English learner	SFTP	secure file transfer protocol
ELA	English–language arts	SGID	School and Grade Identification sheet
ELD	English language development	SKM	score key management
EM	expectation maximization	SPAR	Statewide Pupil Assessment Review
EOC	end of course	STAR	Standardized Testing and Reporting
ESEA	Elementary and Secondary Education Act	STAR TAC	STAR Technical Assistance Center
ETS	Educational Testing Service	STS	Standards-based Tests in Spanish
FIA	final item analyses	WRMSD	weighted root-mean-square differences
GENASYS	Generalized Analysis System		

Chapter 1: Introduction

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 2011 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) (outside source):

"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

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

mathematics tests are administered to students in grades two through seven. In addition, the STS includes two 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 end-of-course STS tests 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 2011, 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 required 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 tests are targeted toward 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.

The number of examinees taking the grade-level STS vary significantly across different grade levels, from approximately 800 in grade eleven (RLA) to approximately 13,000 for grade two. Volumes for the EOC STS varied by content, with approximately 3,100 for Algebra I and approximately 400 for Geometry. Over 80 percent of the total test-takers are from the target population.

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) (outside source):

“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.

Testing Window

The STS is administered at different times, depending on the progression of the school year within each particular school district. Specifically, schools must administer the CSTs, the CMA, the CAPA, and the STS within a 21-day window which begins 10 days before and ends 10 days after the day on which 85 percent of the instructional year is completed. School districts may use all or any part of the 21 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 at http://www.cde.ca.gov/ta/tg/sr/starregs0207cln.doc). (This regulation was updated in June 2011. The new regulation, which will take effect beginning with the 2012 STAR administration, extends the STAR testing window by 4 days, from 21 instructional days to 25 instructional days.)

Significant Developments in 2011

There were no new developments in the 2011 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 classroom work and progress reports in addition to the child's STS test results (CDE, 2009). 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 results for the STS, the reviewer is limited to comparisons within the same subject and grade. For example, it is appropriate to compare scores obtained by students and/or schools on the 2011 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, and if based on the same score scale, across years. Comparisons between scores obtained in different grades or content areas should be avoided.

In 2011, the results for the STS for RLA in grades eight through eleven and the mathematics EOC tests in Algebra I in grades seven through eleven and Geometry in grades eight through eleven are reported as the percent-correct scores, which are the number-correct scores divided by the total number of items on the test. When comparing percent-correct score results, the reviewer is limited to comparisons within the same content area, grade, and year. No direct comparisons should be made between grades, between content areas, or across the years.

Finally, it is inappropriate to conduct any type of score comparisons (including raw score, percent correct, scale score, or performance level comparisons) between CST and STS tests. 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 7,000,000 children and young adults in more than 9,000 schools. California will

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 contracted with Educational Testing Service (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 2011. 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 in this chapter. Also included 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 2011.

- Chapter 5 presents the processes involved in the actual administration of the 2011 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 the STS for RLA and mathematics in grades two through seven.
- 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 2011 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 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 spring 2011 administration, the spring 2010 administration, and the 2009 base year for RLA and mathematics in grades two through four; and for the spring 2011 administration and the 2010 base year for RLA and mathematics in grades five through seven.

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.

Reference

California Department of Education. (2009). *Interpreting 2009 STAR program test results.* Sacramento, CA.

Chapter 2: An Overview of STS Processes

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 carry out 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. The item specifications help ensure that the items in the STS measure the content standards in the same way. To do this, the item specifications provide detailed information to item writers that 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 100.

Item Banking

Before newly developed items are placed in the item bank, ETS prepares the items and the associated statistics 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 104; and the Statewide Pupil Assessment Review (SPAR) panel, described in Chapter 3 starting on page 107.

Once the ARP review is complete, the items are placed in the item bank along with their corresponding information obtained at the review sessions. Items that are accepted by the content experts 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. Items are then field tested to obtain information about item performance and item statistics that can be used to assemble operational forms. Subsequent 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 109 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 test 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 tests 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 consist of 65 operational items. The considerations in deciding upon the test length are described on page 111 in Chapter 4. The total number of items including operational and field-test items in each STS form and the estimated time to complete a test form is presented in Appendix 2.A on page 18.

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 in grades two through eleven 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 for grades two through eleven and the standards that comprise each cluster are provided in Appendix 2.B, which starts on page 19.

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 the previous year’s operational administration and are used to equate the test forms administered each year. In 2011, linking items were used to equate grade-level STS tests in grades two through seven. (No equating process was implemented for the STS for RLA in grades eight through eleven or the EOC mathematics STS, which did not report scale scores in 2011.) After the linking items are approved, assessment specialists populate the rest of the test form.

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 111.

Psychometric Criteria

The staff assesses the projected test characteristics during the preliminary review of the assembled forms. The statistical test targets used for the 2011 test development and the projected characteristics of the assembled forms are presented starting from page 112 in Chapter 4.

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 112 in Chapter 4.

Test Administration

It is of utmost priority to administer the STS tests in an appropriate, consistent, 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 the 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 140.

In its 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 process are discussed in detail in Chapter 5, starting on page 140, and are as follows:

- 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 that 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 Manua*l (CDE, 2011); see page 146 in Chapter 5 for more information.

Test Directions

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

***Directions for Administration* (*DFA*s)—**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 146 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 146 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 147 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 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 variations, accommodations, or modifications. All students in these categories may have test administration directions simplified or clarified.

In addition, 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.

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. 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. Scores for students tested with modifications are counted as far below basic on the STAR summary reports for the STS that report performance levels, 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 if 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 if 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 23 presents the 2011 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 2011.

Special Services Summaries

The percentage of students using various testing variations, accommodations, and modifications during the 2011 administration of the STS is presented in Appendix 2.D, which starts on page 25. 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 English learner (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.

For grade-level STS in grades two through seven, total raw scores are converted to three-digit scale scores using the equating process described starting on page 13. 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 for the STS in grades two through seven, performance on various reporting clusters is also reported for all of the STS. 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 155.

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.

Individual Scores

Table 7.1 through Table 7.3 starting on page 159 in Chapter 7 offer summary statistics for individual scores, 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 160 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 171 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 tested in each group, scale score means and standard deviations, and percent in a performance level for grades two through seven, raw score means and standard deviations for grades eight through eleven, as well as mean percent correct scores for each reporting cluster for each demographic group for grades two through eleven. Table 7.5 on page 162 provides definitions for the demographic groups included in the tables.

Equating

The STS tests in grades two through seven 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 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 2011 STS items on the grade-level tests in grades two through seven were placed on the reference scale using a set of linking items selected from the 2010 forms and re-administered in 2011.

The procedure used for equating the grade-level STS tests in grades two through seven involves three steps: item calibration, item scaling, and scoring table production.

For the STS for RLA in grades eight through eleven and the EOC mathematics STS, no scale scores were reported in 2011 and no equating was conducted for these tests.

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 keeping 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

Calibrations of the 2011 items for grade-level tests in grades two through seven were 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 was 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:

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

where,

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

n_g is the number of intervals/groups,

θ_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 θ_j, and

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

Based on established procedures, any linking items for which the WRMSD was greater than 0.125 were eliminated. 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 consisting entirely of *n* multiple-choice items, this is the well-known relationship defined in Lord (1980; equations 4–5):

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

where,

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

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

For each integer score ξ_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 the equation below:

$$ScaleScore = Intercept + Slope \times \theta \tag{2.3}$$

The slope and intercept for each STS were developed from the base forms, which are the 2008 operational forms for grades two through four and the 2009 operational forms for the grades five through seven grade-level tests, using the equations below:

$$\text{Slope} = \frac{350 - 300}{\theta_{proficient} - \theta_{basic}} \tag{2.4}$$

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

where,

θ represents student ability that corresponds to a raw score

$\theta_{proficient}$ represents theta cut-score for proficient on the base scale

θ_{basic} represents theta cut-score for basic on the base scale

Complete raw-to-scale score conversion tables for the grade-level 2011 STS in grades two through seven are presented in Table 8.D.27 through Table 8.D.32 in Appendix 8.D, starting on page 297. The raw scores and corresponding transformed scale scores are also listed in these tables.

For all of the STS with performance levels, 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.

The scale score ranges defining the various performance levels for the grade-level tests in grades two through seven are presented in Table 2.1, on the next page.

Please note that the performance levels are not available for the STS for RLA in grades eight through eleven, Algebra I in grades seven through eleven, and Geometry in grades eight through eleven.

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
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

* Numbers indicate grade-level tests.

Equating Samples

All target STS students with valid results on the STS tests are included in the equating samples.

Equating the Braille Versions of the STS Tests

In 2011, all STS items could be translated into braille and therefore, no special braille form equating was needed.

References

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Appendix 2.A—STS Item 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	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time
Reading/Language Arts		**150**		**150**		**170**		**170**		**170**		**170**		**170**		**170**		**170**		**170**
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
Part 3–only grades 2 & 3		50		50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mathematics		**150**		**150**		**150**		**150**		**150**		**150**		**180**		**180**		**180**		**180**
Part 1	71	50	71	50	71	75	71	75	71	75	71[1]	75	71[2]	90	71[2]	90	71[2]	90	71[2]	90
Part 2		50		50		75		75		75		75		90		90		90		90
Part 3–only grades 2 & 3		50		50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

[1] 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). Follow the item and estimated time guidelines for the STS for Mathematics for grades eight through eleven to estimate test administration time for students in grade seven taking the STS for Algebra I.

[2] Eligible students in grades eight through eleven may take the STS for Algebra I or Geometry.

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)	
Number Sense	
Place value, addition, and subtraction	15 items
Multiplication, division, and fractions	23 items
Algebra and Functions	6 items
Measurement and Geometry	14 items
Statistics, Data Analysis, and Probability	7 items
Mathematics Standards Test (Grade Three)	
Number Sense	
Place value, fractions, and decimals	16 items
Addition, subtraction, multiplication, division	16 items
Algebra and Functions	12 items
Measurement and Geometry	16 items
Statistics, Data Analysis, and Probability	5 items
Mathematics Standards Test (Grade Four)	
Number Sense	
Decimals, fractions, and negative numbers	17 items
Operations and factoring	14 items
Algebra and Functions	18 items
Measurement and Geometry	12 items
Statistics, Data Analysis, and Probability	4 items
Mathematics Standards Test (Grade Five)	
Number Sense	
Estimation, percents, and factoring	12 items
Operations with fractions and decimals	17 items
Algebra and Functions	17 items
Measurement and Geometry	15 items
Statistics, Data Analysis, and Probability	4 items

Mathematics Standards Test (Grade Six)

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

Mathematics Standards Test (Grade Seven)

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

Algebra I Standards Test

Number Properties, Operations, and Linear Equations	
Standards: 1.0–5.0, 24.1–24.3, and 25.1–25.3	17 items
Graphing and Systems of Linear Equations	
Standards: 6.0–9.0	14 items
Quadratics and Polynomials	
Standards: 10.0, 11.0, 14.0, and 19.0–23.0	21 items
Functions and Rational Expressions	
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

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

Appendix 2.C—2011 Test Variations, Accommodations, and Modifications

(1): Test Variation, (2): Accommodation, (3): Modification	
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 transcribe.
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—Test items enlarged if font larger than required 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
Dictionary	3
Test questions read aloud to student	2 Math
	3 RLA
Calculator on the mathematics tests	3

(1): Test Variation, (2): Accommodation, (3): Modification	
Arithmetic table or formulas (not provided) on the mathematics tests	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

Note:

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 at grade two. The column with the heading of "Pct. Of Total" in the same table represents the percentage 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. For example, the total number of students listed as "in Special Education" who used a certain accommodation and those listed as "Not in Special Education" may not equal the number of all test-takers using the same accommodation. This occurred due to the fact that only valid primary disability codes were chosen to identify those 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%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	2	0.02%
J: Tested over more than one day	6	0.05%	15	0.17%
K: Had supervised breaks	25	0.19%	31	0.36%
L: Administered at most beneficial time of day	9	0.07%	5	0.06%
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	0.02%	3	0.03%
Y: Leave blank	1	0.01%	5	0.06%
Z: Examiner read test questions aloud	4	0.03%	7	0.08%
Accommodation or Modification is in Section 504 plan	0	0.00%	2	0.02%
Accommodation or Modification is in IEP	33	0.25%	38	0.44%
Any Accommodation or Modification	35	0.27%	45	0.52%
No Accommodation or Modification	12,919	99.73%	8,627	99.48%
Target Students Tested	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0.01%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.03%	1	0.01%
J: Tested over more than one day	6	0.06%	14	0.18%
K: Had supervised breaks	21	0.19%	25	0.33%

Special Services Summary for RLA, Grades Two and Three				
L: Administered at most beneficial time of day	8	0.07%	2	0.03%
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	0.03%	3	0.04%
Y: Leave blank	1	0.01%	5	0.07%
Z: Examiner read test questions aloud	4	0.04%	7	0.09%
Accommodation or Modification is in Section 504 plan	0	0.00%	1	0.01%
Accommodation or Modification is in IEP	28	0.26%	33	0.43%
Any Accommodation or Modification	30	0.28%	38	0.50%
No Accommodation or Modification	10,823	99.72%	7,596	99.50%
Nontarget (Optional) Students Tested	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0	0.00%	1	0.10%
J: Tested over more than one day	0	0.00%	1	0.10%
K: Had supervised breaks	4	0.19%	6	0.58%
L: Administered at most beneficial time of day	1	0.05%	3	0.29%
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%	1	0.10%
Accommodation or Modification is in IEP	5	0.24%	5	0.48%
Any Accommodation or Modification	5	0.24%	7	0.67%
No Accommodation or Modification	2,096	99.76%	1,031	99.33%
Students Not in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0.01%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	1	0.01%
J: Tested over more than one day	0	0.00%	5	0.06%
K: Had supervised breaks	4	0.03%	8	0.10%
L: Administered at most beneficial time of day	2	0.02%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%

Special Services Summary for RLA, Grades Two and Three				
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	0.01%	0	0.00%
Y: Leave blank	0	0.00%	2	0.02%
Z: Examiner read test questions aloud	2	0.02%	2	0.02%
Accommodation or Modification is in Section 504 plan	0	0.00%	2	0.02%
Accommodation or Modification is in IEP	6	0.05%	8	0.10%
Any Accommodation or Modification	8	0.06%	11	0.13%
No Accommodation or Modification	12,410	99.94%	8,267	99.87%
Students in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	1	0.19%	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	2	0.37%	1	0.25%
J: Tested over more than one day	6	1.12%	10	2.54%
K: Had supervised breaks	21	3.93%	23	5.84%
L: Administered at most beneficial time of day	7	1.31%	5	1.27%
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%
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	0.37%	3	0.76%
Y: Leave blank	1	0.19%	3	0.76%
Z: Examiner read test questions aloud	2	0.37%	5	1.27%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	27	5.05%	30	7.61%
Any Accommodation or Modification	27	5.05%	34	8.63%
No Accommodation or Modification	508	94.95%	360	91.37%
Students in U.S. Schools < 12 Months	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0.07%	0	0.00%
K: Had supervised breaks	1	0.07%	1	0.08%
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%

Special Services Summary for RLA, Grades Two and Three				
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	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	2	0.15%	1	0.08%
Any Accommodation or Modification	3	0.22%	1	0.08%
No Accommodation or Modification	1,343	99.78%	1,201	99.92%
Students in U.S. Schools ≥ 12 Months	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	1	0.01%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.03%	2	0.03%
J: Tested over more than one day	5	0.04%	15	0.20%
K: Had supervised breaks	24	0.21%	30	0.40%
L: Administered at most beneficial time of day	9	0.08%	5	0.07%
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	0.03%	3	0.04%
Y: Leave blank	0	0.00%	5	0.07%
Z: Examiner read test questions aloud	4	0.03%	7	0.09%
Accommodation or Modification is in Section 504 plan	0	0.00%	2	0.03%
Accommodation or Modification is in IEP	31	0.27%	37	0.50%
Any Accommodation or Modification	32	0.28%	44	0.59%
No Accommodation or Modification	11,576	99.72%	7,426	99.41%
EL Program: EL in ELD	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%

Special Services Summary for RLA, Grades Two and Three				
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	406	100.00%	114	100.00%
EL Program: EL in ELD and SDAIE	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0.10%	0	0.00%
K: Had supervised breaks	1	0.10%	3	0.35%
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	0.10%	2	0.23%
Any Accommodation or Modification	2	0.21%	3	0.35%
No Accommodation or Modification	962	99.79%	855	99.65%
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%	1	0.12%
J: Tested over more than one day	0	0.00%	1	0.12%
K: Had supervised breaks	3	0.21%	3	0.36%
L: Administered at most beneficial time of day	1	0.07%	3	0.36%
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%

Special Services Summary for RLA, Grades Two and Three				
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%	1	0.12%
Accommodation or Modification is in IEP	3	0.21%	3	0.36%
Any Accommodation or Modification	3	0.21%	4	0.49%
No Accommodation or Modification	1,408	99.79%	820	99.51%
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0.01%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.03%	1	0.02%
J: Tested over more than one day	5	0.05%	14	0.21%
K: Had supervised breaks	20	0.20%	25	0.38%
L: Administered at most beneficial time of day	8	0.08%	2	0.03%
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	0.03%	3	0.05%
Y: Leave blank	1	0.01%	5	0.08%
Z: Examiner read test questions aloud	4	0.04%	7	0.11%
Accommodation or Modification is in Section 504 plan	0	0.00%	1	0.02%
Accommodation or Modification is in IEP	27	0.27%	33	0.50%
Any Accommodation or Modification	28	0.28%	38	0.57%
No Accommodation or Modification	9,810	99.72%	6,613	99.43%
EL Program: Other EL Instructional Services	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%

Special Services Summary for RLA, Grades Two and Three				
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	0	0.00%	0	0.00%
No Accommodation or Modification	42	100.00%	65	100.00%
EL Program: None (EL only)	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	90	100.00%	55	100.00%

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

Special Services Summary for RLA, Grades Four and Five				
All Students Tested	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	2	0.04%	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	15	0.28%	15	0.43%
K: Had supervised breaks	17	0.32%	18	0.51%
L: Administered at most beneficial time of day	3	0.06%	7	0.20%
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%
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	0.04%	3	0.09%
Y: Leave blank	2	0.04%	3	0.09%
Z: Examiner read test questions aloud	3	0.06%	1	0.03%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	27	0.51%	27	0.77%
Any Accommodation or Modification	30	0.57%	28	0.79%
No Accommodation or Modification	5,251	99.43%	3,497	99.21%
Target Students Tested	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	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	15	0.34%	12	0.41%
K: Had supervised breaks	17	0.38%	16	0.55%
L: Administered at most beneficial time of day	3	0.07%	7	0.24%
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%
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	0.05%	2	0.07%
Y: Leave blank	2	0.05%	3	0.10%
Z: Examiner read test questions aloud	3	0.07%	1	0.03%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	27	0.61%	24	0.83%
Any Accommodation or Modification	30	0.68%	25	0.86%
No Accommodation or Modification	4,396	99.32%	2,880	99.14%

Special Services Summary for RLA, Grades Four and Five				
Nontarget (Optional) Students Tested	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%	3	0.48%
K: Had supervised breaks	0	0.00%	2	0.32%
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%	1	0.16%
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%	3	0.48%
Any Accommodation or Modification	0	0.00%	3	0.48%
No Accommodation or Modification	855	100.00%	617	99.52%
Students Not in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	0.06%	0	0.00%
K: Had supervised breaks	4	0.08%	2	0.06%
L: Administered at most beneficial time of day	0	0.00%	1	0.03%
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%
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	0.02%	1	0.03%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	5	0.10%	3	0.09%
Any Accommodation or Modification	7	0.14%	3	0.09%
No Accommodation or Modification	5,013	99.86%	3,286	99.91%

Special Services Summary for RLA, Grades Four and Five				
Students in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	2	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	12	4.69%	15	6.41%
K: Had supervised breaks	13	5.08%	16	6.84%
L: Administered at most beneficial time of day	3	1.17%	6	2.56%
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	0.78%	3	1.28%
Y: Leave blank	2	0.78%	3	1.28%
Z: Examiner read test questions aloud	2	0.78%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	22	8.59%	24	10.26%
Any Accommodation or Modification	23	8.98%	25	10.68%
No Accommodation or Modification	233	91.02%	209	89.32%
Students in U.S. Schools < 12 Months	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	1	0.09%	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%
Any Accommodation or Modification	1	0.09%	0	0.00%
No Accommodation or Modification	1,172	99.91%	1,076	100.00%

Special Services Summary for RLA, Grades Four and Five				
Students in U.S. Schools ≥ 12 Months	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	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	15	0.37%	15	0.61%
K: Had supervised breaks	16	0.39%	18	0.73%
L: Administered at most beneficial time of day	3	0.07%	7	0.29%
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%
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	0.05%	3	0.12%
Y: Leave blank	2	0.05%	3	0.12%
Z: Examiner read test questions aloud	3	0.07%	1	0.04%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	27	0.66%	27	1.10%
Any Accommodation or Modification	29	0.71%	28	1.14%
No Accommodation or Modification	4,079	99.29%	2,421	98.86%
EL Program: EL in ELD	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	111	100.00%	86	100.00%

Special Services Summary for RLA, Grades Four and Five				
EL Program: EL in ELD and SDAIE	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%	1	0.14%
K: Had supervised breaks	1	0.13%	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%	1	0.14%
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	0.14%
Any Accommodation or Modification	1	0.13%	1	0.14%
No Accommodation or Modification	758	99.87%	701	99.86%
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%	2	0.39%
K: Had supervised breaks	0	0.00%	2	0.39%
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%	2	0.39%
Any Accommodation or Modification	0	0.00%	2	0.39%
No Accommodation or Modification	614	100.00%	506	99.61%

Special Services Summary for RLA, Grades Four and Five				
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	2	0.06%	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	15	0.44%	12	0.62%
K: Had supervised breaks	16	0.47%	16	0.82%
L: Administered at most beneficial time of day	3	0.09%	7	0.36%
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%	0	0.00%
X: Used an unlisted accommodation	2	0.06%	2	0.10%
Y: Leave blank	2	0.06%	3	0.15%
Z: Examiner read test questions aloud	3	0.09%	1	0.05%
Accommodation or Modification is in Section 504 plan	1	0.03%	0	0.00%
Accommodation or Modification is in IEP	27	0.79%	24	1.23%
Any Accommodation or Modification	29	0.85%	25	1.29%
No Accommodation or Modification	3,378	99.15%	1,920	98.71%
EL Program: Other EL Instructional Services	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	314	100.00%	214	100.00%

Special Services Summary for RLA, Grades Four and Five				
EL Program: None (EL only)	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	33	100.00%	24	100.00%

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

Special Services Summary for RLA, Grades Six and Seven				
All Students Tested	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.06%
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	0.05%	1	0.06%
K: Had supervised breaks	7	0.32%	4	0.24%
L: Administered at most beneficial time of day	2	0.09%	1	0.06%
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	1	0.05%	0	0.00%
Z: Examiner read test questions aloud	2	0.09%	1	0.06%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	0.46%	5	0.30%
Any Accommodation or Modification	11	0.50%	6	0.36%
No Accommodation or Modification	2,173	99.50%	1,651	99.64%
Target Students Tested	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	0.05%	1	0.07%
K: Had supervised breaks	4	0.21%	1	0.07%
L: Administered at most beneficial time of day	2	0.10%	1	0.07%
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	1	0.05%	0	0.00%
Z: Examiner read test questions aloud	2	0.10%	1	0.07%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	7	0.36%	2	0.14%
Any Accommodation or Modification	8	0.42%	2	0.14%
No Accommodation or Modification	1,915	99.58%	1,464	99.86%

Special Services Summary for RLA, Grades Six and Seven				
Nontarget (Optional) Students Tested	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.52%
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	3	1.15%	3	1.57%
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	3	1.15%	3	1.57%
Any Accommodation or Modification	3	1.15%	4	2.09%
No Accommodation or Modification	258	98.85%	187	97.91%
Students Not in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.06%
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%	1	0.06%
K: Had supervised breaks	2	0.10%	1	0.06%
L: Administered at most beneficial time of day	1	0.05%	1	0.06%
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	0.05%	1	0.06%
Any Accommodation or Modification	2	0.10%	2	0.12%
No Accommodation or Modification	2,071	99.90%	1,617	99.88%

Special Services Summary for RLA, Grades Six and Seven				
Students in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	0.91%	0	0.00%
K: Had supervised breaks	5	4.55%	3	7.89%
L: Administered at most beneficial time of day	1	0.91%	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	1	0.91%	0	0.00%
Z: Examiner read test questions aloud	2	1.82%	1	2.63%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	9	8.18%	4	10.53%
Any Accommodation or Modification	9	8.18%	4	10.53%
No Accommodation or Modification	101	91.82%	34	89.47%
Students in U.S. Schools < 12 Months	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%	1	0.09%
K: Had supervised breaks	1	0.11%	1	0.09%
L: Administered at most beneficial time of day	0	0.00%	1	0.09%
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	0.09%
Any Accommodation or Modification	1	0.11%	1	0.09%
No Accommodation or Modification	932	99.89%	1,109	99.91%

Special Services Summary for RLA, Grades Six and Seven				
Students in U.S. Schools ≥ 12 Months	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.18%
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	0.08%	0	0.00%
K: Had supervised breaks	6	0.48%	3	0.55%
L: Administered at most beneficial time of day	2	0.16%	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	1	0.08%	0	0.00%
Z: Examiner read test questions aloud	2	0.16%	1	0.18%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	0.80%	4	0.73%
Any Accommodation or Modification	10	0.80%	5	0.91%
No Accommodation or Modification	1,241	99.20%	542	99.09%
EL Program: EL in ELD	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	81	100.00%	141	100.00%

Special Services Summary for RLA, Grades Six and Seven				
EL Program: EL in ELD and SDAIE	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	1	0.17%	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%
Any Accommodation or Modification	1	0.17%	0	0.00%
No Accommodation or Modification	587	99.83%	566	100.00%
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%	1	0.30%
K: Had supervised breaks	0	0.00%	1	0.30%
L: Administered at most beneficial time of day	0	0.00%	1	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%	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	0.30%
Any Accommodation or Modification	0	0.00%	1	0.30%
No Accommodation or Modification	351	100.00%	329	99.70%

Special Services Summary for RLA, Grades Six and Seven				
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	0.09%	0	0.00%
K: Had supervised breaks	3	0.28%	0	0.00%
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%
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	1	0.09%	0	0.00%
Z: Examiner read test questions aloud	2	0.19%	1	0.21%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	7	0.66%	1	0.21%
Any Accommodation or Modification	7	0.66%	1	0.21%
No Accommodation or Modification	1,046	99.34%	485	99.79%
EL Program: Other EL Instructional Services	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	3	6.52%	3	4.41%
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	3	6.52%	3	4.41%
Any Accommodation or Modification	3	6.52%	3	4.41%
No Accommodation or Modification	43	93.48%	65	95.59%

Special Services Summary for RLA, Grades Six and Seven				
EL Program: None (EL only)	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	38	100.00%	35	100.00%

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

Special Services Summary for RLA, Grades Eight and Nine				
All Students Tested	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	2	0.14%	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	0	0.00%	0	0.00%
K: Had supervised breaks	1	0.07%	0	0.00%
L: Administered at most beneficial time of day	1	0.07%	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	2	0.14%	0	0.00%
Any Accommodation or Modification	4	0.28%	0	0.00%
No Accommodation or Modification	1,414	99.72%	2,348	100.00%
Target Students Tested	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	2	0.16%	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	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%
Any Accommodation or Modification	2	0.16%	0	0.00%
No Accommodation or Modification	1,232	99.84%	2,030	100.00%

Special Services Summary for RLA, Grades Eight and Nine				
Nontarget (Optional) Students Tested	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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	1	0.54%	0	0.00%
L: Administered at most beneficial time of day	1	0.54%	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	0.54%	0	0.00%
Any Accommodation or Modification	2	1.09%	0	0.00%
No Accommodation or Modification	182	98.91%	318	100.00%
Students Not in Special Education	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	1	0.07%	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%
Any Accommodation or Modification	2	0.14%	0	0.00%
No Accommodation or Modification	1,385	99.86%	2,330	100.00%

Special Services Summary for RLA, Grades Eight and Nine				
Students in Special Education	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	1	3.23%	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	3.23%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	1	3.23%	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	2	6.45%	0	0.00%
Any Accommodation or Modification	2	6.45%	0	0.00%
No Accommodation or Modification	29	93.55%	17	100.00%
Students in U.S. Schools < 12 Months	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	899	100.00%	1,839	100.00%

Special Services Summary for RLA, Grades Eight and Nine				
Students in U.S. Schools ≥ 12 Months	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	2	0.39%	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	0.19%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	1	0.19%	0	0.00%
L: Administered at most beneficial time of day	1	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%
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	2	0.39%	0	0.00%
Any Accommodation or Modification	4	0.77%	0	0.00%
No Accommodation or Modification	515	99.23%	509	100.00%
EL Program: EL in ELD	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	100	100.00%	251	100.00%

Special Services Summary for RLA, Grades Eight and Nine				
EL Program: EL in ELD and SDAIE	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	464	100.00%	706	100.00%
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	295	100.00%	620	100.00%

Special Services Summary for RLA, Grades Eight and Nine				
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	2	0.46%	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	0.23%	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	0.23%	0	0.00%
Any Accommodation or Modification	2	0.46%	0	0.00%
No Accommodation or Modification	432	99.54%	432	100.00%
EL Program: Other EL Instructional Services	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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	1	1.67%	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	1.67%	0	0.00%
Any Accommodation or Modification	1	1.67%	0	0.00%
No Accommodation or Modification	59	98.33%	169	100.00%

Special Services Summary for RLA, Grades Eight and Nine				
EL Program: None (EL only)	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	29	100.00%	59	100.00%

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

Special Services Summary for RLA, Grades Ten and Eleven				
All Students Tested	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	1,512	100.00%	835	100.00%
Target Students Tested	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	1,331	100.00%	718	100.00%

Special Services Summary for RLA, Grades Ten and Eleven				
Nontarget (Optional) Students Tested	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	181	100.00%	117	100.00%
Students Not in Special Education	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	1,495	100.00%	828	100.00%

Special Services Summary for RLA, Grades Ten and Eleven				
Students in Special Education	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	17	100.00%	7	100.00%
Students in U.S. Schools < 12 Months	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	1,144	100.00%	567	100.00%

Special Services Summary for RLA, Grades Ten and Eleven				
Students in U.S. Schools ≥ 12 Months	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	368	100.00%	268	100.00%
EL Program: EL in ELD	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	191	100.00%	106	100.00%

Special Services Summary for RLA, Grades Ten and Eleven				
EL Program: EL in ELD and SDAIE	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	442	100.00%	265	100.00%
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	315	100.00%	164	100.00%

Special Services Summary for RLA, Grades Ten and Eleven				
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	351	100.00%	193	100.00%
EL Program: Other EL Instructional Services	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	135	100.00%	65	100.00%

Special Services Summary for RLA, Grades Ten and Eleven				
EL Program: None (EL only)	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	25	100.00%	15	100.00%

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

Special Services Summary for Mathematics, 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%	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	2	0.02%	2	0.02%
J: Tested over more than one day	4	0.03%	12	0.14%
K: Had supervised breaks	21	0.16%	27	0.31%
L: Administered at most beneficial time of day	6	0.05%	5	0.06%
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	0.02%	3	0.03%
Y: Leave blank	1	0.01%	3	0.03%
Z: Examiner read test questions aloud	10	0.08%	24	0.28%
Accommodation or Modification is in Section 504 plan	0	0.00%	2	0.02%
Accommodation or Modification is in IEP	29	0.22%	42	0.48%
Any Accommodation or Modification	30	0.23%	46	0.53%
No Accommodation or Modification	12,885	99.77%	8,616	99.47%
Target Students Tested	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	2	0.02%	1	0.01%
J: Tested over more than one day	4	0.04%	11	0.14%
K: Had supervised breaks	17	0.16%	22	0.29%
L: Administered at most beneficial time of day	5	0.05%	2	0.03%
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%

Special Services Summary for Mathematics, Grades Two and Three				
X: Used an unlisted accommodation	3	0.03%	3	0.04%
Y: Leave blank	1	0.01%	3	0.04%
Z: Examiner read test questions aloud	8	0.07%	18	0.24%
Accommodation or Modification is in Section 504 plan	0	0.00%	1	0.01%
Accommodation or Modification is in IEP	24	0.22%	37	0.49%
Any Accommodation or Modification	25	0.23%	39	0.51%
No Accommodation or Modification	10,790	99.77%	7,588	99.49%
Nontarget (Optional) Students Tested	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0	0.00%	1	0.10%
J: Tested over more than one day	0	0.00%	1	0.10%
K: Had supervised breaks	4	0.19%	5	0.48%
L: Administered at most beneficial time of day	1	0.05%	3	0.29%
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	0.10%	6	0.58%
Accommodation or Modification is in Section 504 plan	0	0.00%	1	0.10%
Accommodation or Modification is in IEP	5	0.24%	5	0.48%
Any Accommodation or Modification	5	0.24%	7	0.68%
No Accommodation or Modification	2,095	99.76%	1,028	99.32%
Students Not in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%	1	0.01%
J: Tested over more than one day	0	0.00%	4	0.05%
K: Had supervised breaks	4	0.03%	7	0.08%
L: Administered at most beneficial time of day	2	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%

Special Services Summary for Mathematics, Grades Two and Three				
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%	1	0.01%
Z: Examiner read test questions aloud	2	0.02%	4	0.05%
Accommodation or Modification is in Section 504 plan	0	0.00%	2	0.02%
Accommodation or Modification is in IEP	5	0.04%	8	0.10%
Any Accommodation or Modification	6	0.05%	10	0.12%
No Accommodation or Modification	12,378	99.95%	8,260	99.88%
Students in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	1	0.19%	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	2	0.38%	1	0.26%
J: Tested over more than one day	4	0.75%	8	2.04%
K: Had supervised breaks	17	3.20%	20	5.10%
L: Administered at most beneficial time of day	4	0.75%	5	1.28%
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	0.38%	3	0.77%
Y: Leave blank	1	0.19%	2	0.51%
Z: Examiner read test questions aloud	8	1.51%	20	5.10%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	24	4.52%	34	8.67%
Any Accommodation or Modification	24	4.52%	36	9.18%
No Accommodation or Modification	507	95.48%	356	90.82%
Students in U.S. Schools < 12 Months	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0.07%	0	0.00%
K: Had supervised breaks	1	0.07%	1	0.08%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%

Special Services Summary for Mathematics, Grades Two and Three				
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	1	0.07%	0	0.00%
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	2	0.15%	2	0.17%
Any Accommodation or Modification	3	0.22%	2	0.17%
No Accommodation or Modification	1,336	99.78%	1,197	99.83%
Students in U.S. Schools ≥ 12 Months	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	1	0.01%	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	2	0.02%	2	0.03%
J: Tested over more than one day	3	0.03%	12	0.16%
K: Had supervised breaks	20	0.17%	26	0.35%
L: Administered at most beneficial time of day	6	0.05%	5	0.07%
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	0.03%	3	0.04%
Y: Leave blank	0	0.00%	3	0.04%
Z: Examiner read test questions aloud	10	0.09%	23	0.31%
Accommodation or Modification is in Section 504 plan	0	0.00%	2	0.03%
Accommodation or Modification is in IEP	27	0.23%	40	0.54%
Any Accommodation or Modification	27	0.23%	44	0.59%
No Accommodation or Modification	11,549	99.77%	7,419	99.41%
EL Program: EL in ELD	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%

Special Services Summary for Mathematics, Grades Two and Three				
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	405	100.00%	111	100.00%
EL Program: EL in ELD and SDAIE	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	0.10%	0	0.00%
K: Had supervised breaks	1	0.10%	3	0.35%
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%	3	0.35%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.10%	2	0.23%
Any Accommodation or Modification	2	0.21%	3	0.35%
No Accommodation or Modification	960	99.79%	854	99.65%

Special Services Summary for Mathematics, Grades Two and Three				
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%	1	0.12%
J: Tested over more than one day	0	0.00%	1	0.12%
K: Had supervised breaks	3	0.21%	3	0.36%
L: Administered at most beneficial time of day	1	0.07%	3	0.36%
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	1	0.07%	4	0.49%
Accommodation or Modification is in Section 504 plan	0	0.00%	1	0.12%
Accommodation or Modification is in IEP	3	0.21%	5	0.61%
Any Accommodation or Modification	3	0.21%	6	0.73%
No Accommodation or Modification	1,404	99.79%	817	99.27%
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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	2	0.02%	1	0.02%
J: Tested over more than one day	3	0.03%	11	0.17%
K: Had supervised breaks	16	0.16%	21	0.32%
L: Administered at most beneficial time of day	5	0.05%	2	0.03%
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	0.03%	3	0.05%
Y: Leave blank	1	0.01%	3	0.05%
Z: Examiner read test questions aloud	8	0.08%	17	0.26%

Special Services Summary for Mathematics, Grades Two and Three				
Accommodation or Modification is in Section 504 plan	0	0.00%	1	0.02%
Accommodation or Modification is in IEP	23	0.23%	35	0.53%
Any Accommodation or Modification	23	0.23%	37	0.56%
No Accommodation or Modification	9,783	99.77%	6,610	99.44%
EL Program: Other EL Instructional Services	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	42	100.00%	65	100.00%
EL Program: None (EL only)	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
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%

Special Services Summary for Mathematics, Grades Two and Three				
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	90	100.00%	55	100.00%

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

Special Services Summary for Mathematics, Grades Four and Five				
All Students Tested	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	2	0.04%	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	13	0.25%	11	0.31%
K: Had supervised breaks	16	0.30%	16	0.45%
L: Administered at most beneficial time of day	2	0.04%	6	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%
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	7	0.13%	3	0.09%
Y: Leave blank	2	0.04%	3	0.09%
Z: Examiner read test questions aloud	10	0.19%	9	0.26%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	31	0.59%	28	0.80%
Any Accommodation or Modification	34	0.64%	28	0.80%
No Accommodation or Modification	5,239	99.36%	3,493	99.20%
Target Students Tested	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	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	13	0.29%	9	0.31%
K: Had supervised breaks	16	0.36%	15	0.52%
L: Administered at most beneficial time of day	2	0.05%	6	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	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%

Special Services Summary for Mathematics, Grades Four and Five				
X: Used an unlisted accommodation	7	0.16%	2	0.07%
Y: Leave blank	2	0.05%	3	0.10%
Z: Examiner read test questions aloud	10	0.23%	8	0.28%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	31	0.70%	25	0.86%
Any Accommodation or Modification	34	0.77%	25	0.86%
No Accommodation or Modification	4,387	99.23%	2,877	99.14%
Nontarget (Optional) Students Tested	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%	2	0.32%
K: Had supervised breaks	0	0.00%	1	0.16%
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%	1	0.16%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.16%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	3	0.48%
Any Accommodation or Modification	0	0.00%	3	0.48%
No Accommodation or Modification	852	100.00%	616	99.52%
Students Not in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	0.06%	0	0.00%
K: Had supervised breaks	4	0.08%	2	0.06%
L: Administered at most beneficial time of day	0	0.00%	1	0.03%
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%

Special Services Summary for Mathematics, Grades Four and Five				
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	0.02%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	4	0.08%	1	0.03%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	5	0.10%	3	0.09%
Any Accommodation or Modification	8	0.16%	3	0.09%
No Accommodation or Modification	5,004	99.84%	3,283	99.91%
Students in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	2	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	10	3.91%	11	4.72%
K: Had supervised breaks	12	4.69%	14	6.01%
L: Administered at most beneficial time of day	2	0.78%	5	2.15%
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	6	2.34%	3	1.29%
Y: Leave blank	2	0.78%	3	1.29%
Z: Examiner read test questions aloud	6	2.34%	8	3.43%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	26	10.16%	25	10.73%
Any Accommodation or Modification	26	10.16%	25	10.73%
No Accommodation or Modification	230	89.84%	208	89.27%
Students in U.S. Schools < 12 Months	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	1	0.09%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%

Special Services Summary for Mathematics, Grades Four and Five				
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	1	0.09%	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	2	0.17%	0	0.00%
No Accommodation or Modification	1,166	99.83%	1,075	100.00%
Students in U.S. Schools ≥ 12 Months	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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	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	13	0.32%	11	0.45%
K: Had supervised breaks	15	0.37%	16	0.65%
L: Administered at most beneficial time of day	2	0.05%	6	0.25%
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	7	0.17%	3	0.12%
Y: Leave blank	2	0.05%	3	0.12%
Z: Examiner read test questions aloud	9	0.22%	9	0.37%
Accommodation or Modification is in Section 504 plan	1	0.02%	0	0.00%
Accommodation or Modification is in IEP	31	0.76%	28	1.14%
Any Accommodation or Modification	32	0.78%	28	1.14%
No Accommodation or Modification	4,073	99.22%	2,418	98.86%
EL Program: EL in ELD	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%

Special Services Summary for Mathematics, Grades Four and Five				
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	109	100.00%	86	100.00%
EL Program: EL in ELD and SDAIE	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%	1	0.14%
K: Had supervised breaks	1	0.13%	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%	1	0.14%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.14%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	2	0.28%
Any Accommodation or Modification	1	0.13%	2	0.28%
No Accommodation or Modification	754	99.87%	700	99.72%

Special Services Summary for Mathematics, Grades Four and Five				
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%	1	0.20%
K: Had supervised breaks	0	0.00%	1	0.20%
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	1	0.16%	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	0.20%
Any Accommodation or Modification	1	0.16%	1	0.20%
No Accommodation or Modification	611	99.84%	506	99.80%
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	2	0.06%	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	13	0.38%	9	0.46%
K: Had supervised breaks	15	0.44%	15	0.77%
L: Administered at most beneficial time of day	2	0.06%	6	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%
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	7	0.21%	2	0.10%
Y: Leave blank	2	0.06%	3	0.15%
Z: Examiner read test questions aloud	9	0.26%	8	0.41%

Special Services Summary for Mathematics, Grades Four and Five				
Accommodation or Modification is in Section 504 plan	1	0.03%	0	0.00%
Accommodation or Modification is in IEP	31	0.91%	25	1.29%
Any Accommodation or Modification	32	0.94%	25	1.29%
No Accommodation or Modification	3,375	99.06%	1,918	98.71%
EL Program: Other EL Instructional Services	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	314	100.00%	213	100.00%
EL Program: None (EL only)	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
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%

Special Services Summary for Mathematics, Grades Four and Five				
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	33	100.00%	24	100.00%

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

Special Services Summary for Mathematics, Grades Six and Seven				
All Students Tested	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.06%
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%	1	0.06%
K: Had supervised breaks	7	0.32%	4	0.25%
L: Administered at most beneficial time of day	2	0.09%	1	0.06%
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	0.09%	0	0.00%
Y: Leave blank	1	0.05%	0	0.00%
Z: Examiner read test questions aloud	14	0.65%	1	0.06%
Accommodation or Modification is in Section 504 plan	1	0.05%	0	0.00%
Accommodation or Modification is in IEP	22	1.02%	5	0.31%
Any Accommodation or Modification	24	1.11%	6	0.37%
No Accommodation or Modification	2,134	98.89%	1,624	99.63%
Target Students Tested	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%	1	0.07%
K: Had supervised breaks	4	0.21%	1	0.07%
L: Administered at most beneficial time of day	2	0.10%	1	0.07%
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%

Special Services Summary for Mathematics, Grades Six and Seven				
X: Used an unlisted accommodation	2	0.10%	0	0.00%
Y: Leave blank	1	0.05%	0	0.00%
Z: Examiner read test questions aloud	14	0.73%	1	0.07%
Accommodation or Modification is in Section 504 plan	1	0.05%	0	0.00%
Accommodation or Modification is in IEP	19	0.99%	2	0.14%
Any Accommodation or Modification	21	1.10%	2	0.14%
No Accommodation or Modification	1,893	98.90%	1,464	99.86%
Nontarget (Optional) Students Tested	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.61%
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	3	1.23%	3	1.83%
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	3	1.23%	3	1.83%
Any Accommodation or Modification	3	1.23%	4	2.44%
No Accommodation or Modification	241	98.77%	160	97.56%
Students Not in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.06%
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%	1	0.06%
K: Had supervised breaks	2	0.10%	1	0.06%
L: Administered at most beneficial time of day	1	0.05%	1	0.06%
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%

Special Services Summary for Mathematics, Grades Six and Seven				
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	4	0.20%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	5	0.24%	1	0.06%
Any Accommodation or Modification	6	0.29%	2	0.13%
No Accommodation or Modification	2,042	99.71%	1,592	99.87%
Students in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	5	4.59%	3	8.33%
L: Administered at most beneficial time of day	1	0.92%	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	1.83%	0	0.00%
Y: Leave blank	1	0.92%	0	0.00%
Z: Examiner read test questions aloud	10	9.17%	1	2.78%
Accommodation or Modification is in Section 504 plan	1	0.92%	0	0.00%
Accommodation or Modification is in IEP	17	15.60%	4	11.11%
Any Accommodation or Modification	18	16.51%	4	11.11%
No Accommodation or Modification	91	83.49%	32	88.89%
Students in U.S. Schools < 12 Months	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%	1	0.09%
K: Had supervised breaks	1	0.11%	1	0.09%
L: Administered at most beneficial time of day	0	0.00%	1	0.09%

Special Services Summary for Mathematics, Grades Six and Seven				
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	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	1	0.11%	1	0.09%
Any Accommodation or Modification	2	0.22%	1	0.09%
No Accommodation or Modification	923	99.78%	1,092	99.91%
Students in U.S. Schools ≥ 12 Months	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.19%
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	6	0.49%	3	0.56%
L: Administered at most beneficial time of day	2	0.16%	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	0.16%	0	0.00%
Y: Leave blank	1	0.08%	0	0.00%
Z: Examiner read test questions aloud	13	1.05%	1	0.19%
Accommodation or Modification is in Section 504 plan	1	0.08%	0	0.00%
Accommodation or Modification is in IEP	21	1.70%	4	0.74%
Any Accommodation or Modification	22	1.78%	5	0.93%
No Accommodation or Modification	1,211	98.22%	532	99.07%
EL Program: EL in ELD	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%

Special Services Summary for Mathematics, Grades Six and Seven				
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	79	100.00%	140	100.00%
EL Program: EL in ELD and SDAIE	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	1	0.18%	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%
Any Accommodation or Modification	1	0.18%	0	0.00%
No Accommodation or Modification	570	99.82%	539	100.00%

Special Services Summary for Mathematics, Grades Six and Seven				
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%	1	0.31%
K: Had supervised breaks	0	0.00%	1	0.31%
L: Administered at most beneficial time of day	0	0.00%	1	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%
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	0.29%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.29%	1	0.31%
Any Accommodation or Modification	1	0.29%	1	0.31%
No Accommodation or Modification	347	99.71%	326	99.69%
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	3	0.29%	0	0.00%
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	2	0.19%	0	0.00%
Y: Leave blank	1	0.10%	0	0.00%
Z: Examiner read test questions aloud	13	1.24%	1	0.20%

Special Services Summary for Mathematics, Grades Six and Seven				
Accommodation or Modification is in Section 504 plan	1	0.10%	0	0.00%
Accommodation or Modification is in IEP	18	1.71%	1	0.20%
Any Accommodation or Modification	19	1.81%	1	0.20%
No Accommodation or Modification	1,033	98.19%	502	99.80%
EL Program: Other EL Instructional Services	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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	3	6.82%	3	5.08%
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	3	6.82%	3	5.08%
Any Accommodation or Modification	3	6.82%	3	5.08%
No Accommodation or Modification	41	93.18%	56	94.92%
EL Program: None (EL only)	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
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%

Special Services Summary for Mathematics, Grades Six and Seven				
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%
Any Accommodation or Modification	0	0.00%	0	0.00%
No Accommodation or Modification	38	100.00%	35	100.00%

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

Special Services Summary for Algebra I							
All Students Tested	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	1	0	0	0	1	0.03%
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	1	0	0	0	1	0.03%
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	0.03%
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	2	0	0	0	2	0.06%
Any Accommodation or Modification	0	2	0	0	0	2	0.06%
No Accommodation or Modification	5	553	1,422	838	353	3,171	99.94%
Target Students Tested	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	1	0	0	0	1	0.04%
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	1	0	0	0	1	0.04%
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	1	0	0	0	1	0.04%
Any Accommodation or Modification	0	1	0	0	0	1	0.04%
No Accommodation or Modification	5	501	1,247	729	304	2,786	99.96%
Nontarget (Optional) Students Tested	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	0.26%
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	1	0	0	0	1	0.26%
Any Accommodation or Modification	0	1	0	0	0	1	0.26%
No Accommodation or Modification	0	52	175	109	49	385	99.74%
Students Not in Special Education	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Algebra I							
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	5	540	1,415	827	347	3,134	100.00%
Students in Special Education	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	1	0	0	0	1	2.63%
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	1	0	0	0	1	2.63%
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	2.63%
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	2	0	0	0	2	5.26%
Any Accommodation or Modification	0	2	0	0	0	2	5.26%
No Accommodation or Modification	0	13	6	11	6	36	94.74%
Students in U.S. Schools < 12 Months	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Algebra I							
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	5	319	1,119	645	251	2,339	100.00%
Students in U.S. Schools ≥ 12 Months	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	1	0	0	0	1	0.12%
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	1	0	0	0	1	0.12%
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	0.12%
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	2	0	0	0	2	0.24%
Any Accommodation or Modification	0	2	0	0	0	2	0.24%
No Accommodation or Modification	0	234	303	193	102	832	99.76%
EL Program: EL in ELD	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Algebra I							
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	49	183	103	50	386	100.00%
EL Program: EL in ELD and SDAIE	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	3	155	394	231	126	909	100.00%

Special Services Summary for Algebra I

EL Program: EL in ELD and SDAIE with Primary Language Support	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
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	95	327	187	81	691	100.00%

EL Program: EL in ELD and Academic Subjects through Primary Language	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked in test booklet	0	1	0	0	0	1	0.13%
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	1	0	0	0	1	0.13%
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	1	0	0	0	1	0.13%
Any Accommodation or Modification	0	1	0	0	0	1	0.13%
No Accommodation or Modification	0	222	274	185	62	743	99.87%
EL Program: Other EL Instructional Services	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	0.40%
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	1	0	0	0	1	0.40%
Any Accommodation or Modification	0	1	0	0	0	1	0.40%
No Accommodation or Modification	0	15	128	86	18	247	99.60%
EL Program: None (EL only)	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Algebra I							
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	0	8	42	14	5	69	100.00%

Table 2.D.10 Special Services Summary for Geometry

Special Services Summary for Geometry						
All Students Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	72	229	145	446	100.00%
Target Students Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Geometry						
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	67	210	132	409	100.00%
Nontarget (Optional) Students Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	5	19	13	37	100.00%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Geometry						
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	72	227	145	444	100.00%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	0	2	0	2	100.00%
Students in U.S. Schools < 12 Months	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Geometry						
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	61	156	76	293	100.00%
Students in U.S. Schools ≥ 12 Months	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	11	73	69	153	100.00%
EL Program: EL in ELD	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Geometry						
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	8	37	14	59	100.00%
EL Program: EL in ELD and SDAIE	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	24	46	27	97	100.00%

Special Services Summary for Geometry						
EL Program: EL in ELD and SDAIE with Primary Language Support	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	19	36	18	73	100.00%
EL Program: EL in ELD and Academic Subjects through Primary Language	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

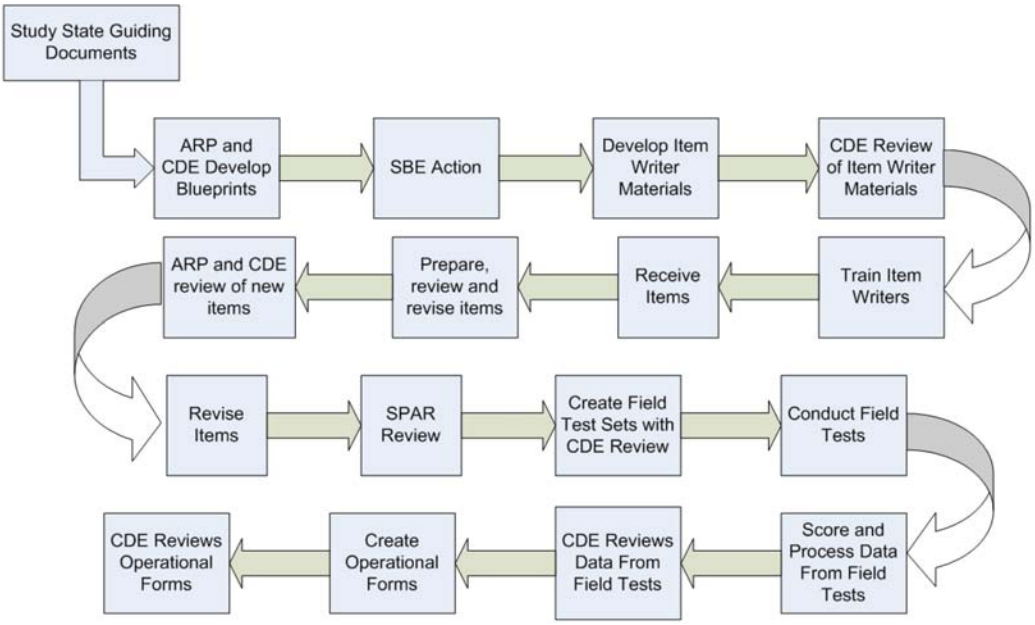
Special Services Summary for Geometry						
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0.00%
No Accommodation or Modification	0	10	79	68	157	100.00%
EL Program: Other EL Instructional Services	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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	7	20	8	35	100.00%
EL Program: None (EL only)	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
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%

Special Services Summary for Geometry						
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	1	5	1	7	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. The item specifications help ensure that the items in the STS measure the content standards. To achieve this, the item specifications provide detailed information to item writers that 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
- Writing passages for multiple-choice items to have a readability level appropriate to their respective grades
- A list of topics to be avoided

Expected Item Ratio

ETS has 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, on the next page. 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
	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

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 depth of knowledge
- 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 review 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 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. 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 are comprised of 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 gender 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

STS	RLA	Math	Total
Total	**18**	**8**	**26**
Occupation (Members may teach multiple levels.)			
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
Highest Degree Earned			
Bachelor's Degree	9	4	13
Master's Degree	9	4	13
Doctorate	0	0	0
K–12 Teaching Credentials and Experience (Members may hold multiple credentials.)			
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 distracters
- 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. Those recommendations are recorded 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 further divided 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 test became operational in the following spring.

For STS RLA tests 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 Field-test Items

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 take 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 2011 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 23, 2011.

Table 3.3 Summary of Items and Forms Presented in the 2011 STS

Content Area	STS*	Operational		Field Test		
		No. Items	No. Examinees	No. Forms	No. Items	No. Examinees FIA Sample
Reading/ Language Arts	2	65	10,783	12	72	749–1,050
	3	65	7,596	12	72	610–657
	4	75	4,411	9	54	453–505
	5	75	2,898	6	36	454–489
	6	75	1,918	4	24	453–486
	7	75	1,462	4	24	338–366
	8	75	1,231	4	24	287–311
	9	75	2,014	5	30	332–467
	10	75	1,320	4	24	306–345
	11	75	712	2	12	336–363
Mathematics	2	65	10,771	12	72	750–1,037
	3	65	7,585	12	72	611–653
	4	65	4,409	9	54	453–506
	5	65	2,889	6	36	452–490
	6	65	1,905	4	24	452–482
	7	65	1,457	4	24	336–368
	Algebra I	65	2,749	5	30	482–611
	Geometry	65	407	1	6	407

* 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 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 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) 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 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 2000, 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

The STS tests 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 STS for RLA contain 71 total items in grades two and three and 81 total items in grades four through eleven. The STS grade-level and EOC mathematics tests contain 71 total items. For more details on the distribution of items, see Appendix 2.A—STS Item and Time Chart on page 18.

Rules for Item Selection

Test Blueprint

ETS selects all STS test items 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 19.

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 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 100, contains further information about this process.

These are rules that, in general, test developers follow to construct new forms for well-established tests. Slightly different test construction rules were followed for the STS tests for RLA in grades eight through eleven and the EOC mathematics tests because base year scales had not been established for these tests and therefore, sets of linking items were not needed.

Psychometric Criteria

The three goals of STS test development are:

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 in grades two through seven: the total test target, the linking block target, and (reporting) cluster targets. Two types of assembly targets are developed for each STS for RLA in grades eight through eleven and the EOC mathematics tests: the total test target and (reporting) cluster targets. These targets are provided to test developers before a test construction cycle begins. The test developers and psychometricians work together to design the tests to meet these targets.

The total test targets, or primary statistical targets, used for assembling the STS forms for the 2011 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 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 that 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.

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

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 were proportionally adjusted to match the full test length and were presented with the information curves for the total test. The graphs in Figure 4.A.1 and Figure 4.A.2 starting on page 118 show, for each STS, the target TIF and the projected TIF for the total test and the linking set except for the STS tests in grades eight through eleven, where the projected test information for the linking set is not available.

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 122 present the target and projected information curves for the clusters in each STS.

Table 4.1 Target Statistical Specifications for the STS

Content Area	STS*	Target Mean b	Target SD b	Min *p*-value	Max *p*-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	–0.23	0.66	0.20	0.95	> 0.37	0.14
	9	–0.23	0.68	0.20	0.95	> 0.37	0.14
	10	–0.23	0.69	0.20	0.95	> 0.37	0.14
	11	–0.23	0.65	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	–0.22	0.65	0.20	0.95	0.31 – 0.35	0.14
	Geometry	–0.23	0.70	0.20	0.95	0.33 – 0.37	0.14

* Numbers indicate grade-level tests

Projected Psychometric Properties of the Assembled Tests

Prior to the 2011 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:

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

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 117 presents these summary values by content area and grade.

It should be noted that the projected reliabilities in Table 4.A.1 on page 117 were based on item *p*-values and point-biserial correlations that, for some of the items, were based on external field-testing using samples of students that were not fully representative of the state. Chapter 8 presents item *p*-values, point-biserial correlations, and test reliability estimates based on the data from the 2011 STS administration.

Table 4.A.2 on page 117 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.

The graphs in Figure 4.A.1 and Figure 4.A.2 starting on page 118 show, for each STS, the target test information function and the projected test information function for the total test and for the linking set as applicable (grades two through seven only). The information curves for the linking sets were adjusted for test length, so they could be directly compared to the information curves for the longer total tests. Figure 4.B.1 through Figure 4.B.18, which start on page 122, present the target and projected information curves for the clusters in each STS test.

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. Passages are sequenced according to genre and interest level; test developers work to place high-interest pieces (typically narrative selections) near lower-interest pieces (typically functional or technical writing). 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; items for these two clusters are intertwined and administered together at the beginning of the test, followed by reporting clusters 3, 4, and 5.

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 2011 STS Projected Technical Characteristics

Content Area	STS*	Number of Items	Mean Raw Score	Std. Dev. of Raw Scores	Reliability
Reading/ Language Arts	2	65	41.20	12.39	0.92
	3	65	35.87	11.89	0.91
	4	75	42.62	14.28	0.93
	5	75	36.52	13.16	0.91
	6	75	37.67	12.56	0.90
	7	75	39.30	12.74	0.91
	8	75	40.03	11.74	0.89
	9	75	40.76	11.25	0.88
	10	75	39.68	11.04	0.87
	11	75	37.82	10.71	0.86
Mathematics	2	65	42.30	11.51	0.92
	3	65	40.93	12.55	0.93
	4	65	39.90	12.37	0.92
	5	65	33.78	11.31	0.89
	6	65	32.05	11.50	0.90
	7	65	28.20	10.07	0.87
	Algebra I	65	23.61	7.01	0.72
	Geometry	65	26.27	8.83	0.83

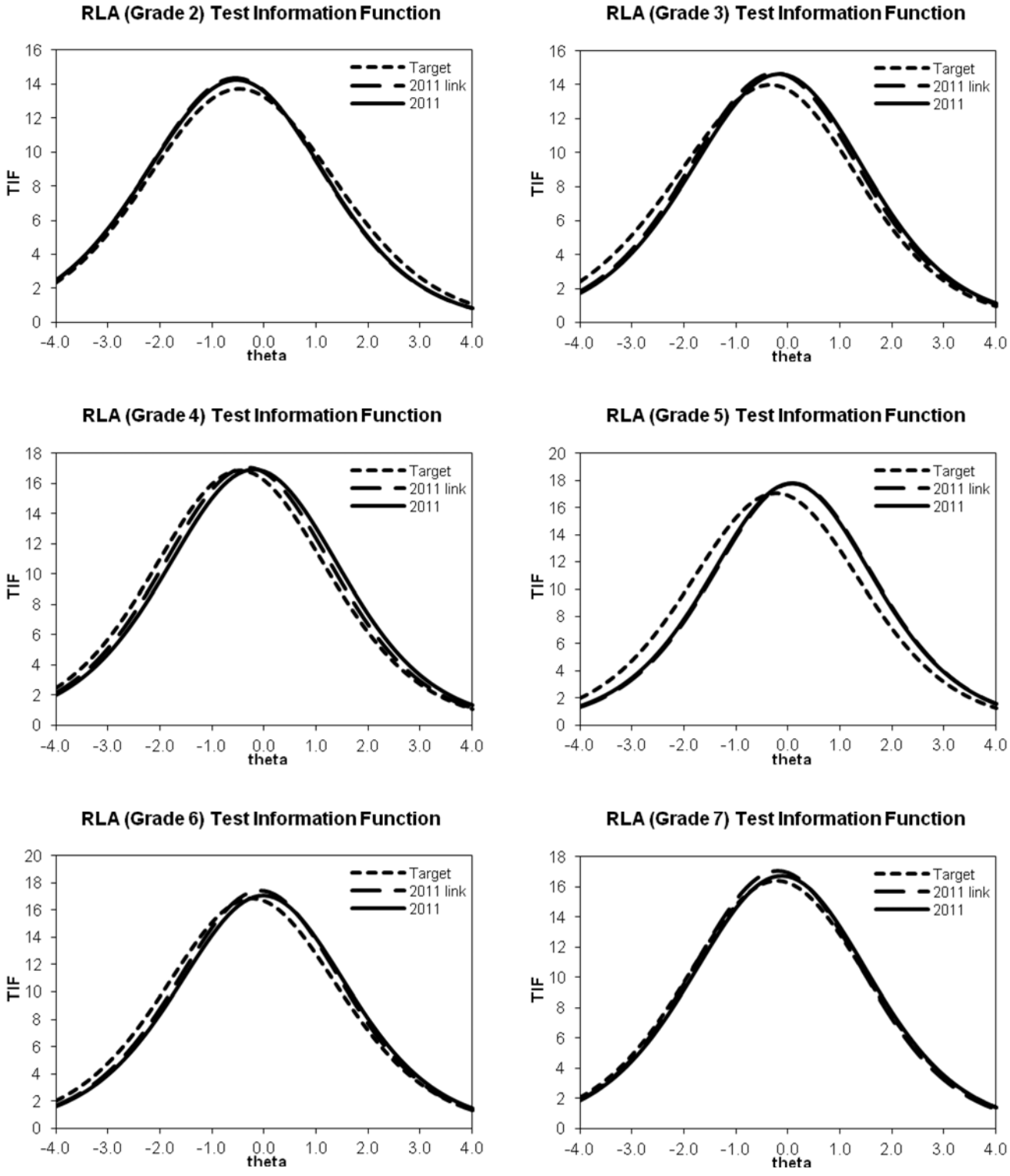
* Numbers indicate grade-level tests.

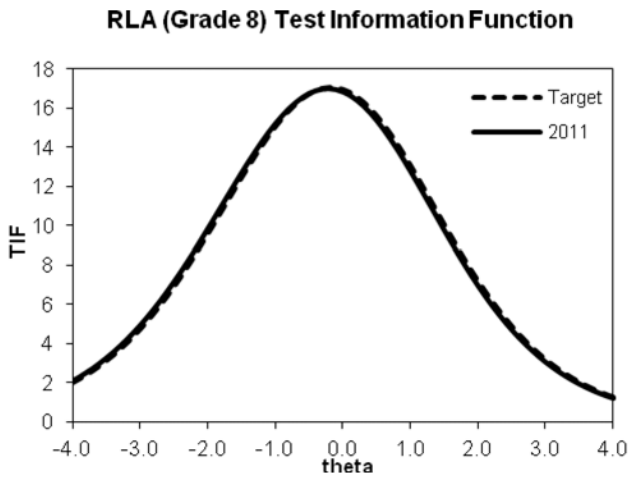
Table 4.A.2 Summary of 2011 STS Projected Statistical Attributes

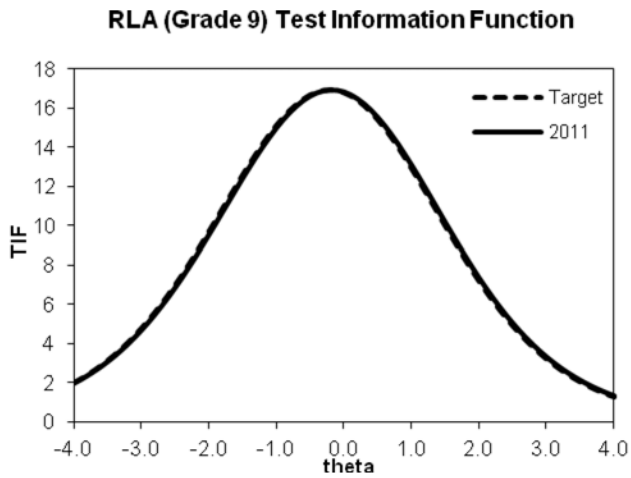
Content Area	STS*	Mean b	SD b	Mean *p*-value	Min *p*-value	Max *p*-value	Mean Point Biserial	Min Point Biserial
Reading/ Language Arts	2	–0.57	0.79	0.63	0.28	0.89	0.42	0.22
	3	–0.21	0.69	0.55	0.31	0.86	0.39	0.23
	4	–0.21	0.68	0.57	0.30	0.88	0.40	0.22
	5	0.06	0.47	0.49	0.29	0.72	0.36	0.20
	6	–0.02	0.61	0.50	0.22	0.84	0.35	0.11
	7	–0.14	0.72	0.52	0.22	0.87	0.36	0.01
	8	–0.28	0.66	0.53	0.28	0.84	0.33	0.17
	9	–0.20	0.67	0.54	0.27	0.83	0.32	0.14
	10	–0.25	0.67	0.53	0.27	0.82	0.31	0.15
	11	–0.10	0.62	0.50	0.15	0.87	0.29	–0.09
Mathematics	2	–0.78	0.91	0.65	0.31	0.91	0.40	0.20
	3	–0.57	0.92	0.63	0.27	0.94	0.43	0.26
	4	–0.45	0.72	0.61	0.31	0.88	0.41	0.23
	5	–0.07	0.54	0.52	0.26	0.78	0.36	0.15
	6	0.01	0.66	0.49	0.18	0.83	0.37	0.11
	7	0.27	0.62	0.43	0.14	0.79	0.32	–0.04
	Algebra I	0.59	0.56	0.36	0.16	0.62	0.23	0.06
	Geometry	0.43	0.77	0.40	0.13	0.80	0.29	0.06

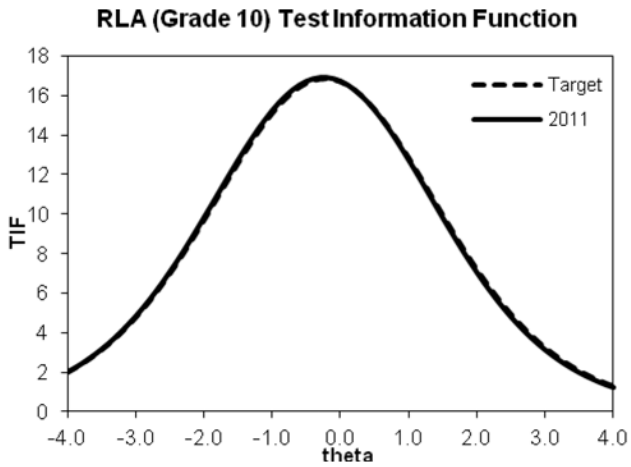
* Numbers indicate grade-level tests.

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




RLA (Grade 8) Test Information Function
TIF
theta
Target
2011
0
2
4
6
8
10
12
14
16
18
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0


RLA (Grade 9) Test Information Function
TIF
theta
Target
2011
0
2
4
6
8
10
12
14
16
18
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0


RLA (Grade 10) Test Information Function
TIF
theta
Target
2011
0
2
4
6
8
10
12
14
16
18
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0

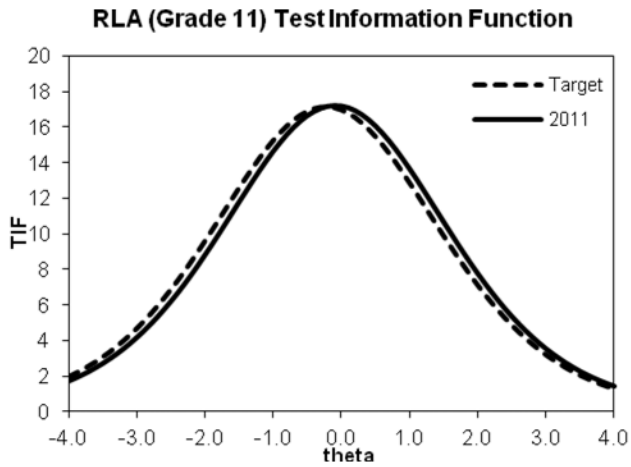
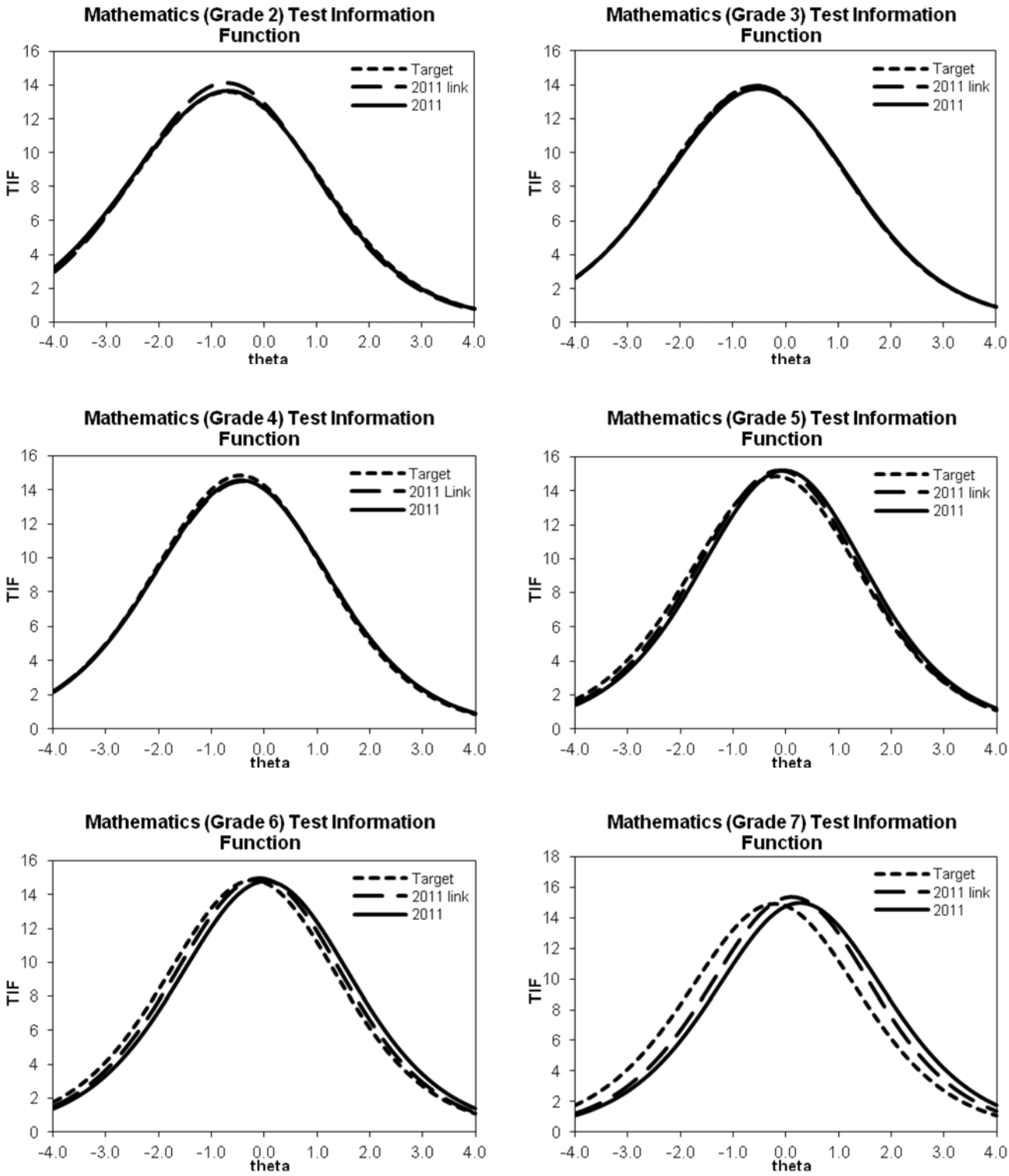
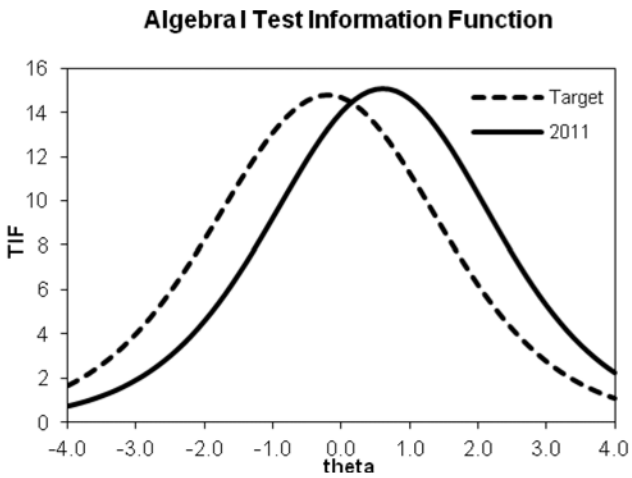
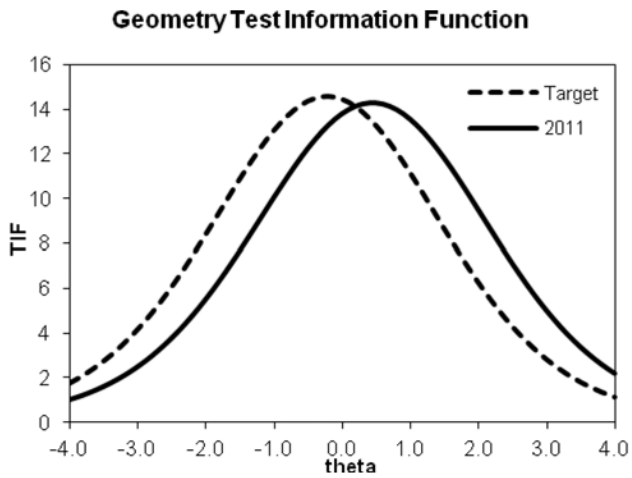

RLA (Grade 11) Test Information Function
TIF
theta
Target
2011
0
2
4
6
8
10
12
14
16
18
20
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0

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

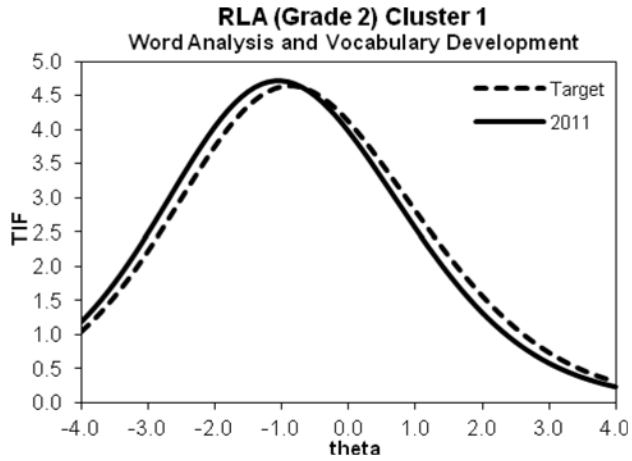


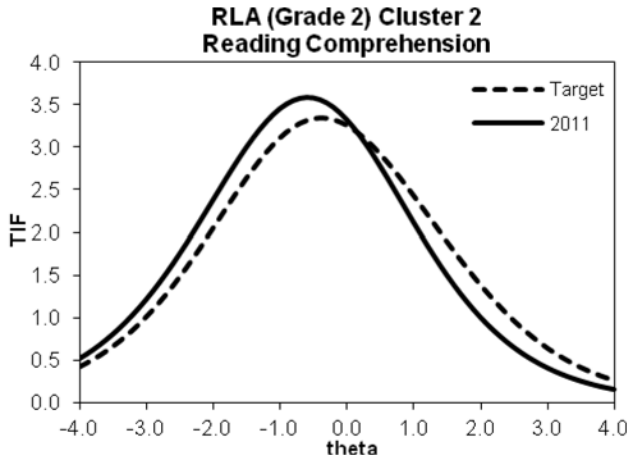

Algebra I Test Information Function
TIF
theta
Target
2011
16
14
12
10
8
6
4
2
0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0

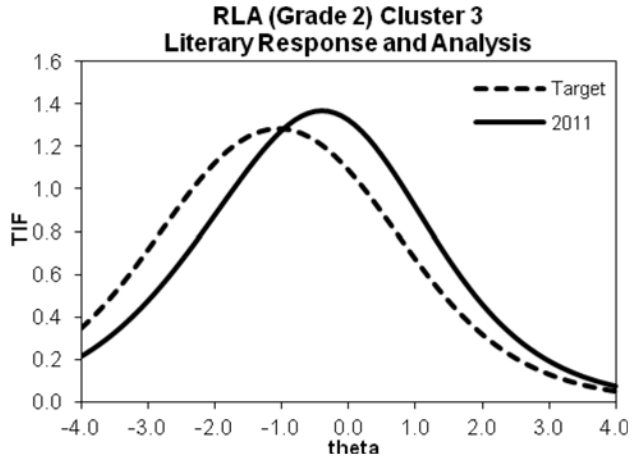

Geometry Test Information Function
TIF
theta
Target
2011
16
14
12
10
8
6
4
2
0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0

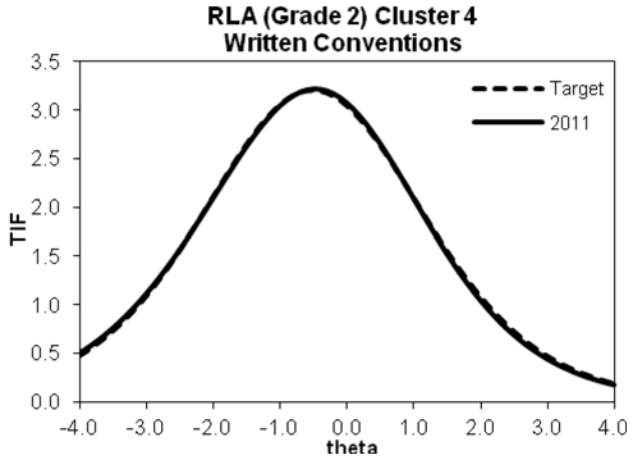
Appendix 4.B—Cluster Targets

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









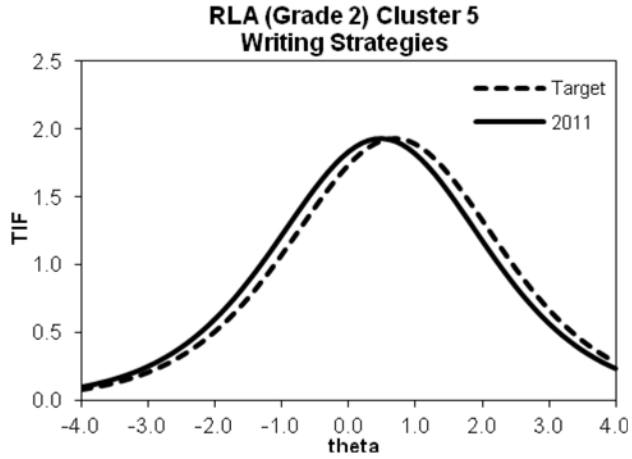


Figure 4.B.2 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Three

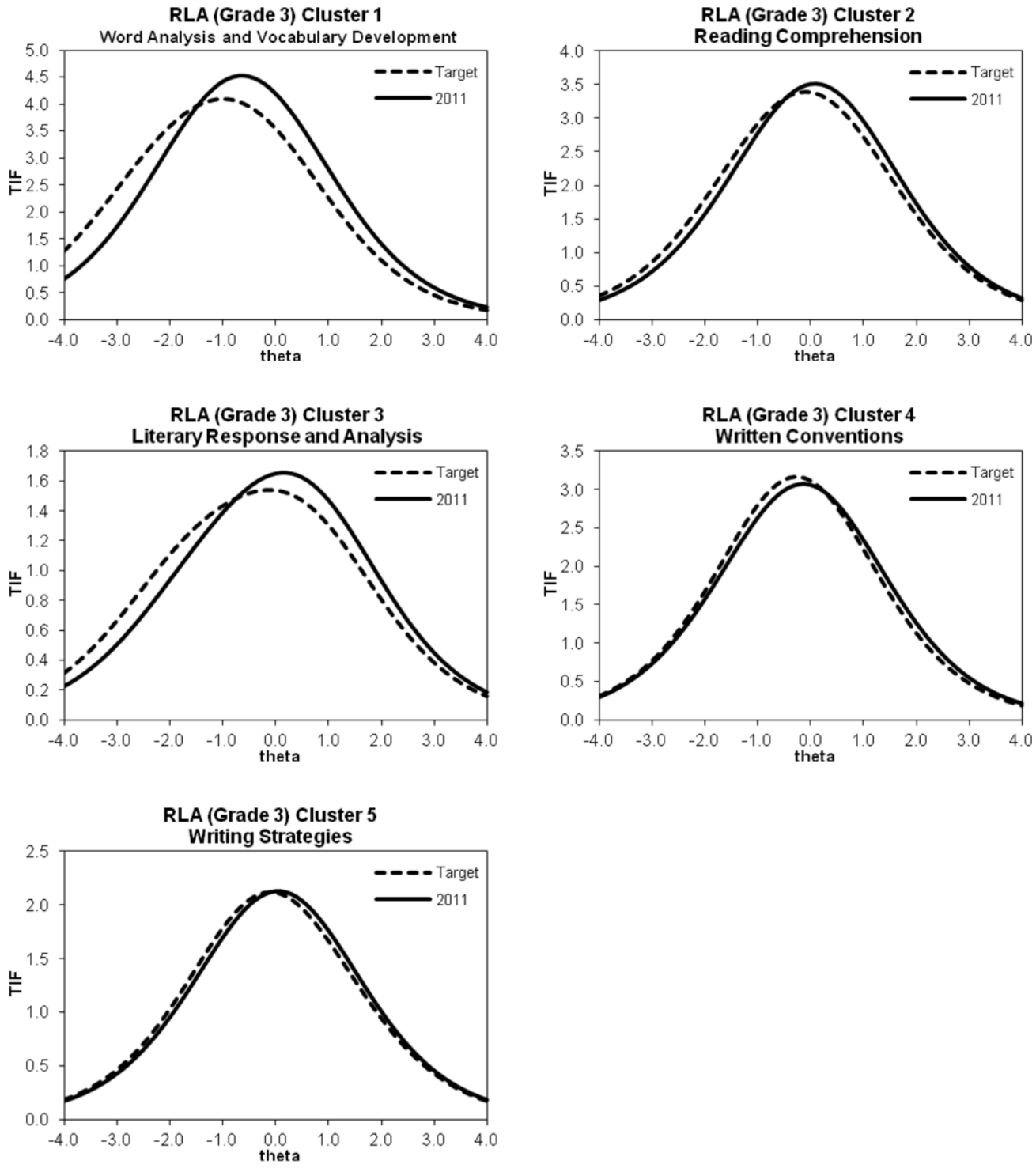


Figure 4.B.3 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Four

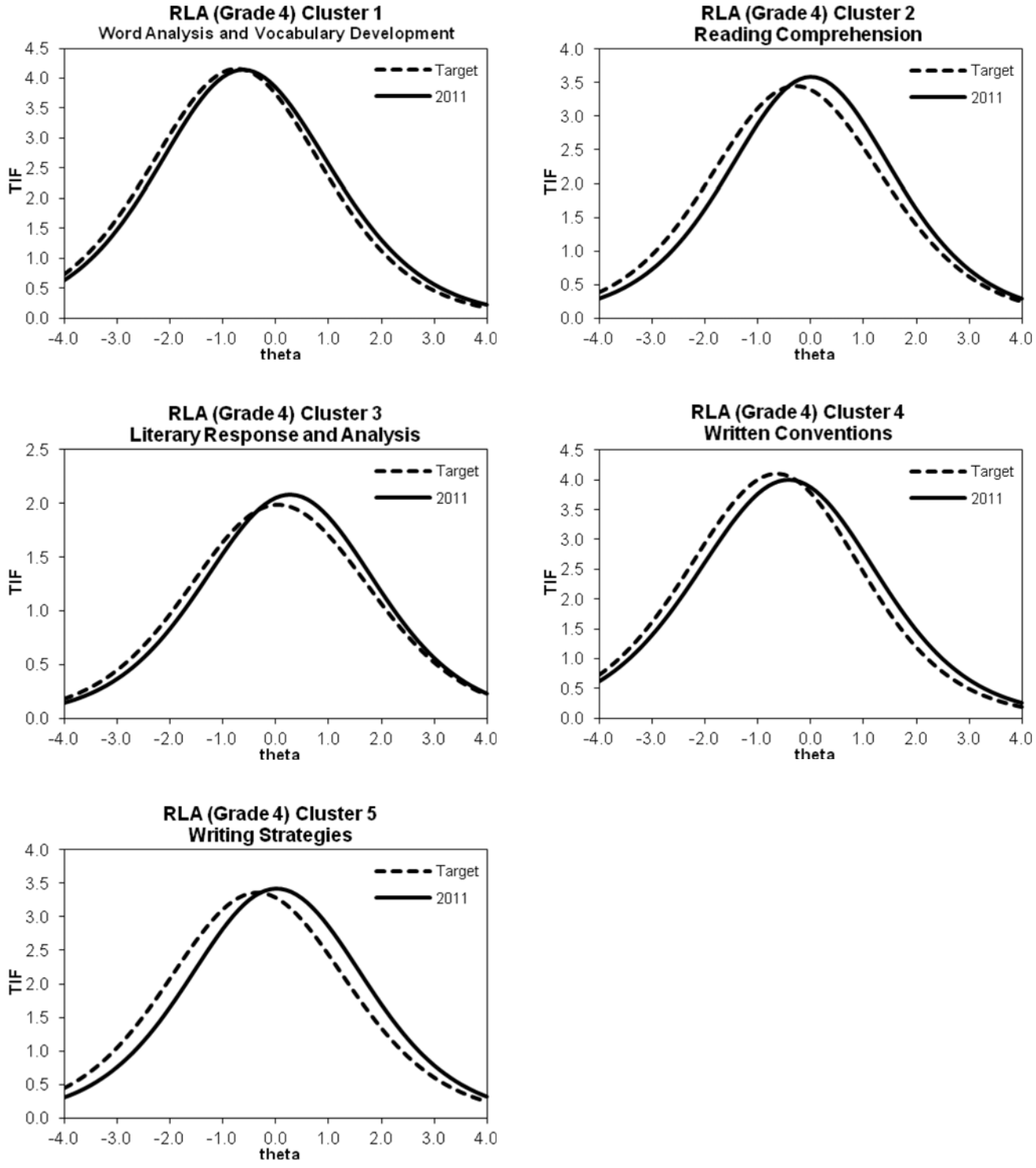
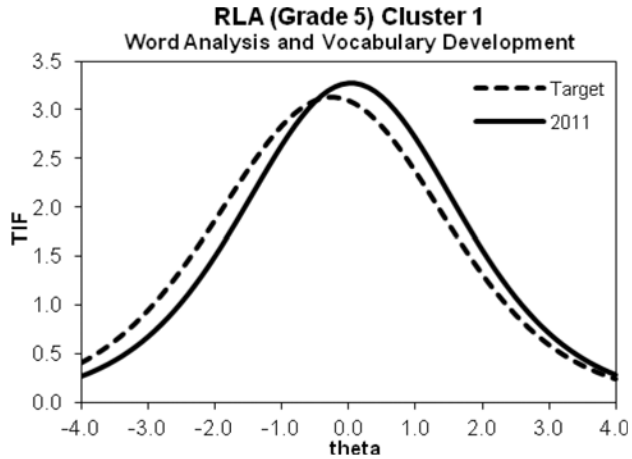
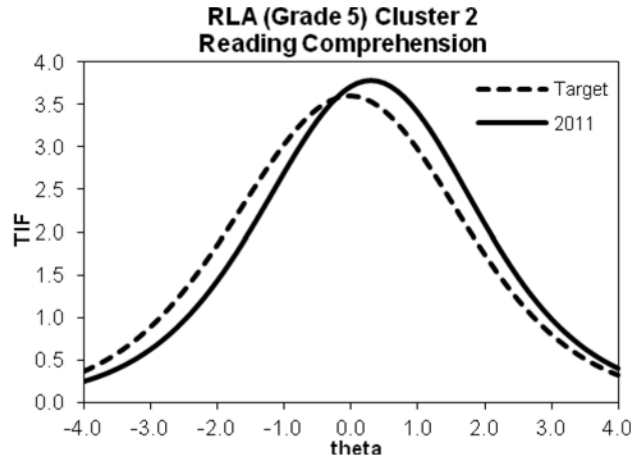
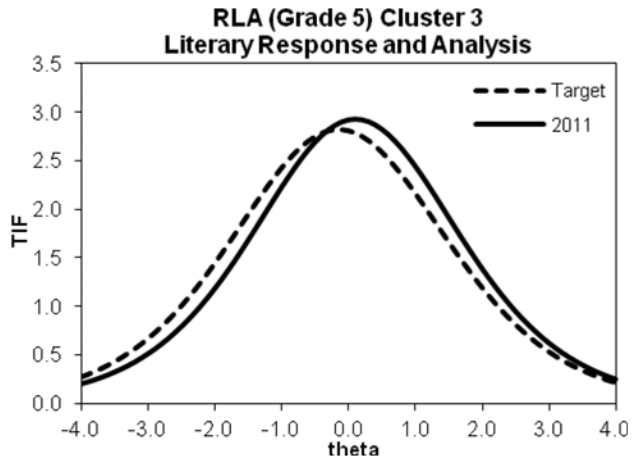
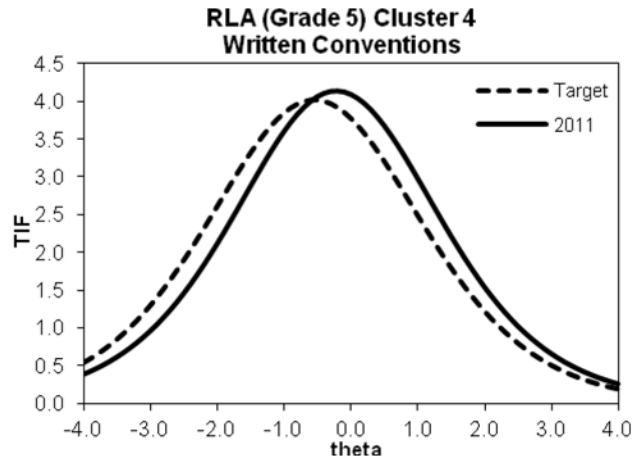


Figure 4.B.4 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Five









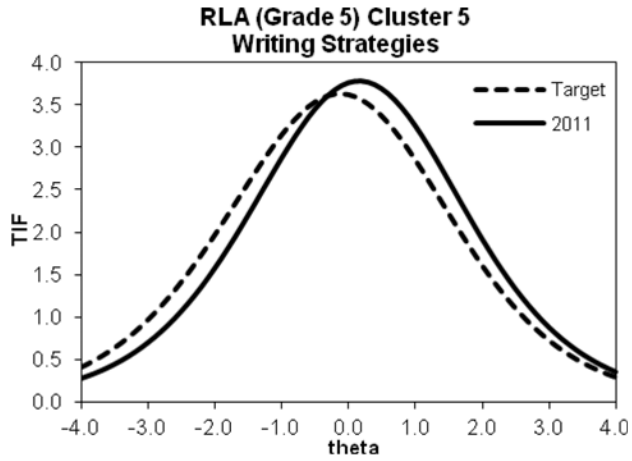


Figure 4.B.5 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Six

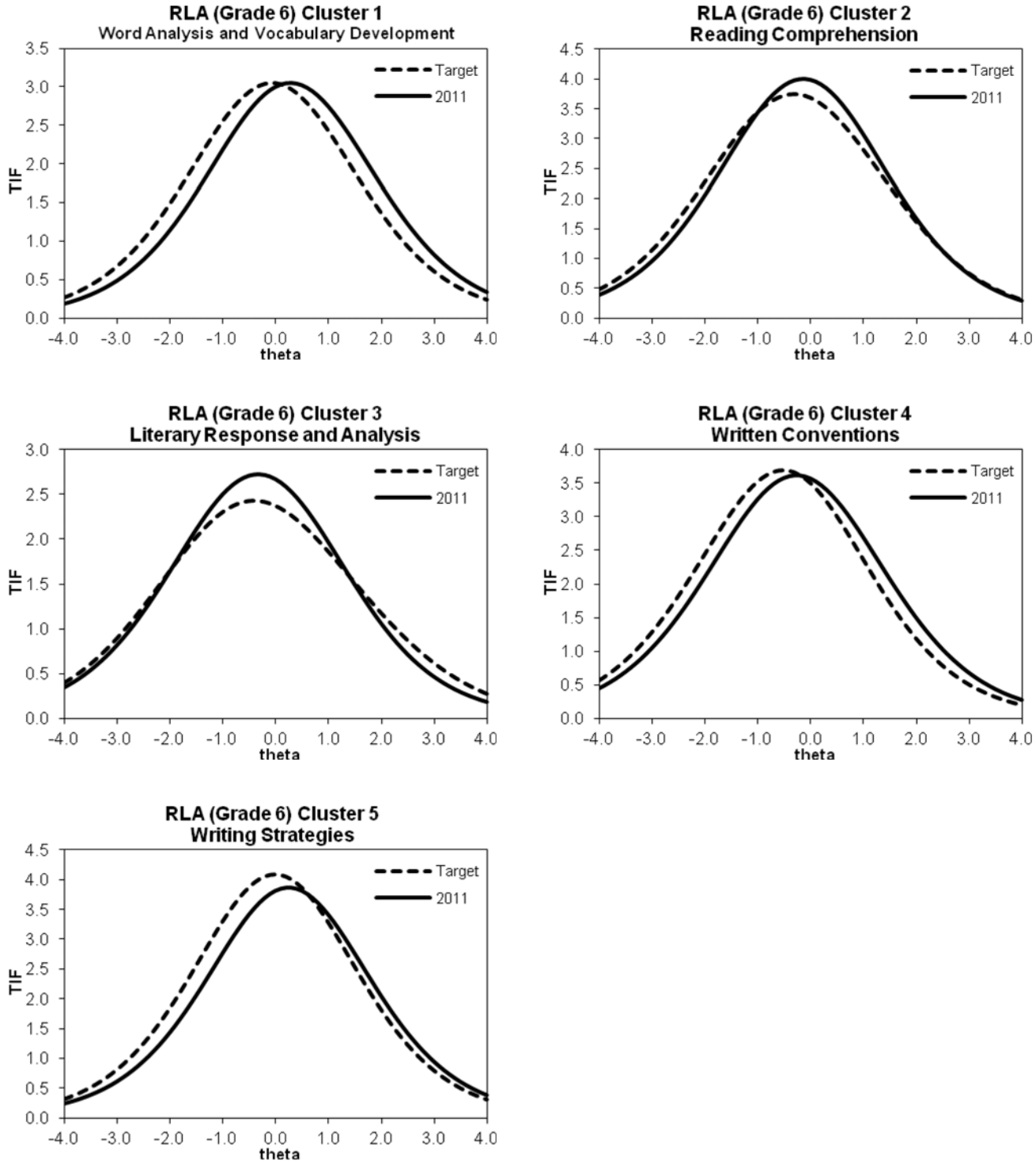


Figure 4.B.6 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Seven

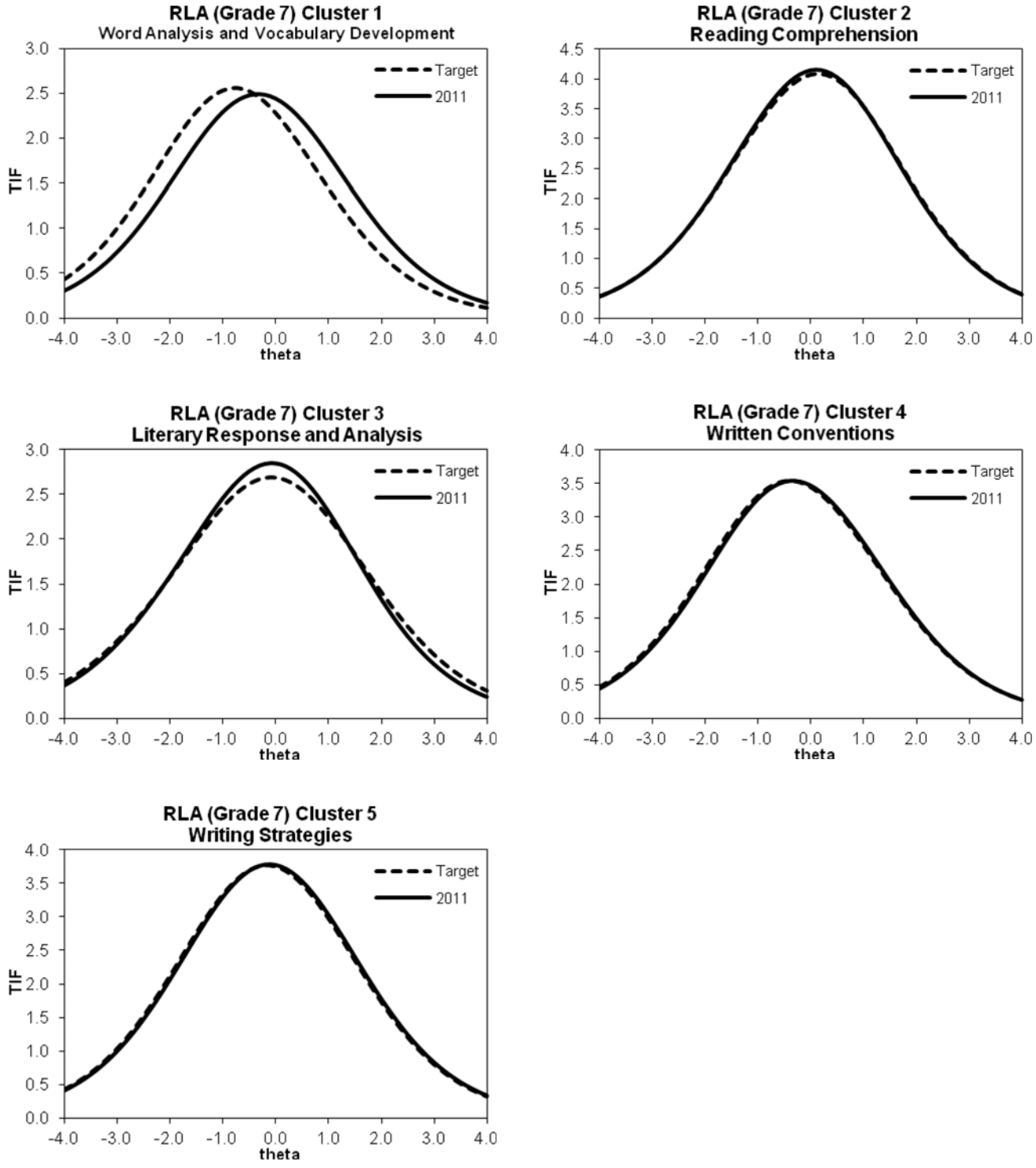


Figure 4.B.7 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Eight

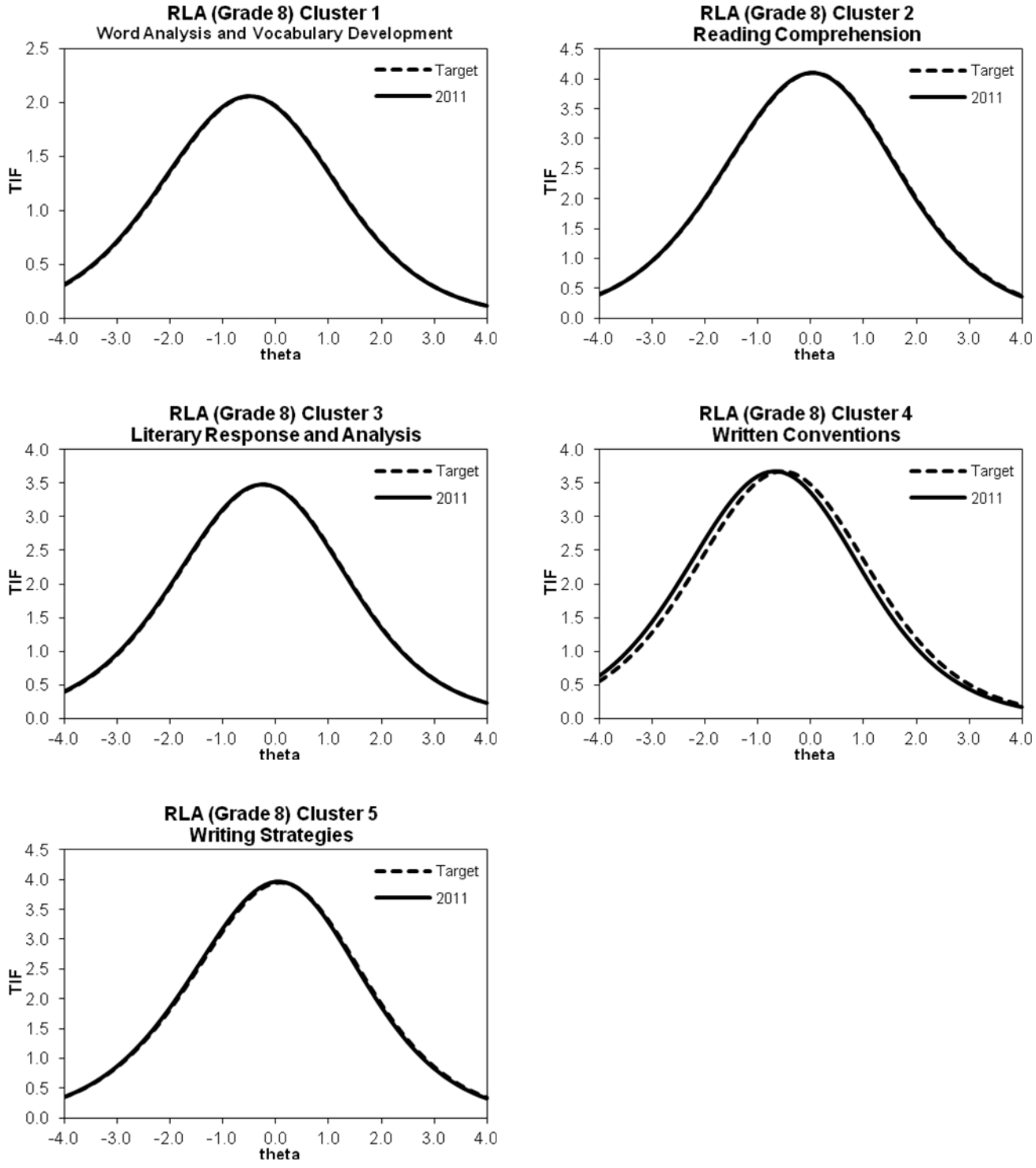
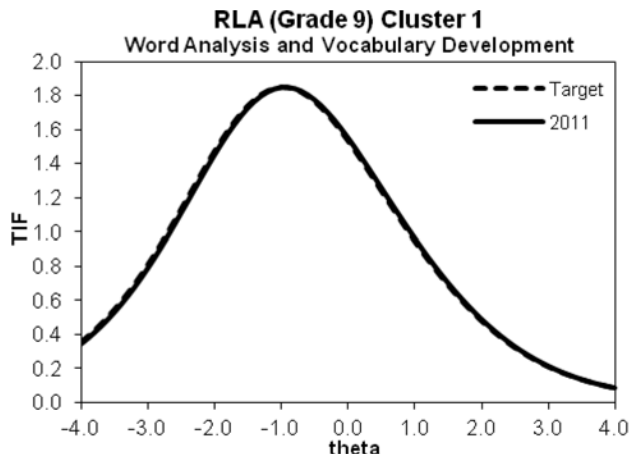
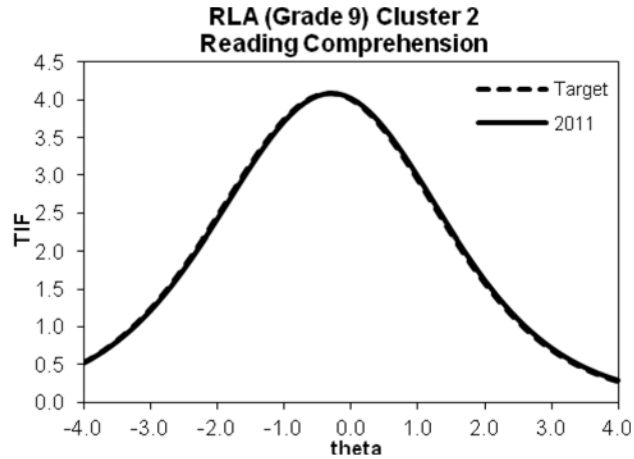
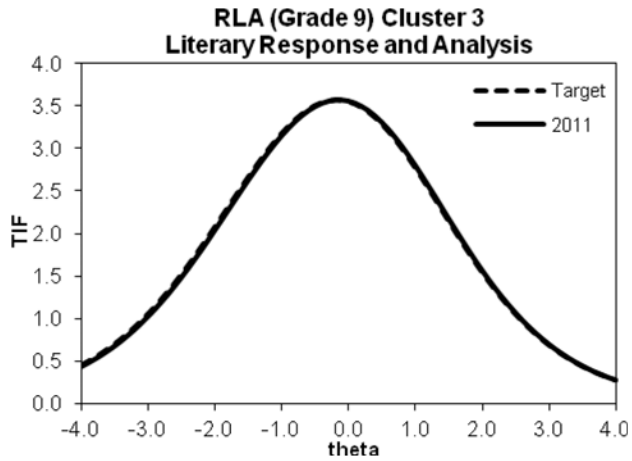
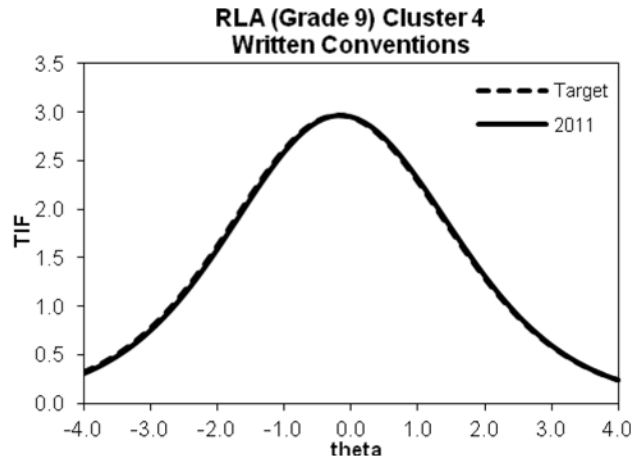


Figure 4.B.8 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Nine









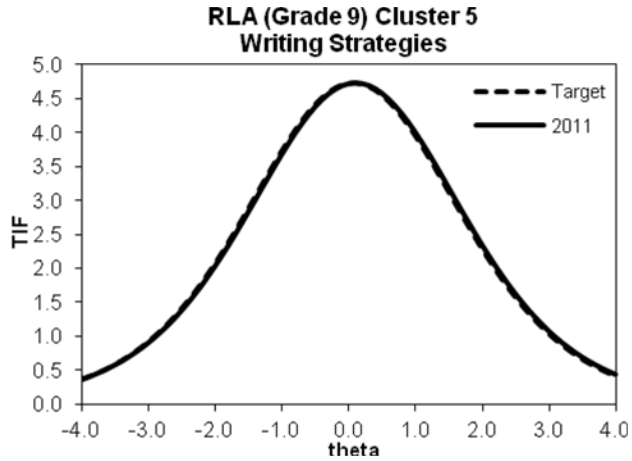


Figure 4.B.9 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Ten

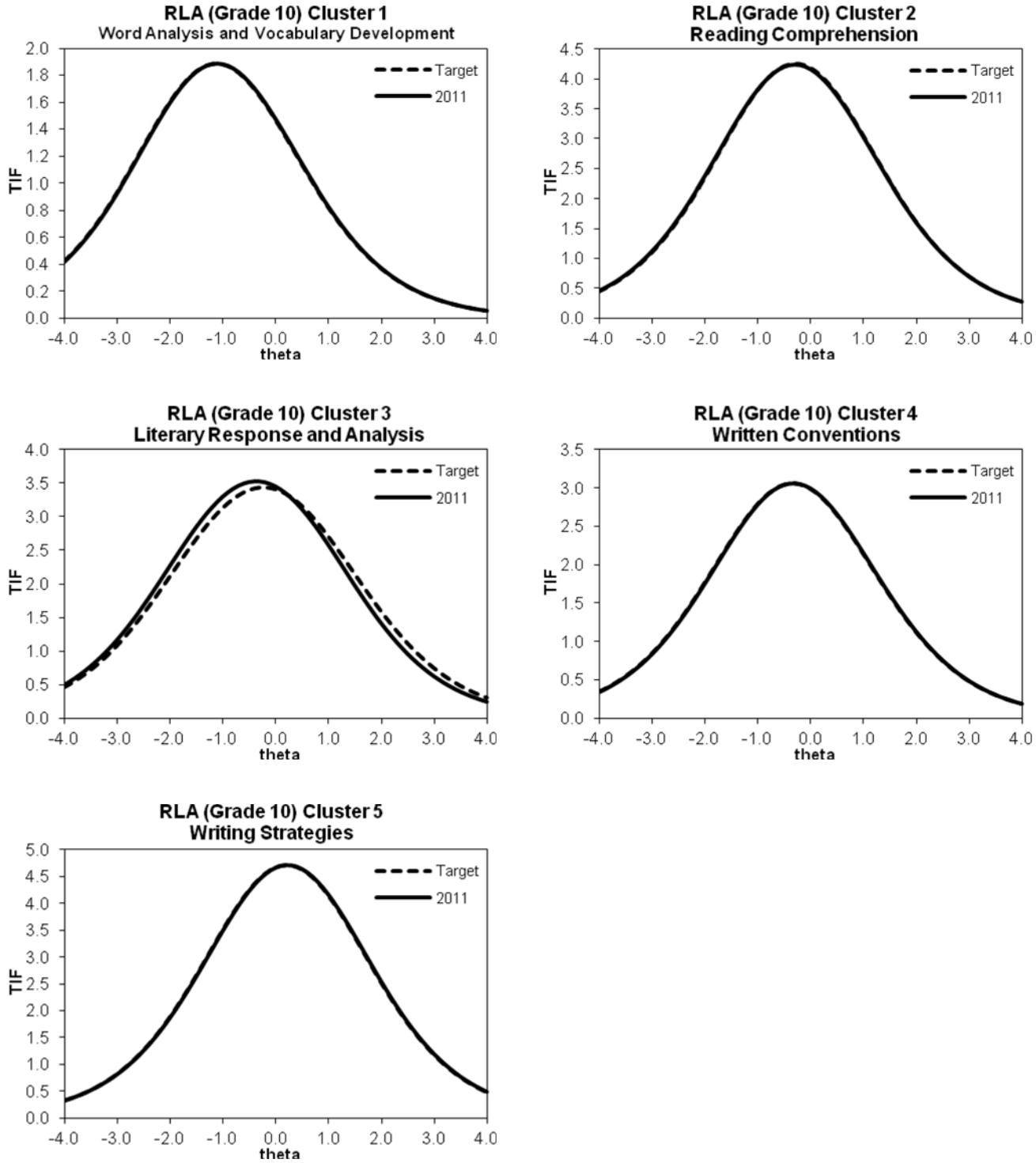


Figure 4.B.10 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Eleven

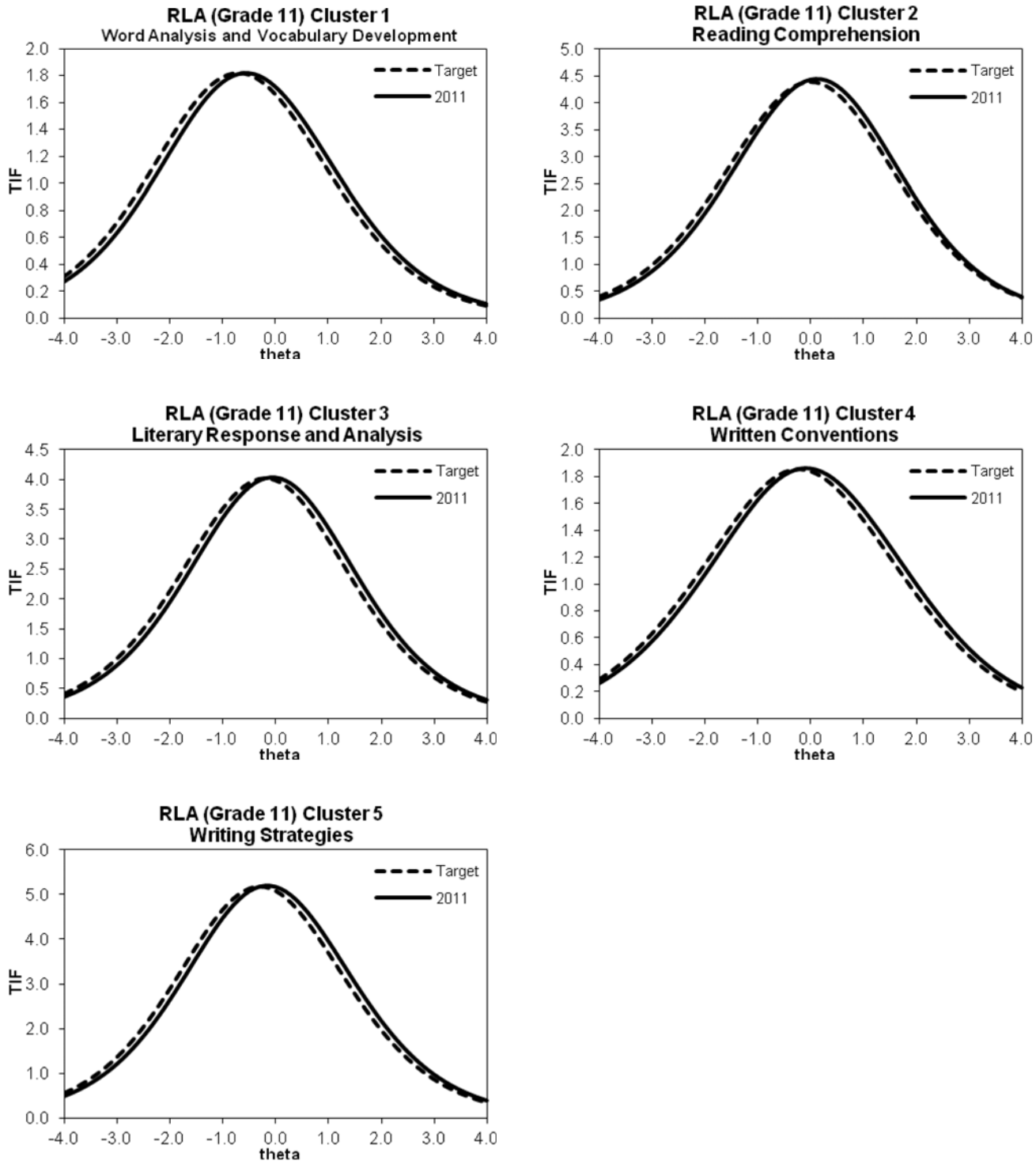


Figure 4.B.11 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Two

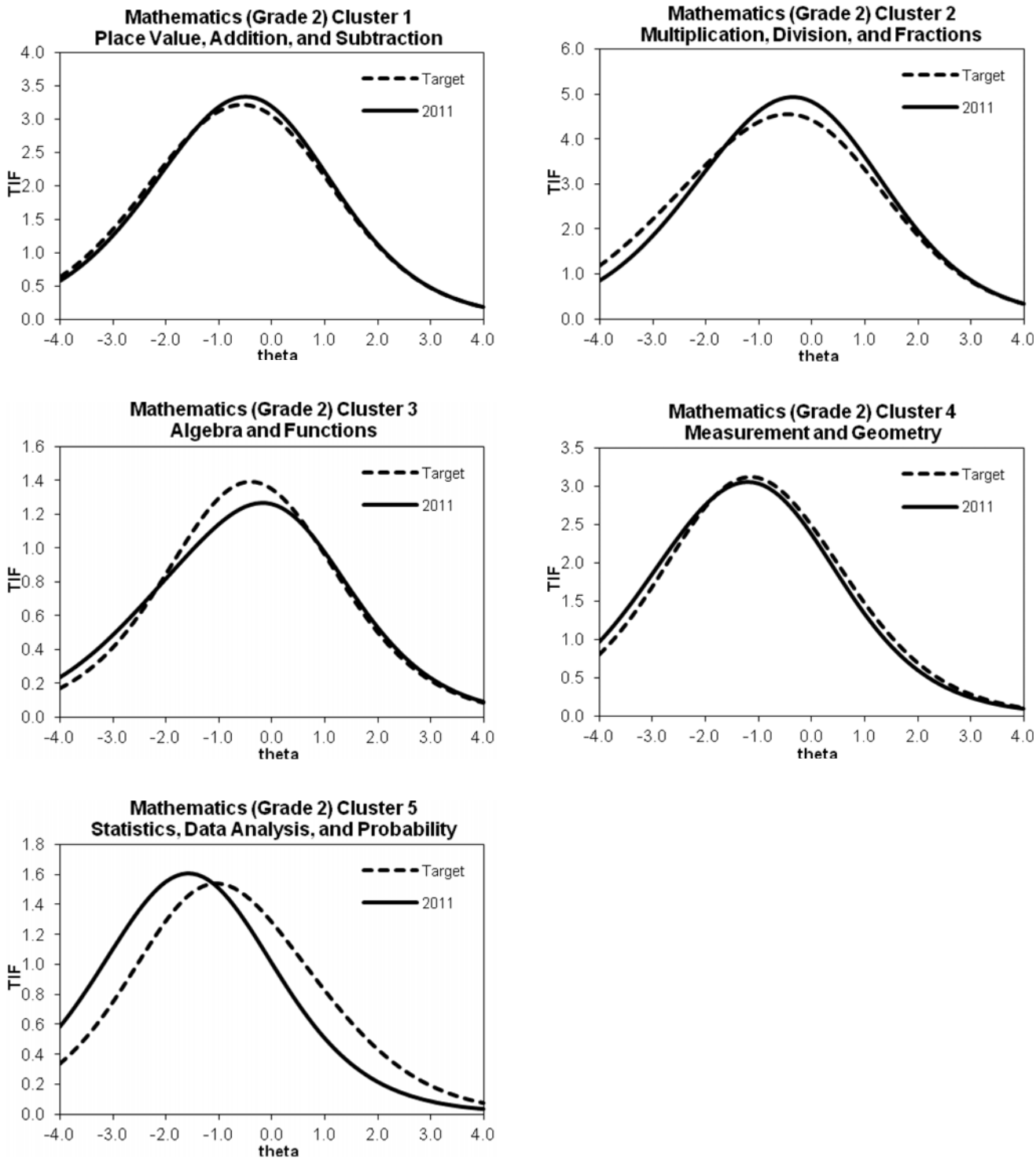


Figure 4.B.12 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Three

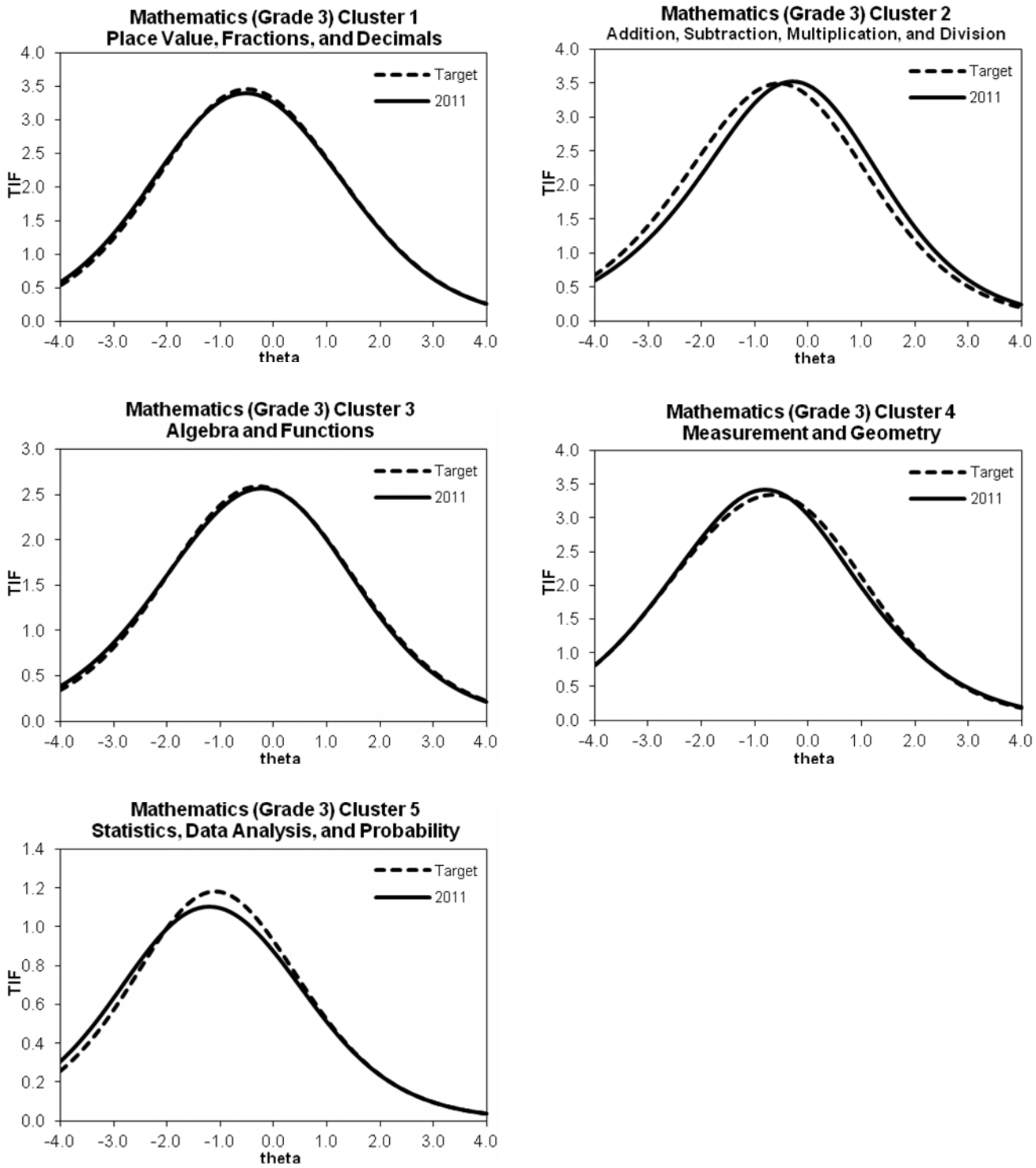


Figure 4.B.13 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Four

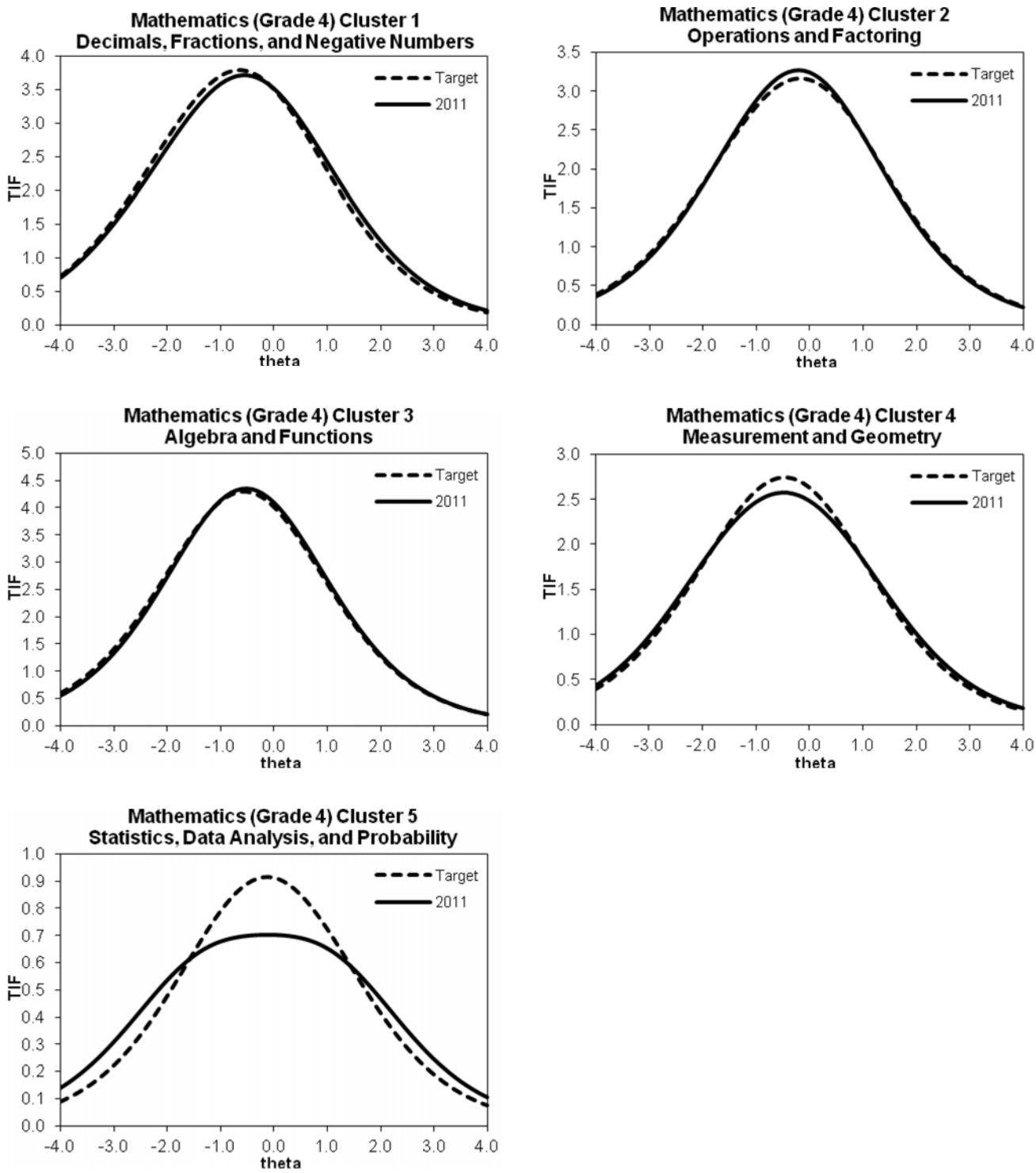


Figure 4.B.14 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Five

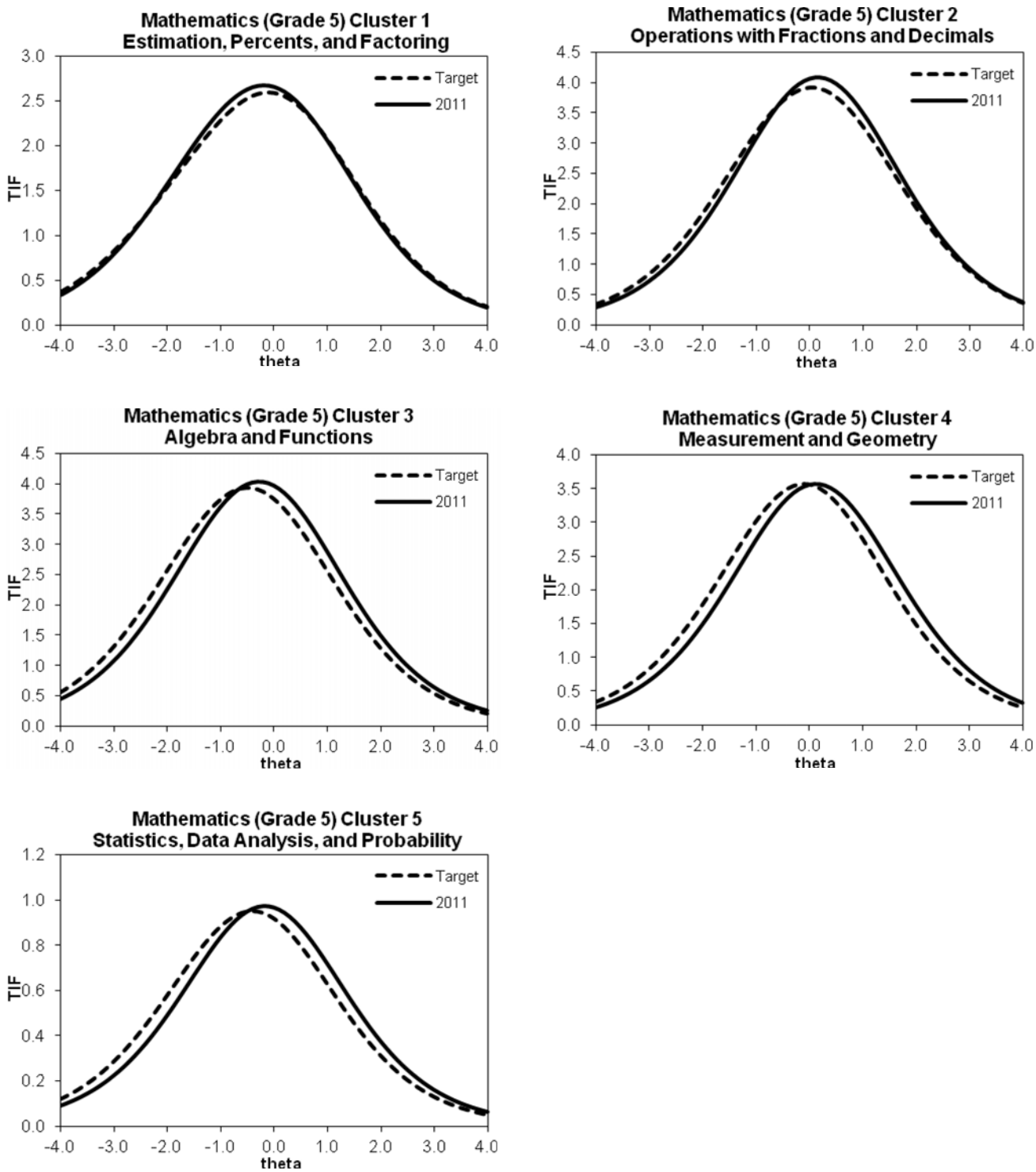
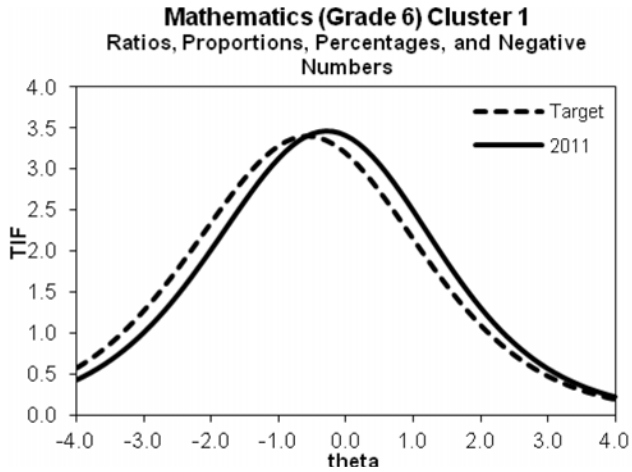
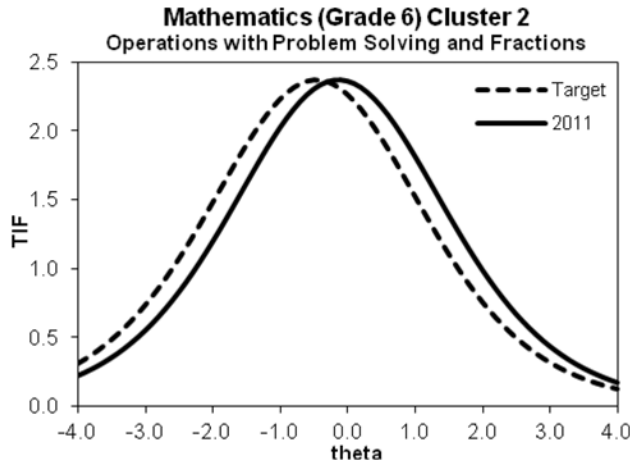
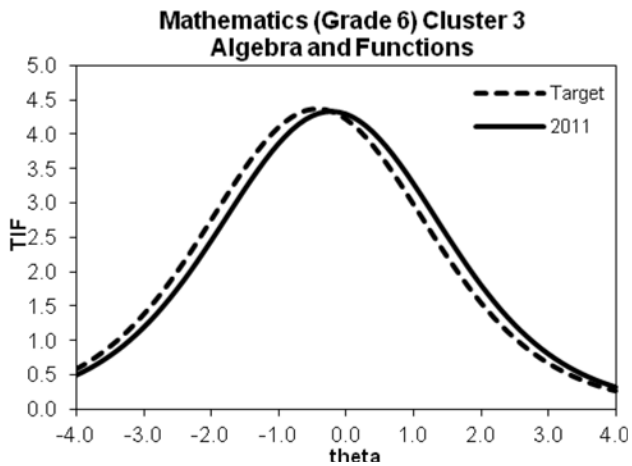
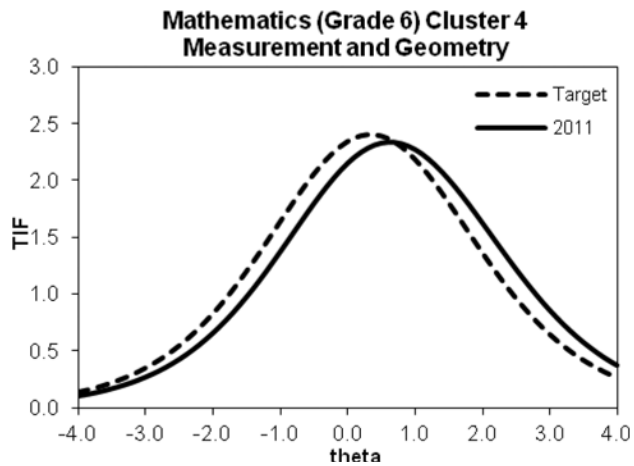


Figure 4.B.15 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Six









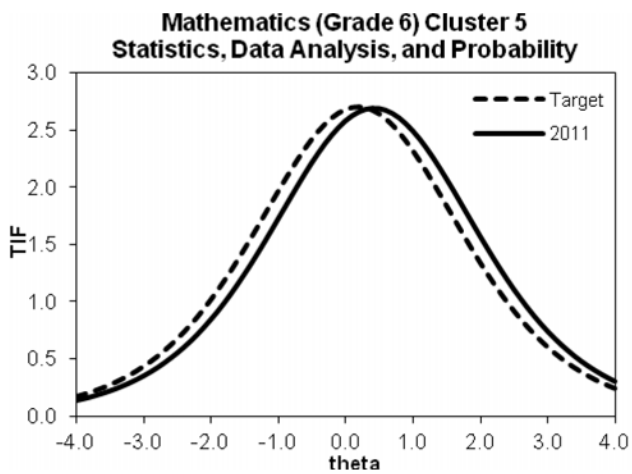


Figure 4.B.16 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Seven

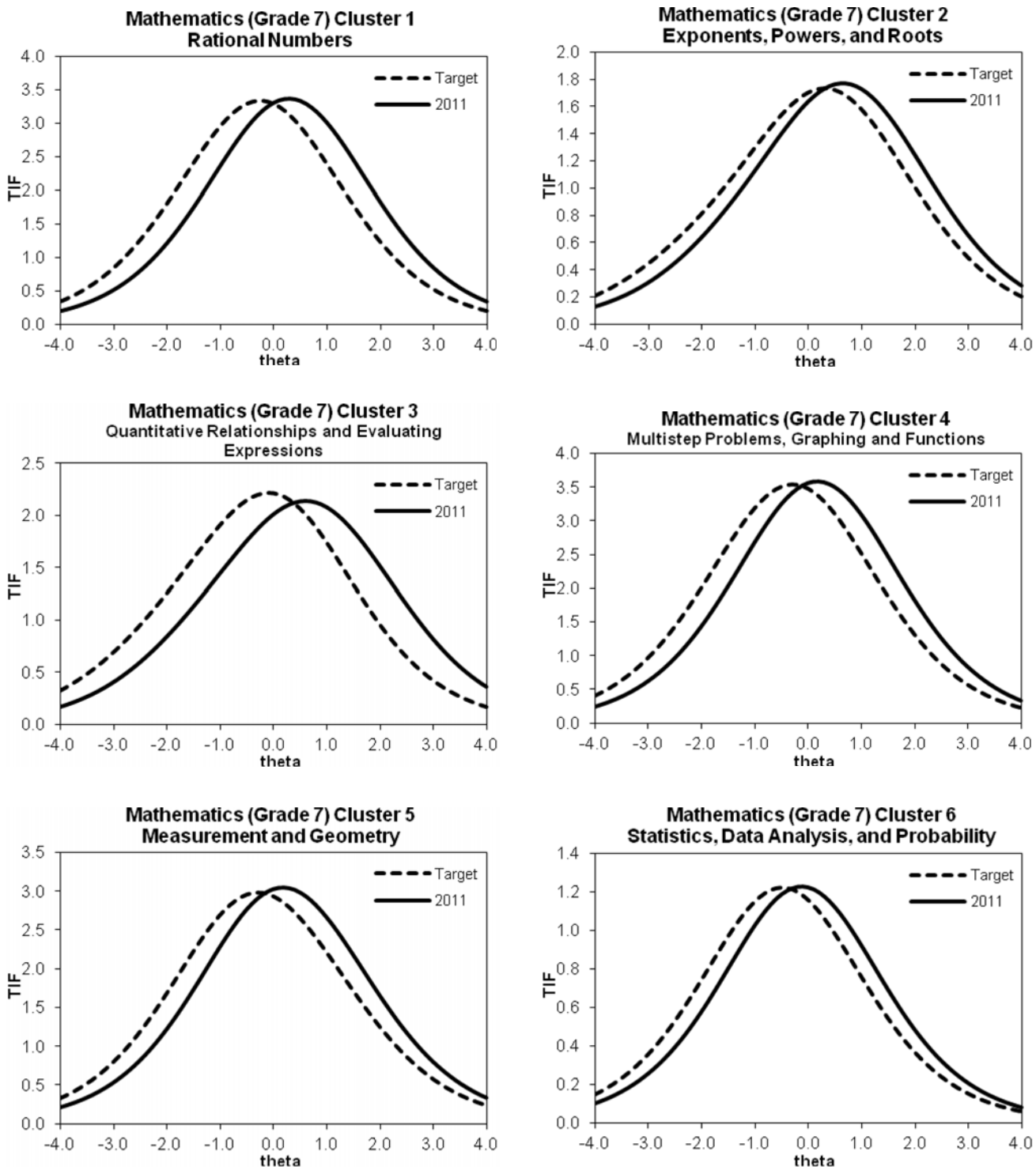


Figure 4.B.17 Plots of Target Information Functions and Projected Information for Clusters for Algebra I

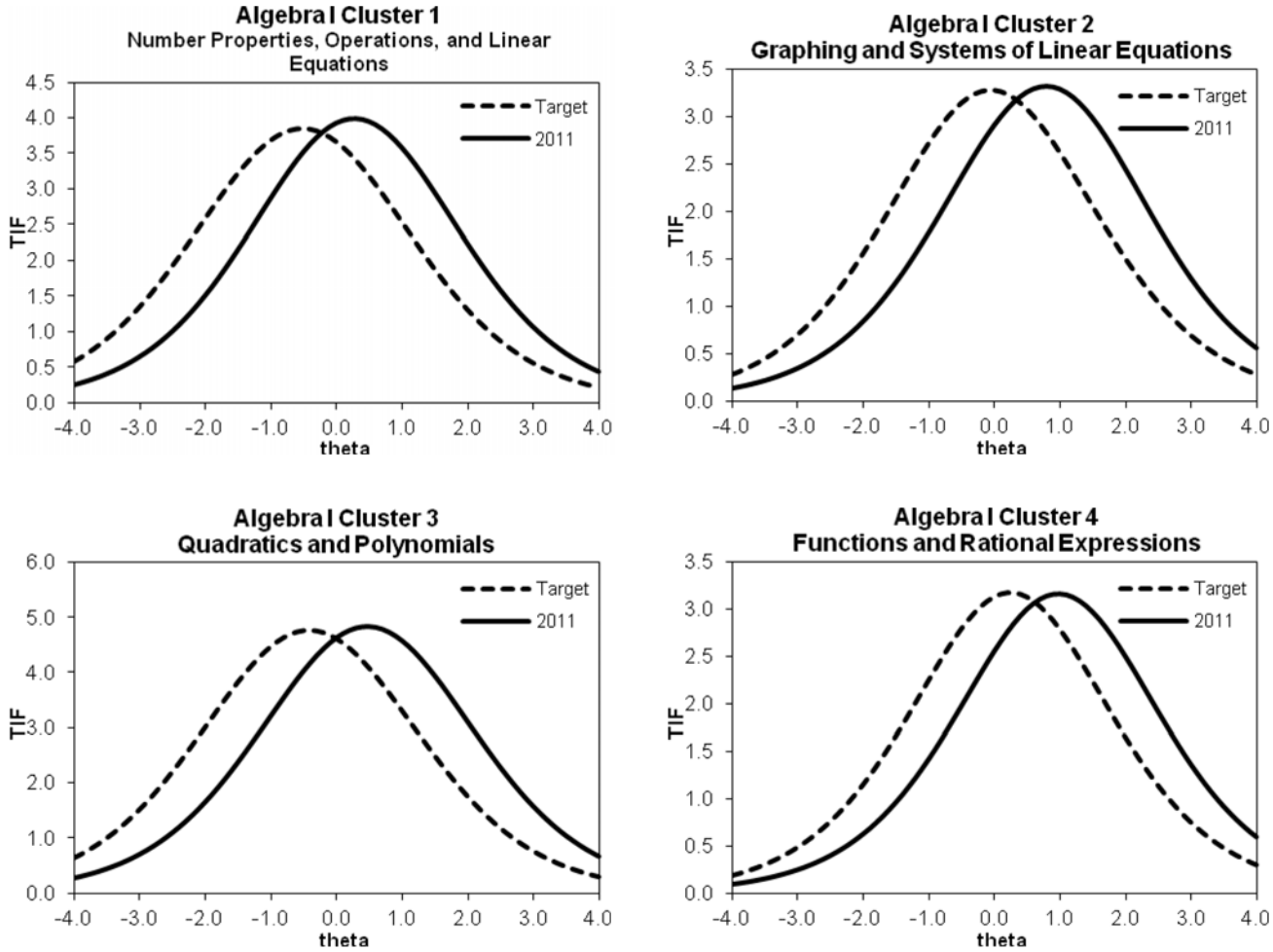
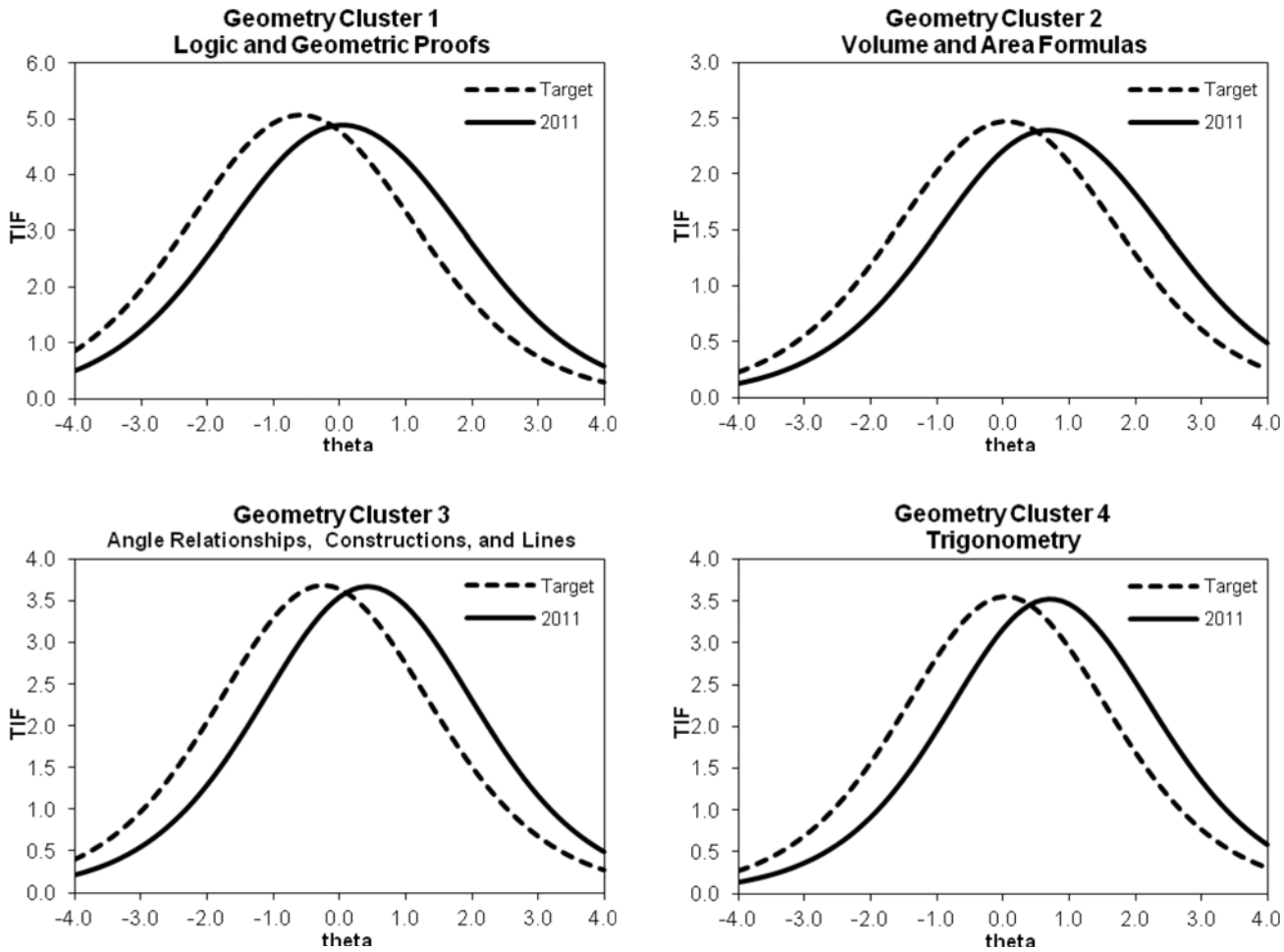


Figure 4.B.18 Plots of Target Information Functions and Projected Information for Clusters for Geometry



Chapter 5: Test Administration

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, and the backups are kept offsite.
- 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, 2011a) 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. (It should be noted that the STAR Management System neither stores nor processes tests or student test results.)

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 pre-approves 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 or a parent 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 their facilities. Entrances are monitored by security personnel and a computerized badge-reading system is utilized. Upon entering the facilities, 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 eleven 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, 2011b). 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. Comprehensive disaster recovery facilities are available and tested regularly at the SunGard installation in

Philadelphia, Pennsylvania. ETS routinely sends backup data cartridges and files for critical software, applications, and documentation to a secure offsite storage facility for safekeeping.

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 student's results on both electronic files and paper reports during the following events:

- Scoring
- Transfer of scores by means of secure data exchange
- Reporting
- 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 followup 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 takes all necessary measures to ensure the standardization of STS tests, as described in this section.

Test Administrators

The STS is 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.

The responsibilities for district and test site staff members are included in the *STAR District and Test Site Coordinator Manua*l (CDE, 2011c). 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 education 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 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

At each test site, the superintendent of the school district or the district STAR coordinator designates a STAR test site coordinator 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, 2011c)

Test Examiner

STS tests 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, 2011d) 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 a scribe (*5 CCR* Section 850 [m]). Scribes must sign STAR Test Security Affidavits (*5 CCR* Section 859 [c]).

Directions for Administration

STS *DFA*s are manuals used by test examiners to administer the STS to students (CDE, 2011d). 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, 2011c). 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, 2011e)
- **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, 2011f)
- **Pre-ID—**This module allows school districts to enter or upload student information including demographics and to 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, 2011b)
- **Extended 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, 2011g)

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 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. 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 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 demographic data 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 tests are not correctable; for example, districts cannot rescore uncoded or miscoded STS end-of-course mathematics tests (CDE, 2011h).

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, 2011c).

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, 2011d) and the *STAR District and Test Site Coordinator Manual* (CDE, 2011c). 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.

References

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Chapter 6: Performance Standards

Background

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 2009. Performance standards were developed in November 2011 and are expected to be adopted by the SBE in time to be reported starting in the 2012 operational administration of those STS.

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

The performance standards for the STS were defined by the SBE as far below basic, below basic, basic, proficient, and advanced. A general description of the performance level (policy level descriptors) and a list of competencies which operationally define each level are utilized in the standard setting process. Cut scores numerically define the performance levels.

California employs carefully designed standard-setting procedures to facilitate the development of performance standards for each STS. These processes are described in the following sections.

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, 2012).

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 the steps listed below, 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, the method used to set standards. 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’ judgments 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 are 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.

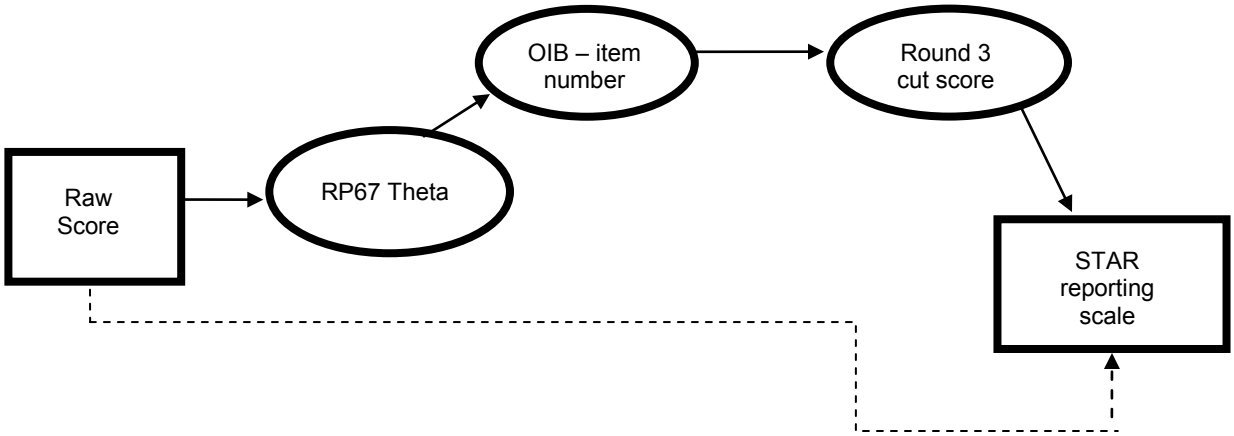
The Bookmark method is an item-mapping procedure in which panelists consider content covered by items in a specially constructed book where items are ordered from easiest to hardest, based on operational performance data from a previous test administration. The "item map," which accompanies the ordered item booklet, includes information on the content measured by each 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 ordered item booklet (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 scale 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* (θ) using the test characteristic function and then transformed to the scale score metric using the following equation:

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

where

θ represents the student ability,

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

θ_{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 for grades two through seven 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 160 presents the percentages of examinees meeting each performance level in 2011.

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Chapter 7: Scoring and Reporting

ETS conforms to high standards of quality and fairness (ETS, 2002) when scoring tests and reporting scores. Such 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 on 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 or percent-correct 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 raw score equals the number of multiple-choice test items answered correctly.

Subscore

The items of each STS are aggregated into groups of reporting clusters. A subscore is a measure of an examinee's performance on the items in each reporting cluster. These results are reported as the percent of items answered correctly. A description of the STS reporting clusters is provided in Appendix 2.B of Chapter 2, starting on page 19.

Scale Score

Raw scores obtained on each grade-level STS in grades two through seven 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 for each of these tests. 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

For grade-level STS in grades two through seven, the performance of each student is categorized into one of the following performance levels:

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

For all STS that report performance levels—where scale scores are also reported—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.

Percent-correct Score

The percent-correct score is the proportion of items on an examinee's test that were answered correctly. Percent-correct scores are reported for the STS for RLA in grades eight through eleven, the EOC STS for Algebra I in grades seven through eleven, and EOC Geometry in grades eight through eleven.

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 link the scores on the current year's test form to scores obtained on the previous years' test forms so as to adjust for 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 followup process is carried out for it to be excluded from further analyses.

Score Verification Process

For the STS in 2011, two kinds of scoring tables are produced: raw-to-scale score conversion tables for the grade-level STS in grades two through seven and raw-to-percent-correct score conversion tables for the STS for RLA in grades eight through eleven and the EOC mathematics STS. Starting in 2012, raw-to-scale score conversion tables will be produced for all STS tests. Such tables map the current year's raw score to an appropriate scale score to adjust for item difficulty differences between one test form and another. A series of quality control (QC) checks are carried out by ETS psychometricians to ensure the accuracy of each scoring table, as discussed in Chapter 9 on page 314.

Pearson utilizes the scoring tables to generate scale scores or percent correct scores for each student: The raw-to-scale scoring tables are used to assign scale scores for the grade-level STS taken by students in grades two through seven; the raw-to-percent-correct scoring tables are used to compute percent-correct scores for the STS for RLA taken by students in

grades eight through eleven, and the EOC mathematics STS taken by students in grades seven through eleven.

ETS verifies Pearson's scale scores/percent-correct scores by conducting QC and reasonableness checks, which are described in Chapter 9 on page 316.

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. Students taking a grade-level STS for RLA and mathematics in grades two through seven receive scale scores and are classified in terms of their performance levels. For students who took the STS for RLA in grades eight through eleven as well as the EOC mathematics STS, percent-correct scores are reported.

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 on the next page. 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).

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 for tests for which scale scores were reported. 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 two rows 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. While such assessments are presented to students at a variety of grade levels, the majority of test-takers belong to that specific grade.

Please note that the means and standard deviations for scale scores are not available for the STS for RLA in grades eight through eleven, Algebra I in grades seven through eleven, and Geometry in grades eight through eleven.

Table 7.1 Mean and Standard Deviation of Raw and Scale Scores for the STS, Overall Population

				Scale Score		Raw Score		Raw Score Percent Correct	
Content Area	STS*	No. of Items	No. of Examinees	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Reading/ Language Arts	2	65	12,870	332	55	41.61	12.94	64.02	19.90
	3	65	8,628	333	51	37.95	12.01	58.39	18.48
	4	75	5,263	327	54	44.12	14.44	58.83	19.25
	5	75	3,518	318	60	37.90	13.66	50.53	18.21
	6	75	2,179	321	57	38.29	12.92	51.05	17.22
	7	75	1,651	329	54	41.26	12.82	55.01	17.09
	8	75	1,415	N/A	N/A	41.80	13.19	55.74	17.58
	9	75	2,324	N/A	N/A	41.42	12.85	55.23	17.13
	10	75	1,496	N/A	N/A	42.32	12.21	56.42	16.27
	11	75	828	N/A	N/A	40.74	11.44	54.32	15.25
Mathematics	2	65	12,858	366	73	44.86	11.61	69.01	17.86
	3	65	8,617	368	75	43.51	12.72	66.94	19.57
	4	65	5,257	368	75	42.86	12.56	65.94	19.33
	5	65	3,508	352	85	35.62	11.76	54.80	18.09
	6	65	2,149	331	76	32.51	11.77	50.02	18.11
	7	65	1,621	320	65	29.64	10.46	45.60	16.09
	Algebra I	65	3,129	N/A	N/A	24.24	8.67	37.29	13.34
	Geometry	65	443	N/A	N/A	27.75	9.80	42.69	15.08
Grade Specific	Algebra I – 8	65	551	N/A	N/A	23.01	8.41	35.41	12.94
	Geometry – 9	65	72	N/A	N/A	25.04	8.18	38.53	12.58

* Numbers indicate grade-level tests.

Table 7.2 Mean and Standard Deviation of Raw and Scale Scores for the STS, Target Population

				Scale Score		Raw Score		Raw Score Percent Correct	
Content Area	STS*	No. of Items	No. of Examinees	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Reading/ Language Arts	2	65	10,783	331	55	41.41	12.96	63.71	19.94
	3	65	7,596	333	51	37.90	11.97	58.30	18.41
	4	75	4,411	327	54	44.18	14.46	58.90	19.27
	5	75	2,898	319	60	38.20	13.76	50.93	18.35
	6	75	1,918	322	57	38.55	12.94	51.41	17.26
	7	75	1,462	331	54	41.59	12.91	55.45	17.21
	8	75	1,231	N/A	N/A	42.19	13.18	56.25	17.58
	9	75	2,014	N/A	N/A	41.53	12.82	55.37	17.09
	10	75	1,320	N/A	N/A	42.70	12.07	56.93	16.10
	11	75	712	N/A	N/A	41.24	11.30	54.99	15.07
Mathematics	2	65	10,771	365	73	44.73	11.66	68.81	17.94
	3	65	7,585	368	75	43.51	12.76	66.93	19.63
	4	65	4,409	368	75	42.82	12.63	65.88	19.43
	5	65	2,889	350	85	35.41	11.74	54.48	18.06
	6	65	1,905	332	77	32.68	11.92	50.27	18.34
	7	65	1,457	321	65	29.75	10.55	45.78	16.22
	Algebra I	65	2,749	N/A	N/A	24.37	8.77	37.50	13.49
	Geometry	65	407	N/A	N/A	28.02	9.90	43.11	15.23
Grade Specific	Algebra I – 8	65	498	N/A	N/A	22.96	8.52	35.33	13.11
	Geometry – 9	65	67	N/A	N/A	25.15	7.93	38.69	12.20

* Numbers indicate grade-level tests.

Table 7.3 Mean and Standard Deviation of Raw and Scale Scores for the STS, Optional Population

				Scale Score		Raw Score		Raw Score Percent Correct	
Content Area	STS*	No. of Items	No. of Examinees	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Reading/ Language Arts	2	65	2,087	336	55	42.68	12.75	65.66	19.62
	3	65	1,032	335	53	38.37	12.32	59.03	18.95
	4	75	852	326	53	43.82	14.33	58.43	19.11
	5	75	620	312	56	36.49	13.07	48.66	17.43
	6	75	261	313	56	36.33	12.56	48.43	16.74
	7	75	189	318	48	38.70	11.84	51.60	15.78
	8	75	184	N/A	N/A	39.24	12.96	52.33	17.28
	9	75	310	N/A	N/A	40.74	13.04	54.32	17.39
	10	75	176	N/A	N/A	39.49	12.83	52.65	17.11
	11	75	116	N/A	N/A	37.65	11.81	50.20	15.75
Mathematics	2	65	2,087	370	72	45.51	11.30	70.02	17.39
	3	65	1,032	367	73	43.51	12.39	66.94	19.06
	4	65	848	369	74	43.04	12.21	66.21	18.78
	5	65	619	359	86	36.57	11.81	56.26	18.17
	6	65	244	322	66	31.22	10.51	48.03	16.17
	7	65	164	314	58	28.61	9.60	44.02	14.77
	Algebra I	65	380	N/A	N/A	23.23	7.87	35.74	12.10
	Geometry	65	36	N/A	N/A	24.64	8.09	37.91	12.44
Grade-Specific	Algebra I – 8	65	53	N/A	N/A	23.49	7.36	36.14	11.32
	Geometry – 9	65	5	N/A	N/A	–	–	–	–

* Numbers indicate grade-level tests.

The percentages of students in each performance level are presented in Table 7.4; please note that performance levels were not available for the STS for RLA in grades eight through eleven or the EOC mathematics STS administered in grades seven through eleven for the spring 2011 operational administration. The last column of the table presents the 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	5%	25%	31%	24%	15%	39%
	3	4%	23%	38%	23%	13%	35%
	4	10%	21%	32%	22%	15%	36%
	5	24%	17%	29%	20%	10%	30%
	6	15%	22%	30%	24%	9%	33%
	7	7%	23%	34%	25%	10%	36%

Content Area	STS*	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/ Advanced**
Mathematics	2	1%	18%	24%	33%	24%	57%
	3	1%	18%	25%	31%	25%	56%
	4	5%	15%	22%	33%	25%	58%
	5	9%	20%	23%	27%	21%	48%
	6	15%	23%	27%	19%	16%	35%
	7	14%	27%	28%	22%	9%	31%

* 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.4 in Appendix 7.A, starting on page 167, show the distributions of scale scores for each STS in grades two through seven for which scale scores were provided for the overall and target population, 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.

Table 7.A.5 through Table 7.A.8 show the distributions of raw scores for the STS tests for RLA in grades eight through eleven, Algebra I in grades seven through eleven, and Geometry in grades eight through eleven; scale scores were not reported for these tests in 2011. For each grade level and content area, the distributions are presented for all examinees and for the target population. Table 7.A.9 and Table 7.A.10 present similar information for grade-specific results of the Algebra I and Geometry EOC tests. The tables show the distribution of examinees within each 5-point raw score interval. The raw scores range from 0 to 75 for RLA in grades eight through eleven, resulting in 15 score intervals. For Algebra I and Geometry, raw scores range from 0 to 65, resulting in 13 score intervals.

Group Scores

Statistics summarizing student performance by content area and grade for selected groups of students are provided in Table 7.B.1 through Table 7.B.36. 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 the test as a whole 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. Summary statistics are not presented for groups with fewer than 11 examinees. Percentages in these tables may not sum up to 100 due to rounding.

For the STS tests with established reporting scales and performance levels, 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. For the STS for RLA in grades eight through eleven, Algebra I, and Geometry, means and standard deviations of raw scores instead of scale scores are provided. In addition, for all tests, mean percent-correct scores within each reporting cluster are reported.

Table 7.5, on the next page, 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, summary statistics are not reported and are presented as hyphens.

Table 7.5 Subgroup Definitions

Subgroup	Definition
Gender	• Male • Female
Country of Origin	• Argentina • Bolivia • Brazil • Chile • Columbia • Costa Rica • Cuba • Ecuador • El Salvador • Guatemala • Mexico • Nicaragua • Panama • Paraguay • Peru • Puerto Rico • Spain • United States • Uruguay • Venezuela • Other
Economic Status	• Not economically disadvantaged • Economically disadvantaged
Enrollment in U.S. Schools	• Less than 12 months • 12 months or more
EL Program Participation	• English learner (EL) in English language development (ELD) • EL in ELD and specially designed academic instruction in English (SDAIE) • EL in ELD and SDAIE with primary language support • EL in ELD and academic subjects through primary language • Other EL services • None (EL only)
Special Services	• No special services • Special services

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	▪ STAR Student Master List Summary ▪ STAR Student Master List Summary, End-of-Course ▪ STAR Subgroup Summary
2. Individual Reports	▪ STAR Student Record Label ▪ STAR Student Master List ▪ STAR Student Report for the STS
3. Internet Reports	▪ STS Scores (state, county, district, school) ▪ STS Summary Scores (state, county, district, school)

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 grade-level STS test taken by students in grades two through seven. 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 were 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 were less than 25, "data smoothing" was conducted before obtaining the averages (Lu & Smith, 2009).

For students who took the STS for RLA in grades eight through eleven and the EOC mathematics STS, the STAR Student Report provides the overall percent-correct score and the percent correct in each reporting cluster.

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 212.

Score Report Applications

STS results provide parents and guardians with information about their children'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 children'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, 2011a). 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 *2011 STAR Post-Test Guide* (CDE, 2011b).

References

California Department of Education. (2011a). *2011 STAR CST/CMA, CAPA, and STS printed reports*. Downloaded from http://www.startest.org/pdfs/STAR.reports.2011.pdf

California Department of Education. (2011b). *STAR 2011 post-test guide.* Downloaded from http://www.startest.org/pdfs/STAR.post-test_guide.2011.pdf

Educational Testing Service. (2002). *ETS standards for quality and fairness*. Princeton, NJ: Author.

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Appendix 7.A—Score Distributions

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

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
570 – 600	10	3	0	0	0	0
540 – 569	N/A	N/A	1	4	0	0
510 – 539	N/A	7	N/A	5	1	1
480 – 509	66	16	8	19	4	2
450 – 479	224	92	37	44	19	18
420 – 449	430	368	137	141	80	78
390 – 419	1,238	630	464	219	167	124
360 – 389	1,917	1,481	856	421	330	259
330 – 359	2,829	1,906	1,014	515	365	333
300 – 329	2,295	1,789	1,082	678	375	323
270 – 299	2,024	1,448	796	699	397	262
240 – 269	1,307	758	606	493	292	197
210 – 239	476	124	249	260	134	51
180 – 209	53	6	13	19	11	2
150 – 179	1	0	0	1	4	1

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

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
570 – 600	9	1	0	0	0	0
540 – 569	N/A	N/A	1	4	0	0
510 – 539	N/A	7	N/A	4	1	1
480 – 509	56	15	6	17	3	2
450 – 479	176	82	32	41	17	18
420 – 449	360	304	115	120	76	75
390 – 419	1,013	552	393	187	145	113
360 – 389	1,599	1,306	731	355	306	234
330 – 359	2,314	1,685	834	425	325	289
300 – 329	1,946	1,593	902	557	326	290
270 – 299	1,742	1,272	670	562	345	226
240 – 269	1,110	663	511	397	241	166
210 – 239	413	111	206	212	123	47
180 – 209	44	5	10	16	7	1
150 – 179	1	0	0	1	3	0

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	175	125	29	58	9	3
540 – 569	N/A	N/A	39	29	16	3
510 – 539	208	127	64	95	20	6
480 – 509	514	374	205	100	53	16
450 – 479	665	745	466	144	68	35
420 – 449	1,099	770	499	263	102	69
390 – 419	1,674	1,114	771	346	198	109
360 – 389	2,362	1,133	734	485	229	156
330 – 359	2,072	1,438	714	520	287	224
300 – 329	1,721	1,160	694	474	335	326
270 – 299	1,352	854	516	384	348	334
240 – 269	668	561	348	317	297	211
210 – 239	283	183	152	199	137	111
180 – 209	56	31	24	67	41	17
150 – 179	9	2	2	27	9	1

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	141	109	24	50	9	3
540 – 569	N/A	N/A	32	25	15	3
510 – 539	174	115	55	68	19	6
480 – 509	424	326	172	76	51	15
450 – 479	556	662	390	122	61	31
420 – 449	932	688	432	207	94	63
390 – 419	1,387	978	639	284	176	103
360 – 389	1,940	990	604	395	206	139
330 – 359	1,736	1,253	604	432	247	200
300 – 329	1,450	1,021	575	395	305	294
270 – 299	1,147	749	426	323	293	295
240 – 269	591	500	300	266	257	187
210 – 239	238	164	133	164	123	102
180 – 209	48	28	21	59	40	15
150 – 179	7	2	2	23	9	1

Table 7.A.5 Distribution of STS Raw Scores for RLA, Grades Eight through Eleven (Overall Population)

Raw Score	Grade 8	Grade 9	Grade 10	Grade 11
71 – 75	2	0	0	0
66 – 70	33	28	13	1
61 – 65	85	122	66	19
56 – 60	126	211	149	65
51 – 55	161	299	208	100
46 – 50	173	271	219	126
41 – 45	181	311	213	136
36 – 40	165	290	164	105
31 – 35	160	257	169	103
26 – 30	146	223	143	72
21 – 25	121	199	87	60
16 – 20	50	89	53	37
11 – 15	11	21	11	4
06 – 10	1	3	1	0
00 – 05	0	0	0	0

Table 7.A.6 Distribution of STS Raw Scores for RLA, Grades Eight through Eleven (Target Population)

Raw Score	Grade 8	Grade 9	Grade 10	Grade 11
71 – 75	2	0	0	0
66 – 70	30	21	13	1
61 – 65	76	106	58	17
56 – 60	115	188	138	60
51 – 55	148	256	187	85
46 – 50	148	251	196	118
41 – 45	157	268	189	115
36 – 40	145	249	148	89
31 – 35	133	217	141	90
26 – 30	127	191	128	56
21 – 25	102	169	72	52
16 – 20	38	78	41	26
11 – 15	9	17	8	3
06 – 10	1	3	1	0
00 – 05	0	0	0	0

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

Raw Score	Algebra I	Geometry
61 – 65	1	1
56 – 60	4	4
51 – 55	17	8
46 – 50	48	14
41 – 45	110	22
36 – 40	183	40
31 – 35	313	55
26 – 30	483	91
21 – 25	716	99
16 – 20	849	81
11 – 15	376	27
06 – 10	29	1
00 – 05	0	0

Table 7.A.8 Distribution of STS Raw Scores for Algebra I and Geometry (Target Population)

Raw Score	Algebra I	Geometry
61 – 65	1	1
56 – 60	4	4
51 – 55	15	8
46 – 50	46	14
41 – 45	97	20
36 – 40	170	38
31 – 35	272	52
26 – 30	435	83
21 – 25	620	91
16 – 20	729	69
11 – 15	333	26
06 – 10	27	1
00 – 05	0	0

Table 7.A.9 Distribution of STS Raw Scores for a Grade-specific Overall Population

Raw Score	Algebra I – Grade 8	Geometry – Grade 9
61 – 65	0	0
56 – 60	1	0
51 – 55	2	1
46 – 50	8	1
41 – 45	16	1
36 – 40	26	2
31 – 35	39	10
26 – 30	74	15
21 – 25	117	19
16 – 20	182	18
11 – 15	81	5
06 – 10	5	0
00 – 05	0	0

Table 7.A.10 Distribution of STS Raw Scores for a Grade-specific Target Population

Raw Score	Algebra I – Grade 8	Geometry – Grade 9
61 – 65	0	0
56 – 60	1	0
51 – 55	1	1
46 – 50	8	1
41 – 45	16	0
36 – 40	24	2
31 – 35	32	10
26 – 30	66	15
21 – 25	103	18
16 – 20	166	15
11 – 15	76	5
06 – 10	5	0
00 – 05	0	0

Appendix 7.B—Demographic Summaries

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	12,870	332	55	5%	25%	31%	24%	15%	71%	62%	63%	66%	47%
Male	6,367	324	54	7%	28%	31%	22%	12%	68%	58%	61%	63%	45%
Female	6,494	339	55	4%	22%	30%	26%	18%	73%	65%	66%	68%	50%
Gender unknown	9	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	14	342	63	7%	7%	50%	7%	29%	77%	64%	67%	64%	55%
Costa Rica	4	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	151	312	56	12%	28%	35%	16%	9%	63%	57%	57%	55%	41%
Guatemala	92	321	48	7%	30%	36%	17%	10%	67%	62%	62%	59%	40%
Mexico	1,832	324	57	8%	28%	28%	23%	13%	68%	61%	61%	61%	44%
Nicaragua	12	306	59	0%	58%	8%	25%	8%	59%	48%	56%	61%	39%
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	13	333	39	0%	15%	46%	31%	8%	79%	63%	63%	63%	44%
Puerto Rico	9	–	–	–	–	–	–	–	–	–	–	–	–
Spain	7	–	–	–	–	–	–	–	–	–	–	–	–
United States	10,275	333	55	5%	24%	31%	24%	16%	71%	62%	64%	67%	48%
Uruguay	2	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	5	–	–	–	–	–	–	–	–	–	–	–	–
Other	65	333	60	6%	26%	28%	22%	18%	71%	64%	62%	62%	49%
Country unknown	371	337	55	5%	21%	29%	28%	18%	73%	64%	67%	67%	49%
Not economically disadvantaged	927	345	58	4%	20%	27%	24%	24%	74%	67%	68%	70%	51%
Economically disadvantaged	11,651	331	55	5%	25%	31%	24%	15%	71%	61%	63%	66%	47%
Economic status unknown	292	321	54	8%	26%	33%	22%	11%	68%	57%	59%	62%	44%
In U.S. schools < 12 months	1,318	300	54	15%	39%	27%	13%	7%	58%	53%	52%	50%	36%
In U.S. schools ≥ 12 months	11,552	335	54	4%	23%	31%	25%	16%	72%	63%	65%	68%	49%
EL in ELD	398	329	53	5%	26%	33%	23%	14%	70%	62%	63%	65%	46%
EL in ELD and SDAIE	952	310	58	13%	34%	27%	16%	10%	62%	55%	56%	54%	41%
EL in ELD and SDAIE with primary language support	1,394	326	58	8%	27%	28%	22%	15%	69%	61%	61%	63%	45%
EL in ELD and academic subjects through primary language	9,794	335	54	4%	23%	31%	25%	16%	72%	63%	65%	67%	49%
Other EL instructional services	41	303	50	12%	34%	37%	12%	5%	61%	52%	53%	55%	37%
None (EL only)	90	308	41	6%	38%	39%	17%	1%	64%	55%	54%	55%	37%
Program participation unknown	201	331	59	7%	25%	24%	24%	19%	70%	61%	63%	66%	47%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
No special education	12,341	333	55	5%	24%	31%	25%	16%	71%	62%	64%	66%	48%
Special education	528	295	48	13%	46%	26%	10%	5%	58%	47%	52%	50%	35%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	10,783	331	55	5%	25%	31%	24%	15%	70%	61%	63%	65%	47%
Male	5,335	323	54	7%	28%	31%	21%	12%	68%	58%	60%	63%	45%
Female	5,440	338	55	4%	23%	30%	26%	18%	73%	65%	66%	68%	50%
Gender unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	13	344	65	8%	8%	46%	8%	31%	77%	66%	68%	64%	56%
Costa Rica	4	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	5	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	137	313	56	12%	27%	35%	18%	8%	64%	58%	56%	55%	41%
Guatemala	74	321	49	8%	28%	36%	18%	9%	67%	64%	63%	58%	41%
Mexico	1,398	320	57	9%	31%	28%	21%	11%	66%	59%	59%	59%	43%
Nicaragua	11	309	61	0%	55%	9%	27%	9%	60%	50%	56%	62%	40%
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	11	332	42	0%	18%	45%	27%	9%	79%	60%	62%	63%	45%
Puerto Rico	9	–	–	–	–	–	–	–	–	–	–	–	–
Spain	7	–	–	–	–	–	–	–	–	–	–	–	–
United States	8,805	333	55	5%	25%	31%	24%	16%	71%	62%	64%	67%	48%
Uruguay	2	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	5	–	–	–	–	–	–	–	–	–	–	–	–
Other	52	325	59	8%	29%	27%	17%	19%	69%	60%	58%	59%	49%
Country unknown	239	335	55	6%	21%	28%	28%	17%	72%	63%	66%	67%	49%
Not economically disadvantaged	761	345	59	4%	20%	27%	25%	25%	74%	67%	68%	70%	52%
Economically disadvantaged	9,814	330	55	5%	26%	31%	24%	14%	70%	61%	63%	65%	47%
Economic status unknown	208	317	53	10%	28%	34%	21%	8%	66%	56%	57%	60%	42%
In U.S. schools < 12 months	1,318	300	54	15%	39%	27%	13%	7%	58%	53%	52%	50%	36%
In U.S. schools ≥ 12 months	9,465	335	54	4%	24%	31%	25%	16%	72%	63%	65%	68%	49%
EL in ELD	94	299	53	10%	49%	27%	11%	4%	57%	55%	50%	47%	34%
EL in ELD and SDAIE	487	288	49	20%	45%	23%	8%	5%	54%	48%	48%	44%	34%
EL in ELD and SDAIE with primary language support	336	289	49	19%	43%	24%	9%	4%	53%	50%	48%	46%	33%
EL in ELD and academic subjects through primary language	9,794	335	54	4%	23%	31%	25%	16%	72%	63%	65%	67%	49%
Other EL instructional services	14	302	64	21%	36%	14%	14%	14%	61%	51%	51%	52%	38%
None (EL only)	34	290	37	12%	47%	38%	0%	3%	57%	48%	48%	45%	31%
Program participation unknown	24	305	62	8%	54%	13%	13%	13%	58%	54%	55%	50%	39%
No special education	10,336	332	55	5%	25%	31%	24%	15%	71%	62%	64%	66%	48%
Special education	446	294	48	13%	47%	26%	9%	5%	58%	46%	52%	50%	35%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	8,628	333	51	4%	23%	37%	23%	13%	66%	52%	54%	60%	55%
Male	4,274	327	50	5%	27%	37%	20%	10%	64%	49%	52%	57%	53%
Female	4,346	340	51	3%	19%	37%	25%	15%	68%	55%	57%	62%	57%
Gender unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	17	351	50	6%	6%	41%	18%	29%	73%	60%	67%	63%	56%
Costa Rica	2	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	160	317	52	10%	27%	36%	19%	8%	62%	46%	51%	49%	46%
Guatemala	114	324	50	7%	23%	43%	18%	10%	63%	50%	54%	54%	46%
Mexico	1,463	329	55	6%	27%	34%	20%	13%	65%	51%	53%	55%	51%
Nicaragua	12	347	58	0%	17%	42%	17%	25%	74%	56%	57%	62%	52%
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	16	334	47	6%	13%	56%	13%	13%	69%	55%	56%	54%	51%
Puerto Rico	4	–	–	–	–	–	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–	–	–	–	–	–
United States	6,406	335	50	3%	22%	38%	23%	13%	66%	52%	55%	61%	56%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	55	334	51	0%	29%	27%	35%	9%	67%	50%	58%	61%	51%
Country unknown	367	331	53	4%	30%	32%	22%	13%	63%	52%	55%	59%	54%
Not economically disadvantaged	644	340	52	3%	19%	37%	23%	17%	68%	54%	58%	61%	57%
Economically disadvantaged	7,832	333	51	4%	23%	37%	23%	13%	66%	52%	54%	60%	55%
Economic status unknown	152	321	54	5%	36%	33%	19%	8%	60%	50%	51%	54%	49%
In U.S. schools < 12 months	1,188	314	51	10%	31%	35%	16%	8%	60%	46%	50%	47%	45%
In U.S. schools ≥ 12 months	7,440	336	50	3%	22%	38%	24%	14%	67%	53%	55%	62%	56%
EL in ELD	112	314	45	8%	36%	33%	19%	4%	59%	46%	51%	47%	47%
EL in ELD and SDAIE	848	318	52	8%	31%	35%	16%	10%	61%	48%	51%	51%	47%
EL in ELD and SDAIE with primary language support	818	326	52	9%	23%	36%	20%	11%	64%	49%	52%	56%	51%
EL in ELD and academic subjects through primary language	6,627	337	50	3%	21%	38%	24%	14%	67%	53%	55%	62%	56%
Other EL instructional services	64	317	57	6%	38%	31%	13%	13%	58%	43%	51%	53%	48%
None (EL only)	55	304	44	9%	36%	42%	9%	4%	57%	43%	45%	45%	39%
Program participation unknown	104	337	63	4%	27%	33%	19%	17%	64%	52%	59%	60%	56%
No special education	8,244	335	51	4%	22%	38%	23%	13%	67%	52%	55%	60%	55%
Special education	384	296	45	12%	48%	28%	9%	3%	50%	40%	41%	45%	39%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	7,596	333	51	4%	23%	38%	23%	13%	66%	52%	54%	59%	54%
Male	3,786	326	50	5%	27%	38%	20%	10%	63%	49%	52%	57%	52%
Female	3,807	340	51	3%	19%	37%	25%	15%	68%	55%	57%	62%	57%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	16	348	50	6%	6%	44%	19%	25%	73%	59%	66%	61%	55%
Costa Rica	2	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	144	315	52	10%	28%	35%	18%	8%	62%	46%	51%	48%	45%
Guatemala	104	321	50	8%	25%	41%	17%	9%	63%	49%	53%	53%	45%
Mexico	1,320	328	56	6%	27%	33%	20%	13%	65%	51%	53%	55%	50%
Nicaragua	10	–	–	–	–	–	–	–	–	–	–	–	–
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	14	327	43	7%	14%	57%	14%	7%	66%	54%	56%	51%	48%
Puerto Rico	4	–	–	–	–	–	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–	–	–	–	–	–
United States	5,622	335	49	3%	21%	39%	24%	13%	66%	52%	55%	61%	56%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	40	336	54	0%	28%	30%	33%	10%	68%	50%	59%	59%	52%
Country unknown	308	326	50	4%	31%	33%	21%	11%	62%	51%	53%	57%	52%
Not economically disadvantaged	508	339	51	3%	19%	38%	24%	16%	68%	54%	59%	60%	58%
Economically disadvantaged	6,964	333	51	4%	23%	38%	23%	13%	66%	52%	54%	60%	54%
Economic status unknown	124	320	49	4%	35%	32%	20%	8%	60%	50%	51%	53%	49%
In U.S. schools < 12 months	1,188	314	51	10%	31%	35%	16%	8%	60%	46%	50%	47%	45%
In U.S. schools ≥ 12 months	6,408	337	50	3%	22%	38%	24%	14%	67%	53%	55%	62%	56%
EL in ELD	77	308	45	9%	42%	29%	18%	3%	57%	45%	52%	43%	43%
EL in ELD and SDAIE	476	304	46	12%	37%	34%	13%	4%	56%	44%	47%	43%	40%
EL in ELD and SDAIE with primary language support	355	311	51	14%	28%	36%	15%	6%	60%	44%	49%	46%	44%
EL in ELD and academic subjects through primary language	6,627	337	50	3%	21%	38%	24%	14%	67%	53%	55%	62%	56%
Other EL instructional services	13	308	47	8%	31%	46%	0%	15%	59%	38%	48%	48%	44%
None (EL only)	27	304	54	11%	41%	30%	11%	7%	60%	44%	42%	41%	37%
Program participation unknown	21	317	43	5%	24%	48%	24%	0%	60%	50%	60%	44%	49%
No special education	7,250	335	50	4%	22%	38%	23%	13%	67%	52%	55%	60%	55%
Special education	346	296	44	11%	48%	29%	9%	3%	51%	40%	41%	45%	39%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	5,263	327	54	10%	21%	32%	22%	14%	64%	55%	52%	64%	54%
Male	2,601	318	53	13%	24%	33%	19%	11%	62%	52%	49%	61%	51%
Female	2,657	335	53	7%	19%	32%	24%	18%	67%	57%	55%	67%	58%
Gender unknown	5	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	17	330	52	12%	18%	35%	12%	24%	67%	58%	59%	62%	54%
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	5	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	158	317	47	7%	31%	34%	19%	9%	63%	51%	47%	60%	49%
Guatemala	79	313	51	10%	33%	33%	16%	8%	58%	49%	50%	59%	49%
Mexico	1,154	325	55	13%	21%	32%	21%	14%	64%	54%	53%	62%	53%
Nicaragua	14	340	51	0%	29%	29%	14%	29%	71%	58%	67%	66%	54%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	346	33	0%	8%	33%	58%	0%	77%	59%	64%	74%	57%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	6	–	–	–	–	–	–	–	–	–	–	–	–
United States	3,498	328	53	10%	21%	33%	22%	15%	65%	55%	52%	65%	55%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	71	333	54	8%	21%	28%	23%	20%	68%	57%	58%	63%	58%
Country unknown	229	327	54	10%	23%	28%	24%	14%	63%	56%	52%	64%	55%
Not economically disadvantaged	428	335	58	8%	19%	31%	20%	21%	67%	58%	55%	66%	57%
Economically disadvantaged	4,710	327	53	10%	21%	33%	22%	14%	64%	54%	52%	64%	54%
Economic status unknown	125	312	55	18%	24%	33%	13%	12%	59%	51%	45%	59%	47%
In U.S. schools < 12 months	1,164	319	53	12%	25%	34%	17%	12%	62%	52%	51%	60%	50%
In U.S. schools ≥ 12 months	4,099	329	54	10%	20%	32%	23%	15%	65%	55%	53%	65%	56%
EL in ELD	108	313	53	13%	28%	33%	16%	10%	60%	51%	50%	57%	48%
EL in ELD and SDAIE	754	320	54	12%	24%	33%	18%	12%	62%	53%	52%	60%	51%
EL in ELD and SDAIE with primary language support	611	321	54	12%	25%	32%	18%	13%	63%	52%	50%	61%	52%
EL in ELD and academic subjects through primary language	3,401	330	54	9%	20%	32%	23%	15%	65%	55%	53%	66%	56%
Other EL instructional services	314	326	50	9%	22%	35%	21%	13%	65%	56%	50%	63%	53%
None (EL only)	32	332	47	9%	13%	41%	22%	16%	67%	56%	56%	69%	55%
Program participation unknown	43	305	56	26%	21%	30%	14%	9%	57%	48%	45%	54%	45%
No special education	5,004	329	53	9%	20%	33%	22%	15%	65%	55%	53%	65%	55%
Special education	254	285	47	30%	37%	20%	11%	3%	48%	39%	37%	48%	41%
Special education unknown	5	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	4,411	327	54	10%	21%	32%	22%	15%	64%	55%	52%	64%	55%
Male	2,154	318	53	14%	24%	32%	19%	11%	62%	51%	49%	61%	51%
Female	2,253	335	53	7%	19%	32%	24%	18%	67%	57%	56%	67%	58%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	15	324	52	13%	20%	33%	13%	20%	65%	56%	57%	60%	52%
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	5	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	147	317	48	7%	31%	33%	19%	10%	63%	51%	47%	61%	50%
Guatemala	74	315	51	9%	32%	34%	16%	8%	59%	49%	50%	60%	49%
Mexico	994	325	55	13%	20%	32%	21%	14%	63%	54%	52%	63%	54%
Nicaragua	11	337	55	0%	36%	18%	18%	27%	70%	56%	69%	64%	53%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	346	33	0%	8%	33%	58%	0%	77%	59%	64%	74%	57%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	2,887	328	54	10%	21%	33%	22%	15%	65%	55%	52%	65%	55%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	50	328	55	10%	26%	26%	20%	18%	65%	57%	55%	59%	56%
Country unknown	192	331	52	8%	22%	29%	25%	16%	65%	57%	53%	66%	56%
Not economically disadvantaged	370	336	57	7%	20%	31%	21%	21%	67%	59%	55%	66%	57%
Economically disadvantaged	3,966	326	53	11%	21%	32%	22%	14%	64%	54%	52%	64%	54%
Economic status unknown	75	315	54	19%	19%	33%	19%	11%	60%	53%	44%	61%	49%
In U.S. schools < 12 months	1,164	319	53	12%	25%	34%	17%	12%	62%	52%	51%	60%	50%
In U.S. schools ≥ 12 months	3,247	330	54	10%	20%	32%	23%	16%	65%	55%	53%	66%	56%
EL in ELD	76	315	50	11%	28%	38%	14%	9%	61%	51%	51%	58%	48%
EL in ELD and SDAIE	520	317	55	14%	26%	32%	16%	12%	60%	52%	51%	58%	49%
EL in ELD and SDAIE with primary language support	352	316	52	13%	26%	34%	16%	11%	62%	51%	48%	59%	50%
EL in ELD and academic subjects through primary language	3,401	330	54	9%	20%	32%	23%	15%	65%	55%	53%	66%	56%
Other EL instructional services	15	321	56	0%	40%	33%	7%	20%	63%	53%	40%	62%	54%
None (EL only)	32	332	47	9%	13%	41%	22%	16%	67%	56%	56%	69%	55%
Program participation unknown	15	312	50	13%	33%	27%	20%	7%	60%	53%	47%	55%	48%
No special education	4,205	329	53	9%	21%	33%	22%	15%	65%	55%	53%	65%	55%
Special education	206	286	49	29%	36%	20%	12%	3%	48%	39%	37%	48%	42%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	3,518	318	60	25%	17%	29%	19%	10%	50%	46%	48%	57%	49%
Male	1,857	307	57	31%	19%	28%	15%	7%	48%	43%	45%	53%	46%
Female	1,657	330	60	18%	15%	31%	24%	13%	53%	49%	52%	62%	53%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	10	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	153	322	54	17%	18%	31%	27%	7%	50%	46%	55%	58%	52%
Guatemala	75	322	56	20%	19%	36%	16%	9%	51%	46%	55%	57%	51%
Mexico	1,085	322	63	24%	15%	28%	20%	12%	52%	47%	51%	57%	51%
Nicaragua	20	331	60	10%	30%	20%	25%	15%	50%	47%	59%	63%	53%
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	11	350	33	0%	18%	27%	55%	0%	60%	52%	58%	70%	65%
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–	–	–	–	–	–
United States	1,942	314	58	26%	18%	30%	18%	8%	49%	45%	45%	57%	48%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	58	324	55	17%	19%	26%	29%	9%	51%	46%	50%	62%	53%
Country unknown	141	317	57	29%	16%	27%	18%	10%	50%	47%	48%	57%	48%
Not economically disadvantaged	310	335	66	18%	13%	31%	18%	19%	56%	51%	53%	61%	56%
Economically disadvantaged	3,145	316	58	25%	18%	29%	19%	9%	50%	45%	48%	57%	49%
Economic status unknown	63	329	66	27%	13%	25%	14%	21%	54%	49%	57%	59%	50%
In U.S. schools < 12 months	1,073	325	64	22%	15%	27%	21%	13%	53%	47%	54%	57%	52%
In U.S. schools ≥ 12 months	2,445	315	57	26%	18%	30%	18%	8%	49%	46%	46%	58%	48%
EL in ELD	85	327	63	19%	22%	26%	21%	12%	52%	48%	54%	58%	53%
EL in ELD and SDAIE	701	320	64	25%	17%	26%	19%	13%	51%	46%	52%	55%	51%
EL in ELD and SDAIE with primary language support	508	321	62	23%	16%	28%	21%	12%	51%	45%	53%	57%	51%
EL in ELD and academic subjects through primary language	1,941	317	58	25%	17%	30%	19%	9%	50%	46%	46%	58%	49%
Other EL instructional services	214	309	54	28%	19%	32%	15%	7%	47%	44%	43%	56%	47%
None (EL only)	24	325	60	17%	17%	33%	21%	13%	51%	51%	56%	56%	52%
Program participation unknown	45	326	52	13%	20%	38%	20%	9%	54%	46%	57%	61%	48%
No special education	3,283	321	59	22%	17%	30%	20%	10%	52%	47%	50%	58%	50%
Special education	233	270	43	64%	16%	15%	4%	2%	34%	31%	32%	42%	36%
Special education unknown	2	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	2,898	319	60	24%	17%	29%	20%	10%	51%	46%	49%	58%	50%
Male	1,532	309	58	30%	19%	28%	16%	8%	48%	43%	45%	54%	47%
Female	1,363	331	61	18%	14%	31%	24%	13%	54%	50%	53%	62%	54%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	141	323	55	17%	18%	30%	27%	8%	51%	45%	55%	58%	53%
Guatemala	65	325	58	22%	15%	34%	18%	11%	52%	48%	56%	57%	51%
Mexico	923	323	64	24%	15%	27%	20%	13%	52%	47%	52%	57%	52%
Nicaragua	20	331	60	10%	30%	20%	25%	15%	50%	47%	59%	63%	53%
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	11	350	33	0%	18%	27%	55%	0%	60%	52%	58%	70%	65%
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–	–	–	–	–	–
United States	1,536	315	58	26%	17%	30%	18%	8%	50%	46%	45%	58%	48%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	46	328	53	13%	22%	24%	33%	9%	53%	47%	52%	62%	53%
Country unknown	124	318	57	29%	15%	27%	19%	10%	51%	47%	48%	57%	49%
Not economically disadvantaged	249	342	68	17%	12%	29%	20%	22%	58%	53%	56%	63%	58%
Economically disadvantaged	2,611	317	59	25%	17%	29%	20%	9%	50%	46%	48%	57%	49%
Economic status unknown	38	334	71	26%	13%	21%	16%	24%	55%	49%	61%	59%	53%
In U.S. schools < 12 months	1,073	325	64	22%	15%	27%	21%	13%	53%	47%	54%	57%	52%
In U.S. schools ≥ 12 months	1,825	316	58	25%	17%	30%	19%	8%	50%	46%	46%	58%	49%
EL in ELD	63	335	65	16%	22%	24%	22%	16%	53%	50%	58%	59%	56%
EL in ELD and SDAIE	503	324	67	25%	16%	24%	20%	15%	53%	47%	54%	56%	52%
EL in ELD and SDAIE with primary language support	335	322	63	22%	16%	28%	22%	11%	52%	44%	54%	56%	52%
EL in ELD and academic subjects through primary language	1,941	317	58	25%	17%	30%	19%	9%	50%	46%	46%	58%	49%
Other EL instructional services	15	328	57	20%	13%	33%	20%	13%	50%	50%	53%	62%	52%
None (EL only)	23	330	57	13%	17%	35%	22%	13%	52%	52%	57%	58%	54%
Program participation unknown	18	328	45	11%	6%	61%	17%	6%	56%	44%	61%	60%	50%
No special education	2,719	323	60	22%	17%	30%	21%	11%	52%	47%	50%	59%	51%
Special education	179	268	42	66%	15%	15%	3%	2%	34%	31%	31%	42%	35%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	2,179	321	57	15%	23%	30%	23%	9%	45%	53%	57%	57%	44%
Male	1,126	310	58	21%	27%	26%	18%	8%	44%	50%	53%	52%	41%
Female	1,047	333	54	9%	19%	34%	29%	10%	47%	56%	62%	62%	48%
Gender unknown	6	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	4	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	130	317	53	15%	25%	32%	22%	6%	44%	52%	60%	52%	43%
Guatemala	70	298	52	27%	23%	34%	14%	1%	40%	44%	54%	47%	39%
Mexico	821	327	58	13%	21%	30%	24%	11%	48%	55%	60%	57%	45%
Nicaragua	12	339	47	0%	33%	17%	50%	0%	50%	58%	64%	63%	50%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	343	48	8%	0%	33%	58%	0%	44%	58%	75%	64%	53%
Puerto Rico	0	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–
United States	965	318	56	16%	25%	30%	22%	8%	44%	52%	55%	57%	42%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	43	311	56	21%	26%	26%	26%	2%	40%	50%	53%	51%	47%
Country unknown	98	314	57	19%	27%	27%	20%	7%	42%	49%	54%	56%	43%
Not economically disadvantaged	241	342	61	10%	14%	27%	33%	16%	52%	59%	64%	62%	50%
Economically disadvantaged	1,894	318	56	16%	24%	30%	21%	8%	44%	52%	56%	56%	43%
Economic status unknown	44	330	64	16%	16%	20%	36%	11%	49%	55%	62%	56%	47%
In U.S. schools < 12 months	931	327	58	14%	20%	31%	25%	11%	49%	54%	61%	56%	45%
In U.S. schools ≥ 12 months	1,248	317	56	16%	25%	29%	22%	7%	43%	52%	54%	57%	43%
EL in ELD	81	323	60	16%	23%	28%	23%	9%	47%	55%	62%	54%	43%
EL in ELD and SDAIE	586	325	61	16%	21%	28%	23%	12%	48%	54%	59%	56%	45%
EL in ELD and SDAIE with primary language support	351	320	52	13%	23%	35%	23%	6%	46%	53%	60%	53%	43%
EL in ELD and academic subjects through primary language	1,050	320	56	16%	24%	29%	23%	8%	44%	52%	55%	58%	44%
Other EL instructional services	46	318	56	13%	22%	33%	26%	7%	44%	52%	54%	58%	44%
None (EL only)	38	307	49	18%	32%	37%	8%	5%	40%	50%	56%	50%	39%
Program participation unknown	27	331	64	22%	7%	30%	30%	11%	48%	52%	63%	57%	51%
No special education	2,070	324	57	14%	23%	30%	24%	9%	46%	54%	58%	57%	44%
Special education	108	278	48	38%	34%	18%	9%	1%	33%	41%	40%	42%	34%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	1,918	322	57	15%	22%	30%	24%	9%	46%	53%	58%	57%	44%
Male	980	311	58	21%	26%	26%	19%	8%	44%	51%	53%	52%	41%
Female	934	334	54	9%	18%	34%	29%	10%	47%	56%	63%	62%	48%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	4	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	122	318	54	15%	25%	31%	22%	7%	43%	53%	59%	52%	44%
Guatemala	65	296	51	28%	25%	34%	12%	2%	38%	44%	52%	46%	38%
Mexico	752	327	58	13%	21%	30%	25%	11%	48%	55%	60%	57%	45%
Nicaragua	11	338	49	0%	36%	18%	45%	0%	50%	59%	63%	62%	49%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	10	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	0	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	814	320	57	16%	24%	30%	22%	8%	45%	52%	56%	58%	43%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	37	310	55	19%	27%	27%	24%	3%	40%	49%	56%	50%	46%
Country unknown	81	316	59	20%	23%	26%	22%	9%	42%	50%	55%	57%	43%
Not economically disadvantaged	221	345	60	9%	14%	26%	34%	17%	53%	59%	65%	63%	51%
Economically disadvantaged	1,673	319	56	16%	24%	30%	22%	8%	45%	52%	57%	56%	43%
Economic status unknown	24	329	68	21%	13%	17%	42%	8%	50%	58%	65%	52%	46%
In U.S. schools < 12 months	931	327	58	14%	20%	31%	25%	11%	49%	54%	61%	56%	45%
In U.S. schools ≥ 12 months	987	318	56	16%	25%	29%	23%	7%	43%	52%	54%	58%	43%
EL in ELD	65	324	60	15%	22%	31%	25%	8%	47%	56%	62%	53%	43%
EL in ELD and SDAIE	446	329	63	15%	19%	28%	25%	13%	49%	54%	61%	57%	46%
EL in ELD and SDAIE with primary language support	290	323	52	12%	21%	36%	24%	7%	48%	54%	61%	53%	44%
EL in ELD and academic subjects through primary language	1,050	320	56	16%	24%	29%	23%	8%	44%	52%	55%	58%	44%
Other EL instructional services	15	331	42	7%	20%	40%	33%	0%	43%	55%	64%	62%	49%
None (EL only)	34	304	49	21%	32%	35%	6%	6%	40%	49%	56%	48%	38%
Program participation unknown	18	341	60	17%	6%	28%	39%	11%	52%	55%	69%	58%	55%
No special education	1,832	324	57	14%	22%	30%	24%	9%	46%	54%	59%	58%	45%
Special education	86	279	48	40%	31%	17%	12%	0%	32%	40%	41%	42%	35%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	1,651	329	54	7%	24%	34%	25%	10%	59%	52%	55%	57%	53%
Male	841	323	53	9%	27%	32%	24%	8%	58%	50%	54%	54%	51%
Female	805	335	54	6%	20%	37%	26%	12%	61%	53%	57%	60%	56%
Gender unknown	5	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	15	340	68	0%	40%	7%	27%	27%	55%	57%	56%	62%	58%
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	134	313	48	6%	37%	36%	16%	5%	53%	48%	50%	51%	49%
Guatemala	62	307	42	8%	39%	35%	18%	0%	56%	43%	49%	50%	46%
Mexico	842	333	54	7%	21%	34%	28%	11%	61%	53%	57%	58%	55%
Nicaragua	10	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Peru	15	354	53	0%	7%	40%	33%	20%	67%	57%	63%	68%	61%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–
United States	433	330	54	7%	23%	35%	25%	10%	59%	52%	56%	58%	53%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	64	310	52	13%	33%	33%	16%	6%	50%	46%	49%	52%	47%
Country unknown	52	321	51	8%	29%	37%	23%	4%	54%	47%	51%	60%	52%
Not economically disadvantaged	236	342	57	7%	19%	28%	31%	15%	64%	57%	59%	61%	56%
Economically disadvantaged	1,367	326	53	8%	25%	35%	24%	9%	59%	51%	55%	56%	53%
Economic status unknown	48	340	49	0%	27%	31%	31%	10%	63%	54%	60%	61%	58%
In U.S. schools < 12 months	1,108	333	55	7%	22%	33%	27%	12%	61%	53%	57%	58%	55%
In U.S. schools ≥ 12 months	543	321	50	8%	27%	37%	22%	6%	56%	49%	53%	55%	51%
EL in ELD	141	334	57	8%	23%	30%	26%	13%	62%	54%	58%	57%	53%
EL in ELD and SDAIE	565	329	53	8%	23%	35%	25%	10%	60%	52%	55%	56%	54%
EL in ELD and SDAIE with primary language support	329	331	57	7%	26%	29%	27%	11%	61%	53%	55%	57%	53%
EL in ELD and academic subjects through primary language	483	326	51	6%	25%	38%	23%	7%	57%	50%	55%	58%	53%
Other EL instructional services	68	333	50	9%	16%	38%	28%	9%	61%	53%	57%	59%	54%
None (EL only)	34	317	62	12%	29%	29%	21%	9%	57%	48%	53%	51%	48%
Program participation unknown	31	331	57	10%	23%	32%	23%	13%	62%	48%	56%	57%	57%
No special education	1,614	330	53	7%	23%	35%	25%	10%	60%	52%	56%	57%	54%
Special education	37	272	36	30%	51%	16%	3%	0%	35%	33%	40%	40%	36%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	1,462	331	54	7%	23%	34%	25%	10%	60%	52%	56%	58%	54%
Male	753	325	54	9%	26%	32%	25%	9%	58%	51%	54%	55%	52%
Female	705	337	54	6%	19%	37%	26%	12%	61%	53%	57%	60%	56%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	13	352	66	0%	31%	8%	31%	31%	59%	61%	59%	66%	62%
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	4	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	121	314	49	7%	36%	36%	17%	6%	54%	48%	50%	51%	50%
Guatemala	57	308	42	9%	35%	39%	18%	0%	55%	43%	49%	50%	47%
Mexico	754	335	54	7%	19%	34%	28%	11%	62%	54%	58%	58%	55%
Nicaragua	9	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Peru	13	356	56	0%	8%	38%	31%	23%	66%	56%	62%	70%	63%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–
United States	369	330	55	7%	24%	34%	25%	10%	59%	52%	56%	58%	53%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	56	315	52	9%	32%	34%	18%	7%	52%	47%	52%	54%	48%
Country unknown	48	325	51	6%	27%	38%	25%	4%	55%	48%	52%	61%	54%
Not economically disadvantaged	210	346	57	6%	16%	28%	33%	17%	66%	58%	60%	63%	57%
Economically disadvantaged	1,224	328	53	8%	24%	35%	24%	9%	59%	51%	55%	57%	53%
Economic status unknown	28	342	55	0%	29%	29%	29%	14%	63%	54%	58%	62%	60%
In U.S. schools < 12 months	1,108	333	55	7%	22%	33%	27%	12%	61%	53%	57%	58%	55%
In U.S. schools ≥ 12 months	354	323	51	7%	26%	39%	22%	6%	55%	49%	54%	57%	52%
EL in ELD	126	335	58	8%	23%	29%	25%	14%	62%	54%	58%	57%	53%
EL in ELD and SDAIE	473	332	54	8%	21%	35%	25%	11%	61%	53%	56%	57%	55%
EL in ELD and SDAIE with primary language support	298	333	57	7%	24%	29%	29%	12%	61%	54%	56%	58%	54%
EL in ELD and academic subjects through primary language	483	326	51	6%	25%	38%	23%	7%	57%	50%	55%	58%	53%
Other EL instructional services	37	340	49	5%	14%	43%	27%	11%	67%	56%	58%	60%	56%
None (EL only)	26	323	66	12%	27%	27%	23%	12%	59%	48%	55%	52%	51%
Program participation unknown	19	330	64	16%	21%	26%	21%	16%	60%	45%	55%	59%	59%
No special education	1,433	332	54	7%	22%	35%	26%	11%	60%	52%	56%	58%	54%
Special education	29	270	32	31%	55%	14%	0%	0%	34%	33%	38%	39%	34%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All Population valid scores	1,415	42	13	60%	51%	59%	62%	49%
Male	759	39	13	58%	48%	57%	58%	46%
Female	655	45	13	63%	54%	62%	68%	53%
Gender unknown	1	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	4	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–
Ecuador	4	–	–	–	–	–	–	–
El Salvador	140	39	14	57%	49%	54%	56%	45%
Guatemala	53	39	13	56%	48%	53%	63%	45%
Mexico	737	43	13	62%	52%	62%	64%	51%
Nicaragua	4	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	11	53	10	75%	73%	69%	77%	61%
Puerto Rico	4	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–
United States	359	41	14	59%	48%	58%	62%	48%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	37	39	11	56%	48%	56%	57%	45%
Country unknown	52	39	12	57%	47%	54%	59%	46%
Not economically disadvantaged	182	42	14	61%	51%	59%	64%	50%
Economically disadvantaged	1,184	42	13	60%	51%	59%	62%	49%
Economic status unknown	49	43	12	62%	51%	63%	65%	51%
In U.S. schools < 12 months	898	44	13	63%	54%	61%	65%	51%
In U.S. schools ≥ 12 months	517	39	13	56%	45%	56%	58%	46%
EL in ELD	100	44	14	62%	56%	64%	64%	52%
EL in ELD and SDAIE	464	43	13	63%	53%	60%	65%	51%
EL in ELD and SDAIE with primary language support	294	43	13	62%	53%	59%	64%	50%
EL in ELD and academic subjects through primary language	432	40	13	58%	47%	58%	59%	47%
Other EL instructional services	60	39	15	57%	45%	56%	59%	46%
None (EL only)	29	39	13	60%	47%	51%	63%	46%
Program participation unknown	36	41	11	58%	50%	60%	63%	47%
No special education	1,384	42	13	61%	51%	60%	63%	49%
Special education	31	29	11	42%	34%	41%	44%	35%
Special education unknown	0	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target Population valid scores	1,231	42	13	61%	51%	60%	63%	50%
Male	662	40	13	59%	48%	57%	58%	46%
Female	568	45	13	64%	55%	63%	69%	54%
Gender unknown	1	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	4	–	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–
Ecuador	3	–	–	–	–	–	–	–
El Salvador	129	39	14	57%	49%	54%	56%	45%
Guatemala	51	39	13	56%	48%	53%	63%	45%
Mexico	640	43	13	63%	53%	62%	64%	51%
Nicaragua	4	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	10	–	–	–	–	–	–	–
Puerto Rico	4	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–
United States	306	42	14	60%	50%	59%	63%	49%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	30	39	11	56%	49%	56%	56%	45%
Country unknown	42	39	12	57%	46%	52%	59%	47%
Not economically disadvantaged	163	42	14	61%	51%	59%	64%	51%
Economically disadvantaged	1,029	42	13	61%	51%	60%	63%	49%
Economic status unknown	39	43	13	61%	50%	63%	63%	51%
In U.S. schools < 12 months	898	44	13	63%	54%	61%	65%	51%
In U.S. schools ≥ 12 months	333	38	12	55%	45%	56%	57%	46%
EL in ELD	88	46	13	64%	58%	65%	67%	53%
EL in ELD and SDAIE	379	44	13	64%	54%	62%	66%	52%
EL in ELD and SDAIE with primary language support	258	42	13	61%	53%	59%	64%	49%
EL in ELD and academic subjects through primary language	432	40	13	58%	47%	58%	59%	47%
Other EL instructional services	31	44	15	66%	54%	63%	64%	54%
None (EL only)	21	40	15	58%	49%	50%	61%	47%
Program participation unknown	22	40	10	60%	49%	57%	63%	44%
No special education	1,204	43	13	62%	52%	60%	63%	50%
Special education	27	27	9	39%	32%	38%	40%	32%
Special education unknown	0	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All Population valid scores	2,324	41	13	71%	57%	55%	55%	48%
Male	1,341	39	13	69%	55%	53%	51%	45%
Female	978	44	12	73%	61%	59%	59%	51%
Gender unknown	5	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	16	52	11	86%	77%	71%	58%	63%
Costa Rica	1	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–
Ecuador	9	–	–	–	–	–	–	–
El Salvador	407	40	12	70%	54%	55%	52%	45%
Guatemala	247	37	12	64%	49%	49%	50%	42%
Mexico	993	43	13	73%	60%	57%	56%	50%
Nicaragua	13	37	13	64%	49%	57%	43%	42%
Panama	1	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	18	51	9	93%	70%	63%	66%	60%
Puerto Rico	2	–	–	–	–	–	–	–
Spain	3	–	–	–	–	–	–	–
United States	426	42	13	72%	58%	56%	56%	49%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	80	36	12	62%	50%	48%	45%	40%
Country unknown	101	41	12	69%	58%	54%	56%	45%
Not economically disadvantaged	387	42	14	70%	58%	56%	54%	49%
Economically disadvantaged	1,862	41	13	71%	57%	55%	55%	47%
Economic status unknown	75	43	13	74%	61%	57%	57%	50%
In U.S. schools < 12 months	1,828	42	13	71%	58%	55%	55%	48%
In U.S. schools ≥ 12 months	496	41	13	69%	56%	55%	54%	47%
EL in ELD	247	43	12	74%	59%	57%	57%	49%
EL in ELD and SDAIE	704	41	13	70%	57%	55%	54%	48%
EL in ELD and SDAIE with primary language support	613	42	13	73%	58%	56%	55%	48%
EL in ELD and academic subjects through primary language	423	41	13	71%	57%	55%	55%	47%
Other EL instructional services	169	39	15	65%	55%	51%	52%	47%
None (EL only)	59	39	12	65%	55%	53%	51%	43%
Program participation unknown	109	42	13	70%	57%	57%	55%	49%
No special education	2,306	41	13	71%	57%	55%	55%	48%
Special education	17	34	12	60%	46%	49%	39%	38%
Special education unknown	1	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target Population valid scores	2,014	42	13	71%	58%	55%	55%	47%
Male	1,166	40	13	70%	55%	53%	51%	45%
Female	844	44	12	74%	61%	59%	59%	51%
Gender unknown	4	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	14	51	12	84%	77%	69%	58%	60%
Costa Rica	1	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–
Ecuador	7	–	–	–	–	–	–	–
El Salvador	356	40	11	70%	54%	55%	52%	45%
Guatemala	222	37	13	64%	49%	49%	50%	41%
Mexico	856	43	13	74%	61%	57%	57%	50%
Nicaragua	12	37	14	65%	51%	57%	43%	42%
Panama	1	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	16	51	9	95%	70%	64%	69%	60%
Puerto Rico	2	–	–	–	–	–	–	–
Spain	3	–	–	–	–	–	–	–
United States	365	42	13	72%	59%	55%	57%	49%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	71	35	12	62%	51%	48%	43%	40%
Country unknown	82	40	13	68%	58%	52%	55%	44%
Not economically disadvantaged	323	42	14	71%	59%	56%	54%	48%
Economically disadvantaged	1,645	41	13	71%	57%	55%	55%	47%
Economic status unknown	46	44	12	77%	63%	58%	58%	51%
In U.S. schools < 12 months	1,828	42	13	71%	58%	55%	55%	48%
In U.S. schools ≥ 12 months	186	41	12	71%	57%	55%	55%	45%
EL in ELD	207	43	12	74%	60%	56%	56%	49%
EL in ELD and SDAIE	621	42	13	71%	57%	55%	55%	48%
EL in ELD and SDAIE with primary language support	526	42	13	73%	58%	56%	55%	47%
EL in ELD and academic subjects through primary language	423	41	13	71%	57%	55%	55%	47%
Other EL instructional services	128	39	16	66%	55%	52%	52%	46%
None (EL only)	52	39	11	65%	56%	53%	50%	42%
Program participation unknown	57	44	11	76%	63%	59%	56%	49%
No special education	2,001	42	13	71%	58%	55%	55%	47%
Special education	12	37	12	63%	52%	49%	46%	43%
Special education unknown	1	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All Population valid scores	1,496	42	12	76%	59%	58%	57%	45%
Male	795	41	12	74%	56%	57%	55%	43%
Female	693	44	12	79%	61%	60%	60%	47%
Gender unknown	8	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–	–
Cuba	1	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–
El Salvador	126	39	11	75%	54%	55%	52%	38%
Guatemala	67	36	12	67%	49%	51%	47%	36%
Mexico	733	43	12	76%	59%	59%	58%	45%
Nicaragua	10	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	17	43	12	78%	65%	60%	58%	42%
Puerto Rico	3	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–
United States	422	43	12	77%	59%	59%	60%	46%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	27	41	12	79%	57%	55%	56%	41%
Country unknown	76	44	12	77%	63%	59%	59%	46%
Not economically disadvantaged	260	44	12	79%	61%	61%	60%	46%
Economically disadvantaged	1,181	42	12	76%	58%	58%	57%	45%
Economic status unknown	55	39	11	67%	53%	55%	53%	41%
In U.S. schools < 12 months	1,136	43	12	78%	60%	59%	59%	46%
In U.S. schools ≥ 12 months	360	39	13	69%	54%	54%	52%	42%
EL in ELD	191	44	12	79%	61%	61%	60%	47%
EL in ELD and SDAIE	434	42	12	75%	58%	58%	57%	45%
EL in ELD and SDAIE with primary language support	314	43	12	77%	59%	59%	58%	46%
EL in ELD and academic subjects through primary language	346	41	12	74%	58%	57%	56%	43%
Other EL instructional services	135	42	13	76%	57%	57%	57%	43%
None (EL only)	24	43	12	76%	57%	58%	62%	46%
Program participation unknown	52	42	11	79%	58%	56%	57%	43%
No special education	1,479	42	12	76%	59%	58%	58%	45%
Special education	17	31	12	56%	46%	45%	37%	30%
Special education unknown	0	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target Population valid scores	1,320	43	12	77%	59%	59%	58%	45%
Male	708	41	12	75%	57%	57%	55%	43%
Female	610	45	12	79%	62%	60%	61%	48%
Gender unknown	2	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–	–
Cuba	1	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–
El Salvador	116	39	11	75%	54%	55%	51%	38%
Guatemala	54	36	12	66%	49%	51%	47%	36%
Mexico	655	43	12	77%	60%	59%	58%	46%
Nicaragua	10	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	17	43	12	78%	65%	60%	58%	42%
Puerto Rico	3	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–
United States	378	44	12	78%	60%	59%	60%	47%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	22	40	11	77%	56%	55%	52%	39%
Country unknown	50	45	11	81%	64%	62%	60%	47%
Not economically disadvantaged	247	44	12	79%	61%	61%	60%	46%
Economically disadvantaged	1,048	42	12	77%	59%	58%	58%	45%
Economic status unknown	25	40	10	70%	57%	57%	54%	41%
In U.S. schools < 12 months	1,136	43	12	78%	60%	59%	59%	46%
In U.S. schools ≥ 12 months	184	39	13	69%	54%	54%	51%	40%
EL in ELD	162	44	12	79%	62%	61%	60%	47%
EL in ELD and SDAIE	374	43	12	77%	59%	59%	59%	45%
EL in ELD and SDAIE with primary language support	281	43	12	78%	60%	59%	58%	46%
EL in ELD and academic subjects through primary language	346	41	12	74%	58%	57%	56%	43%
Other EL instructional services	103	43	12	80%	60%	59%	60%	45%
None (EL only)	22	43	12	77%	57%	57%	62%	45%
Program participation unknown	32	41	10	79%	59%	55%	56%	43%
No special education	1,308	43	12	77%	59%	59%	58%	45%
Special education	12	35	11	68%	55%	52%	37%	31%
Special education unknown	0	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All Population valid scores	828	41	11	63%	50%	54%	54%	55%
Male	436	38	12	61%	48%	51%	51%	51%
Female	390	43	10	66%	52%	58%	57%	59%
Gender unknown	2	–	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	1	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–
El Salvador	60	42	11	67%	52%	57%	54%	53%
Guatemala	39	34	9	53%	45%	45%	48%	44%
Mexico	383	41	11	64%	50%	54%	54%	56%
Nicaragua	8	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	18	45	10	71%	57%	60%	61%	58%
Puerto Rico	1	–	–	–	–	–	–	–
Spain	9	–	–	–	–	–	–	–
United States	237	41	11	61%	49%	56%	53%	55%
Uruguay	1	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	13	38	7	64%	45%	47%	54%	53%
Country unknown	38	38	13	56%	48%	50%	56%	51%
Not economically disadvantaged	158	43	11	68%	53%	57%	57%	58%
Economically disadvantaged	640	40	11	62%	49%	53%	53%	54%
Economic status unknown	30	42	11	66%	52%	57%	54%	58%
In U.S. schools < 12 months	561	42	11	66%	52%	56%	55%	57%
In U.S. schools ≥ 12 months	267	38	12	58%	47%	51%	51%	51%
EL in ELD	106	42	12	66%	52%	56%	55%	55%
EL in ELD and SDAIE	261	42	11	65%	51%	55%	56%	57%
EL in ELD and SDAIE with primary language support	163	41	11	64%	50%	55%	53%	55%
EL in ELD and academic subjects through primary language	192	39	11	60%	48%	53%	51%	53%
Other EL instructional services	65	39	12	64%	50%	50%	51%	51%
None (EL only)	14	41	13	70%	47%	51%	56%	59%
Program participation unknown	27	39	11	55%	50%	55%	54%	51%
No special education	821	41	11	64%	50%	54%	54%	55%
Special education	7	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target Population valid scores	712	41	11	64%	51%	55%	54%	56%
Male	382	39	12	62%	49%	52%	51%	52%
Female	329	44	10	67%	53%	59%	58%	60%
Gender unknown	1	–	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	1	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–
Colombia	6	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–
El Salvador	52	42	10	69%	53%	59%	54%	54%
Guatemala	34	34	9	52%	46%	44%	48%	44%
Mexico	318	42	11	66%	51%	55%	55%	58%
Nicaragua	5	–	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
Peru	17	45	10	73%	57%	61%	61%	58%
Puerto Rico	1	–	–	–	–	–	–	–
Spain	9	–	–	–	–	–	–	–
United States	216	41	11	62%	50%	56%	54%	56%
Uruguay	1	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	11	39	6	68%	47%	45%	54%	54%
Country unknown	28	36	12	51%	47%	47%	54%	46%
Not economically disadvantaged	147	43	11	68%	53%	57%	57%	57%
Economically disadvantaged	547	41	11	63%	50%	54%	54%	55%
Economic status unknown	18	44	9	68%	56%	60%	54%	59%
In U.S. schools < 12 months	561	42	11	66%	52%	56%	55%	57%
In U.S. schools ≥ 12 months	151	39	11	58%	48%	52%	51%	52%
EL in ELD	87	42	12	66%	53%	57%	57%	56%
EL in ELD and SDAIE	229	42	11	66%	52%	56%	56%	58%
EL in ELD and SDAIE with primary language support	131	41	11	65%	51%	55%	54%	56%
EL in ELD and academic subjects through primary language	192	39	11	60%	48%	53%	51%	53%
Other EL instructional services	46	42	12	69%	52%	54%	57%	56%
None (EL only)	10	–	–	–	–	–	–	–
Program participation unknown	17	38	11	56%	48%	57%	50%	48%
No special education	706	41	11	64%	51%	55%	55%	56%
Special education	6	–	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	12,858	366	73	1%	18%	24%	34%	24%	66%	64%	63%	77%	82%
Male	6,356	367	74	1%	18%	23%	33%	25%	65%	64%	65%	77%	82%
Female	6,493	365	72	1%	17%	25%	34%	23%	66%	64%	62%	76%	83%
Gender unknown	9	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	14	363	68	0%	21%	14%	43%	21%	73%	61%	63%	78%	71%
Costa Rica	4	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	151	337	70	1%	30%	25%	30%	13%	55%	57%	56%	71%	75%
Guatemala	93	351	70	2%	20%	29%	30%	18%	61%	61%	61%	74%	80%
Mexico	1,836	357	72	2%	20%	26%	33%	20%	62%	61%	61%	76%	81%
Nicaragua	12	317	98	17%	42%	0%	25%	17%	51%	46%	56%	64%	67%
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	14	343	50	0%	14%	36%	43%	7%	65%	56%	62%	73%	76%
Puerto Rico	9	–	–	–	–	–	–	–	–	–	–	–	–
Spain	7	–	–	–	–	–	–	–	–	–	–	–	–
United States	10,255	368	73	1%	17%	23%	34%	25%	67%	65%	64%	77%	83%
Uruguay	2	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	5	–	–	–	–	–	–	–	–	–	–	–	–
Other	66	360	77	2%	17%	27%	35%	20%	65%	62%	65%	74%	81%
Country unknown	372	362	70	1%	20%	21%	37%	20%	64%	63%	63%	77%	82%
Not economically disadvantaged	922	381	75	1%	14%	19%	36%	30%	70%	68%	68%	80%	84%
Economically disadvantaged	11,641	365	73	1%	18%	24%	34%	24%	65%	64%	63%	77%	82%
Economic status unknown	295	349	72	2%	25%	24%	31%	19%	59%	59%	60%	75%	79%
In U.S. schools < 12 months	1,330	330	70	3%	34%	27%	25%	12%	53%	55%	55%	70%	70%
In U.S. schools ≥ 12 months	11,528	370	72	1%	16%	23%	35%	25%	67%	65%	64%	78%	84%
EL in ELD	403	352	67	1%	18%	31%	32%	18%	62%	59%	63%	76%	80%
EL in ELD and SDAIE	955	342	74	2%	29%	24%	29%	15%	58%	57%	58%	72%	76%
EL in ELD and SDAIE with primary language support	1,395	365	76	1%	19%	22%	33%	24%	64%	64%	63%	77%	81%
EL in ELD and academic subjects through primary language	9,771	370	72	1%	16%	23%	35%	25%	67%	65%	64%	77%	84%
Other EL instructional services	41	325	61	5%	27%	37%	27%	5%	51%	55%	57%	69%	74%
None (EL only)	90	330	50	0%	28%	30%	39%	3%	55%	55%	52%	69%	80%
Program participation unknown	203	353	77	2%	23%	23%	31%	21%	63%	60%	59%	75%	77%
No special education	12,331	368	73	1%	17%	24%	34%	25%	66%	64%	64%	77%	83%
Special education	527	321	71	4%	39%	23%	23%	11%	53%	51%	52%	65%	72%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	10,771	365	73	1%	18%	24%	33%	24%	65%	64%	63%	76%	82%
Male	5,321	366	75	1%	19%	23%	33%	25%	65%	63%	65%	77%	82%
Female	5,442	364	72	1%	17%	25%	34%	23%	66%	64%	62%	76%	82%
Gender unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	13	363	71	0%	23%	15%	38%	23%	73%	63%	62%	77%	70%
Costa Rica	4	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	5	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	137	338	70	1%	31%	26%	29%	13%	55%	57%	57%	72%	75%
Guatemala	75	352	69	1%	23%	28%	31%	17%	61%	61%	60%	74%	80%
Mexico	1,400	354	74	2%	22%	26%	30%	20%	61%	61%	60%	75%	79%
Nicaragua	11	321	102	18%	36%	0%	27%	18%	52%	48%	59%	64%	66%
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	347	53	0%	17%	25%	50%	8%	68%	58%	61%	73%	79%
Puerto Rico	9	–	–	–	–	–	–	–	–	–	–	–	–
Spain	7	–	–	–	–	–	–	–	–	–	–	–	–
United States	8,788	368	73	1%	17%	23%	34%	25%	67%	64%	64%	77%	83%
Uruguay	2	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	5	–	–	–	–	–	–	–	–	–	–	–	–
Other	52	353	78	2%	19%	31%	31%	17%	61%	60%	65%	71%	79%
Country unknown	240	358	66	1%	21%	20%	38%	19%	64%	62%	64%	75%	82%
Not economically disadvantaged	754	381	75	0%	14%	19%	36%	31%	69%	68%	69%	80%	85%
Economically disadvantaged	9,806	364	73	1%	18%	24%	33%	23%	65%	63%	63%	76%	82%
Economic status unknown	211	350	71	1%	27%	19%	35%	18%	59%	60%	60%	75%	79%
In U.S. schools < 12 months	1,330	330	70	3%	34%	27%	25%	12%	53%	55%	55%	70%	70%
In U.S. schools ≥ 12 months	9,441	370	72	1%	16%	23%	35%	26%	67%	65%	64%	77%	84%
EL in ELD	98	319	68	3%	36%	34%	18%	9%	48%	52%	55%	68%	66%
EL in ELD and SDAIE	490	319	67	3%	41%	24%	24%	7%	50%	51%	54%	68%	68%
EL in ELD and SDAIE with primary language support	341	322	69	3%	38%	28%	21%	10%	51%	52%	54%	67%	68%
EL in ELD and academic subjects through primary language	9,771	370	72	1%	16%	23%	35%	25%	67%	65%	64%	77%	84%
Other EL instructional services	14	329	62	7%	14%	50%	21%	7%	47%	56%	55%	74%	79%
None (EL only)	33	322	47	0%	33%	33%	30%	3%	53%	52%	55%	68%	74%
Program participation unknown	24	321	75	4%	42%	17%	29%	8%	52%	51%	53%	69%	64%
No special education	10,326	367	73	1%	17%	24%	34%	24%	66%	64%	64%	77%	83%
Special education	445	320	70	4%	39%	23%	23%	11%	53%	51%	52%	65%	71%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	8,617	368	75	1%	18%	25%	31%	25%	67%	65%	62%	69%	78%
Male	4,273	368	77	1%	18%	24%	30%	26%	67%	65%	63%	69%	76%
Female	4,336	367	73	1%	17%	26%	32%	24%	66%	65%	62%	69%	79%
Gender unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	17	369	91	0%	29%	18%	18%	35%	63%	68%	64%	66%	72%
Costa Rica	2	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	159	341	82	3%	32%	26%	19%	19%	57%	58%	56%	62%	65%
Guatemala	113	345	80	5%	25%	28%	20%	21%	58%	59%	56%	64%	69%
Mexico	1,463	354	78	2%	24%	26%	27%	21%	61%	62%	58%	66%	72%
Nicaragua	12	378	81	0%	25%	17%	25%	33%	67%	68%	63%	72%	82%
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	16	379	99	0%	25%	31%	13%	31%	65%	65%	71%	67%	73%
Puerto Rico	4	–	–	–	–	–	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–	–	–	–	–	–
United States	6,395	372	73	1%	16%	25%	32%	26%	68%	66%	63%	71%	80%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	54	375	82	2%	19%	30%	20%	30%	67%	67%	61%	73%	77%
Country unknown	370	363	72	1%	19%	23%	35%	22%	67%	63%	60%	70%	76%
Not economically disadvantaged	643	376	77	1%	16%	23%	30%	30%	70%	68%	65%	70%	78%
Economically disadvantaged	7,822	367	75	1%	18%	25%	31%	24%	66%	65%	62%	69%	78%
Economic status unknown	152	351	80	1%	31%	26%	20%	22%	61%	59%	57%	65%	71%
In U.S. schools < 12 months	1,192	331	72	4%	34%	27%	21%	14%	54%	56%	53%	60%	62%
In U.S. schools ≥ 12 months	7,425	374	74	1%	15%	25%	33%	27%	68%	66%	64%	71%	80%
EL in ELD	111	332	77	4%	35%	27%	18%	16%	54%	57%	54%	57%	67%
EL in ELD and SDAIE	855	341	74	3%	30%	26%	25%	16%	58%	57%	56%	63%	67%
EL in ELD and SDAIE with primary language support	819	353	74	2%	23%	26%	29%	19%	63%	62%	58%	65%	71%
EL in ELD and academic subjects through primary language	6,610	374	74	1%	15%	25%	32%	27%	69%	67%	64%	71%	80%
Other EL instructional services	65	346	76	2%	31%	31%	18%	18%	60%	57%	56%	65%	70%
None (EL only)	55	332	72	2%	36%	31%	18%	13%	56%	55%	55%	59%	61%
Program participation unknown	102	353	83	3%	29%	16%	31%	21%	60%	63%	59%	63%	72%
No special education	8,228	370	75	1%	17%	25%	32%	26%	67%	66%	63%	70%	78%
Special education	389	323	69	5%	37%	29%	19%	11%	54%	51%	50%	58%	66%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	7,585	368	75	1%	18%	25%	31%	25%	66%	65%	62%	70%	78%
Male	3,785	368	77	1%	18%	24%	30%	26%	67%	65%	63%	69%	76%
Female	3,797	367	73	1%	17%	26%	31%	24%	66%	65%	62%	70%	79%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	16	361	86	0%	31%	19%	19%	31%	61%	66%	62%	64%	70%
Costa Rica	2	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	3	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	143	338	82	3%	34%	24%	20%	18%	55%	57%	55%	62%	64%
Guatemala	103	341	79	6%	27%	26%	20%	20%	58%	57%	55%	62%	68%
Mexico	1,320	354	79	2%	25%	25%	27%	21%	61%	62%	58%	66%	72%
Nicaragua	10	–	–	–	–	–	–	–	–	–	–	–	–
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	14	358	84	0%	29%	36%	14%	21%	60%	61%	67%	63%	69%
Puerto Rico	4	–	–	–	–	–	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–	–	–	–	–	–
United States	5,611	372	74	1%	15%	25%	32%	26%	68%	66%	64%	71%	80%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	39	376	85	3%	21%	28%	21%	28%	67%	68%	62%	72%	74%
Country unknown	311	359	70	2%	20%	26%	33%	20%	67%	61%	58%	70%	75%
Not economically disadvantaged	506	373	77	1%	17%	24%	30%	29%	69%	67%	64%	70%	77%
Economically disadvantaged	6,955	368	75	1%	18%	25%	31%	25%	66%	65%	62%	70%	78%
Economic status unknown	124	354	80	1%	29%	26%	21%	23%	62%	60%	58%	66%	71%
In U.S. schools < 12 months	1,192	331	72	4%	34%	27%	21%	14%	54%	56%	53%	60%	62%
In U.S. schools ≥ 12 months	6,393	375	74	1%	15%	25%	33%	27%	69%	67%	64%	71%	80%
EL in ELD	77	322	71	3%	40%	26%	19%	12%	51%	54%	51%	55%	65%
EL in ELD and SDAIE	481	319	67	5%	40%	26%	18%	11%	51%	52%	50%	57%	57%
EL in ELD and SDAIE with primary language support	356	330	71	3%	35%	28%	21%	13%	54%	56%	53%	60%	61%
EL in ELD and academic subjects through primary language	6,610	374	74	1%	15%	25%	32%	27%	69%	67%	64%	71%	80%
Other EL instructional services	13	319	62	0%	54%	23%	15%	8%	48%	53%	55%	58%	55%
None (EL only)	27	321	79	4%	44%	22%	19%	11%	49%	53%	53%	56%	54%
Program participation unknown	21	311	71	5%	48%	24%	14%	10%	51%	52%	44%	50%	61%
No special education	7,234	370	75	1%	17%	25%	31%	26%	67%	66%	63%	70%	78%
Special education	351	324	67	5%	35%	30%	21%	9%	54%	52%	51%	58%	65%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	5,257	368	75	4%	16%	22%	33%	25%	67%	63%	70%	64%	57%
Male	2,595	367	78	6%	16%	21%	32%	25%	67%	62%	70%	63%	55%
Female	2,657	370	72	3%	15%	24%	34%	24%	66%	64%	71%	65%	58%
Gender unknown	5	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	17	351	67	0%	24%	35%	24%	18%	64%	61%	64%	59%	54%
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	5	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	158	338	69	8%	23%	33%	23%	14%	59%	53%	61%	58%	54%
Guatemala	80	339	77	10%	21%	30%	25%	14%	58%	58%	60%	57%	52%
Mexico	1,152	355	75	6%	20%	22%	31%	20%	64%	60%	65%	62%	55%
Nicaragua	14	352	79	14%	14%	21%	29%	21%	58%	64%	66%	59%	61%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	368	51	0%	8%	25%	50%	17%	66%	70%	78%	58%	46%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	6	–	–	–	–	–	–	–	–	–	–	–	–
United States	3,493	375	74	3%	14%	22%	34%	27%	69%	65%	73%	66%	58%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	71	365	75	4%	14%	34%	21%	27%	67%	63%	70%	61%	52%
Country unknown	229	370	75	4%	15%	20%	37%	24%	67%	63%	72%	64%	56%
Not economically disadvantaged	428	372	78	3%	16%	23%	31%	27%	67%	64%	71%	65%	58%
Economically disadvantaged	4,703	369	75	4%	15%	22%	34%	25%	67%	63%	71%	64%	57%
Economic status unknown	126	348	70	5%	22%	30%	25%	18%	63%	56%	62%	62%	54%
In U.S. schools < 12 months	1,161	338	73	9%	25%	27%	25%	14%	58%	56%	59%	58%	52%
In U.S. schools ≥ 12 months	4,096	377	73	3%	13%	21%	35%	28%	69%	65%	74%	66%	58%
EL in ELD	109	327	71	8%	30%	33%	18%	10%	57%	50%	55%	55%	51%
EL in ELD and SDAIE	750	345	74	8%	23%	25%	28%	16%	61%	59%	62%	58%	53%
EL in ELD and SDAIE with primary language support	609	354	76	6%	22%	24%	30%	19%	63%	59%	66%	62%	55%
EL in ELD and academic subjects through primary language	3,402	378	73	3%	12%	21%	35%	28%	69%	65%	74%	67%	59%
Other EL instructional services	313	369	74	5%	12%	23%	36%	24%	67%	64%	71%	63%	55%
None (EL only)	32	357	76	6%	9%	41%	13%	31%	66%	64%	63%	60%	54%
Program participation unknown	42	335	80	10%	29%	26%	21%	14%	61%	56%	55%	55%	49%
No special education	4,996	371	74	4%	15%	22%	34%	25%	67%	64%	71%	65%	57%
Special education	256	323	77	15%	28%	26%	19%	12%	56%	50%	55%	52%	49%
Special education unknown	5	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	4,409	368	75	5%	15%	22%	33%	25%	67%	63%	70%	64%	57%
Male	2,151	367	79	6%	16%	21%	32%	25%	67%	62%	69%	63%	56%
Female	2,254	370	72	3%	15%	24%	34%	25%	66%	64%	71%	65%	58%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	15	343	63	0%	27%	33%	27%	13%	62%	60%	62%	56%	53%
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	5	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	147	339	69	7%	23%	33%	22%	14%	59%	53%	62%	59%	54%
Guatemala	75	340	79	11%	21%	28%	25%	15%	57%	58%	61%	58%	51%
Mexico	993	354	75	7%	20%	22%	31%	20%	63%	60%	65%	61%	55%
Nicaragua	11	355	88	18%	18%	9%	27%	27%	58%	65%	67%	60%	55%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	368	51	0%	8%	25%	50%	17%	66%	70%	78%	58%	46%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	2,884	376	74	3%	13%	22%	34%	28%	69%	65%	73%	66%	58%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	50	361	77	4%	20%	30%	18%	28%	64%	62%	68%	61%	54%
Country unknown	193	372	76	5%	13%	20%	38%	24%	67%	64%	72%	64%	58%
Not economically disadvantaged	370	373	77	3%	15%	24%	31%	28%	67%	64%	71%	66%	58%
Economically disadvantaged	3,963	368	75	5%	15%	22%	33%	25%	67%	63%	70%	64%	57%
Economic status unknown	76	335	69	7%	28%	28%	25%	13%	61%	53%	57%	58%	53%
In U.S. schools < 12 months	1,161	338	73	9%	25%	27%	25%	14%	58%	56%	59%	58%	52%
In U.S. schools ≥ 12 months	3,248	379	73	3%	12%	20%	36%	29%	70%	65%	74%	67%	59%
EL in ELD	76	326	70	9%	28%	36%	17%	11%	56%	51%	56%	54%	50%
EL in ELD and SDAIE	519	334	73	11%	25%	27%	25%	13%	57%	56%	57%	56%	51%
EL in ELD and SDAIE with primary language support	350	340	73	8%	27%	25%	25%	15%	59%	56%	60%	59%	53%
EL in ELD and academic subjects through primary language	3,402	378	73	3%	12%	21%	35%	28%	69%	65%	74%	67%	59%
Other EL instructional services	15	331	80	13%	27%	13%	27%	20%	58%	55%	56%	54%	50%
None (EL only)	32	357	76	6%	9%	41%	13%	31%	66%	64%	63%	60%	54%
Program participation unknown	15	323	84	13%	40%	13%	20%	13%	58%	55%	48%	51%	48%
No special education	4,201	370	75	4%	15%	22%	33%	26%	67%	64%	71%	65%	57%
Special education	208	326	78	16%	25%	25%	22%	12%	56%	50%	56%	53%	49%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	3,508	352	85	8%	20%	23%	27%	22%	60%	50%	60%	50%	55%
Male	1,848	348	88	10%	21%	22%	25%	21%	59%	49%	59%	50%	54%
Female	1,656	356	83	7%	18%	23%	29%	23%	60%	51%	62%	51%	56%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	10	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	153	320	80	17%	25%	23%	22%	13%	53%	42%	52%	46%	50%
Guatemala	75	323	87	15%	28%	28%	17%	12%	50%	47%	51%	45%	50%
Mexico	1,085	342	89	12%	23%	22%	23%	20%	57%	49%	56%	49%	53%
Nicaragua	19	341	72	0%	37%	21%	26%	16%	55%	47%	54%	53%	58%
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	11	375	58	0%	9%	27%	27%	36%	64%	57%	69%	57%	48%
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–	–	–	–	–	–
United States	1,935	361	82	5%	18%	22%	31%	24%	63%	51%	63%	52%	56%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	56	338	91	9%	29%	27%	18%	18%	57%	45%	55%	48%	57%
Country unknown	141	350	83	9%	16%	27%	26%	22%	58%	49%	62%	49%	54%
Not economically disadvantaged	310	367	95	7%	21%	16%	28%	28%	62%	54%	61%	54%	56%
Economically disadvantaged	3,135	350	84	8%	20%	24%	27%	21%	60%	49%	60%	50%	55%
Economic status unknown	63	342	96	17%	21%	16%	21%	25%	57%	47%	57%	49%	57%
In U.S. schools < 12 months	1,070	329	88	15%	25%	21%	23%	16%	53%	47%	52%	47%	51%
In U.S. schools ≥ 12 months	2,438	362	82	5%	18%	23%	29%	25%	63%	51%	64%	52%	56%
EL in ELD	85	321	90	19%	28%	19%	19%	15%	53%	42%	50%	47%	52%
EL in ELD and SDAIE	701	333	88	15%	24%	21%	24%	16%	54%	48%	54%	47%	52%
EL in ELD and SDAIE with primary language support	504	342	88	12%	22%	21%	26%	20%	57%	49%	57%	48%	53%
EL in ELD and academic subjects through primary language	1,935	363	81	4%	18%	24%	29%	25%	63%	51%	64%	52%	56%
Other EL instructional services	213	358	89	7%	21%	22%	28%	23%	62%	51%	62%	51%	55%
None (EL only)	24	320	97	17%	29%	17%	25%	13%	51%	46%	46%	45%	55%
Program participation unknown	46	335	81	15%	15%	24%	28%	17%	55%	47%	55%	50%	52%
No special education	3,276	355	85	8%	19%	23%	28%	23%	61%	51%	61%	51%	55%
Special education	230	302	68	17%	40%	22%	15%	7%	50%	38%	48%	41%	48%
Special education unknown	2	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	2,889	350	85	9%	20%	23%	27%	21%	59%	50%	60%	50%	55%
Male	1,523	347	88	10%	22%	23%	25%	21%	59%	49%	58%	50%	54%
Female	1,363	354	82	7%	19%	23%	29%	22%	60%	50%	61%	51%	56%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	4	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	3	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	141	323	81	16%	25%	21%	23%	14%	53%	43%	52%	46%	50%
Guatemala	65	326	90	15%	26%	28%	17%	14%	50%	49%	52%	45%	49%
Mexico	923	339	88	12%	23%	22%	24%	19%	56%	49%	56%	49%	53%
Nicaragua	19	341	72	0%	37%	21%	26%	16%	55%	47%	54%	53%	58%
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	11	375	58	0%	9%	27%	27%	36%	64%	57%	69%	57%	48%
Puerto Rico	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–	–	–	–	–	–
United States	1,529	360	82	5%	18%	22%	30%	24%	63%	51%	63%	52%	56%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	45	343	89	9%	22%	31%	18%	20%	58%	47%	56%	50%	57%
Country unknown	124	353	82	6%	19%	27%	26%	23%	58%	50%	63%	50%	55%
Not economically disadvantaged	249	366	97	7%	21%	17%	26%	29%	62%	55%	60%	55%	56%
Economically disadvantaged	2,602	349	84	8%	20%	24%	27%	21%	59%	49%	60%	50%	55%
Economic status unknown	38	324	86	21%	26%	13%	18%	21%	54%	46%	51%	46%	51%
In U.S. schools < 12 months	1,070	329	88	15%	25%	21%	23%	16%	53%	47%	52%	47%	51%
In U.S. schools ≥ 12 months	1,819	363	81	5%	17%	24%	29%	25%	63%	51%	64%	52%	57%
EL in ELD	63	321	95	21%	29%	14%	21%	16%	51%	44%	49%	48%	50%
EL in ELD and SDAIE	503	326	88	17%	25%	20%	23%	15%	51%	47%	51%	47%	51%
EL in ELD and SDAIE with primary language support	331	323	85	15%	28%	22%	21%	14%	52%	46%	51%	45%	49%
EL in ELD and academic subjects through primary language	1,935	363	81	4%	18%	24%	29%	25%	63%	51%	64%	52%	56%
Other EL instructional services	15	374	113	7%	13%	33%	20%	27%	64%	54%	62%	51%	65%
None (EL only)	23	324	97	13%	30%	17%	26%	13%	53%	47%	46%	47%	57%
Program participation unknown	19	310	81	26%	11%	26%	26%	11%	47%	44%	48%	47%	45%
No special education	2,713	354	85	8%	19%	23%	28%	22%	60%	50%	60%	51%	55%
Special education	176	299	66	15%	44%	22%	11%	7%	49%	37%	47%	40%	47%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	2,149	331	76	15%	24%	27%	19%	16%	58%	52%	55%	37%	41%
Male	1,112	330	79	15%	25%	25%	18%	17%	57%	52%	55%	38%	40%
Female	1,032	332	73	13%	23%	28%	20%	14%	58%	52%	55%	37%	43%
Gender unknown	5	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	2	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	4	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	8	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	126	288	68	38%	22%	21%	13%	5%	45%	40%	45%	28%	35%
Guatemala	70	298	74	26%	36%	17%	14%	7%	47%	45%	47%	32%	35%
Mexico	813	329	77	15%	24%	27%	19%	16%	58%	50%	55%	37%	42%
Nicaragua	12	285	46	25%	42%	25%	8%	0%	42%	46%	40%	24%	39%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	345	77	17%	17%	25%	25%	17%	61%	55%	61%	34%	47%
Puerto Rico	0	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–
United States	946	342	75	10%	24%	27%	21%	18%	60%	55%	57%	40%	43%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	43	293	60	30%	30%	26%	9%	5%	48%	41%	45%	30%	33%
Country unknown	100	326	71	17%	18%	29%	21%	15%	60%	52%	54%	34%	38%
Not economically disadvantaged	234	343	80	12%	21%	25%	21%	21%	62%	55%	58%	40%	41%
Economically disadvantaged	1,872	329	75	15%	25%	27%	19%	15%	57%	51%	55%	37%	41%
Economic status unknown	43	336	87	21%	19%	21%	16%	23%	61%	54%	56%	37%	41%
In U.S. schools < 12 months	918	319	79	22%	24%	24%	17%	13%	54%	48%	52%	34%	40%
In U.S. schools ≥ 12 months	1,231	339	73	9%	25%	28%	21%	17%	60%	54%	57%	40%	42%
EL in ELD	78	317	71	22%	24%	22%	22%	10%	53%	47%	52%	35%	40%
EL in ELD and SDAIE	568	322	79	20%	25%	24%	18%	14%	56%	49%	53%	35%	40%
EL in ELD and SDAIE with primary language support	346	316	74	22%	25%	27%	15%	12%	54%	46%	52%	33%	38%
EL in ELD and academic subjects through primary language	1,050	343	74	8%	23%	29%	21%	19%	61%	55%	58%	41%	43%
Other EL instructional services	44	327	70	18%	20%	32%	16%	14%	59%	52%	55%	32%	39%
None (EL only)	37	300	70	24%	32%	22%	14%	8%	50%	47%	45%	33%	34%
Program participation unknown	26	307	82	27%	27%	15%	15%	15%	49%	48%	49%	30%	39%
No special education	2,039	333	77	14%	23%	27%	20%	16%	58%	52%	55%	38%	42%
Special education	109	287	54	24%	41%	23%	10%	2%	47%	37%	44%	30%	31%
Special education unknown	1	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	1,905	332	77	15%	23%	27%	19%	16%	58%	52%	55%	38%	42%
Male	972	332	81	15%	24%	25%	18%	18%	58%	52%	55%	39%	40%
Female	930	332	73	14%	23%	29%	20%	15%	58%	51%	55%	37%	43%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	4	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	8	–	–	–	–	–	–	–	–	–	–	–	–
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	118	290	68	36%	22%	23%	14%	5%	46%	40%	45%	29%	35%
Guatemala	65	294	74	28%	35%	17%	15%	5%	46%	43%	46%	31%	35%
Mexico	746	330	77	15%	23%	28%	19%	15%	58%	50%	55%	37%	42%
Nicaragua	11	281	46	27%	45%	18%	9%	0%	41%	45%	38%	25%	39%
Panama	0	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Peru	10	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	0	–	–	–	–	–	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–	–	–	–	–	–
United States	810	344	76	9%	23%	27%	21%	20%	61%	56%	58%	41%	44%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	37	293	61	30%	30%	27%	8%	5%	47%	41%	45%	31%	34%
Country unknown	83	330	75	19%	13%	28%	23%	17%	60%	51%	56%	36%	40%
Not economically disadvantaged	217	346	81	12%	20%	24%	22%	22%	62%	56%	59%	41%	42%
Economically disadvantaged	1,664	330	77	15%	24%	27%	19%	15%	57%	51%	55%	38%	42%
Economic status unknown	24	334	90	21%	21%	13%	25%	21%	59%	54%	53%	40%	42%
In U.S. schools < 12 months	918	319	79	22%	24%	24%	17%	13%	54%	48%	52%	34%	40%
In U.S. schools ≥ 12 months	987	344	74	8%	23%	29%	21%	19%	61%	55%	58%	41%	43%
EL in ELD	62	316	75	26%	21%	18%	24%	11%	54%	46%	51%	36%	41%
EL in ELD and SDAIE	443	319	82	22%	23%	23%	17%	14%	54%	48%	52%	34%	41%
EL in ELD and SDAIE with primary language support	285	319	77	22%	22%	28%	15%	13%	54%	47%	53%	33%	40%
EL in ELD and academic subjects through primary language	1,050	343	74	8%	23%	29%	21%	19%	61%	55%	58%	41%	43%
Other EL instructional services	14	316	70	21%	29%	21%	14%	14%	50%	46%	51%	39%	42%
None (EL only)	33	301	73	24%	33%	18%	15%	9%	48%	48%	46%	34%	35%
Program participation unknown	18	310	89	28%	22%	17%	17%	17%	53%	49%	48%	29%	41%
No special education	1,817	334	78	14%	22%	27%	20%	17%	58%	53%	56%	38%	42%
Special education	88	283	54	26%	42%	20%	10%	1%	44%	35%	43%	31%	31%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	1,621	320	65	14%	28%	28%	21%	9%	46%	42%	41%	46%	48%	54%
Male	837	322	67	14%	28%	27%	21%	10%	47%	42%	39%	47%	48%	54%
Female	779	318	63	14%	28%	29%	21%	8%	45%	42%	42%	45%	47%	54%
Gender unknown	5	–	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	15	305	73	27%	20%	27%	20%	7%	41%	42%	36%	36%	47%	59%
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	6	–	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	130	290	52	25%	38%	26%	6%	5%	38%	33%	37%	40%	37%	46%
Guatemala	62	282	54	26%	42%	21%	8%	3%	36%	38%	34%	37%	34%	42%
Mexico	834	323	62	12%	26%	31%	23%	8%	47%	42%	40%	47%	49%	55%
Nicaragua	10	–	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Peru	15	384	91	0%	13%	33%	27%	27%	64%	62%	51%	60%	57%	69%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–	–
United States	416	330	69	12%	26%	25%	25%	12%	47%	46%	43%	49%	50%	55%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Other	62	294	61	31%	31%	23%	10%	6%	39%	35%	38%	40%	39%	48%
Country unknown	53	314	54	11%	36%	28%	19%	6%	42%	37%	42%	48%	46%	49%
Not economically disadvantaged	233	330	69	12%	25%	26%	24%	13%	48%	46%	42%	50%	50%	56%
Economically disadvantaged	1,341	318	64	14%	28%	29%	21%	9%	45%	41%	40%	46%	47%	53%
Economic status unknown	47	319	59	13%	30%	26%	26%	6%	47%	42%	41%	46%	45%	56%
In U.S. schools < 12 months	1,088	319	67	15%	27%	28%	21%	9%	46%	40%	40%	46%	48%	54%
In U.S. schools ≥ 12 months	533	323	60	11%	29%	29%	22%	9%	45%	45%	43%	47%	47%	53%
EL in ELD	138	318	72	16%	26%	28%	17%	12%	46%	41%	38%	45%	48%	53%
EL in ELD and SDAIE	537	319	65	16%	26%	28%	22%	9%	46%	40%	39%	46%	48%	57%
EL in ELD and SDAIE with primary language support	327	320	69	14%	30%	26%	20%	9%	47%	42%	40%	47%	46%	52%
EL in ELD and academic subjects through primary language	498	323	61	11%	29%	29%	22%	9%	46%	44%	43%	48%	48%	51%
Other EL instructional services	59	325	55	7%	27%	37%	22%	7%	46%	43%	41%	46%	51%	58%
None (EL only)	35	313	73	20%	34%	23%	11%	11%	40%	41%	46%	41%	46%	52%
Program participation unknown	27	307	58	19%	22%	41%	15%	4%	37%	37%	39%	47%	45%	56%
No special education	1,585	321	65	13%	28%	28%	22%	9%	46%	42%	41%	47%	48%	54%
Special education	36	289	58	33%	33%	19%	6%	8%	40%	36%	36%	36%	37%	43%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	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	1,457	321	65	14%	27%	28%	22%	9%	46%	42%	41%	47%	48%	54%
Male	752	323	68	14%	27%	27%	21%	11%	47%	42%	40%	48%	49%	54%
Female	701	318	63	14%	28%	29%	22%	8%	45%	42%	42%	45%	47%	54%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	13	309	78	31%	8%	31%	23%	8%	43%	43%	38%	36%	48%	62%
Costa Rica	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	4	–	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	118	292	53	25%	36%	28%	6%	5%	38%	34%	37%	41%	37%	46%
Guatemala	57	280	54	28%	40%	23%	5%	4%	35%	36%	33%	36%	34%	43%
Mexico	753	323	62	11%	26%	30%	24%	8%	47%	41%	40%	47%	50%	55%
Nicaragua	9	–	–	–	–	–	–	–	–	–	–	–	–	–
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Peru	13	393	94	0%	15%	23%	31%	31%	65%	64%	52%	62%	60%	74%
Puerto Rico	3	–	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–	–
United States	370	331	70	12%	25%	24%	26%	12%	48%	46%	42%	49%	51%	54%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Other	53	297	63	30%	30%	21%	11%	8%	39%	35%	38%	41%	40%	50%
Country unknown	49	314	55	12%	35%	27%	20%	6%	42%	36%	42%	48%	46%	50%
Not economically disadvantaged	207	333	70	11%	25%	24%	26%	14%	48%	46%	42%	50%	52%	57%
Economically disadvantaged	1,222	319	64	14%	28%	29%	21%	9%	46%	41%	40%	46%	48%	53%
Economic status unknown	28	325	63	18%	21%	18%	36%	7%	47%	44%	41%	48%	49%	54%
In U.S. schools < 12 months	1,088	319	67	15%	27%	28%	21%	9%	46%	40%	40%	46%	48%	54%
In U.S. schools ≥ 12 months	369	327	61	10%	28%	28%	24%	10%	46%	46%	44%	49%	48%	52%
EL in ELD	123	317	75	17%	28%	24%	18%	13%	45%	42%	38%	45%	48%	52%
EL in ELD and SDAIE	460	319	64	15%	25%	29%	22%	8%	46%	39%	39%	46%	48%	57%
EL in ELD and SDAIE with primary language support	296	321	70	15%	28%	26%	21%	10%	47%	42%	40%	47%	47%	53%
EL in ELD and academic subjects through primary language	498	323	61	11%	29%	29%	22%	9%	46%	44%	43%	48%	48%	51%
Other EL instructional services	35	334	58	6%	23%	31%	31%	9%	50%	42%	40%	50%	56%	58%
None (EL only)	26	309	83	27%	35%	15%	8%	15%	39%	40%	44%	40%	46%	53%
Program participation unknown	19	314	62	21%	11%	47%	16%	5%	37%	39%	42%	47%	49%	59%
No special education	1,427	322	65	14%	27%	28%	22%	9%	46%	42%	41%	47%	48%	54%
Special education	30	285	53	33%	37%	17%	7%	7%	39%	35%	35%	35%	36%	44%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
All Population valid scores	3,129	24	9	44%	32%	41%	28%
Grade 7	5	–	–	–	–	–	–
Grade 8	551	23	8	40%	31%	39%	27%
Grade 9	1,396	23	8	42%	32%	39%	27%
Grade 10	827	26	9	46%	34%	44%	29%
Grade 11	350	26	9	49%	34%	45%	30%
Male	1,715	24	9	43%	32%	40%	28%
Female	1,406	25	9	44%	33%	43%	28%
Gender unknown	8	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–
Bolivia	5	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–
Colombia	13	26	7	48%	34%	45%	29%
Costa Rica	1	–	–	–	–	–	–
Cuba	7	–	–	–	–	–	–
Ecuador	12	29	8	52%	36%	52%	30%
El Salvador	416	23	8	41%	30%	38%	26%
Guatemala	218	22	8	40%	31%	36%	25%
Mexico	1,382	25	9	45%	33%	42%	29%
Nicaragua	22	25	12	43%	36%	42%	32%
Panama	2	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–
Peru	29	32	11	62%	39%	50%	40%
Puerto Rico	6	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–
United States	741	25	9	45%	32%	43%	28%
Uruguay	1	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–
Other	100	20	6	34%	28%	35%	24%
Country unknown	167	25	9	46%	36%	42%	27%
Not economically disadvantaged	517	24	9	43%	32%	40%	28%
Economically disadvantaged	2,482	24	9	44%	33%	41%	28%
Economic status unknown	130	23	8	40%	29%	39%	27%
In U.S. schools < 12 months	2,310	24	9	44%	33%	42%	28%
In U.S. schools ≥ 12 months	819	24	8	43%	32%	40%	27%
EL in ELD	384	25	9	45%	34%	43%	29%
EL in ELD and SDAIE	904	24	9	43%	32%	41%	28%
EL in ELD and SDAIE with primary language support	689	24	9	44%	32%	41%	28%
EL in ELD and academic subjects through primary language	732	24	8	44%	33%	42%	27%
Other EL instructional services	229	23	9	43%	30%	39%	27%
None (EL only)	68	24	10	42%	35%	41%	28%
Program participation unknown	123	23	8	43%	30%	39%	27%

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
No special education	3,091	24	9	44%	32%	41%	28%
Special education	37	24	8	46%	34%	40%	23%
Special education unknown	1	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
Target Population valid scores	2,749	24	9	44%	33%	42%	28%
Grade 7	5	–	–	–	–	–	–
Grade 8	498	23	9	40%	31%	39%	27%
Grade 9	1,226	24	9	43%	32%	40%	27%
Grade 10	719	26	9	47%	34%	45%	29%
Grade 11	301	26	9	48%	34%	44%	30%
Male	1,516	24	9	43%	32%	40%	28%
Female	1,229	25	9	44%	33%	43%	28%
Gender unknown	4	–	–	–	–	–	–
Argentina	1	–	–	–	–	–	–
Bolivia	5	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–
Chile	2	–	–	–	–	–	–
Colombia	13	26	7	48%	34%	45%	29%
Costa Rica	0	–	–	–	–	–	–
Cuba	6	–	–	–	–	–	–
Ecuador	10	–	–	–	–	–	–
El Salvador	374	23	8	40%	31%	38%	26%
Guatemala	192	22	8	39%	30%	36%	25%
Mexico	1,207	25	9	45%	34%	42%	28%
Nicaragua	20	26	12	44%	39%	43%	33%
Panama	2	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–
Peru	29	32	11	62%	39%	50%	40%
Puerto Rico	6	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–
United States	653	25	9	45%	32%	43%	28%
Uruguay	1	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–
Other	87	20	6	34%	28%	35%	24%
Country unknown	137	26	9	47%	37%	43%	27%
Not economically disadvantaged	466	24	9	43%	32%	41%	29%
Economically disadvantaged	2,205	24	9	44%	33%	42%	28%
Economic status unknown	78	23	9	39%	31%	41%	27%
In U.S. schools < 12 months	2,310	24	9	44%	33%	42%	28%
In U.S. schools ≥ 12 months	439	24	8	43%	33%	41%	26%
EL in ELD	323	25	9	46%	34%	43%	29%
EL in ELD and SDAIE	760	24	9	43%	33%	41%	28%
EL in ELD and SDAIE with primary language support	640	24	9	44%	32%	41%	28%
EL in ELD and academic subjects through primary language	732	24	8	44%	33%	42%	27%
Other EL instructional services	167	24	9	44%	31%	41%	28%
None (EL only)	56	25	11	43%	37%	42%	28%
Program participation unknown	71	23	9	43%	29%	39%	29%

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
No special education	2,718	24	9	44%	33%	42%	28%
Special education	30	25	9	46%	36%	41%	24%
Special education unknown	1	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
All Population valid scores	443	28	10	49%	39%	41%	37%
Grade 8	0	–	–	–	–	–	–
Grade 9	72	25	8	43%	38%	37%	33%
Grade 10	229	28	10	49%	39%	41%	37%
Grade 11	142	29	10	52%	39%	44%	39%
Male	227	28	10	50%	40%	42%	38%
Female	216	27	9	48%	37%	41%	36%
Gender unknown	0	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–
Colombia	5	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–
Cuba	0	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–
El Salvador	43	22	7	38%	29%	32%	31%
Guatemala	18	24	6	42%	33%	36%	30%
Mexico	208	29	11	52%	41%	43%	38%
Nicaragua	1	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–
Peru	9	–	–	–	–	–	–
Puerto Rico	2	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–
United States	131	28	9	49%	38%	42%	38%
Uruguay	0	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–
Other	5	–	–	–	–	–	–
Country unknown	18	29	10	51%	42%	44%	39%
Not economically disadvantaged	74	28	10	49%	40%	42%	40%
Economically disadvantaged	365	28	10	49%	39%	41%	37%
Economic status unknown	4	–	–	–	–	–	–
In U.S. schools < 12 months	292	28	10	49%	39%	42%	37%
In U.S. schools ≥ 12 months	151	28	9	49%	38%	41%	37%
EL in ELD	59	30	12	52%	42%	43%	42%
EL in ELD and SDAIE	95	27	11	47%	39%	41%	35%
EL in ELD and SDAIE with primary language support	73	27	9	47%	37%	42%	34%
EL in ELD and academic subjects through primary language	156	28	9	49%	39%	42%	37%
Other EL instructional services	35	28	9	51%	40%	38%	37%
None (EL only)	7	–	–	–	–	–	–
Program participation unknown	18	27	9	49%	38%	37%	37%

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
No special education	441	28	10	49%	39%	41%	37%
Special education	2	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–

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

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
Target Population valid scores	407	28	10	49%	39%	42%	37%
Grade 8	0	–	–	–	–	–	–
Grade 9	67	25	8	44%	39%	38%	32%
Grade 10	210	28	10	49%	39%	41%	38%
Grade 11	130	30	10	53%	40%	45%	40%
Male	212	29	10	50%	41%	43%	38%
Female	195	28	9	49%	38%	41%	37%
Gender unknown	0	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–
Bolivia	0	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–
Chile	0	–	–	–	–	–	–
Colombia	5	–	–	–	–	–	–
Costa Rica	0	–	–	–	–	–	–
Cuba	0	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–
El Salvador	39	22	8	38%	30%	33%	31%
Guatemala	14	24	6	43%	34%	36%	33%
Mexico	194	29	11	52%	42%	44%	38%
Nicaragua	1	–	–	–	–	–	–
Panama	0	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–
Peru	8	–	–	–	–	–	–
Puerto Rico	2	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–
United States	126	28	9	49%	38%	42%	38%
Uruguay	0	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–
Other	3	–	–	–	–	–	–
Country unknown	12	31	11	52%	46%	47%	42%
Not economically disadvantaged	68	29	10	50%	41%	44%	40%
Economically disadvantaged	339	28	10	49%	39%	42%	37%
Economic status unknown	0	–	–	–	–	–	–
In U.S. schools < 12 months	292	28	10	49%	39%	42%	37%
In U.S. schools ≥ 12 months	115	28	9	50%	39%	42%	39%
EL in ELD	51	30	12	53%	42%	43%	43%
EL in ELD and SDAIE	86	27	11	48%	40%	41%	36%
EL in ELD and SDAIE with primary language support	68	27	9	48%	37%	43%	34%
EL in ELD and academic subjects through primary language	156	28	9	49%	39%	42%	37%
Other EL instructional services	26	28	9	52%	41%	39%	38%
None (EL only)	6	–	–	–	–	–	–
Program participation unknown	14	29	9	51%	40%	42%	41%

				Mean Percent Correct in Reporting Cluster			
	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
special education	405	28	10	50%	39%	42%	37%
Special education	2	–	–	–	–	–	–
Special education unknown	0	–	–	–	–	–	–

Appendix 7.C—Types of Score Reports

Table 7.C.1 Score Reports Reflecting STS Results

2011 STAR STS Printed Reports	
Description	**Distribution**
The STAR Student Report	
This report provides parents/guardians and teachers with the student's results, presented in tables and graphs. For grades two through seven, the report shows performance-level results for the grade-level RLA and mathematics tests taken. For grades eight through eleven RLA and EOC Algebra I and Geometry, the report shows percent correct for each content area and reporting cluster (instead of performance levels) within the content area. For grades two through seven only (but not for Algebra I), data presented include the following: • Scale scores • Performance levels • Number and percent correct in each reporting cluster • 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 The report is formatted with the student's mailing address positioned for use in windowed envelopes for mailing to parents/guardians if the school district provided mailing addresses. 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.	This report includes individual student results and is not distributed beyond parents/guardians and the student's school. 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.
Student Record Label	
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 *EC* Section 60607[a]). For grades two through seven only (but not for Algebra I), data presented include the following for each content area: • Scale scores • Performance levels (advanced, proficient, basic, below basic, and far below basic) For grades eight through eleven RLA and EOC Algebra I and Geometry, data presented include overall percent correct for each content area.	This report includes individual student results and is not distributed beyond the student's school.

2011 STAR STS Printed Reports	
Description	**Distribution**
Student Master List	
This report is an alphabetical roster that presents individual student results. The following data are summarized for the STS for grades two through seven (grade-level RLA and mathematics) for each content area tested: • Percent correct for each reporting cluster within each content area tested • A scale score and a performance level for each content area tested For the STS for RLA in grades eight through eleven and EOC Algebra I and Geometry, the percent correct for each content area tested as well as the percent correct for each reporting cluster are presented.	This report provides administrators and teachers with all students' results within each grade or within each grade and year-round schedule at a school. Because this report includes individual student results, it is not distributed beyond the student's school.
Student Master List Summary	
This report summarizes student results at the school, district, county, and state levels for each grade. It does not include any individual student information. ***Note:*** Summaries for specific STS for mathematics across grades are provided in the Student Master List Summary—End-of-Course Report. The following data are summarized for each content area and grade level for all tests: • Number of students enrolled • Number and percent of students tested • Number and percent of valid scores • Number tested with scores • Mean percent correct The following data are also summarized for each content area tested in grades two through seven (grade-level RLA and mathematics): • Mean scale score • Scale score standard deviation • Number and percent of students scoring at each performance level For all the STS, the number of items for each reporting cluster and the mean percent correct data are also included.	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is packaged for the school and one for the school district. This report is also produced for school districts, counties, and the state. ***Note:*** 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.
Student Master List Summary—End-of-Course	
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.	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is packaged for the school and one for the school district. This report is also produced for school districts,

2011 STAR STS Printed Reports	
Description	**Distribution**
The STS for Algebra I is given to students in grades seven through eleven; the STS for Geometry is given to students in grades eight through eleven. The following data are summarized, by grade and content area, for each of these tests: • Number of students enrolled • Number and percent of students tested • Number and percent of valid scores • Number tested with scores • Mean percent correct For each reporting cluster: • Number of items • Mean percent correct	counties, and the state. ***Note:*** 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.
Subgroup Summary	
This set of reports disaggregates and reports results by the following subgroups: • All students • Disability status • Economic status • Gender • English proficiency • Primary ethnicity These reports contain no individual student-identifying information and are aggregated at the school, district, county, and state levels. For each subgroup within a report and for the total number of students, the following data are included: • Total number tested in the subgroup • Percent tested in the subgroup as a percent of all students tested • Number and percent of valid scores • Number tested who received scores The following data are also summarized for each subgroup within each content area tested in grades two through seven (grade-level RLA and mathematics): • Mean scale score • Scale score standard deviation • Number and percent of students scoring at each performance level For the STS for RLA in grades eight through eleven, Algebra I, and Geometry, the percent correct is also summarized for each subgroup within each STS.	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is packaged for the school and one for the school district. This report is also produced for school districts, counties, and the state. ***Note:*** 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.

Chapter 8: Analyses

This chapter summarizes the item- and test-level statistics obtained for the STS administered during the spring of 2011.

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 239 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 correlations for each operational test are presented in Table 8.1 on page 217.
2. Appendix 8.B on page 246 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 273 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 289 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 234; these linking items were used in the equating process discussed later in this chapter.
5. Appendix 8.E on page 303 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 P2 data file. This data file

contained all test results except for the corrected demographic information (CDE, 2011) 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 end-of-course (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-to-scale score conversion tables presented in Appendix 8.D were based on equating data available in early June 2011, which contained more than 30 percent of the test results for the target population.

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:

$$p-value_i = \frac{N_{ic}}{N_i} \tag{8.1}$$

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:

$$r_{X_iT} = \frac{\mathrm{cov}(X_i, T)}{s_{X_i} s_T} \tag{8.2}$$

where,

$cov(X_i, T)$ 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, which start on page 239.

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

				Mean		Median	
Content Area	**STS***	**No. of Items**	**No. of Examinees**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
Reading/ Language Arts	2	65	10,783	0.64	0.44	0.62	0.45
	3	65	7,596	0.58	0.39	0.58	0.39
	4	75	4,411	0.59	0.41	0.59	0.43
	5	75	2,898	0.51	0.38	0.50	0.38
	6	75	1,918	0.51	0.36	0.51	0.34
	7	75	1,462	0.55	0.36	0.55	0.39
	8	75	1,231	0.56	0.37	0.53	0.38
	9	75	2,014	0.55	0.37	0.55	0.36
	10	75	1,320	0.57	0.35	0.58	0.36
	11	75	712	0.55	0.32	0.54	0.34
Mathematics	2	65	10,771	0.69	0.41	0.70	0.42
	3	65	7,585	0.67	0.44	0.67	0.46
	4	65	4,409	0.66	0.43	0.67	0.45
	5	65	2,889	0.55	0.37	0.52	0.38
	6	65	1,905	0.50	0.38	0.49	0.40
	7	65	1,457	0.46	0.33	0.46	0.35
	Algebra I	65	2,749	0.38	0.28	0.35	0.29
	Geometry	65	407	0.43	0.32	0.42	0.33
Grade Specific	Algebra I – 8	65	498	0.35	0.28	0.34	0.30
	Geometry – 9	65	67	0.39	0.25	0.34	0.24

* 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:

$$\alpha = \frac{n}{n-1}\left[1 - \frac{\sum_{i=1}^{n}\sigma_i^2}{\sigma_t^2}\right] \tag{8.3}$$

where,

n is the number of items,

σ_i^2 is the variance of scores on the item *i*, and

σ_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:

$$\sigma_e = \sigma_t \sqrt{1-\alpha} \tag{8.4}$$

where,

α is the reliability estimated in equation 8.3, and

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

The SEM is computed by substituting sample estimates of the population variances in the defining formulas (equations 8.3 and 8.4). 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 ±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 ± 3.76 rounded to the nearest integer).

Table 8.2 gives the reliability and SEM for each of the operational STS tests, along with the number of items and examinees upon which those analyses were performed. The results for the grade-specific population for the EOC Algebra I and Geometry STS 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	10,783	0.93	331	55	14.39	41.41	12.96	3.38
	3	65	7,596	0.91	333	51	15.05	37.90	11.97	3.55
	4	75	4,411	0.93	327	54	14.04	44.18	14.46	3.78
	5	75	2,898	0.92	319	60	17.21	38.20	13.76	3.94
	6	75	1,918	0.91	322	57	17.52	38.55	12.94	3.95
	7	75	1,462	0.91	331	54	16.29	41.59	12.91	3.87
	8**	75	1,231	0.91	N/A	N/A	N/A	42.19	13.18	3.85
	9**	75	2,014	0.91	N/A	N/A	N/A	41.53	12.82	3.83
	10**	75	1,320	0.90	N/A	N/A	N/A	42.70	12.07	3.84
	11**	75	712	0.88	N/A	N/A	N/A	41.24	11.30	3.94
Mathematics	2	65	10,771	0.92	365	73	20.55	44.73	11.66	3.28
	3	65	7,585	0.94	368	75	19.13	43.51	12.76	3.24
	4	65	4,409	0.93	368	75	19.89	42.82	12.63	3.33
	5	65	2,889	0.90	350	85	26.52	35.41	11.74	3.65
	6	65	1,905	0.91	332	77	23.50	32.68	11.92	3.62
	7	65	1,457	0.88	321	65	22.82	29.75	10.55	3.68
	Algebra I**	65	2,749	0.83	N/A	N/A	N/A	24.37	8.77	3.63
	Geometry**	65	407	0.87	N/A	N/A	N/A	28.02	9.90	3.62

Content Area	STS*	Test Length	No. Examinees	Reliab.	Scale Score Mean	Scale Score SD	Scale Score SEM	Raw Score Mean	Raw Score SD	Raw Score SEM
Grade-Specific	Algebra I – 8**	65	498	0.82	N/A	N/A	N/A	22.96	8.52	3.61
	Geometry – 9**	65	67	0.79	N/A	N/A	N/A	25.15	7.93	3.68

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

****** Scale scores were not available for RLA (grades eight through eleven), Algebra I, and Geometry for the spring 2011 administration. Scores for these tests were reported as a percent correct.

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 for the total group are presented in Table 8.B.1 and Table 8.B.2 for the 18 STS. Results are also reported in these tables for grade-specific samples of the mathematics tests of Algebra I and Geometry. Consistent with results from previous years, the reliabilities across reporting clusters varied 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, show 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 a hyphen.

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:

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

where,

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

$I(\theta)$ is the test information function at ability level θ.

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 for which scale scores are available. Note that scale score CSEMs are not provided for the STS for RLA in grades eight through eleven, Algebra I, and Geometry because scale scores were not available for these tests in the spring 2011 administration.

The CSEMs tended 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	13	350	14	386	17
	3	251	15	300	14	350	14	393	17
	4	256	14	300	13	350	14	387	16
	5	271	17	300	16	350	16	401	19
	6	260	18	300	17	350	17	401	19
	7	256	16	300	15	350	16	399	18
Mathematics	2	217	19	300	17	350	18	417	23
	3	229	18	300	16	350	17	421	21
	4	243	19	300	18	350	18	420	22
	5	245	26	300	25	350	24	416	26
	6	251	24	300	22	350	22	403	23
	7	257	24	300	22	350	22	415	23

* 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 for the STS in grades two through seven are presented in Table 8.B.17 through Table 8.B.28 in Appendix 8.B. It should be noted that decision classification analyses are not provided for the STS tests for RLA (grades eight through eleven), Algebra I, and Geometry because scale scores were not available for these tests in the spring 2011 administration.

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 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 purpose 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 scores expressed as scale scores and student performance levels are generated for the STS in grades two through seven. For the STS for RLA in grades eight through eleven, Algebra I in grades seven through eleven, and Geometry in grades eight through eleven, students' total scores were expressed in the raw score metric and no performance levels were reported. On the basis of a student's total score, an inference is drawn about how much knowledge and skill in the content area the student has acquired. The total score also is used to classify students in terms of their level of knowledge and skill in the content area. These levels are called performance levels and are as follows: 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 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, minus one percent; and (2) the average-percent correct for students who received the lowest score qualifying for the advanced performance level. A detailed description of the uses and applications of STS scores is presented in Chapter 7, which starts on page 155.

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 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 test.

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 100. 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 100.

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 111.

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 107.

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 provides 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 were 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 303. 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 STS reading/language arts and mathematics, the evidence of convergent validity was obtained by examining the relationship between the STS tests 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 2011 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 90 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 tests with their CST counterparts 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 2011 STS tests 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 student scores on the STS RLA tests correlated moderately with their CST ELA scores. While both tests measure the common construct of reading ability, the STS tests 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 RLA tests was higher at the elementary grade levels.

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

	Overall STS Population			Target STS Population		
Grade	Total No. of Examinees	No. Matched	STS/CST	Total No. of Examinees	No. Matched	STS/CST
2	12,870	12,741	0.75	10,783	10,682	0.76
3	8,628	8,504	0.73	7,596	7,490	0.73
4	5,263	5,156	0.69	4,411	4,319	0.68
5	3,518	3,421	0.57	2,898	2,815	0.56
6	2,179	2,087	0.51	1,918	1,836	0.51
7	1,651	1,569	0.52	1,462	1,392	0.53
8	1,415	1,345	0.42	1,231	1,170	0.43
9	2,324	2,134	0.48	2,014	1,860	0.48
10	1,496	1,365	0.55	1,320	1,205	0.56
11	828	753	0.55	712	644	0.57

Table 8.5, on the next page, presents correlations between scores on 2011 STS tests for mathematics and scores on the CSTs for mathematics. The results show that, as expected, student scores on the STS mathematics tests correlated highly with their CST mathematics scores because these tests assess similar skills. 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 mathematics tests declined as grade level increased.

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

	Overall STS Population			Target STS Population		
STS*	No. of Examinees	No. of Examinees Matched	STS/CST	Total No. of Examinees	No. of Examinees Matched	STS/CST
2	12,858	12,741	0.86	10,771	10,684	0.85
3	8,617	8,514	0.89	7,585	7,499	0.89
4	5,257	5,162	0.87	4,409	4,329	0.87
5	3,508	3,425	0.86	2,889	2,819	0.86
6	2,149	2,064	0.83	1,905	1,831	0.83
7	1,621	1,542	0.81	1,457	1,388	0.82
Algebra I	3,129	2,713	0.75	2,749	2,392	0.75
Geometry	443	402	0.74	407	368	0.74

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

Correlations Between Content Areas

To the degree that students' content-area scores correlate as expected, evidence of the validity in regarding those scores as measures of the intended constructs is provided. Table 8.6 gives the correlations between scores on the STS content-area tests and the numbers of students on which these correlations were based. Sample sizes for individual tests are shown 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 in the table 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 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 the correlations are reported only for samples that are comprised of more than 10 examinees. Correlations between any two content areas where 10 or fewer examinees took the tests are expressed as hyphens. Correlations between content areas where no examinees took the two tests 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 (All Valid Scores)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**10,783**	0.74	
	2. Mathematics	10,724	**10,771**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**7,596**	0.76	
	2. Mathematics	7,564	**7,585**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**4,411**	0.73	
	2. Mathematics	4,397	**4,409**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**2,898**	0.63	
	2. Mathematics	2,882	**2,889**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**1,918**	0.66	
	2. Mathematics	1,901	**1,905**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**1,462**	0.69	–
	2. Mathematics	1,435	**1,457**	N/A
	3. Algebra I	5	0	**5**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**1,231**	0.48	
	2. Algebra I	488	**498**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**2,014**	0.53	0.46
	2. Algebra I	1,215	**1,226**	N/A
	3. Geometry	67	0	**67**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**1,320**	0.55	0.55
	2. Algebra I	708	**719**	N/A
	3. Geometry	197	0	**210**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**712**	0.44	0.47
	2. Algebra I	291	**301**	N/A
	3. Geometry	127	0	**130**

Correlations between the reporting clusters 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. The findings given in Table 8.6 show that, in general, the correlations ranged between 0.44 and 0.76. As also would be expected, the correlations were higher among clusters that assessed more similar skills than they were among clusters that assessed somewhat dissimilar skills. For example, in mathematics, 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 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. The point biserials for the items in the STS are presented in Table 8.A.1 through Table 8.A.3. As shown in Table 8.1, the mean point-biserial was greater than 0.39 for STS in grades two through four, and between 0.32 and 0.38 for all other tests. The exceptions were the EOC mathematics STS for Algebra I and Geometry, where the mean point-biserials were 0.28 and 0.32 respectively.

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 item *b*-values are given in Table 8.D.23 and Table 8.D.24.

The data in Table 8.1 indicate that all STS, with the exception of the EOC mathematics tests, had average *p*-values ranging from 0.46 to 0.69; out of those, 15 tests had average *p*-values ranging from 0.50 to 0.69. A broad range of item *p*-values for these tests indicates that item difficulty spanned the ability scale. The *p*-values for the EOC mathematics tests tend to be somewhat lower and somewhat less variable in terms of difficulty.

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 tests are presented in Table 8.2. The results indicate that the reliabilities for STS RLA tests at all grade levels and for mathematics tests in grades two through six were moderately high, ranging from 0.90 to 0.94. Reliability estimates for the mathematics tests given in grades seven or higher were lower—ranging from 0.83 to 0.91.

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 operational STS. The reliabilities of reporting clusters invariably are lower than those for the total tests since they are based on fewer items. Cluster scores based on more items have somewhat higher reliabilities than cluster scores based on fewer items.

Because the reliabilities of scores at the cluster level can be low, schools should supplement the cluster level score results with other information when interpreting the results.

Subgroup reliabilities—The reliabilities of the 18 operational STS tests 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 though 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 220. The results of these analyses are presented for the STS for which the performance levels were available. These results are presented in Table 8.B.17 through Table 8.B.28 in Appendix 8.B; these tables start on page 269. 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 for all the STS in grades two through seven. Similarly, the proportion of students that were classified consistently ranged from 0.87 to 0.91 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 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

The STS for grades two through seven are 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 2011 items were placed on the reference scale through a set of linking items that appeared in the 2010 operational forms and were re-administered in 2011.

The procedures used for equating the grade-level STS tests for grades two through seven 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).

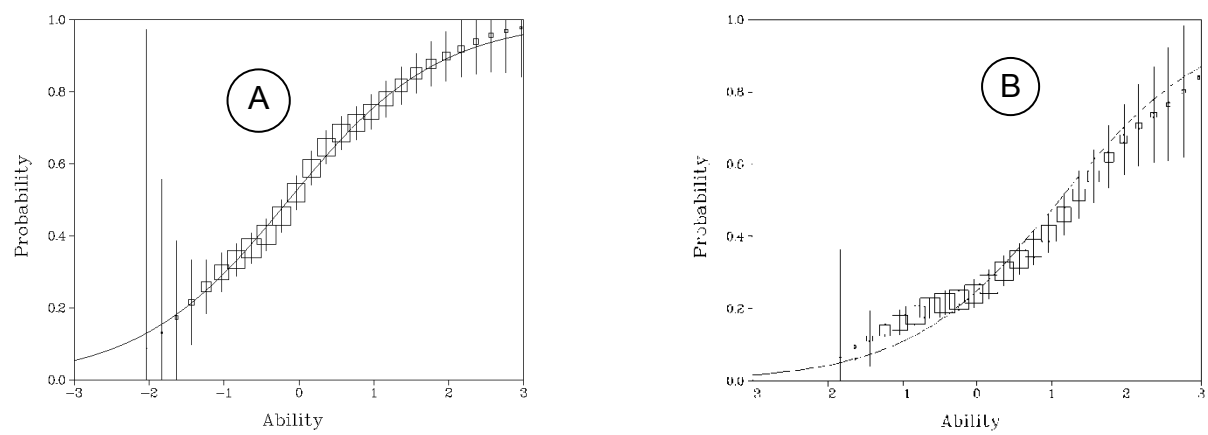
For the STS for RLA tests in grades eight through eleven and the EOC mathematics STS for Algebra I and Geometry (grades seven through eleven and eight through eleven, respectively), no scale scores were reported and, therefore, no equating procedure was implemented in 2011. The only IRT analyses for these tests were item calibrations to obtain item difficulty estimates.

The details on the IRT calibration, scaling, and equating procedures are presented in Chapter 2 starting on page 13.

IRT Model-Data Fit Analyses

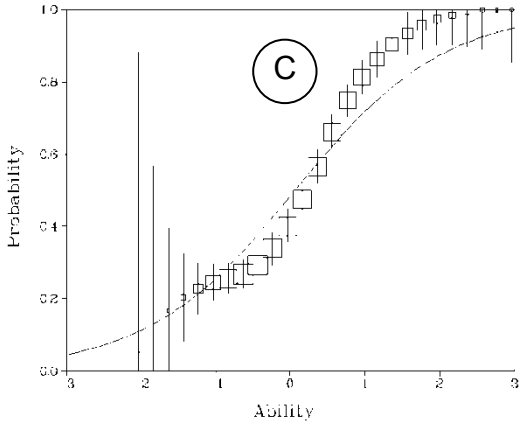
Because the Rasch model is used in equating the STS, an important part of IRT analyses is the assessment of model-data fit. ETS psychometricians classify operational and field-test items for the STS into discrete categories based on an evaluation of how well each item was fit by the Rasch model. The 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 232. 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 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

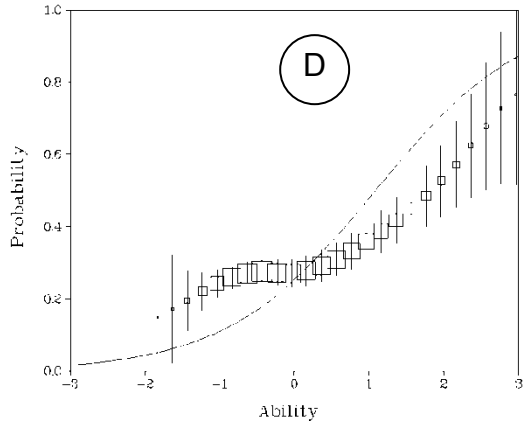


Version 30, Seq 29 (#236) CSV23487 4-Choice P+ = 0.563
a = 0.588 F, b = –0.135, c = 0.000 F, CHI = 5.41, N = 5,912

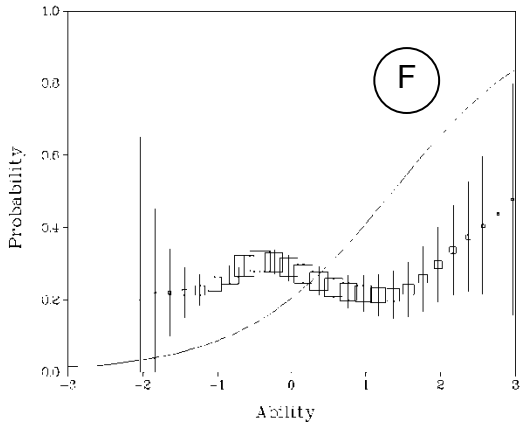
Version 1, Seq 28 (#61) CSV22589 4 Choice P+ = 0.307
a = 0.588 F, b = 1.104, c = 0.000 F, CHI = 66.70, N = 6,348



ersion 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. 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.

The number of the operational items in each IRT model data fit classifications is presented in Table 8.D.1 and Table 8.D.2 on page 289. 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 289.

Evaluation of Scaling

Calibrations of the 2011 forms were scaled to the previously obtained reference scale estimates in the item bank using the Stocking and Lord (1983) procedure for the grade-level STS in grades two through seven. 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.

Table 8.7, on the next page, presents, for each grade-level STS in grades two through seven, the number of linking items between the 2011 (new) and the test form to which it was linked (2010); 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	0.99	0.02
	3	52	0	0.97	0.03
	4	58	0	0.98	0.02
	5	63	0	0.99	0.02
	6	63	0	0.99	0.02
	7	65	0	0.98	0.03
Mathematics	2	52	0	0.98	0.03
	3	52	0	0.99	0.02
	4	52	0	0.99	0.02
	5	48	0	0.98	0.02
	6	53	0	0.99	0.02
	7	50	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 for the STS in grades two through seven, 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. For the STS for RLA tests in grades eight through eleven and the EOC mathematics tests for Algebra I and Geometry in grades seven through eleven and eight through eleven respectively, no scaling was undertaken, and the analyses were performed using *b*-values from IRT calibration.

Table 8.D.5 through Table 8.D.22 present descriptive statistics (mean, standard deviation, minimum, and maximum) for the scaled IRT *b*-values for each grade-level STS in grades two through seven and the unscaled *b*-values for RLA tests in grades eight through eleven and the EOC mathematics tests for Algebra I and Geometry. 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 “less than –3.5” to “greater than or equal to 3.5” points within each interval.

Post-equating Results

As described on page 13 of Chapter 2, once the new item calibrations for each grade-level test in grades two through seven are transformed to the base scale, IRT true-score equating procedures are used to transform the new form number-correct scores to their corresponding ability estimates. These ability estimates can then be transformed to scale scores through linear transformation. The linear transformation parameters for the 2011 forms were developed based on standard setting using the 2008 operational forms for grades two through four and the 2009 operational forms for grades five through seven.

Complete raw-to-scale score conversion tables for the 2011 STS in grades two through seven are presented in Table 8.D.27 through Table 8.D.32 starting on page 297. The raw scores and corresponding transformed scale scores are listed on those tables. 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 DIF analyses were 100 in the focal group and 400 in the combined focal and reference groups. These sample size requirements 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 α_{MH} is the constant odds ratio taken from Dorans and Holland (1993, equation 7) and computed as:

$$\alpha_{MH} = \frac{\left(\sum_m R_{rm} \frac{W_{fm}}{N_{tm}}\right)}{\left(\sum_m R_{fm} \frac{W_{rm}}{N_{tm}}\right)} \tag{8.6}$$

$$MH\ D\text{-}DIF = -2.35 \ln[\alpha_{MH}] \tag{8.7}$$

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 14 years. The definitions of the categories based on evaluations of the item-level MH D-DIF statistics are as follows:

DIF Category	Definition
A (negligible)	• Absolute value of MH D-DIF is not significantly different from zero, or is less than one. • Positive values are classified as “A+” and negative values as “A-.”
B (moderate)	• Absolute value of MH D-DIF is significantly different from zero but not from one, and is at least one; OR • Absolute value of MH D-DIF is significantly different from one, but is less than 1.5.

	• Positive values are classified as “B+” and negative values as “B-.”
C (large)	• Absolute value of MH D-DIF is significantly different from one, and is at least 1.5. • Positive values are classified as “C+” and negative values as “C-.”

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 303.

Table 8.E.1 on page 303 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 DIF that disadvantages a focal group (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 tests. 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 *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**
1	0.83	0.42	0.49	0.36	0.57	0.42	0.60	0.44	0.68	0.36	0.89	0.17	0.48	0.40	0.29	0.19	0.66	0.30	0.42	0.26
2	0.33	0.23	0.92	0.26	0.51	0.46	0.51	0.30	0.68	0.30	0.58	0.25	0.49	0.43	0.37	0.22	0.81	0.29	0.67	0.36
3	0.81	0.45	0.48	0.26	0.69	0.43	0.45	0.26	0.65	0.36	0.73	0.42	0.77	0.42	0.72	0.25	0.43	0.14	0.69	0.34
4	0.73	0.45	0.70	0.43	0.59	0.41	0.36	0.23	0.48	0.37	0.74	0.31	0.46	0.30	0.37	0.30	0.50	0.36	0.54	0.11
5	0.70	0.32	0.31	0.28	0.43	0.39	0.74	0.36	0.48	0.34	0.51	0.30	0.79	0.43	0.43	0.30	0.76	0.30	0.47	0.19
6	0.59	0.33	0.63	0.47	0.68	0.51	0.54	0.46	0.41	0.34	0.60	0.41	0.76	0.24	0.27	0.36	0.62	0.36	0.54	0.16
7	0.82	0.45	0.59	0.41	0.80	0.47	0.69	0.50	0.38	0.24	0.76	0.39	0.56	0.46	0.84	0.35	0.64	0.41	0.42	0.24
8	0.82	0.51	0.75	0.39	0.77	0.32	0.53	0.48	0.63	0.35	0.31	0.39	0.70	0.44	0.75	0.39	0.40	0.25	0.70	0.32
9	0.65	0.43	0.87	0.42	0.72	0.35	0.65	0.46	0.66	0.43	0.78	0.40	0.52	0.34	0.61	0.30	0.44	0.36	0.41	0.30
10	0.80	0.51	0.71	0.48	0.71	0.46	0.45	0.29	0.64	0.41	0.76	0.43	0.43	0.26	0.43	0.15	0.71	0.35	0.73	0.40
11	0.47	0.37	0.52	0.39	0.69	0.51	0.49	0.37	0.61	0.47	0.45	0.43	0.70	0.35	0.83	0.45	0.69	0.47	0.64	0.43
12	0.92	0.42	0.66	0.38	0.69	0.46	0.60	0.44	0.68	0.38	0.46	0.29	0.70	0.31	0.76	0.44	0.52	0.39	0.80	0.22
13	0.62	0.45	0.53	0.31	0.63	0.35	0.50	0.36	0.52	0.23	0.70	0.33	0.56	0.25	0.82	0.51	0.55	0.25	0.68	0.32
14	0.62	0.54	0.80	0.37	0.55	0.45	0.45	0.43	0.50	0.32	0.38	0.40	0.80	0.45	0.49	0.26	0.82	0.38	0.54	0.09
15	0.64	0.51	0.53	0.44	0.43	0.39	0.58	0.40	0.83	0.46	0.57	0.31	0.48	0.28	0.47	0.33	0.72	0.36	0.33	0.33
16	0.62	0.47	0.32	0.20	0.54	0.45	0.39	0.21	0.67	0.48	0.50	0.47	0.76	0.52	0.41	0.28	0.48	0.22	0.45	0.28
17	0.67	0.38	0.58	0.44	0.61	0.43	0.49	0.48	0.68	0.44	0.55	0.32	0.38	0.42	0.80	0.44	0.83	0.47	0.83	0.45
18	0.77	0.38	0.54	0.34	0.72	0.48	0.45	0.42	0.52	0.43	0.73	0.45	0.53	0.41	0.70	0.47	0.33	0.38	0.39	0.37
19	0.63	0.45	0.45	0.30	0.79	0.45	0.58	0.54	0.55	0.39	0.47	0.43	0.56	0.43	0.66	0.33	0.39	0.23	0.59	0.27
20	0.56	0.36	0.74	0.40	0.55	0.45	0.34	0.31	0.53	0.44	0.41	0.13	0.73	0.54	0.72	0.55	0.75	0.44	0.56	0.43
21	0.65	0.51	0.59	0.48	0.64	0.43	0.45	0.34	0.35	0.21	0.44	0.22	0.91	0.41	0.61	0.36	0.68	0.33	0.55	0.25
22	0.53	0.35	0.56	0.45	0.49	0.36	0.43	0.34	0.47	0.31	0.57	0.44	0.42	0.45	0.83	0.51	0.62	0.41	0.44	0.30
23	0.38	0.32	0.62	0.46	0.52	0.35	0.44	0.50	0.56	0.30	0.50	0.27	0.77	0.43	0.43	0.27	0.30	0.18	0.44	0.26
24	0.80	0.41	0.77	0.47	0.52	0.45	0.40	0.42	0.34	0.24	0.35	0.23	0.64	0.47	0.80	0.46	0.68	0.45	0.49	0.10
25	0.86	0.40	0.86	0.35	0.49	0.32	0.54	0.47	0.55	0.33	0.55	0.41	0.48	0.33	0.57	0.45	0.73	0.54	0.46	0.26
26	0.64	0.41	0.76	0.37	0.40	0.33	0.42	0.35	0.55	0.41	0.55	0.19	0.39	0.35	0.54	0.46	0.64	0.44	0.53	0.34
27	0.62	0.48	0.53	0.37	0.51	0.39	0.35	0.21	0.39	0.26	0.38	0.27	0.66	0.33	0.60	0.41	0.88	0.42	0.43	0.20
28	0.64	0.44	0.63	0.44	0.55	0.41	0.37	0.31	0.49	0.26	0.66	0.51	0.58	0.53	0.55	0.35	0.87	0.42	0.50	0.17
29	0.59	0.46	0.76	0.28	0.60	0.49	0.39	0.33	0.53	0.30	0.43	0.34	0.66	0.41	0.39	0.31	0.41	0.21	0.60	0.45
30	0.85	0.49	0.51	0.39	0.55	0.40	0.56	0.41	0.55	0.45	0.47	0.37	0.50	0.40	0.74	0.45	0.34	0.25	0.31	0.13
31	0.79	0.50	0.57	0.38	0.72	0.52	0.42	0.39	0.41	0.26	0.60	0.47	0.55	0.33	0.43	0.34	0.58	0.27	0.39	0.17
32	0.81	0.49	0.58	0.38	0.64	0.55	0.41	0.34	0.29	0.23	0.56	0.46	0.26	0.32	0.64	0.49	0.69	0.36	0.33	0.24

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	0.55	0.47	0.35	0.32	0.57	0.31	0.53	0.42	0.45	0.34	0.44	0.37	0.33	0.30	0.48	0.31	0.57	0.30	0.59	0.38
34	0.49	0.41	0.33	0.23	0.58	0.39	0.40	0.27	0.46	0.27	0.44	0.31	0.36	0.33	0.72	0.44	0.59	0.43	0.47	0.41
35	0.56	0.37	0.47	0.44	0.38	0.23	0.37	0.32	0.35	0.27	0.70	0.50	0.51	0.40	0.55	0.39	0.61	0.29	0.49	0.10
36	0.55	0.42	0.68	0.45	0.44	0.28	0.49	0.45	0.23	0.18	0.51	0.36	0.46	0.47	0.64	0.45	0.68	0.47	0.77	0.44
37	0.79	0.50	0.37	0.32	0.35	0.27	0.49	0.46	0.40	0.31	0.36	0.29	0.50	0.38	0.61	0.52	0.63	0.43	0.52	0.39
38	0.58	0.47	0.39	0.28	0.32	0.20	0.58	0.40	0.63	0.42	0.48	0.30	0.37	0.25	0.47	0.33	0.44	0.37	0.41	0.39
39	0.51	0.44	0.53	0.44	0.59	0.26	0.66	0.47	0.48	0.30	0.58	0.48	0.50	0.35	0.70	0.45	0.77	0.50	0.75	0.36
40	0.58	0.41	0.32	0.24	0.85	0.42	0.52	0.36	0.51	0.52	0.45	0.17	0.79	0.47	0.40	0.34	0.81	0.50	0.70	0.38
41	0.52	0.43	0.60	0.40	0.89	0.42	0.83	0.39	0.42	0.36	0.46	0.30	0.59	0.19	0.41	0.26	0.41	0.31	0.79	0.49
42	0.82	0.42	0.68	0.49	0.77	0.48	0.72	0.29	0.37	0.33	0.63	0.43	0.73	0.35	0.46	0.35	0.68	0.42	0.64	0.25
43	0.78	0.55	0.67	0.46	0.56	0.39	0.74	0.44	0.33	0.14	0.73	0.36	0.46	0.32	0.35	0.16	0.60	0.29	0.70	0.31
44	0.72	0.52	0.57	0.41	0.67	0.44	0.63	0.45	0.74	0.54	0.78	0.41	0.57	0.45	0.49	0.34	0.63	0.46	0.90	0.37
45	0.67	0.54	0.50	0.42	0.74	0.44	0.55	0.39	0.65	0.35	0.58	0.41	0.48	0.23	0.36	0.23	0.51	0.37	0.48	0.36
46	0.58	0.45	0.61	0.39	0.77	0.46	0.54	0.32	0.53	0.40	0.57	0.38	0.45	0.27	0.49	0.27	0.54	0.39	0.65	0.33
47	0.64	0.41	0.64	0.35	0.52	0.35	0.73	0.44	0.45	0.34	0.52	0.45	0.56	0.40	0.41	0.36	0.70	0.42	0.60	0.40
48	0.44	0.27	0.59	0.53	0.71	0.52	0.46	0.32	0.52	0.42	0.72	0.38	0.83	0.46	0.63	0.48	0.38	0.27	0.53	0.35
49	0.44	0.32	0.54	0.32	0.62	0.41	0.53	0.28	0.46	0.23	0.23	0.08	0.40	0.20	0.79	0.41	0.50	0.28	0.68	0.46
50	0.69	0.43	0.62	0.46	0.51	0.37	0.57	0.32	0.38	0.25	0.48	0.37	0.52	0.30	0.59	0.36	0.39	0.25	0.58	0.44
51	0.58	0.48	0.51	0.35	0.30	0.25	0.51	0.42	0.82	0.47	0.71	0.40	0.50	0.35	0.66	0.37	0.50	0.29	0.62	0.39
52	0.41	0.26	0.50	0.49	0.60	0.45	0.46	0.33	0.47	0.34	0.79	0.43	0.82	0.41	0.48	0.31	0.40	0.26	0.41	0.25
53	0.54	0.46	0.72	0.44	0.60	0.40	0.54	0.33	0.38	0.34	0.67	0.33	0.54	0.34	0.71	0.41	0.54	0.42	0.55	0.39
54	0.75	0.56	0.65	0.42	0.59	0.48	0.70	0.42	0.58	0.44	0.65	0.48	0.35	0.33	0.35	0.28	0.32	0.24	0.45	0.37
55	0.41	0.36	0.53	0.40	0.34	0.19	0.32	0.24	0.49	0.33	0.39	0.39	0.51	0.43	0.61	0.31	0.49	0.33	0.60	0.42
56	0.91	0.37	0.76	0.53	0.39	0.32	0.54	0.34	0.63	0.51	0.73	0.41	0.76	0.46	0.48	0.41	0.36	0.37	0.53	0.39
57	0.39	0.50	0.58	0.31	0.72	0.52	0.63	0.38	0.47	0.39	0.66	0.55	0.76	0.39	0.62	0.44	0.56	0.42	0.23	0.27
58	0.61	0.49	0.51	0.39	0.54	0.46	0.51	0.28	0.56	0.33	0.65	0.44	0.63	0.38	0.51	0.33	0.80	0.35	0.69	0.43
59	0.52	0.43	0.46	0.35	0.70	0.52	0.45	0.35	0.50	0.33	0.75	0.44	0.62	0.49	0.68	0.33	0.68	0.32	0.46	0.46
60	0.65	0.54	0.54	0.41	0.78	0.47	0.50	0.44	0.48	0.35	0.42	0.40	0.65	0.43	0.26	0.26	0.22	0.18	0.70	0.45
61	0.62	0.46	0.57	0.53	0.54	0.43	0.38	0.26	0.44	0.34	0.49	0.48	0.63	0.44	0.49	0.47	0.34	0.21	0.64	0.43
62	0.68	0.49	0.73	0.56	0.57	0.48	0.45	0.28	0.52	0.45	0.44	0.28	0.42	0.36	0.49	0.37	0.35	0.24	0.61	0.44
63	0.55	0.52	0.58	0.37	0.60	0.51	0.63	0.47	0.40	0.29	0.53	0.43	0.60	0.40	0.24	0.08	0.87	0.39	0.38	0.28
64	0.60	0.52	0.38	0.21	0.40	0.29	0.58	0.30	0.39	0.31	0.66	0.45	0.46	0.32	0.77	0.41	0.75	0.47	0.45	0.19
65	0.52	0.42	0.54	0.44	0.73	0.45	0.59	0.51	0.43	0.30	0.65	0.51	0.51	0.33	0.72	0.53	0.61	0.30	0.74	0.43
66					0.72	0.52	0.50	0.35	0.65	0.49	0.79	0.33	0.67	0.47	0.67	0.39	0.32	0.26	0.72	0.41
67					0.38	0.36	0.51	0.39	0.53	0.47	0.60	0.48	0.55	0.34	0.46	0.40	0.58	0.40	0.52	0.34

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					0.39	0.18	0.39	0.50	0.61	0.47	0.36	0.29	0.33	0.34	0.35	0.23	0.63	0.44	0.53	0.44
69					0.59	0.38	0.51	0.38	0.69	0.39	0.43	0.28	0.44	0.42	0.65	0.45	0.37	0.26	0.54	0.33
70					0.49	0.44	0.29	0.32	0.48	0.34	0.51	0.39	0.44	0.33	0.64	0.51	0.59	0.40	0.39	0.12
71					0.57	0.41	0.50	0.47	0.57	0.51	0.60	0.42	0.52	0.38	0.31	0.36	0.51	0.35	0.73	0.41
72					0.62	0.45	0.40	0.36	0.66	0.49	0.61	0.40	0.39	0.23	0.73	0.46	0.58	0.28	0.26	0.04
73					0.72	0.53	0.46	0.39	0.30	0.26	0.32	0.24	0.41	0.26	0.46	0.41	0.28	0.33	0.60	0.43
74					0.66	0.45	0.32	0.32	0.55	0.49	0.22	0.02	0.52	0.34	0.34	0.29	0.62	0.34	0.62	0.41
75					0.55	0.41	0.61	0.47	0.37	0.25	0.39	0.28	0.77	0.41	0.44	0.39	0.52	0.42	0.14	–0.05

Table 8.A.2 Item-by-item *p*-value and Point-Biserial for Mathematics

Item-by-item *p*-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**	***p*-value**	**Pt-Bis**
1	0.42	0.32	0.59	0.53	0.72	0.34	0.38	0.35	0.49	0.44	0.39	0.23	0.26	0.23	0.57	0.31
2	0.83	0.41	0.61	0.48	0.52	0.40	0.64	0.15	0.80	0.37	0.63	0.36	0.43	0.49	0.39	0.16
3	0.53	0.52	0.72	0.46	0.71	0.52	0.84	0.44	0.63	0.43	0.49	0.31	0.22	0.30	0.61	0.34
4	0.85	0.42	0.78	0.35	0.63	0.54	0.48	0.21	0.50	0.29	0.39	0.42	0.35	0.13	0.64	0.37
5	0.76	0.46	0.84	0.51	0.70	0.43	0.57	0.41	0.59	0.33	0.53	0.34	0.50	0.24	0.48	0.17
6	0.74	0.49	0.67	0.58	0.78	0.49	0.46	0.42	0.56	0.37	0.36	0.26	0.32	0.23	0.57	0.42
7	0.65	0.46	0.74	0.53	0.66	0.43	0.47	0.43	0.57	0.50	0.20	0.18	0.65	0.44	0.17	0.26
8	0.66	0.49	0.70	0.55	0.60	0.45	0.46	0.35	0.53	0.47	0.54	0.21	0.44	0.37	0.30	0.38
9	0.92	0.38	0.44	0.55	0.64	0.43	0.59	0.44	0.50	0.40	0.48	0.32	0.56	0.21	0.70	0.46
10	0.58	0.50	0.46	0.53	0.89	0.28	0.45	0.52	0.40	0.36	0.50	0.42	0.47	0.32	0.61	0.30
11	0.72	0.45	0.58	0.54	0.59	0.49	0.45	0.56	0.73	0.37	0.49	0.37	0.40	0.18	0.81	0.37
12	0.79	0.44	0.82	0.57	0.72	0.46	0.64	0.45	0.66	0.34	0.81	0.38	0.51	0.45	0.40	0.44
13	0.52	0.44	0.64	0.40	0.90	0.33	0.58	0.52	0.49	0.42	0.42	0.34	0.41	0.42	0.59	0.46
14	0.48	0.48	0.67	0.49	0.69	0.45	0.43	0.27	0.53	0.40	0.41	0.29	0.39	0.39	0.75	0.40
15	0.63	0.44	0.34	0.28	0.80	0.41	0.42	0.36	0.57	0.44	0.38	0.39	0.59	0.49	0.35	0.46
16	0.66	0.33	0.54	0.51	0.39	0.16	0.41	0.33	0.57	0.48	0.35	0.23	0.35	0.28	0.39	0.31
17	0.69	0.49	0.42	0.45	0.69	0.45	0.83	0.22	0.84	0.40	0.52	0.35	0.61	0.37	0.68	0.38
18	0.70	0.39	0.71	0.44	0.52	0.27	0.84	0.37	0.42	0.47	0.34	0.26	0.27	0.25	0.22	0.12
19	0.60	0.25	0.72	0.42	0.39	0.28	0.37	0.31	0.49	0.45	0.45	0.38	0.21	0.31	0.41	0.27
20	0.57	0.46	0.60	0.52	0.63	0.41	0.62	0.49	0.62	0.45	0.35	0.46	0.35	0.31	0.55	0.45
21	0.58	0.48	0.63	0.42	0.47	0.34	0.44	0.27	0.60	0.42	0.42	0.38	0.32	0.28	0.25	0.29
22	0.78	0.44	0.68	0.46	0.66	0.44	0.61	0.44	0.45	0.42	0.33	0.39	0.29	0.20	0.25	0.22
23	0.56	0.39	0.68	0.48	0.71	0.46	0.48	0.38	0.57	0.42	0.45	0.31	0.43	0.32	0.67	0.19
24	0.60	0.45	0.84	0.44	0.89	0.37	0.58	0.41	0.34	0.48	0.35	0.12	0.33	0.31	0.20	0.29
25	0.51	0.37	0.62	0.55	0.67	0.48	0.38	0.31	0.36	0.35	0.52	0.38	0.29	0.33	0.49	0.30
26	0.78	0.47	0.66	0.46	0.82	0.40	0.48	0.37	0.51	0.32	0.56	0.51	0.19	0.21	0.26	0.40
27	0.60	0.40	0.88	0.44	0.56	0.46	0.52	0.31	0.48	0.21	0.44	0.36	0.59	0.38	0.44	0.29
28	0.73	0.41	0.96	0.29	0.51	0.42	0.52	0.45	0.45	0.44	0.46	0.41	0.40	0.32	0.66	0.39
29	0.54	0.47	0.32	0.41	0.67	0.53	0.65	0.41	0.63	0.50	0.43	0.46	0.19	0.26	0.46	0.33
30	0.45	0.48	0.82	0.41	0.55	0.43	0.60	0.48	0.72	0.48	0.34	0.12	0.41	0.19	0.45	0.26
31	0.60	0.39	0.73	0.40	0.50	0.46	0.78	0.44	0.46	0.54	0.50	0.49	0.31	0.20	0.52	0.34
32	0.60	0.40	0.66	0.39	0.74	0.50	0.76	0.51	0.37	0.35	0.39	0.27	0.57	0.45	0.23	0.19
33	0.59	0.55	0.81	0.55	0.78	0.53	0.49	0.24	0.74	0.46	0.66	0.48	0.56	0.43	0.44	0.32
34	0.66	0.43	0.58	0.43	0.88	0.47	0.50	0.43	0.43	0.42	0.48	0.35	0.57	0.37	0.20	0.26
35	0.34	0.35	0.53	0.50	0.77	0.52	0.77	0.52	0.58	0.41	0.36	0.23	0.39	0.37	0.61	0.28
36	0.83	0.40	0.52	0.58	0.53	0.39	0.57	0.32	0.35	0.34	0.47	0.37	0.27	0.26	0.55	0.43
37	0.52	0.46	0.79	0.50	0.72	0.59	0.57	0.44	0.67	0.39	0.69	0.42	0.68	0.22	0.34	0.24

Item-by-item *p*-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	*p*-value	Pt-Bis
38	0.90	0.38	0.51	0.41	0.63	0.54	0.67	0.46	0.34	0.32	0.33	0.16	0.43	0.44	0.35	0.35
39	0.86	0.32	0.77	0.51	0.80	0.55	0.48	0.41	0.62	0.56	0.33	0.38	0.34	0.20	0.19	0.09
40	0.55	0.42	0.69	0.47	0.79	0.57	0.59	0.51	0.73	0.43	0.41	0.25	0.55	0.46	0.51	0.39
41	0.53	0.41	0.55	0.51	0.57	0.48	0.48	0.25	0.54	0.52	0.37	0.39	0.16	-0.03	0.54	0.43
42	0.52	0.43	0.90	0.23	0.56	0.50	0.51	0.45	0.59	0.45	0.82	0.32	0.35	0.29	0.23	0.33
43	0.74	0.50	0.34	0.40	0.73	0.51	0.67	0.45	0.80	0.45	0.64	0.45	0.28	0.28	0.32	0.32
44	0.60	0.49	0.48	0.55	0.74	0.50	0.47	0.40	0.45	0.24	0.31	0.24	0.41	0.25	0.64	0.39
45	0.94	0.20	0.83	0.33	0.75	0.57	0.62	0.44	0.50	0.46	0.38	0.30	0.38	0.31	0.42	0.39
46	0.53	0.25	0.26	0.28	0.71	0.59	0.59	0.42	0.52	0.29	0.13	-0.12	0.33	0.36	0.59	0.39
47	0.93	0.30	0.71	0.26	0.63	0.54	0.56	0.23	0.42	0.37	0.20	0.25	0.38	0.33	0.50	0.43
48	0.75	0.25	0.66	0.35	0.64	0.54	0.48	0.33	0.38	0.35	0.47	0.34	0.53	0.45	0.33	0.38
49	0.72	0.35	0.58	0.41	0.67	0.52	0.52	0.28	0.42	0.19	0.60	0.39	0.54	0.44	0.31	0.16
50	0.73	0.35	0.64	0.46	0.41	0.33	0.55	0.39	0.36	0.40	0.47	0.32	0.51	0.37	0.28	0.25
51	0.76	0.31	0.69	0.43	0.83	0.41	0.45	0.27	0.42	0.28	0.54	0.40	0.23	0.08	0.19	0.18
52	0.74	0.44	0.93	0.24	0.46	0.26	0.31	0.26	0.34	0.26	0.57	0.51	0.28	0.30	0.50	0.35
53	0.75	0.45	0.64	0.40	0.75	0.35	0.60	0.34	0.23	0.14	0.55	0.43	0.23	0.11	0.31	0.32
54	0.90	0.29	0.92	0.35	0.38	0.25	0.41	0.35	0.22	0.16	0.40	0.28	0.19	0.15	0.39	0.35
55	0.77	0.43	0.70	0.47	0.70	0.46	0.50	0.43	0.32	0.32	0.50	0.43	0.27	0.12	0.42	0.44
56	0.59	0.53	0.68	0.32	0.87	0.38	0.49	0.37	0.53	0.41	0.61	0.28	0.23	0.17	0.29	0.30
57	0.67	0.38	0.86	0.24	0.82	0.40	0.72	0.36	0.34	0.33	0.25	0.36	0.24	0.14	0.31	0.14
58	0.92	0.30	0.59	0.48	0.66	0.47	0.46	0.34	0.49	0.49	0.52	0.39	0.34	0.33	0.50	0.38
59	0.90	0.41	0.67	0.56	0.52	0.37	0.56	0.16	0.49	0.39	0.28	0.29	0.39	0.20	0.50	0.23
60	0.71	0.45	0.76	0.35	0.61	0.41	0.45	0.32	0.43	0.35	0.51	0.33	0.27	0.25	0.30	0.44
61	0.80	0.37	0.66	0.46	0.74	0.47	0.48	0.47	0.30	0.21	0.42	0.30	0.18	0.13	0.42	0.43
62	0.81	0.42	0.88	0.46	0.75	0.47	0.52	0.27	0.38	0.30	0.54	0.35	0.34	0.10	0.29	0.09
63	0.84	0.32	0.82	0.36	0.80	0.39	0.70	0.42	0.43	0.30	0.59	0.37	0.24	0.11	0.42	0.46
64	0.81	0.47	0.87	0.46	0.39	0.27	0.50	0.31	0.53	0.40	0.52	0.39	0.35	0.37	0.33	0.21
65	0.88	0.19	0.65	0.44	0.34	0.17	0.47	0.32	0.37	0.25	0.62	0.37	0.35	0.28	0.42	0.34

Table 8.A.3 Item-by-item *p*-value and Point-Biserial for Grade-specific Mathematics

Item-by-item *p*-value and Point-Biserial for Grade-specific STS				
STS	**Algebra I (Grade 8)**		**Geometry (Grade 9)**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.22	0.19	0.46	0.18
2	0.41	0.44	0.39	0.12
3	0.17	0.28	0.58	0.23
4	0.33	0.11	0.54	0.22
5	0.45	0.16	0.39	0.12
6	0.29	0.11	0.54	0.38
7	0.59	0.43	0.13	0.22
8	0.36	0.28	0.24	0.30
9	0.55	0.18	0.57	0.52
10	0.46	0.28	0.55	0.20
11	0.39	0.20	0.72	0.29
12	0.46	0.41	0.34	0.44
13	0.38	0.44	0.55	0.42
14	0.34	0.32	0.67	0.42
15	0.53	0.49	0.36	0.22
16	0.32	0.29	0.30	0.30
17	0.55	0.35	0.61	0.44
18	0.25	0.33	0.18	0.02
19	0.21	0.31	0.33	0.15
20	0.35	0.39	0.40	0.57
21	0.31	0.30	0.27	0.25
22	0.27	0.15	0.28	0.35
23	0.42	0.32	0.63	0.14
24	0.29	0.32	0.25	0.20
25	0.25	0.29	0.46	0.37
26	0.20	0.19	0.27	0.20
27	0.54	0.35	0.31	0.42
28	0.35	0.46	0.63	0.40
29	0.20	0.33	0.45	0.28
30	0.42	0.26	0.55	0.17
31	0.32	0.20	0.58	0.35
32	0.47	0.41	0.22	0.36
33	0.55	0.36	0.45	0.23
34	0.55	0.37	0.12	0.24
35	0.40	0.33	0.51	0.38
36	0.28	0.33	0.45	0.37
37	0.69	0.22	0.27	0.22
38	0.34	0.37	0.34	0.25
39	0.31	0.09	0.22	–0.20
40	0.49	0.47	0.39	0.41
41	0.20	–0.00	0.54	0.26
42	0.36	0.32	0.19	0.22
43	0.30	0.32	0.19	0.26
44	0.40	0.21	0.64	0.23
45	0.36	0.30	0.37	0.22
46	0.29	0.35	0.57	0.36
47	0.36	0.32	0.48	0.36
48	0.51	0.42	0.31	0.16
49	0.50	0.43	0.31	–0.03
50	0.49	0.44	0.28	0.13
51	0.19	0.09	0.16	0.15
52	0.28	0.26	0.52	0.41
53	0.22	0.10	0.30	0.24
54	0.19	0.07	0.24	0.27
55	0.26	0.10	0.30	0.24

Item-by-item *p*-value and Point-Biserial for Grade-specific STS				
STS	**Algebra I (Grade 8)**		**Geometry (Grade 9)**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
56	0.21	0.22	0.33	0.21
57	0.25	0.24	0.31	–0.04
58	0.37	0.34	0.42	0.29
59	0.33	0.20	0.31	0.17
60	0.27	0.25	0.30	0.20
61	0.17	0.11	0.31	0.29
62	0.31	0.14	0.27	–0.07
63	0.28	0.14	0.31	0.30
64	0.31	0.34	0.31	0.12
65	0.34	0.27	0.34	0.37

Appendix 8.B—Reliability Analyses

Table 8.B.1 Subscore Reliabilities and Intercorrelations for RLA

Subscore Area	No. of Items	Intercorrelation					Reliab.	SEM
Grade 2		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	22	1.00					0.82	1.84
2. Reading Comprehension	15	0.73	1.00				0.80	1.65
3. Literary Response and Analysis	6	0.63	0.64	1.00			0.55	1.05
4. Written Conventions	14	0.75	0.71	0.62	1.00		0.81	1.53
5. Writing Strategies	8	0.57	0.59	0.53	0.63	1.00	0.60	1.28
Grade 3		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	20	1.00					0.79	1.88
2. Reading Comprehension	15	0.68	1.00				0.65	1.76
3. Literary Response and Analysis	8	0.63	0.61	1.00			0.53	1.23
4. Written Conventions	13	0.70	0.61	0.55	1.00		0.73	1.59
5. Writing Strategies	9	0.64	0.58	0.54	0.64	1.00	0.64	1.34
Grade 4		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	18	1.00					0.80	1.78
2. Reading Comprehension	15	0.69	1.00				0.75	1.74
3. Literary Response and Analysis	9	0.63	0.64	1.00			0.61	1.35
4. Written Conventions	18	0.73	0.66	0.58	1.00		0.79	1.77
5. Writing Strategies	15	0.70	0.68	0.61	0.74	1.00	0.73	1.71
Grade 5		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	14	1.00					0.67	1.70
2. Reading Comprehension	16	0.68	1.00				0.71	1.82
3. Literary Response and Analysis	12	0.65	0.68	1.00			0.72	1.56
4. Written Conventions	17	0.65	0.63	0.60	1.00		0.74	1.84
5. Writing Strategies	16	0.66	0.67	0.65	0.67	1.00	0.69	1.82
Grade 6		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	13	1.00					0.63	1.64
2. Reading Comprehension	17	0.63	1.00				0.69	1.89
3. Literary Response and Analysis	12	0.55	0.61	1.00			0.66	1.54
4. Written Conventions	16	0.60	0.63	0.56	1.00		0.78	1.74
5. Writing Strategies	17	0.58	0.60	0.55	0.66	1.00	0.65	1.92
Grade 7		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	11	1.00					0.64	1.46
2. Reading Comprehension	18	0.65	1.00				0.69	1.94
3. Literary Response and Analysis	13	0.60	0.66	1.00			0.63	1.61
4. Written Conventions	16	0.63	0.61	0.56	1.00		0.73	1.74
5. Writing Strategies	17	0.65	0.66	0.60	0.69	1.00	0.72	1.83
Grade 8		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	9	1.00					0.62	1.28
2. Reading Comprehension	18	0.63	1.00				0.72	1.90
3. Literary Response and Analysis	15	0.64	0.66	1.00			0.76	1.66
4. Written Conventions	16	0.62	0.60	0.58	1.00		0.73	1.73
5. Writing Strategies	17	0.63	0.64	0.62	0.66	1.00	0.67	1.89
Grade 9		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00					0.67	1.09
2. Reading Comprehension	18	0.67	1.00				0.76	1.85
3. Literary Response and Analysis	16	0.63	0.68	1.00			0.66	1.78
4. Written Conventions	13	0.59	0.58	0.53	1.00		0.65	1.60
5. Writing Strategies	20	0.58	0.65	0.60	0.64	1.00	0.74	2.03
Grade 10		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00					0.66	1.03

Subscore Area	No. of Items	Intercorrelation					Reliab.	SEM
2. Reading Comprehension	18	0.65	1.00				0.75	1.88
3. Literary Response and Analysis	16	0.58	0.60	1.00			0.60	1.76
4. Written Conventions	13	0.60	0.63	0.55	1.00		0.68	1.60
5. Writing Strategies	20	0.56	0.60	0.52	0.62	1.00	0.66	2.06
Grade 11		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00					0.55	1.21
2. Reading Comprehension	19	0.54	1.00				0.54	2.04
3. Literary Response and Analysis	17	0.60	0.57	1.00			0.61	1.90
4. Written Conventions	9	0.50	0.41	0.40	1.00		0.38	1.29
5. Writing Strategies	22	0.61	0.56	0.61	0.55	1.00	0.78	2.11

Table 8.B.2 Subscore Reliabilities and Intercorrelations for Mathematics

Subscore Area	No. of Items	Intercorrelation						Reliab.	SEM
Grade 2		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Place Value, Addition, and Subtraction	15	1.00					–	0.78	1.60
2. Number Sense: Multiplication, Division, and Fractions	23	0.75	1.00				–	0.82	2.01
3. Algebra and Functions	6	0.61	0.63	1.00			–	0.60	1.02
4. Measurement and Geometry	14	0.63	0.67	0.52	1.00		–	0.66	1.43
5. Statistics, Data Analysis, and Probability	7	0.57	0.59	0.46	0.57	1.00	–	0.57	0.92
Grade 3		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Place Value, Fractions, and Decimals	16	1.00					–	0.79	1.60
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.77	1.00				–	0.83	1.61
3. Algebra and Functions	12	0.72	0.76	1.00			–	0.78	1.39
4. Measurement and Geometry	16	0.68	0.66	0.65	1.00		–	0.73	1.60
5. Statistics, Data Analysis, and Probability	5	0.58	0.54	0.55	0.57	1.00	–	0.61	0.79
Grade 4		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	1.00					–	0.73	1.71
2. Number Sense: Operations, and Factoring	14	0.69	1.00				–	0.80	1.56
3. Algebra and Functions	18	0.70	0.73	1.00			–	0.88	1.61
4. Measurement and Geometry	12	0.56	0.57	0.63	1.00		–	0.70	1.43
5. Statistics, Data Analysis, and Probability	4	0.42	0.44	0.44	0.44	1.00	–	0.30	0.86
Grade 5		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Estimation, Percents, and Factoring	12	1.00					–	0.68	1.49
2. Number Sense: Operations with Fractions and Decimals	17	0.63	1.00				–	0.74	1.88
3. Algebra and Functions	17	0.65	0.64	1.00			–	0.79	1.79
4. Measurement and Geometry	15	0.58	0.58	0.62	1.00		–	0.63	1.80
5. Statistics, Data Analysis, and Probability	4	0.37	0.39	0.46	0.42	1.00	–	0.35	0.92
Grade 6		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Ratios, Proportions, Percentages, and Negative Numbers	15	1.00					–	0.76	1.68
2. Number Sense: Operations with Problem Solving with Fractions	10	0.63	1.00				–	0.67	1.41
3. Algebra and Functions	19	0.69	0.67	1.00			–	0.79	1.91
4. Measurement and Geometry	10	0.51	0.46	0.52	1.00		–	0.50	1.43
5. Statistics, Data Analysis, and Probability	11	0.55	0.51	0.57	0.47	1.00	–	0.62	1.51
Grade 7		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Rational Numbers	14	1.00						0.60	1.75
2. Number Sense: Exponent, Powers and Roots	8	0.50	1.00					0.56	1.22
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.42	0.43	1.00				0.37	1.39
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.61	0.52	0.47	1.00			0.67	1.78
5. Measurement and Geometry	13	0.54	0.47	0.43	0.68	1.00		0.66	1.64

Subscore Area	No. of Items	Intercorrelation						Reliab.	SEM
6. Statistics, Data Analysis, and Probability	5	0.38	0.37	0.33	0.46	0.47	1.00	0.50	1.01
Algebra I		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Properties, Operations, and Linear Equations	17	1.00				–	–	0.66	1.88
2. Graphing and Systems of Linear Equations	14	0.47	1.00			–	–	0.55	1.64
3. Quadratics and Polynomials	21	0.62	0.49	1.00		–	–	0.69	2.07
4. Functions and Rational Expressions	13	0.34	0.30	0.38	1.00	–	–	0.31	1.57
Geometry		**1**	**2**	**3**	**4**	**5**	**6**		
1. Logic and Geometric Proofs	23	1.00				–	–	0.73	2.12
2. Volume and Area Formulas	11	0.52	1.00			–	–	0.56	1.47
3. Angle Relationships, Constructions, and Lines	16	0.61	0.48	1.00		–	–	0.65	1.80
4. Trigonometry	15	0.54	0.46	0.61	1.00	–	–	0.62	1.75
Algebra I – 8		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Properties, Operations, and Linear Equations	17	1.00				–	–	0.60	1.89
2. Graphing and Systems of Linear Equations	14	0.46	1.00			–	–	0.59	1.62
3. Quadratics and Polynomials	21	0.59	0.55	1.00		–	–	0.65	2.08
4. Functions and Rational Expressions	13	0.31	0.34	0.41	1.00	–	–	0.32	1.56
Geometry – 9		**1**	**2**	**3**	**4**	**5**	**6**		
1. Logic and Geometric Proofs	23	1.00				–	–	0.66	2.18
2. Volume and Area Formulas	11	0.52	1.00			–	–	0.55	1.47
3. Angle Relationships, Constructions, and Lines	16	0.43	0.33	1.00		–	–	0.44	1.84
4. Trigonometry	15	0.33	0.29	0.40	1.00	–	–	0.43	1.75

Table 8.B.3 Reliabilities and SEMs by Gender

		Male			Female		
Content Area	**STS***	**N**	**Reliab.**	**SEM**	**N**	**Reliab.**	**SEM**
Reading/ Language Arts	2	5,335	0.93	3.43	5,440	0.93	3.32
	3	3,786	0.91	3.59	3,807	0.91	3.51
	4	2,154	0.93	3.83	2,253	0.93	3.73
	5	1,532	0.91	3.97	1,363	0.92	3.90
	6	980	0.91	3.96	934	0.89	3.93
	7	753	0.91	3.89	705	0.91	3.83
	8	662	0.91	3.89	568	0.91	3.79
	9	1,166	0.91	3.86	844	0.90	3.78
	10	708	0.90	3.86	610	0.89	3.80
	11	382	0.88	3.96	329	0.86	3.89
Mathematics	2	5,321	0.92	3.26	5,442	0.92	3.28
	3	3,785	0.94	3.25	3,797	0.93	3.24
	4	2,151	0.94	3.32	2,254	0.92	3.33
	5	1,523	0.91	3.65	1,363	0.90	3.64
	6	972	0.92	3.60	930	0.90	3.62
	7	752	0.89	3.67	701	0.87	3.68
	Algebra I	1,516	0.83	3.63	1,229	0.83	3.63
	Geometry	212	0.88	3.61	195	0.85	3.63
Grade-Specific	Algebra I – 8	260	0.82	3.62	238	0.82	3.60
	Geometry – 9	41	0.80	3.70	26	0.77	3.64

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

Table 8.B.4 Reliabilities and SEMs for the STS by Economic Status

		Not Disadvantaged			Disadvantaged		
Content Area	**STS***	**N**	**Reliab.**	**SEM**	**N**	**Reliab.**	**SEM**
Reading/ Language Arts	2	761	0.94	3.25	9,814	0.93	3.39
	3	508	0.91	3.53	6,964	0.91	3.55
	4	370	0.94	3.72	3,966	0.93	3.78
	5	249	0.93	3.85	2,611	0.92	3.95
	6	221	0.92	3.86	1,673	0.90	3.96
	7	210	0.92	3.78	1,224	0.91	3.88
	8	163	0.93	3.82	1,029	0.91	3.85
	9	323	0.92	3.81	1,645	0.91	3.83
	10	247	0.90	3.81	1,048	0.90	3.84
	11	147	0.88	3.91	547	0.88	3.94
Mathematics	2	754	0.92	3.16	9,806	0.92	3.28
	3	506	0.94	3.20	6,955	0.93	3.25
	4	370	0.93	3.31	3,963	0.93	3.33
	5	249	0.92	3.58	2,602	0.90	3.66
	6	217	0.92	3.58	1,664	0.91	3.62
	7	207	0.90	3.64	1,222	0.87	3.69
	Algebra I	466	0.83	3.65	2,205	0.83	3.63
	Geometry	68	0.88	3.62	339	0.86	3.62
Grade-Specific	Algebra I – 8	69	0.74	3.66	415	0.83	3.60
	Geometry – 9	12	0.87	3.57	55	0.76	3.69

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

Table 8.B.5 Reliabilities and SEMs for the STS by Special Services

		No Special Services			Special Services		
Content Area	**STS***	**N**	**Reliab.**	**SEM**	**N**	**Reliab.**	**SEM**
Reading/Language Arts	2	10,336	0.93	3.37	446	0.91	3.61
	3	7,250	0.91	3.54	346	0.89	3.67
	4	4,205	0.93	3.77	206	0.92	3.93
	5	2,719	0.92	3.94	179	0.84	3.93
	6	1,832	0.91	3.95	86	0.87	3.98
	7	1,433	0.91	3.86	29	0.73	4.00
	8	1,204	0.91	3.84	27	0.81	3.95
	9	2,001	0.91	3.83	12	0.89	4.00
	10	1,308	0.90	3.84	12	0.88	3.94
	11	706	0.88	3.93	6	–	–
Mathematics	2	10,326	0.92	3.27	445	0.92	3.48
	3	7,234	0.93	3.23	351	0.93	3.47
	4	4,201	0.93	3.32	208	0.94	3.52
	5	2,713	0.90	3.64	176	0.85	3.71
	6	1,817	0.91	3.61	88	0.83	3.64
	7	1,427	0.88	3.68	30	0.82	3.70
	Algebra I	2,718	0.83	3.63	30	0.82	3.63
	Geometry	405	0.87	3.62	2	–	–
Grade-Specific	Algebra I – 8	486	0.82	3.61	12	0.50	3.72
	Geometry – 9	67	0.79	3.68	0	–	–

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

Table 8.B.6 Reliabilities and SEMs for the STS by Attendance in U.S. Schools

		In U.S. Schools < 12 Months			In U.S. Schools ≥ 12 Months		
Content Area	**STS***	**N**	**Reliab.**	**SEM**	**N**	**Reliab.**	**SEM**
Reading/Language Arts	2	1,318	0.93	3.55	9,465	0.93	3.35
	3	1,188	0.92	3.58	6,408	0.91	3.53
	4	1,164	0.93	3.80	3,247	0.93	3.75
	5	1,073	0.93	3.90	1,825	0.91	3.94
	6	931	0.91	3.91	987	0.90	3.96
	7	1,108	0.91	3.84	354	0.90	3.92
	8	898	0.92	3.82	333	0.90	3.92
	9	1,828	0.91	3.82	186	0.90	3.85
	10	1,136	0.90	3.83	184	0.90	3.90
	11	561	0.88	3.92	151	0.88	3.97
Mathematics	2	1,330	0.92	3.48	9,441	0.92	3.24
	3	1,192	0.94	3.43	6,393	0.93	3.20
	4	1,161	0.93	3.50	3,248	0.93	3.26
	5	1,070	0.91	3.66	1,819	0.89	3.63
	6	918	0.91	3.61	987	0.90	3.60
	7	1,088	0.88	3.67	369	0.86	3.70
	Algebra I	2,310	0.84	3.63	439	0.77	3.65
	Geometry	292	0.88	3.60	115	0.84	3.66
Grade-Specific	Algebra I – 8	316	0.84	3.59	182	0.78	3.65
	Geometry – 9	61	0.80	3.67	6	–	–

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

Table 8.B.7 Reliabilities and SEMs by English Learner Program Participation

		EL in ELD			EL in ELD and SDAIE			EL in ELD and SDAIE with Prim. Lang. Support			EL in ELD and Acad. Subj. through Prim. Lang.			Other EL Instruct. Services			None (EL only)		
Content Area	**STS**	**N**	**Rel.**	**SEM**	**N**	**Rel.**	**SEM**	**N**	**Rel.**	**SEM**	**N**	**Rel.**	**SEM**	**N**	**Rel.**	**SEM**	**N**	**Rel.**	**SEM**
Reading/ Language Arts	2	94	0.91	3.58	487	0.92	3.60	336	0.92	3.60	9,794	0.93	3.35	14	0.96	3.42	34	0.86	3.68
	3	77	0.90	3.60	476	0.90	3.62	355	0.92	3.59	6,627	0.91	3.53	13	0.90	3.65	27	0.92	3.59
	4	76	0.92	3.84	520	0.93	3.80	352	0.93	3.82	3,401	0.93	3.75	15	0.94	3.78	32	0.92	3.72
	5	63	0.93	3.87	503	0.93	3.88	335	0.92	3.91	1,941	0.91	3.94	15	0.91	4.00	23	0.91	3.96
	6	65	0.92	3.91	446	0.92	3.88	290	0.89	3.95	1,050	0.90	3.96	15	0.84	3.96	34	0.88	3.94
	7	126	0.92	3.82	473	0.91	3.85	298	0.92	3.83	483	0.90	3.91	37	0.88	3.86	26	0.94	3.83
	8	88	0.92	3.78	379	0.91	3.80	258	0.92	3.83	432	0.91	3.90	31	0.93	3.77	21	0.93	3.87
	9	207	0.91	3.79	621	0.91	3.83	526	0.91	3.83	423	0.91	3.84	128	0.94	3.78	52	0.88	3.89
	10	162	0.90	3.80	374	0.90	3.83	281	0.89	3.84	346	0.90	3.86	103	0.91	3.81	22	0.90	3.85
	11	87	0.89	3.92	229	0.87	3.92	131	0.87	3.92	192	0.87	3.97	46	0.90	3.87	10	–	–
Mathematics	2	98	0.92	3.53	490	0.92	3.52	341	0.92	3.50	9,771	0.92	3.25	14	0.92	3.43	33	0.86	3.58
	3	77	0.94	3.44	481	0.93	3.48	356	0.93	3.44	6,610	0.93	3.21	13	0.91	3.59	27	0.93	3.49
	4	76	0.91	3.60	519	0.93	3.51	350	0.93	3.47	3,402	0.93	3.27	15	0.94	3.53	32	0.93	3.40
	5	63	0.92	3.61	503	0.91	3.66	331	0.90	3.68	1,935	0.89	3.63	15	0.94	3.51	23	0.93	3.54
	6	62	0.91	3.63	443	0.92	3.60	285	0.91	3.63	1,050	0.90	3.60	14	0.90	3.74	33	0.90	3.64
	7	123	0.90	3.63	460	0.88	3.67	296	0.89	3.66	498	0.86	3.70	35	0.85	3.67	26	0.93	3.56
	Algebra I	323	0.85	3.63	760	0.84	3.62	640	0.83	3.63	732	0.79	3.65	167	0.82	3.61	56	0.88	3.61
	Geometry	51	0.91	3.56	86	0.90	3.55	68	0.82	3.63	156	0.84	3.64	26	0.84	3.67	6	–	–
Grade-Specific	Algebra I – 8	46	0.80	3.59	132	0.86	3.60	84	0.85	3.55	221	0.79	3.64	7	–	–	4	–	–
	Geometry – 9	7	–	–	23	0.88	3.59	18	0.51	3.75	10	–	–	7	–	–	0	–	–

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

Table 8.B.8 Subscore Reliabilities and SEM for RLA by Gender/Economic Status

		Male		Female		Not Econ. Dis.		Econ. Dis.	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 2									
1. Word Analysis and Vocabulary Development	22	0.82	1.88	0.80	1.80	0.81	1.78	0.82	1.84
2. Reading Comprehension	15	0.79	1.68	0.79	1.62	0.81	1.58	0.80	1.65
3. Literary Response and Analysis	6	0.54	1.07	0.55	1.03	0.59	1.00	0.54	1.05
4. Written Conventions	14	0.81	1.56	0.81	1.50	0.83	1.45	0.81	1.53
5. Writing Strategies	8	0.59	1.28	0.60	1.28	0.64	1.26	0.60	1.28
Grade 3									
1. Word Analysis and Vocabulary Development	20	0.79	1.91	0.78	1.85	0.77	1.86	0.79	1.88
2. Reading Comprehension	15	0.63	1.77	0.65	1.74	0.64	1.77	0.65	1.76
3. Literary Response and Analysis	8	0.52	1.24	0.52	1.22	0.49	1.22	0.53	1.23
4. Written Conventions	13	0.73	1.61	0.73	1.57	0.76	1.57	0.73	1.59
5. Writing Strategies	9	0.64	1.35	0.64	1.33	0.69	1.31	0.64	1.34
Grade 4									
1. Word Analysis and Vocabulary Development	18	0.80	1.80	0.79	1.75	0.79	1.74	0.80	1.78
2. Reading Comprehension	15	0.75	1.75	0.75	1.73	0.78	1.70	0.75	1.75
3. Literary Response and Analysis	9	0.60	1.35	0.61	1.34	0.66	1.32	0.60	1.35
4. Written Conventions	18	0.78	1.81	0.78	1.73	0.79	1.75	0.79	1.77
5. Writing Strategies	15	0.72	1.73	0.73	1.70	0.77	1.66	0.73	1.72
Grade 5									
1. Word Analysis and Vocabulary Development	14	0.67	1.70	0.67	1.69	0.70	1.67	0.67	1.70
2. Reading Comprehension	16	0.70	1.83	0.71	1.82	0.76	1.79	0.70	1.83
3. Literary Response and Analysis	12	0.70	1.56	0.72	1.55	0.74	1.54	0.71	1.56
4. Written Conventions	17	0.72	1.88	0.74	1.80	0.77	1.78	0.73	1.85
5. Writing Strategies	16	0.67	1.83	0.70	1.81	0.73	1.77	0.68	1.83
Grade 6									
1. Word Analysis and Vocabulary Development	13	0.65	1.64	0.61	1.64	0.69	1.61	0.61	1.65
2. Reading Comprehension	17	0.70	1.89	0.66	1.89	0.70	1.84	0.68	1.90
3. Literary Response and Analysis	12	0.66	1.56	0.62	1.51	0.70	1.47	0.65	1.55
4. Written Conventions	16	0.78	1.76	0.75	1.72	0.77	1.69	0.77	1.75
5. Writing Strategies	17	0.65	1.91	0.62	1.94	0.64	1.93	0.64	1.92
Grade 7									
1. Word Analysis and Vocabulary Development	11	0.65	1.46	0.63	1.45	0.64	1.42	0.64	1.46
2. Reading Comprehension	18	0.68	1.95	0.71	1.92	0.71	1.90	0.69	1.94
3. Literary Response and Analysis	13	0.63	1.62	0.63	1.59	0.61	1.61	0.63	1.61
4. Written Conventions	16	0.73	1.75	0.72	1.72	0.72	1.69	0.73	1.74
5. Writing Strategies	17	0.71	1.84	0.72	1.80	0.73	1.78	0.71	1.83
Grade 8									
1. Word Analysis and Vocabulary Development	9	0.61	1.30	0.63	1.26	0.65	1.26	0.62	1.28
2. Reading Comprehension	18	0.69	1.92	0.74	1.88	0.75	1.89	0.72	1.90
3. Literary Response and Analysis	15	0.78	1.67	0.73	1.65	0.79	1.65	0.75	1.66
4. Written Conventions	16	0.73	1.78	0.69	1.68	0.72	1.74	0.73	1.73
5. Writing Strategies	17	0.64	1.90	0.68	1.88	0.70	1.87	0.67	1.89
Grade 9									
1. Word Analysis and Vocabulary Development	8	0.69	1.11	0.64	1.05	0.74	1.06	0.66	1.09
2. Reading Comprehension	18	0.76	1.86	0.74	1.84	0.78	1.83	0.75	1.85
3. Literary Response and Analysis	16	0.67	1.79	0.61	1.76	0.69	1.77	0.65	1.78

		Male		Female		Not Econ. Dis.		Econ. Dis.	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
4. Written Conventions	13	0.64	1.61	0.62	1.57	0.66	1.59	0.65	1.59
5. Writing Strategies	20	0.72	2.04	0.75	2.01	0.75	2.03	0.73	2.03
Grade 10									
1. Word Analysis and Vocabulary Development	8	0.67	1.05	0.62	1.00	0.63	1.01	0.66	1.03
2. Reading Comprehension	18	0.76	1.89	0.73	1.86	0.77	1.85	0.75	1.88
3. Literary Response and Analysis	16	0.62	1.77	0.58	1.74	0.57	1.75	0.61	1.76
4. Written Conventions	13	0.66	1.62	0.68	1.57	0.69	1.58	0.67	1.61
5. Writing Strategies	20	0.66	2.06	0.65	2.06	0.66	2.08	0.66	2.06
Grade 11									
1. Word Analysis and Vocabulary Development	8	0.57	1.24	0.51	1.17	0.60	1.17	0.54	1.22
2. Reading Comprehension	19	0.56	2.04	0.50	2.04	0.55	2.03	0.54	2.04
3. Literary Response and Analysis	17	0.61	1.91	0.58	1.88	0.63	1.88	0.61	1.90
4. Written Conventions	9	0.39	1.31	0.32	1.26	0.40	1.27	0.37	1.29
5. Writing Strategies	22	0.79	2.12	0.75	2.09	0.79	2.10	0.78	2.11

Table 8.B.9 Subscore Reliabilities and SEM for Mathematics by Gender/Economic Status

		Male		Female		Not Econ. Dis.		Econ. Dis.	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 2									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.79	1.60	0.78	1.60	0.80	1.54	0.78	1.60
2. Number Sense: Multiplication, Division, and Fractions	23	0.83	2.01	0.82	2.01	0.83	1.96	0.82	2.01
3. Algebra and Functions	6	0.62	1.00	0.59	1.03	0.63	0.97	0.60	1.02
4. Measurement and Geometry	14	0.67	1.41	0.65	1.44	0.64	1.37	0.66	1.43
5. Statistics, Data Analysis and Probability	7	0.59	0.92	0.56	0.92	0.55	0.88	0.57	0.92
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.80	1.59	0.78	1.59	0.80	1.56	0.79	1.60
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.83	1.61	0.83	1.60	0.84	1.58	0.83	1.61
3. Algebra and Functions	12	0.79	1.39	0.77	1.40	0.79	1.37	0.78	1.40
4. Measurement and Geometry	16	0.75	1.60	0.72	1.61	0.73	1.60	0.73	1.60
5. Statistics, Data Analysis and Probability	5	0.63	0.80	0.59	0.78	0.69	0.77	0.61	0.79
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.76	1.68	0.69	1.73	0.74	1.70	0.73	1.70
2. Number Sense: Operations and Factoring	14	0.81	1.56	0.79	1.56	0.77	1.57	0.80	1.56
3. Algebra and Functions	18	0.88	1.61	0.87	1.61	0.89	1.57	0.88	1.61
4. Measurement and Geometry	12	0.72	1.43	0.69	1.42	0.74	1.40	0.70	1.43
5. Statistics, Data Analysis, and Probability	4	0.31	0.87	0.29	0.84	0.32	0.85	0.29	0.86
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.70	1.49	0.67	1.48	0.71	1.48	0.68	1.49
2. Number Sense: Operations with Fractions and Decimals	17	0.74	1.88	0.73	1.87	0.79	1.83	0.73	1.88
3. Algebra and Functions	17	0.79	1.80	0.78	1.79	0.81	1.76	0.78	1.80
4. Measurement and Geometry	15	0.65	1.80	0.62	1.81	0.70	1.77	0.62	1.81
5. Statistics, Data Analysis, and Probability	4	0.35	0.93	0.34	0.92	0.32	0.93	0.35	0.92
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages and Negative Numbers	15	0.78	1.68	0.75	1.69	0.78	1.65	0.76	1.69
2. Number Sense: Operations with Problem Solving with Fractions	10	0.68	1.40	0.66	1.41	0.68	1.40	0.67	1.41
3. Algebra and Functions	19	0.81	1.89	0.77	1.91	0.82	1.85	0.79	1.91
4. Measurement and Geometry	10	0.51	1.44	0.49	1.42	0.53	1.44	0.50	1.43
5. Statistics, Data Analysis, and Probability	11	0.65	1.49	0.57	1.52	0.65	1.50	0.61	1.51
Grade 7									
1. Number Sense: Rational Numbers	14	0.64	1.74	0.56	1.75	0.69	1.71	0.59	1.75
2. Number Sense: Exponent, Powers and Roots	8	0.58	1.22	0.55	1.22	0.61	1.22	0.55	1.22
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.38	1.39	0.34	1.38	0.48	1.35	0.35	1.39
4. Algebra and Functions: Multistep	15	0.69	1.76	0.65	1.79	0.70	1.76	0.67	1.78

		Male		Female		Not Econ. Dis.		Econ. Dis.	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Problems, Graphing and Functions									
5. Measurement and Geometry	13	0.68	1.64	0.64	1.64	0.67	1.64	0.66	1.64
6. Statistics, Data Analysis, and Probability	5	0.50	1.01	0.50	1.01	0.49	0.99	0.49	1.01
Algebra I									
1. Number Properties, Operations, and Linear Equations	17	0.66	1.89	0.65	1.88	0.68	1.88	0.65	1.89
2. Graphing and Systems of Linear Equations	14	0.55	1.64	0.55	1.64	0.52	1.65	0.56	1.64
3. Quadratics and Polynomials	21	0.69	2.06	0.68	2.07	0.69	2.08	0.69	2.07
4. Functions and Rational Expressions	13	0.32	1.57	0.31	1.57	0.26	1.59	0.32	1.57
Geometry									
1. Logic and Geometric Proofs	23	0.75	2.11	0.70	2.13	0.72	2.12	0.73	2.12
2. Volume and Area Formulas	11	0.63	1.45	0.43	1.48	0.54	1.46	0.56	1.47
3. Angle Relationships, Constructions, and Lines	16	0.63	1.81	0.67	1.78	0.72	1.78	0.63	1.80
4. Trigonometry	15	0.65	1.74	0.58	1.76	0.68	1.76	0.60	1.75

Table 8.B.10 Subscore Reliabilities and SEM for Grade-specific Tests by Gender/Economic Status

		Male		Female		Not Econ. Dis.		Econ. Dis.	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Algebra I – 8									
1. Number Properties, Operations, and Linear Equations	17	0.59	1.89	0.61	1.88	0.66	1.85	0.59	1.89
2. Graphing and Systems of Linear Equations	14	0.60	1.62	0.58	1.62	0.46	1.65	0.61	1.61
3. Quadratics and Polynomials	21	0.65	2.07	0.65	2.08	0.53	2.12	0.67	2.07
4. Functions and Rational Expressions	13	0.27	1.58	0.37	1.54	0.02	1.59	0.36	1.56
Geometry – 9									
1. Logic and Geometric Proofs	23	0.70	2.18	0.58	2.18	0.58	2.12	0.68	2.18
2. Volume and Area Formulas	11	0.57	1.48	0.51	1.45	0.65	1.41	0.53	1.47
3. Angle Relationships, Constructions, and Lines	16	0.35	1.87	0.57	1.74	0.53	1.78	0.42	1.85
4. Trigonometry	15	0.39	1.75	0.50	1.75	0.74	1.72	0.26	1.74

Table 8.B.11 Subscore Reliabilities and SEM for RLA by Special Services/Attendance in U.S. Schools

		No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥ 12 Months	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 2									
1. Word Analysis and Vocabulary Development	22	0.81	1.83	0.80	2.04	0.83	2.01	0.80	1.81
2. Reading Comprehension	15	0.80	1.65	0.75	1.74	0.79	1.71	0.79	1.64
3. Literary Response and Analysis	6	0.55	1.04	0.41	1.13	0.53	1.10	0.54	1.04
4. Written Conventions	14	0.81	1.52	0.75	1.65	0.79	1.62	0.80	1.51
5. Writing Strategies	8	0.60	1.28	0.48	1.27	0.54	1.26	0.60	1.28
Grade 3									
1. Word Analysis and Vocabulary Development	20	0.78	1.88	0.77	2.01	0.80	1.92	0.78	1.87
2. Reading Comprehension	15	0.65	1.76	0.56	1.77	0.67	1.76	0.64	1.75
3. Literary Response and Analysis	8	0.53	1.23	0.42	1.27	0.57	1.21	0.52	1.23
4. Written Conventions	13	0.73	1.58	0.62	1.67	0.75	1.60	0.71	1.58
5. Writing Strategies	9	0.64	1.34	0.59	1.36	0.61	1.36	0.64	1.34
Grade 4									
1. Word Analysis and Vocabulary Development	18	0.79	1.77	0.77	1.91	0.81	1.79	0.80	1.76
2. Reading Comprehension	15	0.75	1.74	0.68	1.77	0.73	1.73	0.76	1.73
3. Literary Response and Analysis	9	0.61	1.35	0.53	1.34	0.59	1.36	0.62	1.34
4. Written Conventions	18	0.78	1.76	0.76	1.91	0.80	1.80	0.78	1.75
5. Writing Strategies	15	0.73	1.71	0.71	1.73	0.72	1.72	0.73	1.70
Grade 5									
1. Word Analysis and Vocabulary Development	14	0.67	1.70	0.52	1.67	0.69	1.69	0.66	1.70
2. Reading Comprehension	16	0.71	1.83	0.52	1.77	0.72	1.82	0.71	1.82
3. Literary Response and Analysis	12	0.72	1.56	0.45	1.55	0.74	1.53	0.69	1.57
4. Written Conventions	17	0.73	1.84	0.62	1.91	0.77	1.83	0.72	1.84
5. Writing Strategies	16	0.69	1.82	0.53	1.82	0.72	1.78	0.67	1.84
Grade 6									
1. Word Analysis and Vocabulary Development	13	0.63	1.64	0.40	1.63	0.68	1.62	0.56	1.66
2. Reading Comprehension	17	0.69	1.89	0.62	1.89	0.70	1.88	0.68	1.89
3. Literary Response and Analysis	12	0.65	1.54	0.63	1.57	0.65	1.51	0.66	1.56
4. Written Conventions	16	0.78	1.74	0.72	1.81	0.79	1.72	0.77	1.75
5. Writing Strategies	17	0.65	1.92	0.42	1.92	0.63	1.91	0.67	1.92
Grade 7									
1. Word Analysis and Vocabulary Development	11	0.64	1.45	0.45	1.50	0.65	1.44	0.61	1.48
2. Reading Comprehension	18	0.69	1.94	0.29	1.96	0.69	1.93	0.69	1.95
3. Literary Response and Analysis	13	0.63	1.61	0.16	1.67	0.64	1.60	0.59	1.64
4. Written Conventions	16	0.73	1.73	0.60	1.85	0.75	1.72	0.67	1.77
5. Writing Strategies	17	0.71	1.82	0.51	1.87	0.72	1.82	0.70	1.84
Grade 8									
1. Word Analysis and Vocabulary Development	9	0.62	1.28	0.50	1.37	0.63	1.26	0.58	1.33
2. Reading Comprehension	18	0.72	1.90	0.40	1.90	0.72	1.90	0.67	1.91
3. Literary Response and Analysis	15	0.76	1.66	0.60	1.76	0.77	1.64	0.72	1.71
4. Written Conventions	16	0.72	1.73	0.59	1.84	0.72	1.71	0.72	1.78
5. Writing Strategies	17	0.67	1.89	0.48	1.85	0.68	1.88	0.63	1.90

		No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥ 12 Months	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 9									
1. Word Analysis and Vocabulary Development	8	0.67	1.09	0.75	1.16	0.68	1.09	0.65	1.09
2. Reading Comprehension	18	0.76	1.85	0.43	1.99	0.76	1.85	0.70	1.88
3. Literary Response and Analysis	16	0.66	1.78	0.69	1.76	0.66	1.78	0.61	1.81
4. Written Conventions	13	0.65	1.59	0.73	1.66	0.64	1.60	0.69	1.56
5. Writing Strategies	20	0.74	2.03	0.74	2.05	0.74	2.03	0.74	2.02
Grade 10									
1. Word Analysis and Vocabulary Development	8	0.65	1.03	0.79	1.12	0.65	1.01	0.66	1.13
2. Reading Comprehension	18	0.75	1.88	0.81	1.90	0.74	1.88	0.78	1.89
3. Literary Response and Analysis	16	0.60	1.76	0.50	1.79	0.60	1.75	0.61	1.79
4. Written Conventions	13	0.67	1.60	0.58	1.63	0.67	1.59	0.65	1.64
5. Writing Strategies	20	0.66	2.06	0.49	2.04	0.65	2.07	0.68	2.04
Grade 11									
1. Word Analysis and Vocabulary Development	8	0.54	1.21	–	–	0.56	1.20	0.46	1.26
2. Reading Comprehension	19	0.54	2.04	–	–	0.52	2.04	0.59	2.04
3. Literary Response and Analysis	17	0.61	1.90	–	–	0.62	1.90	0.58	1.91
4. Written Conventions	9	0.37	1.29	–	–	0.35	1.29	0.45	1.29
5. Writing Strategies	22	0.78	2.11	–	–	0.78	2.10	0.78	2.12

Table 8.B.12 Subscore Reliabilities and SEM for Mathematics by Special Services/Attendance in U.S. Schools

		No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥12 Months	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 2									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.78	1.60	0.79	1.68	0.75	1.71	0.78	1.58
2. Number Sense: Multiplication, Division, and Fractions	23	0.82	2.01	0.82	2.10	0.82	2.09	0.82	2.00
3. Algebra and Functions	6	0.60	1.01	0.55	1.07	0.58	1.05	0.60	1.01
4. Measurement and Geometry	14	0.65	1.42	0.70	1.56	0.72	1.52	0.64	1.41
5. Statistics, Data Analysis and Probability	7	0.56	0.91	0.67	1.04	0.61	1.07	0.54	0.89
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.79	1.59	0.79	1.69	0.79	1.71	0.78	1.57
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.83	1.60	0.79	1.72	0.84	1.66	0.83	1.59
3. Algebra and Functions	12	0.78	1.39	0.73	1.48	0.78	1.44	0.77	1.39
4. Measurement and Geometry	16	0.73	1.60	0.71	1.73	0.71	1.71	0.72	1.58
5. Statistics, Data Analysis and Probability	5	0.61	0.78	0.62	0.89	0.61	0.93	0.58	0.76
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.72	1.70	0.76	1.81	0.73	1.78	0.71	1.68
2. Number Sense: Operations and Factoring	14	0.80	1.56	0.81	1.61	0.78	1.62	0.80	1.54
3. Algebra and Functions	18	0.88	1.60	0.87	1.76	0.87	1.75	0.87	1.55
4. Measurement and Geometry	12	0.70	1.42	0.70	1.51	0.72	1.47	0.68	1.41
5. Statistics, Data Analysis, and Probability	4	0.29	0.86	0.33	0.89	0.24	0.89	0.31	0.84
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.68	1.49	0.62	1.52	0.68	1.51	0.66	1.47
2. Number Sense: Operations with Fractions and Decimals	17	0.74	1.88	0.63	1.85	0.76	1.86	0.72	1.89
3. Algebra and Functions	17	0.79	1.79	0.70	1.90	0.79	1.83	0.76	1.77
4. Measurement and Geometry	15	0.63	1.80	0.44	1.83	0.64	1.80	0.62	1.81
5. Statistics, Data Analysis, and Probability	4	0.36	0.92	0.05	0.97	0.33	0.92	0.36	0.91
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages and Negative Numbers	15	0.76	1.68	0.60	1.77	0.77	1.70	0.75	1.66
2. Number Sense: Operations with Problem Solving with Fractions	10	0.67	1.41	0.39	1.43	0.67	1.40	0.66	1.41
3. Algebra and Functions	19	0.79	1.90	0.68	1.94	0.82	1.90	0.75	1.89
4. Measurement and Geometry	10	0.51	1.44	0.29	1.41	0.50	1.41	0.48	1.46
5. Statistics, Data Analysis, and Probability	11	0.62	1.51	0.34	1.49	0.60	1.51	0.63	1.50
Grade 7									
1. Number Sense: Rational Numbers	14	0.60	1.75	0.59	1.73	0.62	1.74	0.54	1.76
2. Number Sense: Exponent, Powers and Roots	8	0.57	1.22	0.34	1.27	0.57	1.22	0.55	1.22
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.37	1.38	0.06	1.44	0.37	1.37	0.34	1.41

		No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥12 Months	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.67	1.78	0.49	1.78	0.68	1.77	0.65	1.78
5. Measurement and Geometry	13	0.66	1.64	0.66	1.60	0.67	1.64	0.63	1.65
6. Statistics, Data Analysis, and Probability	5	0.50	1.01	0.44	1.05	0.52	1.00	0.44	1.03
Algebra I									
1. Number Properties, Operations, and Linear Equations	17	0.66	1.88	0.71	1.84	0.67	1.88	0.60	1.90
2. Graphing and Systems of Linear Equations	14	0.55	1.64	0.51	1.67	0.56	1.64	0.49	1.66
3. Quadratics and Polynomials	21	0.69	2.07	0.63	2.13	0.70	2.06	0.59	2.09
4. Functions and Rational Expressions	13	0.31	1.57	0.29	1.50	0.32	1.57	0.24	1.55
Geometry									
1. Logic and Geometric Proofs	23	0.73	2.12	–	–	0.75	2.11	0.65	2.14
2. Volume and Area Formulas	11	0.56	1.47	–	–	0.57	1.46	0.52	1.49
3. Angle Relationships, Constructions, and Lines	16	0.65	1.80	–	–	0.66	1.79	0.60	1.82
4. Trigonometry	15	0.62	1.75	–	–	0.63	1.74	0.60	1.77

Table 8.B.13 Subscore Reliabilities and SEM for Grade-specific Tests by Special Services/Attendance in U.S. Schools

		No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥12 Months	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Algebra I – 8									
1. Number Properties, Operations, and Linear Equations	17	0.60	1.89	0.43	1.93	0.63	1.87	0.55	1.90
2. Graphing and Systems of Linear Equations	14	0.60	1.61	0.10	1.74	0.59	1.60	0.59	1.64
3. Quadratics and Polynomials	21	0.66	2.07	0.28	2.19	0.70	2.06	0.52	2.10
4. Functions and Rational Expressions	13	0.33	1.56	–1.41	1.55	0.33	1.56	0.32	1.56
Geometry – 9									
1. Logic and Geometric Proofs	23	0.66	2.18	–	–	0.67	2.17	–	–
2. Volume and Area Formulas	11	0.55	1.47	–	–	0.55	1.46	–	–
3. Angle Relationships, Constructions, and Lines	16	0.44	1.84	–	–	0.47	1.84	–	–
4. Trigonometry	15	0.43	1.75	–	–	0.46	1.74	–	–

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													
		EL in ELD		EL in ELD and SDAIE		EL in ELD and SDAIE with Prim. Lang. Support		EL in ELD and Acad. Subj. through Prim. Lang.		Other EL Instruct. Services		None (EL only)	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 2													
1. Word Analysis and Vocabulary Development	22	0.79	2.03	0.81	2.05	0.81	2.05	0.80	1.82	0.90	1.88	0.76	2.08
2. Reading Comprehension	15	0.75	1.74	0.78	1.73	0.79	1.72	0.79	1.64	0.84	1.69	0.64	1.79
3. Literary Response and Analysis	6	0.49	1.12	0.47	1.12	0.52	1.11	0.54	1.04	0.46	1.13	0.37	1.17
4. Written Conventions	14	0.78	1.62	0.75	1.65	0.77	1.65	0.80	1.52	0.87	1.53	0.54	1.71
5. Writing Strategies	8	0.50	1.24	0.55	1.24	0.40	1.27	0.60	1.28	0.64	1.21	0.45	1.23
Grade 3													
1. Word Analysis and Vocabulary Development	20	0.78	1.95	0.78	1.96	0.79	1.94	0.78	1.87	0.78	1.97	0.79	1.99
2. Reading Comprehension	15	0.60	1.74	0.61	1.78	0.68	1.76	0.64	1.75	0.80	1.64	0.73	1.74
3. Literary Response and Analysis	8	0.51	1.22	0.52	1.23	0.61	1.19	0.52	1.23	0.34	1.24	0.60	1.18
4. Written Conventions	13	0.70	1.61	0.72	1.61	0.75	1.60	0.72	1.58	0.57	1.74	0.70	1.64
5. Writing Strategies	9	0.54	1.39	0.57	1.35	0.59	1.37	0.64	1.34	0.17	1.49	0.64	1.33
Grade 4													
1. Word Analysis and Vocabulary Development	18	0.79	1.79	0.81	1.79	0.81	1.79	0.80	1.76	0.84	1.79	0.76	1.77
2. Reading Comprehension	15	0.74	1.71	0.75	1.71	0.71	1.75	0.76	1.73	0.76	1.72	0.79	1.62
3. Literary Response and Analysis	9	0.59	1.35	0.58	1.36	0.61	1.35	0.62	1.34	0.49	1.34	0.37	1.37
4. Written Conventions	18	0.77	1.86	0.81	1.81	0.80	1.81	0.78	1.75	0.74	1.82	0.81	1.69
5. Writing Strategies	15	0.68	1.74	0.73	1.72	0.71	1.72	0.73	1.70	0.74	1.72	0.68	1.75
Grade 5													
1. Word Analysis and Vocabulary Development	14	0.73	1.67	0.69	1.69	0.70	1.69	0.66	1.70	0.30	1.73	0.67	1.69
2. Reading Comprehension	16	0.73	1.83	0.73	1.81	0.71	1.81	0.71	1.82	0.70	1.90	0.72	1.86
3. Literary Response and Analysis	12	0.75	1.49	0.75	1.53	0.74	1.53	0.70	1.57	0.84	1.46	0.55	1.63
4. Written Conventions	17	0.75	1.81	0.80	1.81	0.76	1.84	0.72	1.84	0.74	1.85	0.73	1.81
5. Writing Strategies	16	0.74	1.77	0.74	1.77	0.70	1.79	0.67	1.84	0.70	1.86	0.70	1.82

Subscore Reliabilities and SEM for RLA by EL Program Participation

		EL in ELD		EL in ELD and SDAIE		EL in ELD and SDAIE with Prim. Lang. Support		EL in ELD and Acad. Subj. through Prim. Lang.		Other EL Instruct. Services		None (EL only)	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 6													
1. Word Analysis and Vocabulary Development	13	0.66	1.60	0.72	1.60	0.64	1.64	0.57	1.66	0.48	1.68	0.61	1.62
2. Reading Comprehension	17	0.68	1.90	0.73	1.86	0.66	1.90	0.68	1.89	0.54	1.98	0.57	1.95
3. Literary Response and Analysis	12	0.67	1.51	0.70	1.49	0.56	1.54	0.66	1.56	0.57	1.48	0.62	1.49
4. Written Conventions	16	0.83	1.69	0.81	1.70	0.76	1.74	0.77	1.75	0.55	1.68	0.72	1.74
5. Writing Strategies	17	0.70	1.89	0.64	1.92	0.61	1.91	0.67	1.92	-0.13	2.03	0.59	1.89
Grade 7													
1. Word Analysis and Vocabulary Development	11	0.71	1.41	0.62	1.45	0.66	1.44	0.61	1.48	0.59	1.40	0.71	1.48
2. Reading Comprehension	18	0.66	1.95	0.69	1.94	0.70	1.92	0.68	1.95	0.62	1.94	0.77	1.92
3. Literary Response and Analysis	13	0.70	1.58	0.61	1.61	0.65	1.60	0.60	1.63	0.61	1.60	0.68	1.58
4. Written Conventions	16	0.78	1.70	0.74	1.72	0.75	1.71	0.68	1.77	0.71	1.71	0.80	1.71
5. Writing Strategies	17	0.74	1.80	0.73	1.80	0.74	1.82	0.69	1.84	0.56	1.88	0.69	1.87
Grade 8													
1. Word Analysis and Vocabulary Development	9	0.68	1.22	0.63	1.25	0.63	1.27	0.60	1.31	0.53	1.25	0.68	1.31
2. Reading Comprehension	18	0.69	1.90	0.72	1.90	0.75	1.88	0.70	1.90	0.66	1.96	0.75	1.93
3. Literary Response and Analysis	15	0.76	1.62	0.77	1.64	0.74	1.68	0.74	1.69	0.87	1.54	0.89	1.52
4. Written Conventions	16	0.76	1.66	0.72	1.70	0.73	1.72	0.72	1.77	0.75	1.69	0.75	1.77
5. Writing Strategies	17	0.69	1.87	0.68	1.88	0.66	1.90	0.66	1.89	0.75	1.86	0.71	1.84
Grade 9													
1. Word Analysis and Vocabulary Development	8	0.67	1.06	0.68	1.09	0.66	1.08	0.65	1.09	0.78	1.08	0.53	1.21
2. Reading Comprehension	18	0.73	1.84	0.76	1.85	0.74	1.85	0.76	1.85	0.83	1.82	0.65	1.91
3. Literary Response and Analysis	16	0.62	1.77	0.66	1.78	0.67	1.78	0.63	1.79	0.75	1.76	0.44	1.83
4. Written Conventions	13	0.66	1.57	0.64	1.60	0.62	1.61	0.66	1.59	0.72	1.59	0.61	1.60
5. Writing Strategies	20	0.74	2.02	0.72	2.05	0.74	2.02	0.74	2.02	0.80	1.98	0.68	2.03
Grade 10													
1. Word Analysis and Vocabulary Development	8	0.60	1.01	0.67	1.02	0.66	1.02	0.67	1.06	0.66	0.97	0.43	1.08
2. Reading Comprehension	18	0.74	1.87	0.74	1.89	0.74	1.88	0.77	1.87	0.78	1.86	0.75	1.90
3. Literary Response and Analysis	16	0.65	1.73	0.63	1.74	0.53	1.78	0.60	1.78	0.64	1.74	0.45	1.79

Subscore Reliabilities and SEM for RLA by EL Program Participation													
		EL in ELD		EL in ELD and SDAIE		EL in ELD and SDAIE with Prim. Lang. Support		EL in ELD and Acad. Subj. through Prim. Lang.		Other EL Instruct. Services		None (EL only)	
Subscore Area	**No. of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
4. Written Conventions	13	0.69	1.58	0.69	1.59	0.65	1.62	0.67	1.62	0.65	1.60	0.80	1.51
5. Writing Strategies	20	0.66	2.06	0.66	2.07	0.65	2.06	0.67	2.06	0.67	2.08	0.61	2.09
Grade 11													
1. Word Analysis and Vocabulary Development	8	0.57	1.19	0.49	1.22	0.61	1.16	0.46	1.26	0.72	1.12	–	–
2. Reading Comprehension	19	0.57	2.05	0.53	2.04	0.45	2.05	0.56	2.05	0.61	2.01	–	–
3. Literary Response and Analysis	17	0.58	1.92	0.63	1.88	0.64	1.90	0.58	1.91	0.62	1.89	–	–
4. Written Conventions	9	0.35	1.29	0.37	1.28	0.32	1.29	0.42	1.29	0.35	1.27	–	–
5. Writing Strategies	22	0.82	2.07	0.73	2.13	0.77	2.11	0.79	2.11	0.83	2.03	–	–

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													
		EL in ELD		EL in ELD and SDAIE		EL in ELD and SDAIE with Prim. Lang. Support		EL in ELD and Acad. Subj. through Prim. Lang.		Other EL Instruct. Services		None (EL only)	
Subscore Area	**# of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 2													
1. Number Sense: Place Value, Addition, and Subtraction	15	0.73	1.73	0.74	1.72	0.73	1.72	0.78	1.59	0.73	1.71	0.55	1.81
2. Number Sense: Multiplication, Division, and Fractions	23	0.81	2.12	0.80	2.11	0.81	2.12	0.82	2.00	0.66	2.19	0.76	2.09
3. Algebra and Functions	6	0.56	1.07	0.60	1.06	0.54	1.06	0.60	1.01	0.24	1.11	0.65	1.04
4. Measurement and Geometry	14	0.72	1.56	0.71	1.56	0.74	1.53	0.64	1.41	0.85	1.39	0.53	1.62
5. Statistics, Data Analysis and Probability	7	0.67	1.08	0.56	1.12	0.64	1.08	0.55	0.90	0.73	0.91	0.06	1.14
Grade 3													
1. Number Sense: Place Value, Fractions, and Decimals	16	0.81	1.68	0.78	1.74	0.78	1.73	0.78	1.57	0.64	1.84	0.84	1.65
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.80	1.71	0.83	1.68	0.84	1.65	0.83	1.60	0.82	1.73	0.80	1.71
3. Algebra and Functions	12	0.80	1.40	0.77	1.45	0.77	1.44	0.77	1.39	0.76	1.49	0.78	1.47
4. Measurement and Geometry	16	0.71	1.74	0.70	1.72	0.70	1.71	0.72	1.58	0.42	1.81	0.72	1.74
5. Statistics, Data Analysis and Probability	5	0.59	0.92	0.61	0.95	0.57	0.95	0.58	0.76	0.53	0.98	0.67	0.94
Grade 4													
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.70	1.84	0.74	1.77	0.70	1.77	0.71	1.68	0.69	1.86	0.79	1.69
2. Number Sense: Operations and Factoring	14	0.71	1.69	0.78	1.62	0.78	1.62	0.80	1.54	0.85	1.55	0.86	1.48
3. Algebra and Functions	18	0.81	1.85	0.87	1.77	0.87	1.74	0.87	1.56	0.87	1.81	0.87	1.70
4. Measurement and Geometry	12	0.74	1.48	0.70	1.50	0.74	1.45	0.68	1.41	0.62	1.57	0.63	1.48
5. Statistics, Data Analysis, and Probability	4	0.02	0.95	0.26	0.89	0.24	0.89	0.30	0.84	0.36	0.96	0.30	0.93

Subscore Reliabilities and SEM for Mathematics by EL Program Participation

		EL in ELD		EL in ELD and SDAIE		EL in ELD and SDAIE with Prim. Lang. Support		EL in ELD and Acad. Subj. through Prim. Lang.		Other EL Instruct. Services		None (EL only)	
Subscore Area	**# of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 5													
1. Number Sense: Estimation, Percents, and Factoring	12	0.65	1.53	0.69	1.51	0.66	1.52	0.66	1.47	0.50	1.55	0.64	1.41
2. Number Sense: Operations with Fractions and Decimals	17	0.79	1.83	0.75	1.87	0.76	1.86	0.72	1.88	0.84	1.78	0.76	1.89
3. Algebra and Functions	17	0.82	1.80	0.79	1.83	0.78	1.84	0.76	1.77	0.84	1.73	0.83	1.76
4. Measurement and Geometry	15	0.71	1.76	0.63	1.79	0.60	1.81	0.62	1.81	0.75	1.74	0.75	1.70
5. Statistics, Data Analysis, and Probability	4	0.34	0.93	0.32	0.92	0.31	0.93	0.36	0.91	0.49	0.85	0.63	0.85
Grade 6													
1. Number Sense: Ratios, Proportions, Percentages and Negative Numbers	15	0.69	1.76	0.78	1.69	0.75	1.71	0.75	1.66	0.67	1.83	0.75	1.72
2. Number Sense: Operations with Problem Solving with Fractions	10	0.64	1.42	0.69	1.39	0.65	1.41	0.66	1.41	0.49	1.48	0.62	1.42
3. Algebra and Functions	19	0.80	1.91	0.83	1.89	0.82	1.90	0.76	1.89	0.81	1.96	0.82	1.93
4. Measurement and Geometry	10	0.39	1.43	0.50	1.41	0.54	1.39	0.48	1.45	0.65	1.39	0.32	1.44
5. Statistics, Data Analysis, and Probability	11	0.73	1.45	0.60	1.51	0.60	1.51	0.63	1.50	0.13	1.62	0.53	1.50
Grade 7													
1. Number Sense: Rational Numbers	14	0.69	1.71	0.60	1.75	0.63	1.74	0.56	1.75	0.62	1.71	0.66	1.66
2. Number Sense: Exponent, Powers and Roots	8	0.61	1.23	0.50	1.23	0.62	1.20	0.56	1.22	0.36	1.23	0.73	1.16
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.36	1.39	0.39	1.37	0.38	1.37	0.34	1.40	0.24	1.37	0.41	1.46
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.74	1.72	0.66	1.78	0.68	1.77	0.65	1.79	0.71	1.73	0.82	1.64
5. Measurement and Geometry	13	0.66	1.66	0.67	1.64	0.70	1.63	0.62	1.65	0.68	1.64	0.80	1.56
6. Statistics, Data Analysis, and Probability	5	0.59	0.97	0.49	1.00	0.53	1.00	0.43	1.04	0.68	0.93	0.61	0.99

Subscore Reliabilities and SEM for Mathematics by EL Program Participation

		EL in ELD		EL in ELD and SDAIE		EL in ELD and SDAIE with Prim. Lang. Support		EL in ELD and Acad. Subj. through Prim. Lang.		Other EL Instruct. Services		None (EL only)	
Subscore Area	**# of Items**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Algebra I													
1. Number Properties, Operations, and Linear Equations	17	0.69	1.87	0.65	1.88	0.68	1.88	0.62	1.89	0.62	1.90	0.72	1.86
2. Graphing and Systems of Linear Equations	14	0.55	1.67	0.57	1.64	0.54	1.63	0.52	1.66	0.44	1.64	0.66	1.67
3. Quadratics and Polynomials	21	0.73	2.04	0.70	2.07	0.68	2.07	0.64	2.08	0.74	2.02	0.80	2.01
4. Functions and Rational Expressions	13	0.39	1.58	0.35	1.57	0.31	1.58	0.23	1.56	0.24	1.58	0.45	1.56
Geometry													
1. Logic and Geometric Proofs	23	0.79	2.09	0.81	2.07	0.73	2.12	0.66	2.14	0.76	2.08	–	–
2. Volume and Area Formulas	11	0.66	1.47	0.67	1.42	0.38	1.47	0.52	1.48	0.40	1.54	–	–
3. Angle Relationships, Constructions, and Lines	16	0.74	1.76	0.72	1.76	0.61	1.80	0.59	1.81	0.57	1.83	–	–
4. Trigonometry	15	0.77	1.70	0.62	1.74	0.53	1.73	0.58	1.76	0.58	1.79	–	–

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													
		EL in ELD		EL in ELD and SDAIE		EL in ELD and SDAIE with Prim. Lang. Support		EL in ELD and Acad. Subj. through Prim. Lang.		Other EL Instruct. Services		None (EL only)	
Subscore Area	No. of Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Algebra I – 8													
1. Number Properties, Operations, and Linear Equations	17	0.67	1.84	0.60	1.88	0.66	1.86	0.57	1.90	–	–	–	–
2. Graphing and Systems of Linear Equations	14	0.47	1.65	0.65	1.60	0.62	1.57	0.57	1.64	–	–	–	–
3. Quadratics and Polynomials	21	0.53	2.08	0.72	2.06	0.74	2.02	0.56	2.10	–	–	–	–
4. Functions and Rational Expressions	13	0.43	1.51	0.44	1.56	0.11	1.56	0.32	1.56	–	–	–	–
Geometry – 9													
1. Logic and Geometric Proofs	23	–	–	0.76	2.16	0.45	2.22	–	–	–	–	–	–
2. Volume and Area Formulas	11	–	–	0.70	1.39	0.56	1.43	–	–	–	–	–	–
3. Angle Relationships, Constructions, and Lines	16	–	–	0.67	1.75	-0.67	1.94	–	–	–	–	–	–
4. Trigonometry	15	–	–	0.65	1.72	0.02	1.78	–	–	–	–	–	–

Table 8.B.17 Reliability of Classification for RLA, Grade Two

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–18	0.03	0.02	0.00	0.00	0.00	0.05
	19–34	0.01	0.21	0.03	0.00	0.00	0.25
	35–47	0.00	0.03	0.24	0.03	0.00	0.31
	48–55	0.00	0.00	0.04	0.16	0.03	0.24
	56–65	0.00	0.00	0.00	0.03	0.12	0.15
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–18	0.03	0.02	0.00	0.00	0.00	0.05
	19–34	0.02	0.19	0.05	0.00	0.00	0.25
	35–47	0.00	0.04	0.21	0.05	0.00	0.31
	48–55	0.00	0.00	0.05	0.13	0.05	0.24
	56–65	0.00	0.00	0.00	0.04	0.11	0.15
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.18 Reliability of Classification for RLA, Grade Three

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–17	0.02	0.02	0.00	0.00	0.00	0.04
	18–29	0.01	0.18	0.04	0.00	0.00	0.23
	30–43	0.00	0.04	0.30	0.04	0.00	0.38
	44–52	0.00	0.00	0.04	0.16	0.02	0.23
	53–65	0.00	0.00	0.00	0.03	0.10	0.13
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0-17	0.02	0.02	0.00	0.00	0.00	0.04
	18-29	0.02	0.15	0.05	0.00	0.00	0.23
	30-43	0.00	0.05	0.27	0.05	0.00	0.38
	44-52	0.00	0.00	0.06	0.13	0.04	0.23
	53-65	0.00	0.00	0.00	0.03	0.09	0.13
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.89						

Table 8.B.19 Reliability of Classification for RLA, Grade Four

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0-23	0.07	0.03	0.00	0.00	0.00	0.10
	24-36	0.02	0.17	0.03	0.00	0.00	0.21
	37-51	0.00	0.03	0.25	0.04	0.00	0.32
	52-60	0.00	0.00	0.04	0.15	0.03	0.22
	61-75	0.00	0.00	0.00	0.03	0.12	0.15
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–23	0.07	0.03	0.00	0.00	0.00	0.10
	24–36	0.03	0.14	0.04	0.00	0.00	0.21
	37–51	0.00	0.05	0.22	0.05	0.00	0.32
	52–60	0.00	0.00	0.05	0.12	0.04	0.22
	61–75	0.00	0.00	0.00	0.04	0.11	0.15
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90						

Table 8.B.20 Reliability of Classification for RLA, Grade Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–26	0.20	0.04	0.00	0.00	0.00	0.24
	27–33	0.03	0.10	0.04	0.00	0.00	0.17
	34–46	0.00	0.04	0.22	0.03	0.00	0.29
	47–57	0.00	0.00	0.04	0.14	0.02	0.20
	58–75	0.00	0.00	0.00	0.02	0.08	0.10
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–26	0.18	0.05	0.01	0.00	0.00	0.24
	27–33	0.05	0.07	0.05	0.00	0.00	0.17
	34–46	0.01	0.05	0.19	0.04	0.00	0.29
	47–57	0.00	0.00	0.05	0.12	0.03	0.20
	58–75	0.00	0.00	0.00	0.03	0.08	0.10
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.90						

Table 8.B.21 Reliability of Classification for RLA, Grade Six

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–23	0.11	0.04	0.00	0.00	0.00	0.15
	24–33	0.03	0.16	0.04	0.00	0.00	0.22
	34–45	0.00	0.04	0.22	0.04	0.00	0.30
	46–56	0.00	0.00	0.04	0.17	0.02	0.24
	57–75	0.00	0.00	0.00	0.02	0.07	0.09
	Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–23	0.10	0.05	0.00	0.00	0.00	0.15
	24–33	0.04	0.13	0.05	0.00	0.00	0.22
	34–45	0.00	0.06	0.18	0.05	0.00	0.30
	46–56	0.00	0.00	0.05	0.15	0.04	0.24
	57–75	0.00	0.00	0.00	0.03	0.06	0.09
	Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.89						

Table 8.B.22 Reliability of Classification for RLA, Grade Seven

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–22	0.04	0.03	0.00	0.00	0.00	0.07
	23–33	0.02	0.17	0.04	0.00	0.00	0.23
	34–47	0.00	0.03	0.27	0.03	0.00	0.34
	48–58	0.00	0.00	0.05	0.18	0.02	0.25
	59–75	0.00	0.00	0.00	0.02	0.08	0.10
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–22	0.04	0.03	0.00	0.00	0.00	0.07
	23–33	0.03	0.14	0.06	0.00	0.00	0.23
	34–47	0.00	0.05	0.24	0.05	0.00	0.34
	48–58	0.00	0.00	0.06	0.15	0.04	0.25
	59–75	0.00	0.00	0.00	0.03	0.08	0.10
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.89						

Table 8.B.23 Reliability of Classification for Mathematics, Grade Two

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–33	0.00	0.15	0.03	0.00	0.00	0.18
	34–43	0.00	0.03	0.17	0.04	0.00	0.24
	44–54	0.00	0.00	0.04	0.26	0.03	0.33
	55–65	0.00	0.00	0.00	0.04	0.20	0.24
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–33	0.01	0.13	0.04	0.00	0.00	0.18
	34–43	0.00	0.04	0.14	0.06	0.00	0.24
	44–54	0.00	0.00	0.06	0.23	0.05	0.33
	55–65	0.00	0.00	0.00	0.05	0.19	0.24
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89						

Table 8.B.24 Reliability of Classification for Mathematics, Grade Three

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–30	0.00	0.14	0.03	0.00	0.00	0.18
	31–42	0.00	0.02	0.20	0.03	0.00	0.25
	43–54	0.00	0.00	0.03	0.25	0.02	0.31
	55–65	0.00	0.00	0.00	0.04	0.21	0.25
	Estimated Proportion Correctly Classified: Total = 0.81, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–30	0.01	0.13	0.04	0.00	0.00	0.18
	31–42	0.00	0.04	0.17	0.05	0.00	0.25
	43–54	0.00	0.00	0.04	0.22	0.04	0.31
	55–65	0.00	0.00	0.00	0.04	0.20	0.25
	Estimated Proportion Consistently Classified: Total = 0.73, Proficient & Above = 0.91						

Table 8.B.25 Reliability of Classification for Mathematics, Grade Four

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–19	0.03	0.01	0.00	0.00	0.00	0.05
	20–30	0.01	0.10	0.04	0.01	0.00	0.15
	31–41	0.00	0.02	0.18	0.03	0.00	0.22
	42–53	0.00	0.00	0.04	0.27	0.02	0.33
	54–65	0.00	0.00	0.01	0.04	0.20	0.25
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–19	0.03	0.01	0.00	0.00	0.00	0.05
	20–30	0.02	0.09	0.04	0.01	0.00	0.15
	31–41	0.00	0.03	0.15	0.05	0.00	0.22
	42–53	0.00	0.00	0.05	0.23	0.04	0.33
	54–65	0.00	0.00	0.01	0.05	0.19	0.25
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89						

Table 8.B.26 Reliability of Classification for Mathematics, Grade Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–19	0.05	0.04	0.00	0.00	0.00	0.09
	20–27	0.02	0.13	0.05	0.00	0.00	0.20
	28–35	0.00	0.04	0.15	0.04	0.00	0.23
	36–45	0.00	0.00	0.05	0.19	0.03	0.27
	46–65	0.00	0.00	0.00	0.04	0.18	0.21
	Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.90						
Decision Consistency Alternate Form	0–19	0.05	0.03	0.00	0.00	0.00	0.09
	20–27	0.04	0.10	0.06	0.01	0.00	0.20
	28–35	0.00	0.05	0.12	0.06	0.00	0.23
	36–45	0.00	0.01	0.06	0.16	0.05	0.27
	46–65	0.00	0.00	0.00	0.04	0.17	0.22
	Estimated Proportion Consistently Classified: Total = 0.59, Proficient & Above = 0.87						

Table 8.B.27 Reliability of Classification for Mathematics, Grade Six

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–19	0.10	0.05	0.00	0.00	0.00	0.15
	20–27	0.03	0.16	0.04	0.00	0.00	0.23
	28–36	0.00	0.05	0.18	0.04	0.00	0.27
	37–45	0.00	0.00	0.04	0.13	0.02	0.19
	46–65	0.00	0.00	0.00	0.03	0.14	0.16
	Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–19	0.09	0.05	0.01	0.00	0.00	0.15
	20–27	0.05	0.13	0.06	0.00	0.00	0.23
	28–36	0.01	0.06	0.14	0.05	0.00	0.27
	37–45	0.00	0.00	0.05	0.11	0.03	0.19
	46–65	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Consistently Classified: Total = 0.60, Proficient & Above = 0.89						

Table 8.B.28 Reliability of Classification for Mathematics, Grade Seven

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–18	0.07	0.06	0.00	0.00	0.00	0.14
	19–25	0.04	0.18	0.05	0.00	0.00	0.27
	26–34	0.00	0.06	0.19	0.03	0.00	0.28
	35–45	0.00	0.00	0.05	0.15	0.01	0.22
	46–65	0.00	0.00	0.00	0.02	0.07	0.09
	Estimated Proportion Correctly Classified: Total = 0.67, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–18	0.07	0.06	0.01	0.00	0.00	0.14
	19–25	0.06	0.14	0.07	0.00	0.00	0.27
	26–34	0.01	0.07	0.15	0.05	0.00	0.28
	35–45	0.00	0.00	0.05	0.13	0.03	0.22
	46–65	0.00	0.00	0.00	0.03	0.07	0.09
	Estimated Proportion Consistently Classified: Total = 0.56, Proficient & Above = 0.88						

Appendix 8.C—Validity Analyses

Table 8.C.1 STS Content Area Correlations (Female)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**5,440**	0.75	
	2. Mathematics	5,417	**5,442**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**3,807**	0.78	
	2. Mathematics	3,791	**3,797**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**2,253**	0.74	
	2. Mathematics	2,250	**2,254**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**1,363**	0.64	
	2. Mathematics	1,358	**1,363**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**934**	0.66	
	2. Mathematics	928	**930**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**705**	0.69	–
	2. Mathematics	693	**701**	N/A
	3. Algebra I	2	0	**2**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**568**	0.48	
	2. Algebra I	231	**238**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**844**	0.49	0.53
	2. Algebra I	505	**509**	N/A
	3. Geometry	26	0	**26**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**610**	0.56	0.51
	2. Algebra I	340	**343**	N/A
	3. Geometry	100	0	**103**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**329**	0.49	0.32
	2. Algebra I	131	**137**	N/A
	3. Geometry	64	0	**66**

Table 8.C.2 STS Content Area Correlations (Male)

Grade	STS	1.	2.	3.
2	**1. Reading/Language Arts**	**5,335**	0.76	
	2. Mathematics	5,299	**5,321**	
Grade	**STS**	**1.**	**2.**	
3	**1. Reading/Language Arts**	**3,786**	0.76	
	2. Mathematics	3,770	**3,785**	
Grade	**STS**	**1.**	**2.**	
4	**1. Reading/Language Arts**	**2,154**	0.72	
	2. Mathematics	2,143	**2,151**	
Grade	**STS**	**1.**	**2.**	
5	**1. Reading/Language Arts**	**1,532**	0.63	
	2. Mathematics	1,521	**1,523**	
Grade	**STS**	**1.**	**2.**	
6	**1. Reading/Language Arts**	**980**	0.69	
	2. Mathematics	970	**972**	
Grade	**STS**	**1.**	**2.**	**3.**
7	**1. Reading/Language Arts**	**753**	0.71	–
	2. Mathematics	738	**752**	N/A
	3. Algebra I	3	0	**3**
Grade	**STS**	**1.**	**2.**	
8	**1. Reading/Language Arts**	**662**	0.47	
	2. Algebra I	257	**260**	
Grade	**STS**	**1.**	**2.**	**3.**
9	**1. Reading/Language Arts**	**1,166**	0.56	0.41
	2. Algebra I	709	**716**	N/A
	3. Geometry	41	0	**41**
Grade	**STS**	**1.**	**2.**	**3.**
10	**1. Reading/Language Arts**	**708**	0.56	0.61
	2. Algebra I	366	**374**	N/A
	3. Geometry	97	0	**107**
Grade	**STS**	**1.**	**2.**	**3.**
11	**1. Reading/Language Arts**	**382**	0.38	0.61
	2. Algebra I	159	**163**	N/A
	3. Geometry	63	0	**64**

Table 8.C.3 Content Area Correlations (Not Economically Disadvantaged)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**761**	0.74	
	2. Mathematics	750	**754**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**508**	0.79	
	2. Mathematics	503	**506**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**370**	0.73	
	2. Mathematics	370	**370**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**249**	0.70	
	2. Mathematics	248	**249**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**221**	0.63	
	2. Mathematics	217	**217**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**210**	0.72	–
	2. Mathematics	203	**207**	N/A
	3. Algebra I	1	0	**1**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**163**	0.43	
	2. Algebra I	69	**69**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**323**	0.56	0.78
	2. Algebra I	200	**201**	N/A
	3. Geometry	12	0	**12**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**247**	0.53	0.56
	2. Algebra I	137	**138**	N/A
	3. Geometry	32	0	**34**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**147**	0.48	0.36
	2. Algebra I	57	**57**	N/A
	3. Geometry	21	0	**22**

Table 8.C.4 STS Content Area Correlations (Economically Disadvantaged)

Grade	STS	1.	2.	3.
2	**1. Reading/Language Arts**	**9,814**	0.74	
	2. Mathematics	9,766	**9,806**	
Grade	**STS**	**1.**	**2.**	
3	**1. Reading/Language Arts**	**6,964**	0.76	
	2. Mathematics	6,937	**6,955**	
Grade	**STS**	**1.**	**2.**	
4	**1. Reading/Language Arts**	**3,966**	0.73	
	2. Mathematics	3,953	**3,963**	
Grade	**STS**	**1.**	**2.**	
5	**1. Reading/Language Arts**	**2,611**	0.62	
	2. Mathematics	2,596	**2,602**	
Grade	**STS**	**1.**	**2.**	
6	**1. Reading/Language Arts**	**1,673**	0.66	
	2. Mathematics	1,660	**1,664**	
Grade	**STS**	**1.**	**2.**	**3.**
7	**1. Reading/Language Arts**	**1,224**	0.68	–
	2. Mathematics	1,204	**1,222**	N/A
	3. Algebra I	4	0	**4**
Grade	**STS**	**1.**	**2.**	
8	**1. Reading/Language Arts**	**1,029**	0.48	
	2. Algebra I	405	**415**	
Grade	**STS**	**1.**	**2.**	**3.**
9	**1. Reading/Language Arts**	**1,645**	0.53	0.39
	2. Algebra I	980	**990**	N/A
	3. Geometry	55	0	**55**
Grade	**STS**	**1.**	**2.**	**3.**
10	**1. Reading/Language Arts**	**1,048**	0.56	0.55
	2. Algebra I	557	**567**	N/A
	3. Geometry	165	0	**176**
Grade	**STS**	**1.**	**2.**	**3.**
11	**1. Reading/Language Arts**	**547**	0.44	0.48
	2. Algebra I	221	**229**	N/A
	3. Geometry	106	0	**108**

Table 8.C.5 STS Content Area Correlations (Economic Status unknown)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**208**	0.77	
	2. Mathematics	208	**211**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**124**	0.74	
	2. Mathematics	124	**124**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**75**	0.72	
	2. Mathematics	74	**76**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**38**	0.81	
	2. Mathematics	38	**38**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**24**	0.74	
	2. Mathematics	24	**24**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**28**	0.79	–
	2. Mathematics	28	**28**	N/A
	3. Algebra I	0	0	**0**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**39**	0.56	
	2. Algebra I	14	**14**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**46**	0.41	–
	2. Algebra I	35	**35**	N/A
	3. Geometry	0	0	**0**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**25**	0.72	–
	2. Algebra I	14	**14**	N/A
	3. Geometry	0	0	**0**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**18**	0.36	–
	2. Algebra I	13	**15**	N/A
	3. Geometry	0	0	**0**

Table 8.C.6 STS Content Area Correlations (In U.S. Schools >= 12 Months)

Grade	STS	1.	2.	3.
2	**1. Reading/Language Arts**	**9,465**	0.74	
	2. Mathematics	9,412	**9,441**	
Grade	**STS**	**1.**	**2.**	
3	**1. Reading/Language Arts**	**6,408**	0.75	
	2. Mathematics	6,381	**6,393**	
Grade	**STS**	**1.**	**2.**	
4	**1. Reading/Language Arts**	**3,247**	0.72	
	2. Mathematics	3,241	**3,248**	
Grade	**STS**	**1.**	**2.**	
5	**1. Reading/Language Arts**	**1,825**	0.65	
	2. Mathematics	1,815	**1,819**	
Grade	**STS**	**1.**	**2.**	
6	**1. Reading/Language Arts**	**987**	0.65	
	2. Mathematics	984	**987**	
Grade	**STS**	**1.**	**2.**	**3.**
7	**1. Reading/Language Arts**	**354**	0.60	–
	2. Mathematics	350	**369**	N/A
	3. Algebra I	0	0	**0**
Grade	**STS**	**1.**	**2.**	
8	**1. Reading/Language Arts**	**333**	0.46	
	2. Algebra I	172	**182**	
Grade	**STS**	**1.**	**2.**	**3.**
9	**1. Reading/Language Arts**	**186**	0.43	–
	2. Algebra I	120	**122**	N/A
	3. Geometry	6	0	**6**
Grade	**STS**	**1.**	**2.**	**3.**
10	**1. Reading/Language Arts**	**184**	0.51	0.54
	2. Algebra I	80	**82**	N/A
	3. Geometry	46	0	**54**
Grade	**STS**	**1.**	**2.**	**3.**
11	**1. Reading/Language Arts**	**151**	0.31	0.49
	2. Algebra I	49	**53**	N/A
	3. Geometry	54	0	**55**

Table 8.C.7 STS Content Area Correlations (In U.S. Schools < 12 Months)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**1,318**	0.71	
	2. Mathematics	1,312	**1,330**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**1,188**	0.77	
	2. Mathematics	1,183	**1,192**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**1,164**	0.76	
	2. Mathematics	1,156	**1,161**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**1,073**	0.68	
	2. Mathematics	1,067	**1,070**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**931**	0.72	
	2. Mathematics	917	**918**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**1,108**	0.73	–
	2. Mathematics	1,085	**1,088**	N/A
	3. Algebra I	5	0	**5**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**898**	0.52	
	2. Algebra I	316	**316**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**1,828**	0.54	0.45
	2. Algebra I	1,095	**1,104**	N/A
	3. Geometry	61	0	**61**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**1,136**	0.56	0.56
	2. Algebra I	628	**637**	N/A
	3. Geometry	151	0	**156**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**561**	0.46	0.51
	2. Algebra I	242	**248**	N/A
	3. Geometry	73	0	**75**

Table 8.C.8 STS Content Area Correlations (EL in ELD)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**94**	0.77	
	2. Mathematics	94	**98**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**77**	0.75	
	2. Mathematics	77	**77**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**76**	0.70	
	2. Mathematics	75	**76**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**63**	0.70	
	2. Mathematics	63	**63**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**65**	0.67	
	2. Mathematics	62	**62**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**126**	0.71	–
	2. Mathematics	123	**123**	N/A
	3. Algebra I	1	0	**1**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**88**	0.51	
	2. Algebra I	46	**46**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**207**	0.56	–
	2. Algebra I	152	**154**	N/A
	3. Geometry	7	0	**7**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**162**	0.61	0.68
	2. Algebra I	81	**82**	N/A
	3. Geometry	33	0	**34**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**87**	0.54	–
	2. Algebra I	39	**40**	N/A
	3. Geometry	10	0	**10**

Table 8.C.9 STS Content Area Correlations (EL in ELD and SDAIE)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**487**	0.66	
	2. Mathematics	484	**490**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**476**	0.75	
	2. Mathematics	475	**481**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**520**	0.75	
	2. Mathematics	516	**519**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**503**	0.73	
	2. Mathematics	501	**503**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**446**	0.76	
	2. Mathematics	442	**443**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**473**	0.72	–
	2. Mathematics	459	**460**	N/A
	3. Algebra I	3	0	**3**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**379**	0.57	
	2. Algebra I	132	**132**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**621**	0.55	0.59
	2. Algebra I	336	**336**	N/A
	3. Geometry	23	0	**23**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**374**	0.56	0.62
	2. Algebra I	186	**188**	N/A
	3. Geometry	40	0	**41**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**229**	0.51	0.60
	2. Algebra I	101	**101**	N/A
	3. Geometry	22	0	**22**

Table 8.C.10 STS Content Area Correlations (EL in ELD and SDAIE with Primary Language Support)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**336**	0.65	
	2. Mathematics	334	**341**	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	**355**	0.77	
	2. Mathematics	353	**356**	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	**352**	0.75	
	2. Mathematics	349	**350**	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	**335**	0.64	
	2. Mathematics	331	**331**	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	**290**	0.69	
	2. Mathematics	285	**285**	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	**298**	0.76	–
	2. Mathematics	295	**296**	N/A
	3. Algebra I	1	0	**1**
Grade	STS	1.	2.	
8	1. Reading/Language Arts	**258**	0.51	
	2. Algebra I	84	**84**	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	**526**	0.58	0.62
	2. Algebra I	307	**309**	N/A
	3. Geometry	18	0	**18**
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	**281**	0.51	0.43
	2. Algebra I	172	**173**	N/A
	3. Geometry	32	0	**33**
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	**131**	0.53	0.28
	2. Algebra I	72	**73**	N/A
	3. Geometry	17	0	**17**

Table 8.C.11 STS Content Area Correlations (EL in ELD and Academic Subjects through Primary Language)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**9,794**	0.74	
	2. Mathematics	9,741	**9,771**	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	**6,627**	0.75	
	2. Mathematics	6,598	**6,610**	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	**3,401**	0.72	
	2. Mathematics	3,395	**3,402**	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	**1,941**	0.64	
	2. Mathematics	1,931	**1,935**	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	**1,050**	0.65	
	2. Mathematics	1,047	**1,050**	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	**483**	0.60	–
	2. Mathematics	478	**498**	N/A
	3. Algebra I	0	0	**0**
Grade	STS	1.	2.	
8	1. Reading/Language Arts	**432**	0.45	
	2. Algebra I	211	**221**	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	**423**	0.43	–
	2. Algebra I	262	**267**	N/A
	3. Geometry	10	0	**10**
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	**346**	0.51	0.55
	2. Algebra I	177	**182**	N/A
	3. Geometry	70	0	**79**
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	**192**	0.23	0.52
	2. Algebra I	57	**62**	N/A
	3. Geometry	65	0	**67**

Table 8.C.12 STS Content Area Correlations (Other EL Instructional Services)

Grade	STS	1.	2.	3.
2	**1. Reading/Language Arts**	**14**	0.60	
	2. Mathematics	14	**14**	
Grade	**STS**	**1.**	**2.**	
3	**1. Reading/Language Arts**	**13**	0.54	
	2. Mathematics	13	**13**	
Grade	**STS**	**1.**	**2.**	
4	**1. Reading/Language Arts**	**15**	0.76	
	2. Mathematics	15	**15**	
Grade	**STS**	**1.**	**2.**	
5	**1. Reading/Language Arts**	**15**	0.71	
	2. Mathematics	15	**15**	
Grade	**STS**	**1.**	**2.**	
6	**1. Reading/Language Arts**	**15**	0.68	
	2. Mathematics	14	**14**	
Grade	**STS**	**1.**	**2.**	**3.**
7	**1. Reading/Language Arts**	**37**	0.56	–
	2. Mathematics	35	**35**	N/A
	3. Algebra I	0	0	**0**
Grade	**STS**	**1.**	**2.**	
8	**1. Reading/Language Arts**	**31**	–	
	2. Algebra I	7	**7**	
Grade	**STS**	**1.**	**2.**	**3.**
9	**1. Reading/Language Arts**	**128**	0.58	–
	2. Algebra I	83	**85**	N/A
	3. Geometry	7	0	**7**
Grade	**STS**	**1.**	**2.**	**3.**
10	**1. Reading/Language Arts**	**103**	0.63	0.28
	2. Algebra I	60	**62**	N/A
	3. Geometry	12	0	**13**
Grade	**STS**	**1.**	**2.**	**3.**
11	**1. Reading/Language Arts**	**46**	0.16	–
	2. Algebra I	12	**13**	N/A
	3. Geometry	6	0	**6**

Table 8.C.13 STS Content Area Correlations (None [EL only])

Grade	STS	1.	2.	3.
2	**1. Reading/Language Arts**	**34**	0.65	
	2. Mathematics	33	**33**	
Grade	**STS**	**1.**	**2.**	
3	**1. Reading/Language Arts**	**27**	0.82	
	2. Mathematics	27	**27**	
Grade	**STS**	**1.**	**2.**	
4	**1. Reading/Language Arts**	**32**	0.82	
	2. Mathematics	32	**32**	
Grade	**STS**	**1.**	**2.**	
5	**1. Reading/Language Arts**	**23**	0.76	
	2. Mathematics	23	**23**	
Grade	**STS**	**1.**	**2.**	
6	**1. Reading/Language Arts**	**34**	0.47	
	2. Mathematics	33	**33**	
Grade	**STS**	**1.**	**2.**	**3.**
7	**1. Reading/Language Arts**	**26**	0.81	–
	2. Mathematics	26	**26**	N/A
	3. Algebra I	0	0	**0**
Grade	**STS**	**1.**	**2.**	
8	**1. Reading/Language Arts**	**21**	–	
	2. Algebra I	4	**4**	
Grade	**STS**	**1.**	**2.**	**3.**
9	**1. Reading/Language Arts**	**52**	0.56	–
	2. Algebra I	37	**37**	N/A
	3. Geometry	0	0	**0**
Grade	**STS**	**1.**	**2.**	**3.**
10	**1. Reading/Language Arts**	**22**	0.76	–
	2. Algebra I	11	**11**	N/A
	3. Geometry	5	0	**5**
Grade	**STS**	**1.**	**2.**	**3.**
11	**1. Reading/Language Arts**	**10**	–	–
	2. Algebra I	3	**4**	N/A
	3. Geometry	1	0	**1**

Table 8.C.14 STS Content Area Correlations (Program Participation unknown)

Grade	STS	1.	2.	3.
2	**1. Reading/Language Arts**	**24**	0.73	
	2. Mathematics	24	**24**	
Grade	**STS**	**1.**	**2.**	
3	**1. Reading/Language Arts**	**21**	0.66	
	2. Mathematics	21	**21**	
Grade	**STS**	**1.**	**2.**	
4	**1. Reading/Language Arts**	**15**	0.88	
	2. Mathematics	15	**15**	
Grade	**STS**	**1.**	**2.**	
5	**1. Reading/Language Arts**	**18**	0.60	
	2. Mathematics	18	**19**	
Grade	**STS**	**1.**	**2.**	
6	**1. Reading/Language Arts**	**18**	0.72	
	2. Mathematics	18	**18**	
Grade	**STS**	**1.**	**2.**	**3.**
7	**1. Reading/Language Arts**	**19**	0.77	–
	2. Mathematics	19	**19**	N/A
	3. Algebra I	0	0	**0**
Grade	**STS**	**1.**	**2.**	
8	**1. Reading/Language Arts**	**22**	–	
	2. Algebra I	4	**4**	
Grade	**STS**	**1.**	**2.**	**3.**
9	**1. Reading/Language Arts**	**57**	0.37	–
	2. Algebra I	38	**38**	N/A
	3. Geometry	2	0	**2**
Grade	**STS**	**1.**	**2.**	**3.**
10	**1. Reading/Language Arts**	**32**	0.49	–
	2. Algebra I	21	**21**	N/A
	3. Geometry	5	0	**5**
Grade	**STS**	**1.**	**2.**	**3.**
11	**1. Reading/Language Arts**	**17**	–	–
	2. Algebra I	7	**8**	N/A
	3. Geometry	6	0	**7**

Table 8.C.15 STS Content Area Correlations (No Special Education)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**10,336**	0.74	
	2. Mathematics	10,282	**10,326**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**7,250**	0.76	
	2. Mathematics	7,220	**7,234**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**4,205**	0.72	
	2. Mathematics	4,191	**4,201**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**2,719**	0.62	
	2. Mathematics	2,706	**2,713**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**1,832**	0.65	
	2. Mathematics	1,815	**1,817**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**1,433**	0.69	–
	2. Mathematics	1,406	**1,427**	N/A
	3. Algebra I	5	0	**5**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**1,204**	0.48	
	2. Algebra I	476	**486**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**2,001**	0.53	0.46
	2. Algebra I	1,211	**1,221**	N/A
	3. Geometry	67	0	**67**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**1,308**	0.55	0.55
	2. Algebra I	700	**711**	N/A
	3. Geometry	195	0	**208**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**706**	0.45	0.47
	2. Algebra I	286	**295**	N/A
	3. Geometry	127	0	**130**

Table 8.C.16 STS Content Area Correlations (Special Education)

Grade	STS	1.	2.	3.
2	1. Reading/Language Arts	**446**	0.75	
	2. Mathematics	442	**445**	
Grade	**STS**	**1.**	**2.**	
3	1. Reading/Language Arts	**346**	0.72	
	2. Mathematics	344	**351**	
Grade	**STS**	**1.**	**2.**	
4	1. Reading/Language Arts	**206**	0.69	
	2. Mathematics	206	**208**	
Grade	**STS**	**1.**	**2.**	
5	1. Reading/Language Arts	**179**	0.53	
	2. Mathematics	176	**176**	
Grade	**STS**	**1.**	**2.**	
6	1. Reading/Language Arts	**86**	0.64	
	2. Mathematics	86	**88**	
Grade	**STS**	**1.**	**2.**	**3.**
7	1. Reading/Language Arts	**29**	0.59	–
	2. Mathematics	29	**30**	N/A
	3. Algebra I	0	0	**0**
Grade	**STS**	**1.**	**2.**	
8	1. Reading/Language Arts	**27**	0.64	
	2. Algebra I	12	**12**	
Grade	**STS**	**1.**	**2.**	**3.**
9	1. Reading/Language Arts	**12**	–	–
	2. Algebra I	3	**4**	N/A
	3. Geometry	0	0	**0**
Grade	**STS**	**1.**	**2.**	**3.**
10	1. Reading/Language Arts	**12**	–	–
	2. Algebra I	8	**8**	N/A
	3. Geometry	2	0	**2**
Grade	**STS**	**1.**	**2.**	**3.**
11	1. Reading/Language Arts	**6**	–	–
	2. Algebra I	5	**6**	N/A
	3. Geometry	0	0	**0**

Appendix 8.D—IRT Analyses

Table 8.D.1 IRT Model Data Fit Distribution for RLA

Op. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	26	40%	33	51%	29	39%	15	20%	24	32%	21	28%	27	36%	14	19%	20	27%	22	29%
B	12	18%	15	23%	22	29%	30	40%	20	27%	22	29%	26	35%	31	41%	29	39%	20	27%
C	27	42%	17	26%	22	29%	30	40%	28	37%	29	39%	22	29%	26	35%	26	35%	27	36%
D	0	0%	0	0%	2	3%	0	0%	3	4%	2	3%	0	0%	3	4%	0	0%	4	5%
F	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	0	0%	1	1%	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

Op. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Algebra I		Geometry	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	33	51%	25	38%	22	34%	12	18%	10	15%	25	38%	18	28%	7	11%
B	21	32%	18	28%	20	31%	19	29%	22	34%	20	31%	18	28%	13	20%
C	11	17%	22	34%	21	32%	33	51%	29	45%	17	26%	25	38%	44	68%
D	0	0%	0	0%	2	3%	1	2%	4	6%	2	3%	3	5%	1	2%
F	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	1	2%	0	0%
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	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	9	13%	16	22%	1	2%	1	3%	1	4%	2	8%	2	8%	2	7%	3	13%	2	17%
B	10	14%	14	19%	6	11%	3	8%	1	4%	5	21%	4	17%	2	7%	3	13%	2	17%
C	43	60%	28	39%	39	72%	24	67%	14	58%	12	50%	11	46%	16	53%	13	54%	7	58%
D	4	6%	11	15%	6	11%	3	8%	8	33%	3	13%	6	25%	5	17%	2	8%	1	8%
F	6	8%	3	4%	2	4%	5	14%	0	0%	2	8%	1	4%	5	17%	3	13%	0	0%
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	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	27	38%	18	25%	2	4%	2	6%	1	4%	4	17%	7	23%	0	0%
B	10	14%	9	13%	6	11%	8	22%	4	17%	3	13%	10	33%	2	33%
C	32	44%	39	54%	40	74%	19	53%	9	38%	13	54%	11	37%	3	50%
D	3	4%	6	8%	5	9%	4	11%	7	29%	3	13%	2	7%	1	17%
F	0	0%	0	0%	1	2%	3	8%	3	13%	1	4%	0	0%	0	0%
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	-0.99	0.92	-2.65	1.07
Reading Comprehension	15	-0.43	0.51	-1.52	0.34
Literary Response and Analysis	6	-0.55	0.78	-2.03	0.22
Written Conventions	14	-0.66	0.65	-2.54	0.08
Writing Strategies	8	0.32	0.39	-0.40	0.72
All operational items	65	-0.59	0.81	-2.65	1.07
Field-test items	72	0.29	0.67	-1.13	1.61

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	-0.67	0.74	-2.59	0.33
Reading Comprehension	15	0.08	0.71	-1.45	1.04
Literary Response and Analysis	8	-0.08	1.03	-1.87	1.10
Written Conventions	13	-0.29	0.42	-1.19	0.17
Writing Strategies	9	-0.05	0.48	-0.99	0.74
All operational items	65	-0.26	0.73	-2.59	1.10
Field-test items	72	0.14	0.90	-2.27	1.93

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	-0.51	0.67	-1.41	1.13
Reading Comprehension	15	0.00	0.34	-0.71	0.55
Literary Response and Analysis	9	0.11	0.58	-0.71	0.97
Written Conventions	18	-0.54	0.82	-2.19	0.99
Writing Strategies	15	-0.01	0.69	-1.05	1.26
All operational items	75	-0.24	0.70	-2.19	1.26
Field-test items	54	0.75	0.51	-0.57	2.10

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	0.01	0.60	-1.15	1.07
Reading Comprehension	16	0.23	0.46	-0.89	0.74
Literary Response and Analysis	12	0.11	0.35	-0.42	0.84
Written Conventions	17	-0.33	0.56	-1.72	0.52
Writing Strategies	16	0.05	0.58	-1.12	0.94
All operational items	75	0.00	0.55	-1.72	1.07
Field-test items	36	0.75	0.66	-1.05	2.09

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	0.25	0.58	-0.66	1.39
Reading Comprehension	17	-0.11	0.52	-0.83	0.74
Literary Response and Analysis	12	-0.34	0.64	-1.75	0.62
Written Conventions	16	-0.30	0.61	-1.63	0.64
Writing Strategies	17	0.31	0.38	-0.34	1.03
All operational items	75	-0.03	0.60	-1.75	1.39
Field-test items	24	0.48	0.78	-1.16	1.68

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	-0.37	0.66	-1.32	0.79
Reading Comprehension	18	0.01	0.61	-1.20	1.05
Literary Response and Analysis	13	-0.20	0.81	-2.19	0.83
Written Conventions	16	-0.25	0.81	-1.39	1.51
Writing Strategies	17	-0.08	0.79	-1.30	1.56
All operational items	75	-0.16	0.73	-2.19	1.56
Field-test items	24	0.79	0.69	-0.68	2.16

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	-0.61	0.92	-2.54	0.39
Reading Comprehension	18	-0.07	0.73	-1.60	1.20
Literary Response and Analysis	15	-0.50	0.69	-1.49	0.56
Written Conventions	16	-0.66	0.66	-1.80	0.21
Writing Strategies	17	-0.00	0.63	-1.49	0.82
All operational items	75	-0.33	0.75	-2.54	1.20
Field-test items	24	0.38	0.77	-1.30	2.03

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	-1.02	0.73	-1.67	0.71
Reading Comprehension	18	-0.31	0.78	-1.80	1.24
Literary Response and Analysis	16	-0.19	0.83	-1.68	1.13
Written Conventions	13	-0.15	0.81	-1.40	1.42
Writing Strategies	20	0.21	0.60	-0.93	1.30
All operational items	75	-0.19	0.81	-1.80	1.42
Field-test items	30	0.62	0.80	-1.14	1.88

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	-1.36	0.73	-2.14	0.03
Reading Comprehension	18	-0.33	0.56	-1.00	1.04
Literary Response and Analysis	16	-0.35	0.91	-1.70	0.90
Written Conventions	13	-0.28	0.63	-1.43	1.15
Writing Strategies	20	0.34	0.58	-0.52	1.49
All operational items	75	-0.26	0.82	-2.14	1.49
Field-test items	24	0.57	0.58	-0.43	1.70

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	-0.56	0.74	-1.60	0.69
Reading Comprehension	19	0.09	0.64	-1.40	1.01
Literary Response and Analysis	17	-0.09	0.62	-1.17	0.92
Written Conventions	9	-0.09	1.28	-2.24	2.06
Writing Strategies	22	-0.12	0.55	-0.90	1.48
All operational items	75	-0.10	0.73	-2.24	2.06
Field-test items	12	-0.10	0.80	-1.94	1.11

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	-0.56	0.77	-2.49	0.55
Multiplication, Division, and Fractions	23	-0.46	0.84	-2.28	1.15
Algebra and Functions	6	-0.44	0.82	-1.86	0.18
Measurement and Geometry	14	-1.29	0.94	-2.88	0.14
Statistics, Data Analysis, and Probability	7	-1.58	0.49	-2.26	-0.77
All operational items	65	-0.78	0.90	-2.88	1.15
Field-test items	72	-0.82	1.25	-3.23	3.97

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	-0.51	0.98	-2.02	1.40
Addition, Subtraction, Multiplication, Division	16	-0.46	0.95	-3.25	0.87
Algebra and Functions	12	-0.29	1.02	-2.27	1.30
Measurement and Geometry	16	-0.73	1.06	-2.62	1.80
Statistics, Data Analysis, and Probability	5	-1.23	0.79	-2.03	-0.36
All operational items	65	-0.56	0.99	-3.25	1.80
Field-test items	72	0.40	1.31	-2.76	3.04

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	-0.57	0.97	-2.26	0.99
Operations and Factoring	14	-0.29	0.57	-1.43	0.40
Algebra and Functions	18	-0.70	0.57	-2.00	0.25
Measurement and Geometry	12	-0.42	0.96	-1.84	1.03
Statistics, Data Analysis, and Probability	4	-0.01	1.28	-1.27	1.24
All operational items	65	-0.48	0.82	-2.26	1.24
Field-test items	54	0.38	1.07	-2.26	2.40

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	-0.35	0.85	-1.68	0.55
Operations with Fractions and Decimals	17	0.17	0.44	-0.53	0.74
Algebra and Functions	17	-0.32	0.52	-1.31	0.27
Measurement and Geometry	15	0.14	0.45	-0.92	1.09
Statistics, Data Analysis, and Probability	4	-0.07	0.49	-0.80	0.29
All operational items	65	-0.08	0.60	-1.68	1.09
Field-test items	36	0.59	0.92	-1.89	2.32

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	-0.36	0.65	-1.83	0.70
Operations with Problem Solving with Fractions	10	-0.06	0.54	-1.09	0.80
Algebra and Functions	19	-0.24	0.68	-1.52	0.79
Measurement and Geometry	10	0.62	0.53	-0.08	1.52
Statistics, Data Analysis, and Probability	11	0.42	0.40	-0.10	1.03
All operational items	65	0.00	0.68	-1.83	1.52
Field-test items	24	0.87	0.95	-1.53	2.61

Table 8.D.20 IRT *b*-values for Mathematics, Grade Seven

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.26	0.40	-0.51	0.83
Exponents, Powers, and Roots	8	0.46	0.88	-1.49	1.62
Quant. Relationships and Evaluating Expressions	10	0.55	1.07	-1.55	2.19
Multistep Problems, Graphing, and Functions	15	0.24	0.47	-0.68	0.96
Measurement and Geometry	13	0.17	0.53	-0.40	1.33
Statistics, Data Analysis, and Probability	5	-0.09	0.35	-0.47	0.44
All operational items	65	0.28	0.65	-1.55	2.19
Field-test items	24	0.86	0.88	-0.87	2.65

Table 8.D.21 IRT *b*-values for Algebra I

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Number Properties, Operations, and Linear Equations	17	0.22	0.56	-0.74	1.32
Graphing and Systems of Linear Equations	14	0.75	0.53	-0.45	1.50
Quadratics and Polynomials	21	0.33	0.65	-0.86	1.70
Functions and Rational Expressions	13	0.99	0.37	0.40	1.58
All operational items	65	0.52	0.62	-0.86	1.70
Field-test items	30	0.91	0.48	-0.11	1.68

Table 8.D.22 IRT *b*-values for Geometry

Content Area	No. of items	Mean	Standard Deviation	Minimum	Maximum
Logic and Geometric Proofs	23	0.13	0.89	-1.46	1.83
Volume and Area Formulas	11	0.62	0.75	-0.62	1.65
Angle Relationships, Constructions, and Lines	16	0.48	0.69	-0.53	1.70
Trigonometry	15	0.69	0.46	0.07	1.68
All operational items	65	0.43	0.76	-1.46	1.83
Field-test items	6	0.71	0.55	0.14	1.55

Table 8.D.23 Distribution of IRT Difficulty (*b*-values) for RLA by Grade

IRT *b*-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	2	0	0	0	0
1.0 < 1.5	1	4	2	1	3	1	1	4	3	3
0.5 < 1.0	4	4	11	14	11	8	7	13	15	11
0.0 < 0.5	8	16	15	25	22	22	20	18	11	18
–0.5 < 0.0	20	21	21	22	20	17	21	11	17	21
–1.0 < –0.5	13	9	16	7	15	12	11	13	16	15
–1.5 < –1.0	6	7	7	4	1	11	10	10	5	4
–2.0 < –1.5	9	2	1	1	2	0	3	5	5	1
–2.5 < –2.0	1	0	1	0	0	1	0	0	2	1
–3.0 < –2.5	2	1	0	0	0	0	1	0	0	0
–3.5 < –3.0	0	0	0	0	0	0	0	0	0	0
< –3.5	1	1	1	1	1	1	1	1	1	1
Total	65	65	75	75	75	75	75	75	75	75

Table 8.D.24 Distribution of IRT *b*-values for Mathematics

IRT *b*-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	1	0	0
1.5 < 2.0	0	1	0	0	1	2	3	5
1.0 < 1.5	1	3	1	1	2	2	13	11
0.5 < 1.0	2	4	6	6	12	18	18	13
0.0 < 0.5	10	7	10	28	19	21	15	17
–0.5 < 0.0	14	17	15	17	17	14	12	10
–1.0 < –0.5	14	13	17	6	6	4	3	6
–1.5 < –1.0	11	8	9	3	4	1	0	2
–2.0 < –1.5	5	5	3	3	3	1	0	0
–2.5 < –2.0	4	3	3	0	0	0	0	0
–3.0 < –2.5	3	2	0	0	0	0	0	0
–3.5 < –3.0	0	1	0	0	0	0	0	0
< –3.5	1	1	1	1	1	1	1	1
Total	65	65	65	65	65	65	65	65

Table 8.D.25 Distribution of IRT *b*-values for RLA (field-test items)

IRT *b*-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	1	1	0	1	1	0	0	0
1.5 – < 2.0	1	3	1	3	1	3	1	2	1	0
1.0 – < 1.5	10	9	17	8	4	5	1	9	4	0
0.5 – < 1.0	16	13	18	12	8	6	6	8	6	2
0.0 – < 0.5	22	16	13	8	3	8	8	4	9	2
–0.5 – < 0.0	15	17	2	2	4	0	3	2	3	4
–1.0 – < –0.5	5	6	1	0	2	0	1	2	0	2
–1.5 – < –1.0	2	2	0	1	1	0	2	2	0	0
–2.0 – < –1.5	0	3	0	0	0	0	0	0	0	1
–2.5 – < –2.0	0	2	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	1	1	1	1	1	1	1	1	1	1
Total	72	72	54	36	24	24	24	30	24	12

Table 8.D.26 Distribution of IRT *b*-values for Mathematics (field-test items)

IRT *b*-value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Algebra I	Geometry
> 3.5	1	0	0	0	0	0	0	0
3.0 – < 3.5	0	1	0	0	0	0	0	0
2.5 – < 3.0	0	2	0	0	1	1	0	0
2.0 – < 2.5	0	6	1	2	3	2	0	0
1.5 – < 2.0	1	5	6	1	2	3	4	1
1.0 – < 1.5	2	12	11	9	4	2	9	1
0.5 – < 1.0	5	10	8	8	6	7	11	1
0.0 – < 0.5	8	12	6	8	4	5	2	2
–0.5 – < 0.0	12	4	9	1	2	2	3	0
–1.0 – < –0.5	10	7	6	4	0	1	0	0
–1.5 – < –1.0	12	7	4	1	0	0	0	0
–2.0 – < –1.5	7	2	1	1	1	0	0	0
–2.5 – < –2.0	8	1	1	0	0	0	0	0
–3.0 – < –2.5	3	2	0	0	0	0	0	0
–3.5 – < –3.0	2	0	0	0	0	0	0	0
< –3.5	1	1	1	1	1	1	1	1
Total	72	72	54	36	24	24	30	6

Scaling and Post-Equating Results

Table 8.D.27 New Conversions for RLA, Grades Two and Three

Grade 2								Grade 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	–	150.0000	150	41	0.0352	322.8382	323	0	–	150.0000	150	41	0.3484	340.8780	341
1	–5.0784	150.0000	150	42	0.1101	326.4183	326	1	–4.7085	150.0000	150	42	0.4217	344.6993	345
2	–4.3548	150.0000	150	43	0.1862	330.0599	330	2	–3.9837	150.0000	150	43	0.4963	348.5905	349
3	–3.9190	150.0000	150	44	0.2639	333.7727	334	3	–3.5471	150.0000	150	44	0.5724	352.5600	353
4	–3.6010	150.0000	150	45	0.3433	337.5672	338	4	–3.2288	154.3328	154	45	0.6503	356.6207	357
5	–3.3477	161.1013	161	46	0.4246	341.4586	341	5	–2.9755	167.5418	168	46	0.7301	360.7862	361
6	–3.1353	171.2586	171	47	0.5083	345.4577	345	6	–2.7634	178.6025	179	47	0.8123	365.0718	365
7	–2.9510	180.0672	180	48	0.5946	349.5821	350	7	–2.5798	188.1786	188	48	0.8971	369.4954	369
8	–2.7874	187.8903	188	49	0.6838	353.8507	354	8	–2.4170	196.6672	197	49	0.9850	374.0776	374
9	–2.6395	194.9604	195	50	0.7766	358.2859	358	9	–2.2701	204.3259	204	50	1.0764	378.8428	379
10	–2.5040	201.4394	201	51	0.8734	362.9146	363	10	–2.1358	211.3312	211	51	1.1718	383.8199	384
11	–2.3784	207.4419	207	52	0.9750	367.7691	368	11	–2.0116	217.8094	218	52	1.2720	389.0458	389
12	–2.2611	213.0527	213	53	1.0821	372.8894	373	12	–1.8957	223.8547	224	53	1.3778	394.5626	395
13	–2.1506	218.3373	218	54	1.1958	378.3255	378	13	–1.7867	229.5380	230	54	1.4903	400.4254	400
14	–2.0458	223.3451	223	55	1.3175	384.1446	384	14	–1.6836	234.9160	235	55	1.6107	406.7046	407
15	–1.9460	228.1175	228	56	1.4489	390.4273	390	15	–1.5854	240.0336	240	56	1.7408	413.4919	413
16	–1.8504	232.6873	233	57	1.5924	397.2891	397	16	–1.4916	244.9270	245	57	1.8831	420.9110	421
17	–1.7585	237.0815	237	58	1.7514	404.8891	405	17	–1.4015	249.6263	250	58	2.0409	429.1401	429
18	–1.6698	241.3228	241	59	1.9306	413.4582	413	18	–1.3146	254.1568	254	59	2.2190	438.4288	438
19	–1.5839	245.4303	245	60	2.1379	423.3693	423	19	–1.2305	258.5404	259	60	2.4250	449.1730	449
20	–1.5004	249.4205	249	61	2.3856	435.2144	435	20	–1.1490	262.7938	263	61	2.6716	462.0312	462
21	–1.4191	253.3078	253	62	2.6976	450.1296	450	21	–1.0696	266.9344	267	62	2.9825	478.2442	478
22	–1.3397	257.1055	257	63	3.1272	470.6661	471	22	–0.9921	270.9759	271	63	3.4109	500.5818	501
23	–1.2619	260.8226	261	64	3.8433	504.9044	505	23	–0.9162	274.9306	275	64	4.1265	537.9014	538
24	–1.1856	264.4707	264	65	–	600.0000	600	24	–0.8418	278.8100	279	65	–	600.0000	600
25	–1.1106	268.0586	268					25	–0.7687	282.6228	283				
26	–1.0366	271.5944	272					26	–0.6967	286.3793	286				
27	–0.9636	275.0857	275					27	–0.6256	290.0878	290				
28	–0.8914	278.5396	279					28	–0.5552	293.7560	294				
29	–0.8198	281.9626	282					29	–0.4855	297.3913	297				
30	–0.7487	285.3612	285					30	–0.4163	301.0006	301				
31	–0.6780	288.7422	289					31	–0.3475	304.5909	305				
32	–0.6075	292.1095	292					32	–0.2789	308.1685	308				
33	–0.5372	295.4702	295					33	–0.2104	311.7400	312				
34	–0.4670	298.8304	299					34	–0.1419	315.3116	315				
35	–0.3966	302.1955	302					35	–0.0733	318.8899	319				
36	–0.3260	305.5717	306					36	–0.0044	322.4812	322				
37	–0.2550	308.9648	309					37	0.0648	326.0924	326				
38	–0.1835	312.3812	312					38	0.1346	329.7302	330				
39	–0.1115	315.8274	316					39	0.2050	333.4019	333				
40	–0.0386	319.3106	319					40	0.2762	337.1151	337				

Table 8.D.28 New Conversions for RLA, Grades Four and Five

Grade 4								Grade 5							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	–	150.0000	150	41	–0.0265	312.9816	313	0	–	150.0000	150	41	0.2060	328.6628	329
1	–4.7752	150.0000	150	42	0.0333	316.1941	316	1	–4.4641	150.0000	150	42	0.2635	332.5285	333
2	–4.0606	150.0000	150	43	0.0934	319.4258	319	2	–3.7516	150.0000	150	43	0.3215	336.4166	336
3	–3.6334	150.0000	150	44	0.1540	322.6812	323	3	–3.3266	150.0000	150	44	0.3798	340.3327	340
4	–3.3240	150.0000	150	45	0.2151	325.9652	326	4	–3.0192	150.0000	150	45	0.4386	344.2827	344
5	–3.0790	150.0000	150	46	0.2768	329.2830	329	5	–2.7762	150.0000	150	46	0.4981	348.2730	348
6	–2.8748	159.8769	160	47	0.3392	332.6398	333	6	–2.5740	150.0000	150	47	0.5582	352.3101	352
7	–2.6987	169.3430	169	48	0.4025	336.0414	336	7	–2.3999	153.7267	154	48	0.6191	356.4010	356
8	–2.5432	177.7057	178	49	0.4667	339.4938	339	8	–2.2463	164.0404	164	49	0.6810	360.5565	361
9	–2.4032	185.2273	185	50	0.5321	343.0069	343	9	–2.1082	173.3052	173	50	0.7440	364.7808	365
10	–2.2756	192.0878	192	51	0.5986	346.5839	347	10	–1.9825	181.7451	182	51	0.8081	369.0848	369
11	–2.1579	198.4152	198	52	0.6666	350.2348	350	11	–1.8667	189.5201	190	52	0.8735	373.4789	373
12	–2.0483	204.3046	204	53	0.7360	353.9688	354	12	–1.7590	196.7490	197	53	0.9405	377.9743	378
13	–1.9455	209.8288	210	54	0.8072	357.7962	358	13	–1.6582	203.5210	204	54	1.0092	382.5839	383
14	–1.8485	215.0426	215	55	0.8804	361.7287	362	14	–1.5630	209.9071	210	55	1.0798	387.3222	387
15	–1.7565	219.9921	220	56	0.9558	365.7794	366	15	–1.4728	215.9630	216	56	1.1525	392.2053	392
16	–1.6686	224.7133	225	57	1.0336	369.9637	370	16	–1.3868	221.7340	222	57	1.2277	397.2514	397
17	–1.5845	229.2362	229	58	1.1143	374.2994	374	17	–1.3046	227.2572	227	58	1.3056	402.4869	402
18	–1.5036	233.5854	234	59	1.1981	378.8064	379	18	–1.2255	232.5635	233	59	1.3868	407.9327	408
19	–1.4255	237.7821	238	60	1.2857	383.5123	384	19	–1.1493	237.6794	238	60	1.4715	413.6215	414
20	–1.3499	241.8439	242	61	1.3774	388.4436	388	20	–1.0756	242.6261	243	61	1.5604	419.5900	420
21	–1.2766	245.7864	246	62	1.4740	393.6376	394	21	–1.0042	247.4237	247	62	1.6542	425.8832	426
22	–1.2052	249.6233	250	63	1.5764	399.1388	399	22	–0.9347	252.0886	252	63	1.7536	432.5566	433
23	–1.1356	253.3652	253	64	1.6855	405.0033	405	23	–0.8670	256.6353	257	64	1.8597	439.6797	440
24	–1.0675	257.0235	257	65	1.8027	411.3027	411	24	–0.8008	261.0767	261	65	1.9738	447.3412	447
25	–1.0009	260.6072	261	66	1.9297	418.1307	418	25	–0.7360	265.4244	265	66	2.0978	455.6673	456
26	–0.9354	264.1246	264	67	2.0691	425.6210	426	26	–0.6725	269.6886	270	67	2.2340	464.8073	465
27	–0.8711	267.5837	268	68	2.2239	433.9457	434	27	–0.6101	273.8788	274	68	2.3856	474.9887	475
28	–0.8077	270.9902	271	69	2.3992	443.3695	443	28	–0.5487	278.0034	278	69	2.5577	486.5383	487
29	–0.7452	274.3513	274	70	2.6026	454.2978	454	29	–0.4881	282.0709	282	70	2.7576	499.9598	500
30	–0.6834	277.6727	278	71	2.8464	467.4042	467	30	–0.4282	286.0870	286	71	2.9982	516.1146	516
31	–0.6222	280.9599	281	72	3.1549	483.9859	484	31	–0.3691	290.0596	290	72	3.3031	536.5805	537
32	–0.5616	284.2181	284	73	3.5807	506.8753	507	32	–0.3105	293.9949	294	73	3.7253	564.9216	565
33	–0.5014	287.4519	287	74	4.2940	545.2163	545	33	–0.2523	297.8990	298	74	4.4351	600.0000	600
34	–0.4416	290.6661	291	75	–	600.0000	600	34	–0.1945	301.7776	302	75	–	600.0000	600
35	–0.3821	293.8652	294					35	–0.1370	305.6361	306				
36	–0.3228	297.0536	297					36	–0.0798	309.4800	309				
37	–0.2636	300.2354	300					37	–0.0227	313.3148	313				
38	–0.2045	303.4149	303					38	0.0344	317.1451	317				
39	–0.1453	306.5963	307					39	0.0915	320.9754	321				
40	–0.0860	309.7838	310					40	0.1486	324.8138	325				

Table 8.D.29 New Conversions for RLA, Grades Six and Seven

Grade 6								Grade 7							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	–	150.0000	150	41	0.1707	331.5428	332	0	–	150.0000	150	41	0.0592	325.9049	326
1	–4.4984	150.0000	150	42	0.2283	335.5946	336	1	–4.7216	150.0000	150	42	0.1197	329.6754	330
2	–3.7861	150.0000	150	43	0.2863	339.6700	340	2	–4.0063	150.0000	150	43	0.1805	333.4672	333
3	–3.3612	150.0000	150	44	0.3447	343.7748	344	3	–3.5785	150.0000	150	44	0.2417	337.2856	337
4	–3.0540	150.0000	150	45	0.4035	347.9153	348	4	–3.2684	150.0000	150	45	0.3035	341.1362	341
5	–2.8112	150.0000	150	46	0.4630	352.0981	352	5	–3.0227	150.0000	150	46	0.3659	345.0248	345
6	–2.6091	150.0000	150	47	0.5232	356.3302	356	6	–2.8178	150.0000	150	47	0.4290	348.9577	349
7	–2.4351	150.0000	150	48	0.5842	360.6187	361	7	–2.6410	157.5875	158	48	0.4929	352.9414	353
8	–2.2816	159.1408	159	49	0.6462	364.9751	365	8	–2.4847	167.3306	167	49	0.5578	356.9854	357
9	–2.1437	168.8376	169	50	0.7092	369.4038	369	9	–2.3440	176.0998	176	50	0.6237	361.0947	361
10	–2.0180	177.6712	178	51	0.7734	373.9162	374	10	–2.2156	184.1031	184	51	0.6908	365.2790	365
11	–1.9022	185.8093	186	52	0.8389	378.5230	379	11	–2.0971	191.4891	191	52	0.7593	369.5481	370
12	–1.7946	193.3762	193	53	0.9060	383.2362	383	12	–1.9868	198.3679	198	53	0.8293	373.9125	374
13	–1.6938	200.4648	200	54	0.9747	388.0693	388	13	–1.8832	204.8238	205	54	0.9010	378.3844	378
14	–1.5987	207.1499	207	55	1.0454	393.0373	393	14	–1.7854	210.9209	211	55	0.9747	382.9771	383
15	–1.5085	213.4897	213	56	1.1182	398.1576	398	15	–1.6925	216.7121	217	56	1.0506	387.7063	388
16	–1.4226	219.5314	220	57	1.1935	403.4492	403	16	–1.6038	222.2392	222	57	1.1289	392.5896	393
17	–1.3403	225.3141	225	58	1.2715	408.9381	409	17	–1.5189	227.5368	228	58	1.2101	397.6468	398
18	–1.2613	230.8699	231	59	1.3528	414.6485	415	18	–1.4371	232.6336	233	59	1.2944	402.9054	403
19	–1.1851	236.2270	236	60	1.4376	420.6136	421	19	–1.3582	237.5538	238	60	1.3824	408.3906	408
20	–1.1114	241.4065	241	61	1.5266	426.8722	427	20	–1.2817	242.3181	242	61	1.4746	414.1382	414
21	–1.0400	246.4304	246	62	1.6205	433.4712	433	21	–1.2075	246.9448	247	62	1.5717	420.1901	420
22	–0.9705	251.3156	251	63	1.7200	440.4689	440	22	–1.1353	251.4478	251	63	1.6745	426.5982	427
23	–0.9028	256.0773	256	64	1.8263	447.9382	448	23	–1.0648	255.8419	256	64	1.7840	433.4276	433
24	–0.8366	260.7290	261	65	1.9405	455.9722	456	24	–0.9959	260.1390	260	65	1.9017	440.7612	441
25	–0.7718	265.2827	265	66	2.0647	464.7016	465	25	–0.9283	264.3495	264	66	2.0292	448.7077	449
26	–0.7083	269.7493	270	67	2.2010	474.2848	474	26	–0.8620	268.4830	268	67	2.1690	457.4265	457
27	–0.6459	274.1385	274	68	2.3529	484.9593	485	27	–0.7968	272.5482	273	68	2.3244	467.1118	467
28	–0.5844	278.4592	278	69	2.5251	497.0676	497	28	–0.7325	276.5536	277	69	2.5002	478.0731	478
29	–0.5238	282.7202	283	70	2.7252	511.1381	511	29	–0.6691	280.5049	281	70	2.7041	490.7798	491
30	–0.4639	286.9277	287	71	2.9661	528.0695	528	30	–0.6065	284.4100	284	71	2.9487	506.0266	506
31	–0.4047	291.0897	291	72	3.2711	549.5182	550	31	–0.5445	288.2750	288	72	3.2576	525.2856	525
32	–0.3461	295.2129	295	73	3.6936	579.2175	579	32	–0.4830	292.1058	292	73	3.6841	551.8691	552
33	–0.2879	299.3035	299	74	4.4036	600.0000	600	33	–0.4220	295.9080	296	74	4.3981	596.3808	596
34	–0.2301	303.3676	303	75	–	600.0000	600	34	–0.3614	299.6868	300	75	–	600.0000	600
35	–0.1726	307.4108	307					35	–0.3011	303.4475	303				
36	–0.1153	311.4389	311					36	–0.2410	307.1950	307				
37	–0.0581	315.4575	315					37	–0.1810	310.9343	311				
38	–0.0010	319.4714	319					38	–0.1211	314.6700	315				
39	0.0561	323.4853	323					39	–0.0611	318.4072	318				
40	0.1133	327.5087	328					40	–0.0011	322.1505	322				

Table 8.D.30 New Conversions for Mathematics, Grades Two and Three

Grade 2								Grade 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	–	150.0000	150	41	–0.1374	335.2046	335	0	–	150.0000	150	41	0.0849	343.7425	344
1	–5.3521	150.0000	150	42	–0.0609	340.0714	340	1	–5.1995	150.0000	150	42	0.1635	348.3756	348
2	–4.6253	150.0000	150	43	0.0169	345.0160	345	2	–4.4662	150.0000	150	43	0.2435	353.0914	353
3	–4.1862	150.0000	150	44	0.0962	350.0581	350	3	–4.0216	150.0000	150	44	0.3252	357.9023	358
4	–3.8649	150.0000	150	45	0.1772	355.2057	355	4	–3.6956	150.0000	150	45	0.4087	362.8247	363
5	–3.6082	150.0000	150	46	0.2601	360.4772	360	5	–3.4350	150.0000	150	46	0.4943	367.8722	368
6	–3.3924	150.0000	150	47	0.3453	365.8933	366	6	–3.2158	150.0000	150	47	0.5824	373.0641	373
7	–3.2048	150.0000	150	48	0.4330	371.4738	371	7	–3.0253	160.3981	160	48	0.6732	378.4212	378
8	–3.0379	150.7906	151	49	0.5238	377.2446	377	8	–2.8559	170.3866	170	49	0.7673	383.9681	384
9	–2.8867	160.4010	160	50	0.6180	383.2359	383	9	–2.7025	179.4267	179	50	0.8651	389.7334	390
10	–2.7480	169.2215	169	51	0.7163	389.4832	389	10	–2.5618	187.7185	188	51	0.9672	395.7512	396
11	–2.6193	177.4040	177	52	0.8193	396.0300	396	11	–2.4314	195.4061	195	52	1.0743	402.0628	402
12	–2.4988	185.0617	185	53	0.9278	402.9297	403	12	–2.3095	202.5963	203	53	1.1872	408.7186	409
13	–2.3853	192.2806	192	54	1.0429	410.2489	410	13	–2.1945	209.3709	209	54	1.3071	415.7841	416
14	–2.2776	199.1281	199	55	1.1660	418.0729	418	14	–2.0856	215.7939	216	55	1.4352	423.3376	423
15	–2.1749	205.6583	206	56	1.2988	426.5198	427	15	–1.9817	221.9160	222	56	1.5734	431.4859	431
16	–2.0765	211.9137	212	57	1.4437	435.7346	436	16	–1.8823	227.7791	228	57	1.7242	440.3714	440
17	–1.9819	217.9316	218	58	1.6041	445.9324	446	17	–1.7866	233.4177	233	58	1.8908	450.1916	450
18	–1.8905	223.7419	224	59	1.7848	457.4228	457	18	–1.6943	238.8606	239	59	2.0782	461.2416	461
19	–1.8020	229.3703	229	60	1.9935	470.6921	471	19	–1.6048	244.1324	244	60	2.2940	473.9638	474
20	–1.7160	234.8388	235	61	2.2428	486.5399	487	20	–1.5180	249.2540	249	61	2.5509	489.1084	489
21	–1.6322	240.1666	240	62	2.5563	506.4756	506	21	–1.4333	254.2438	254	62	2.8726	508.0674	508
22	–1.5503	245.3705	245	63	2.9875	533.8862	534	22	–1.3506	259.1190	259	63	3.3126	534.0078	534
23	–1.4702	250.4656	250	64	3.7056	579.5472	580	23	–1.2696	263.8912	264	64	4.0405	576.9138	577
24	–1.3915	255.4659	255	65	–	600.0000	600	24	–1.1902	268.5754	269	65	–	600.0000	600
25	–1.3142	260.3815	260					25	–1.1120	273.1830	273				
26	–1.2380	265.2252	265					26	–1.0350	277.7245	278				
27	–1.1628	270.0069	270					27	–0.9589	282.2097	282				
28	–1.0885	274.7360	275					28	–0.8836	286.6479	287				
29	–1.0147	279.4223	279					29	–0.8090	291.0477	291				
30	–0.9416	284.0720	284					30	–0.7348	295.4174	295				
31	–0.8689	288.6956	289					31	–0.6611	299.7657	300				
32	–0.7965	293.3003	293					32	–0.5876	304.0985	304				
33	–0.7242	297.8949	298					33	–0.5142	308.4249	308				
34	–0.6520	302.4839	302					34	–0.4408	312.7524	313				
35	–0.5798	307.0781	307					35	–0.3672	317.0886	317				
36	–0.5073	311.6850	312					36	–0.2934	321.4412	321				
37	–0.4345	316.3128	316					37	–0.2191	325.8182	326				
38	–0.3613	320.9696	321					38	–0.1443	330.2278	330				
39	–0.2875	325.6642	326					39	–0.0688	334.6789	335				
40	–0.2129	330.4058	330					40	0.0076	339.1802	339				

Table 8.D.31 New Conversions for Mathematics, Grades Four and Five

Grade 4								Grade 5							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	–	150.0000	150	41	0.1253	348.7330	349	0	–	150.0000	150	41	0.5120	382.2403	382
1	–4.9533	150.0000	150	42	0.2011	353.7303	354	1	–4.4416	150.0000	150	42	0.5830	388.9306	389
2	–4.2332	150.0000	150	43	0.2784	358.8176	359	2	–3.7229	150.0000	150	43	0.6553	395.7453	396
3	–3.8006	150.0000	150	44	0.3572	364.0078	364	3	–3.2917	150.0000	150	44	0.7291	402.6971	403
4	–3.4855	150.0000	150	45	0.4378	369.3195	369	4	–2.9783	150.0000	150	45	0.8046	409.8101	410
5	–3.2349	150.0000	150	46	0.5205	374.7655	375	5	–2.7293	150.0000	150	46	0.8821	417.1085	417
6	–3.0249	150.0000	150	47	0.6056	380.3669	380	6	–2.5212	150.0000	150	47	0.9619	424.6201	425
7	–2.8430	153.2467	153	48	0.6933	386.1460	386	7	–2.3412	150.0000	150	48	1.0442	432.3769	432
8	–2.6815	163.8798	164	49	0.7842	392.1290	392	8	–2.1818	150.0000	150	49	1.1296	440.4158	440
9	–2.5357	173.4861	173	50	0.8786	398.3466	398	9	–2.0380	150.0000	150	50	1.2183	448.7793	449
10	–2.4021	182.2866	182	51	0.9771	404.8356	405	10	–1.9066	154.4200	154	51	1.3112	457.5262	458
11	–2.2783	190.4385	190	52	1.0805	411.6408	412	11	–1.7851	165.8647	166	52	1.4087	466.7136	467
12	–2.1626	198.0585	198	53	1.1894	418.8167	419	12	–1.6718	176.5396	177	53	1.5118	476.4227	476
13	–2.0536	205.2360	205	54	1.3051	426.4353	426	13	–1.5652	186.5731	187	54	1.6215	486.7521	487
14	–1.9503	212.0394	212	55	1.4288	434.5816	435	14	–1.4645	196.0647	196	55	1.7390	497.8282	498
15	–1.8518	218.5248	219	56	1.5623	443.3733	443	15	–1.3686	205.0935	205	56	1.8663	509.8164	510
16	–1.7575	224.7374	225	57	1.7080	452.9670	453	16	–1.2770	213.7242	214	57	2.0057	522.9465	523
17	–1.6667	230.7141	231	58	1.8691	463.5812	464	17	–1.1890	222.0108	222	58	2.1605	537.5265	538
18	–1.5791	236.4861	236	59	2.0508	475.5433	476	18	–1.1043	229.9953	230	59	2.3356	554.0183	554
19	–1.4942	242.0798	242	60	2.2603	489.3444	489	19	–1.0223	237.7180	238	60	2.5385	573.1335	573
20	–1.4116	247.5177	248	61	2.5105	505.8197	506	20	–0.9427	245.2106	245	61	2.7818	596.0568	596
21	–1.3311	252.8196	253	62	2.8248	526.5225	527	21	–0.8653	252.5011	253	62	3.0896	600.0000	600
22	–1.2524	258.0030	258	63	3.2570	554.9836	555	22	–0.7898	259.6143	260	63	3.5146	600.0000	600
23	–1.1753	263.0823	263	64	3.9763	600.0000	600	23	–0.7160	266.5720	267	64	4.2270	600.0000	600
24	–1.0995	268.0720	268	65	–	600.0000	600	24	–0.6436	273.3939	273	65	–	600.0000	600
25	–1.0249	272.9843	273					25	–0.5724	280.0988	280				
26	–0.9513	277.8305	278					26	–0.5023	286.6999	287				
27	–0.8786	282.6210	283					27	–0.4331	293.2142	293				
28	–0.8065	287.3657	287					28	–0.3648	299.6556	300				
29	–0.7351	292.0735	292					29	–0.2970	306.0371	306				
30	–0.6640	296.7543	297					30	–0.2298	312.3709	312				
31	–0.5932	301.4140	301					31	–0.1629	318.6690	319				
32	–0.5226	306.0625	306					32	–0.0963	324.9448	325				
33	–0.4521	310.7076	311					33	–0.0298	331.2041	331				
34	–0.3815	315.3574	315					34	0.0366	337.4634	337				
35	–0.3107	320.0198	320					35	0.1032	343.7343	344				
36	–0.2396	324.7028	325					36	0.1700	350.0258	350				
37	–0.1681	329.4148	329					37	0.2371	356.3508	356				
38	–0.0959	334.1644	334					38	0.3048	362.7215	363				
39	–0.0231	338.9608	339					39	0.3730	369.1508	369				
40	0.0506	343.8135	344					40	0.4420	375.6522	376				

Table 8.D.32 New Conversions for Mathematics, Grades Six and Seven

Grade 6								Grade 7							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	–	150.0000	150	41	0.6057	377.6576	378	0	–	150.0000	150	41	0.8608	384.7631	385
1	–4.4119	150.0000	150	42	0.6786	383.6820	384	1	–4.0970	150.0000	150	42	0.9331	390.7670	391
2	–3.6912	150.0000	150	43	0.7528	389.8186	390	2	–3.3779	150.0000	150	43	1.0068	396.8835	397
3	–3.2581	150.0000	150	44	0.8285	396.0783	396	3	–2.9466	150.0000	150	44	1.0820	403.1330	403
4	–2.9428	150.0000	150	45	0.9059	402.4825	402	4	–2.6332	150.0000	150	45	1.1591	409.5309	410
5	–2.6921	150.0000	150	46	0.9854	409.0528	409	5	–2.3845	150.0000	150	46	1.2382	416.0998	416
6	–2.4822	150.0000	150	47	1.0671	415.8136	416	6	–2.1767	150.0000	150	47	1.3197	422.8671	423
7	–2.3005	150.0000	150	48	1.1516	422.7928	423	7	–1.9970	150.0000	150	48	1.4039	429.8584	430
8	–2.1395	150.6730	151	49	1.2390	430.0223	430	8	–1.8380	160.6822	161	49	1.4912	437.1079	437
9	–1.9941	162.6917	163	50	1.3300	437.5462	438	9	–1.6948	172.5790	173	50	1.5821	444.6552	445
10	–1.8611	173.6893	174	51	1.4250	445.4051	445	10	–1.5638	183.4495	183	51	1.6772	452.5469	453
11	–1.7381	183.8614	184	52	1.5248	453.6572	454	11	–1.4429	193.4946	193	52	1.7771	460.8401	461
12	–1.6232	193.3571	193	53	1.6302	462.3721	462	12	–1.3300	202.8624	203	53	1.8826	469.6046	470
13	–1.5152	202.2884	202	54	1.7423	471.6365	472	13	–1.2240	211.6659	212	54	1.9949	478.9278	479
14	–1.4130	210.7428	211	55	1.8623	481.5618	482	14	–1.1237	219.9940	220	55	2.1153	488.9210	489
15	–1.3157	218.7901	219	56	1.9921	492.2927	492	15	–1.0283	227.9161	228	56	2.2456	499.7413	500
16	–1.2226	226.4872	226	57	2.1341	504.0352	504	16	–0.9371	235.4903	235	57	2.3881	511.5755	512
17	–1.1331	233.8814	234	58	2.2916	517.0554	517	17	–0.8494	242.7641	243	58	2.5463	524.7061	525
18	–1.0469	241.0112	241	59	2.4694	531.7610	532	18	–0.7650	249.7768	250	59	2.7249	539.5384	540
19	–0.9635	247.9106	248	60	2.6752	548.7761	549	19	–0.6833	256.5621	257	60	2.9317	556.7066	557
20	–0.8825	254.6081	255	61	2.9216	569.1523	569	20	–0.6039	263.1488	263	61	3.1792	577.2574	577
21	–0.8036	261.1286	261	62	3.2324	594.8456	595	21	–0.5267	269.5619	270	62	3.4912	600.0000	600
22	–0.7266	267.4937	267	63	3.6606	600.0000	600	22	–0.4513	275.8232	276	63	3.9209	600.0000	600
23	–0.6513	273.7229	274	64	4.3762	600.0000	600	23	–0.3774	281.9537	282	64	4.6380	600.0000	600
24	–0.5774	279.8335	280	65	–	600.0000	600	24	–0.3050	287.9670	288	65	–	600.0000	600
25	–0.5047	285.8419	286					25	–0.2338	293.8817	294				
26	–0.4332	291.7604	292					26	–0.1636	299.7119	300				
27	–0.3625	297.6037	298					27	–0.0942	305.4705	305				
28	–0.2926	303.3839	303					28	–0.0256	311.1699	311				
29	–0.2233	309.1127	309					29	0.0425	316.8217	317				
30	–0.1545	314.8009	315					30	0.1101	322.4368	322				
31	–0.0861	320.4592	320					31	0.1774	328.0260	328				
32	–0.0179	326.0981	326					32	0.2446	333.5995	334				
33	0.0502	331.7280	332					33	0.3116	339.1674	339				
34	0.1183	337.3580	337					34	0.3787	344.7399	345				
35	0.1865	342.9964	343					35	0.4460	350.3271	350				
36	0.2550	348.6572	349					36	0.5136	355.9392	356				
37	0.3238	354.3494	354					37	0.5817	361.5869	362				
38	0.3932	360.0838	360					38	0.6502	367.2813	367				
39	0.4632	365.8718	366					39	0.7195	373.0338	373				
40	0.5339	371.7254	372					40	0.7896	378.8567	379				

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	STR30962.216	9	4	–1.58	Male/Female	Male
	STR30019.323	9	34	–1.74	Male/Female	Male
	STR30626.OSA	11	68	–1.88	Male/Female	Male
Mathematics	STM10258	3	29	–1.51	Male/Female	Male
	STM11872	7	20	–1.76	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	STM14867	6	47	–3.03	Male/Female	Male

Table 8.E.3 DIF Classifications for RLA, Grades Two through Four (operational items)

	Grade 2						Grade 3						Grade 4					
DIF	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
category	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	0	0	1	2	1	2	0	0	2	3	2	3
A-	35	54	34	52	33	51	29	45	30	46	32	49	35	47	33	44	33	44
A+	30	46	31	48	32	49	36	55	34	52	32	49	40	53	40	53	40	53
B+	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
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)

	Grade 5						Grade 6						Grade 7					
DIF	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
category	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	3	4	0	0	3	4	2	3	0	0	2	3
A-	33	44	40	53	41	55	29	39	0	0	29	39	31	41	0	0	31	41
A+	42	56	33	44	32	43	43	57	0	0	43	57	41	55	0	0	41	55
B+	0	0	2	3	2	3	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	2	3	0	0	2	3	0	0	0	0	0	0	1	1	0	0	1	1
B-	3	4	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	33	44	0	0	33	44	34	45	0	0	34	45	41	55	0	0	41	55	32	43	0	0	32	43
A+	38	51	0	0	38	51	38	51	0	0	38	51	33	44	0	0	33	44	40	53	0	0	40	53
B+	1	1	0	0	1	1	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)

	Grade 2						Grade 3						Grade 4					
DIF	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
category	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	0	0	0	0
B-	0	0	0	0	0	0	2	3	1	2	3	5	0	0	3	5	3	5
A-	28	43	28	43	31	48	27	42	33	51	24	37	33	51	27	42	29	45
A+	37	57	37	57	34	52	35	54	30	46	36	55	32	49	33	51	31	48
B+	0	0	0	0	0	0	0	0	1	2	1	2	0	0	2	3	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	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)

	Grade 5						Grade 6						Grade 7					
DIF	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
category	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	1	2	0	0	1	2
B-	2	3	2	3	4	6	4	6	0	0	4	6	3	5	0	0	3	5
A-	28	43	28	43	26	40	24	37	0	0	24	37	24	37	0	0	24	37
A+	35	54	34	52	34	52	33	51	0	0	33	51	34	52	0	0	34	52
B+	0	0	1	2	1	2	4	6	0	0	4	6	3	5	0	0	3	5
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)

	Algebra I						Geometry					
DIF	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
category	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	2	3	0	0	2	3
A-	35	54	0	0	35	54	32	49	0	0	32	49
A+	30	46	0	0	30	46	31	48	0	0	31	48
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	0	0	65	100	0	0
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)

	Grade 2						Grade 3						Grade 4					
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
DIF category	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	0	0	0	0	0	0	0	0	0	0	0	0
A-	49	68	0	0	49	68	34	47	0	0	34	47	29	54	0	0	29	54
A+	23	32	0	0	23	32	36	50	0	0	36	50	24	44	0	0	24	44
B+	0	0	0	0	0	0	2	3	0	0	2	3	1	2	0	0	1	2
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	0	0	54	100	0	0
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)

	Grade 5						Grade 6						Grade 7					
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
DIF category	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+	17	47	0	0	17	47	10	42	0	0	10	42	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
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	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	6	20	0	0	6	20	0	0	0	0	0	0	0	0	0	0	0	0
A+	0	0	0	0	0	0	4	13	0	0	4	13	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-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	4	6	0	0	4	6	6	8	0	0	6	8	3	6	0	0	3	6
A-	29	40	0	0	29	40	46	64	0	0	46	64	28	52	0	0	28	52
A+	37	51	0	0	37	51	20	28	0	0	20	28	22	41	0	0	22	41
B+	2	3	0	0	2	3	0	0	0	0	0	0	1	2	0	0	1	2
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	0	0	54	100	0	0
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)

	Grade 5						Grade 6						Grade 7					
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
DIF category	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	4	0	0	1	4	0	0	0	0	0	0
B-	2	6	0	0	2	6	2	8	0	0	2	8	0	0	0	0	0	0
A-	13	36	0	0	13	36	7	29	0	0	7	29	0	0	0	0	0	0
A+	20	56	0	0	20	56	13	54	0	0	13	54	0	0	0	0	0	0
B+	1	3	0	0	1	3	1	4	0	0	1	4	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.14 DIF Classifications for Algebra I and Geometry (field-test items)

	Algebra I						Geometry					
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
DIF category	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	3	0	0	1	3	0	0	0	0	0	0
A-	13	43	0	0	13	43	5	83	0	0	5	83
A+	16	53	0	0	16	53	1	17	0	0	1	17
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	30	100	0	0	0	0	6	100	0	0
TOTAL	30	100	30	100	30	100	6	100	6	100	6	100

Chapter 9: Quality Control Procedures

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. 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 their 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 100. 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 of the item development process.

Item Writers

The items for each STS are written by item writers that 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 takes pride in the typographical integrity of the items presented to our clients and 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 tests. 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 104 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 107 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 content experts make recommendations about whether to accept or reject each item for inclusion in the California item bank.

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 is 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 offsite, 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 their 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:

6. Scan the set of test documents.
7. Verify that the images from the documents are saved correctly.
8. Verify that the appropriate problem and resolution text displays for each type of error.
9. 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 sheets 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 sheets 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 get 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 155. 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, scored, and 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 157 in Chapter 7.

Quality Control of Item Analyses, DIF, 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 each process, as described below:

Calibrations

During the calibration process, which is described in detail in Chapter 2 starting on page 13, 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 fits the data.

Scaling

During the scaling process, checks are made to ensure the following:

- Correct-linking items are used;
- Stability analysis and subsequent removal of items from the linking set (if any) during the scaling evaluation process are implemented according to specification (see details in the "Evaluation of Scaling" section in Chapter 8, on page 233); and
- The 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-to-scale scoring 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/percent-correct scores increase as raw scores increase;
- The minimum reported scale score is 150 and maximum reported scale score is 600; and
- For grades two through seven, 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 these 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.

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 CST 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 and 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 at 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 CDE 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 are provided to the CDE and ETS for review and approval. Pearson sends paper reports on the actual report forms, folded 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 test, Pearson proceeds with the first production batch test. The first production batch is selected to validate a subset of school districts that contain 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 four over the spring 2011 administration, spring 2010 administration, and the base year 2009; and in grades five through seven over the spring 2011 administration and the base year 2010.

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 the 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
Mathematics	2	2009
	3	2009
	4	2009
	5	2010
	6	2010
	7	2010

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.

Examinee Performance

Table 10.A.1 and Table 10.A.2 on page 322 contain the number of examinees assessed and the means and standard deviations of examinees' scale scores in the base year (2009 for grade-level tests in grades two through four and 2010 for grade-level tests in grades five through seven), in the non-base year of 2010 for grade-level tests in grades two through four and in 2011 for grade-level tests in grades two through seven. As noted in previous chapters, the STS reporting scales range from 150 to 600 for all content areas.

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.3 and Table 10.A.4 on pages 322 and 323; 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.5 and Table 10.A.6 show the distribution of scale scores observed in the base year, 2010, and 2011 for the STS in RLA in grades two through seven; Table 10.A.7 and Table 10.A.8 show these data for mathematics. The 2010 data are only available for grades two through four. Frequency counts are provided for each scale score interval of 30. A frequency count of "NA" 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.

Table 10.B.1 and Table 10.B.2 in Appendix 10.B, which starts on page 326, present the average proportion correct values for the STS operational items in grades two through four grade-level tests in the base year, 2010 and 2011, and in grades five through seven grade-level tests in the base year and 2011. Table 10.B.3 and Table 10.B.4 show the mean equated IRT *b*-values for the STS operational items in grades two through four grade-level tests in the base year, 2010 and 2011, and in grades five through seven grade-level tests in the base year and 2011. Please note that comparisons of mean *b*-values should only be made within a given test; they should not be compared across grade levels or content areas.

The mean proportion correct is affected by both the difficulty of the items and the abilities of the students taking them. The mean equated IRT *b*-values reflect only average item difficulty of operational items.

The average point-biserial correlations for grades two through four grade-level STS operational tests in the base year, 2010, and 2011 are presented in Table 10.B.5 and for grades five through seven in the base year and 2011 in Table 10.B.6. The reliabilities and standard errors of measurement (SEM) expressed in raw score units for the grade-level STS operational tests in grades two through four in the base year, 2010, and 2011 appear

in Table 10.B.7 and, for grades five through seven in the base year and 2011, in Table 10.B.8. Like the average proportion correct, point-biserial correlations and reliabilities of the operational items are affected by both item characteristics and student characteristics.

Appendix 10.A—Historical Comparisons Tables

Table 10.A.1 Number of Examinees Tested, Scale Score Means and Standard Deviations of STS Across Base Year (2009), 2010 and 2011, Grades Two Through Four

		Number of Examinees (valid scores)			Scale Score Mean and Standard Deviation					
					Base		2010		2011	
Content Area	STS	Base	2010	2011	Mean	S.D.	Mean	S.D.	Mean	S.D.
Reading/Language Arts	2	13,300	11,518	10,783	333	53	331	52	331	55
	3	8,992	8,444	7,596	333	51	333	52	333	51
	4	4,897	4,459	4,411	325	51	326	54	327	54
Mathematics	2	13,250	11,505	10,771	360	72	367	75	365	73
	3	8,940	8,382	7,585	359	74	366	73	368	75
	4	4,893	4,428	4,409	359	72	363	74	368	75

Table 10.A.2 Number of Examinees Tested, Scale Score Means and Standard Deviations of STS for Base Year (2010) and 2011, Grades Five Through Seven

		Number of Examinees (valid scores)		Scale Score Mean and Standard Deviation			
				Base		2011	
Content Area	Grade-level STS	Base	2011	Mean	S.D.	Mean	S.D.
Reading/Language Arts	5	3,049	2,898	318	56	319	60
	6	1,962	1,918	318	54	322	57
	7	1,587	1,462	322	52	331	54
Mathematics	5	3,043	2,889	349	88	350	85
	6	1,952	1,905	332	77	332	77
	7	1,549	1,457	316	63	321	65

Table 10.A.3 Percentage of Proficient and Above and Percentage of Advanced Across Base Year (2009), 2010 and 2011, Grades Two Through Four

		% Proficient and Above			% Advanced		
Content Area	STS	Base	2010	2011	Base	2010	2011
Reading/Language Arts	2	40%	36%	39%	17%	14%	15%
	3	37%	35%	35%	13%	12%	13%
	4	35%	35%	36%	12%	14%	15%
Mathematics	2	54%	56%	57%	21%	25%	24%
	3	51%	55%	56%	19%	23%	25%
	4	52%	57%	58%	19%	22%	25%

Table 10.A.4 Percentage of Proficient and Above and Percentage of Advanced for Base Year (2010) and 2011, Grades Five Through Seven

Content Area	Grade-level STS	% Proficient and Above		% Advanced	
		Base	2011	Base	2011
Reading/Language Arts	5	29%	30%	9%	10%
	6	28%	33%	7%	9%
	7	31%	36%	8%	10%
Mathematics	5	46%	48%	22%	21%
	6	38%	35%	17%	16%
	7	27%	31%	8%	9%

Table 10.A.5 Observed Score Distributions of the STS Across Base Year (2009), 2010, and 2011 for RLA, Grades Two Through Four

Observed Score Distributions	RLA Grade 2			RLA Grade 3			RLA Grade 4		
	Base	2010	2011	Base	2010	2011	Base	2010	2011
570 – 600	8	13	9	2	4	1	NA	NA	NA
540 – 569	NA	NA	NA	NA	NA	NA	1	2	1
510 – 539	NA	21	NA	7	9	7	1	NA	NA
480 – 509	18	0	56	23	26	15	1	15	6
450 – 479	150	99	176	100	80	82	19	28	32
420 – 449	385	453	360	404	281	304	105	111	115
390 – 419	1,320	1,006	1,013	646	817	552	364	452	393
360 – 389	2,187	1,910	1,599	1,382	1,278	1,306	818	634	731
330 – 359	3,203	2,276	2,314	2,032	1,926	1,685	1,007	977	834
300 – 329	2,416	2,464	1,946	1,860	1,666	1,593	955	807	902
270 – 299	1,941	1,870	1,742	1,587	1,367	1,272	846	669	670
240 – 269	1,231	1,062	1,110	812	823	663	584	546	511
210 – 239	409	325	413	126	153	111	181	200	206
180 – 209	29	19	44	11	14	5	15	18	10
150 – 179	3	NA	1	NA	NA	NA	NA	NA	NA

Table 10.A.6 Observed Score Distributions of the STS for Base Year (2010) and 2011 for RLA, Grades Five Through Seven

Observed Score Distributions	RLA Grade 5		RLA Grade 6		RLA Grade 7	
	Base	2011	Base	2011	Base	2011
570 – 600	NA	NA	NA	NA	NA	NA
540 – 569	NA	4	NA	NA	NA	NA
510 – 539	2	4	1	1	NA	1
480 – 509	10	17	4	3	3	2
450 – 479	27	41	11	17	8	18
420 – 449	116	120	50	76	49	75
390 – 419	186	187	148	145	122	113
360 – 389	359	355	207	306	224	234
330 – 359	511	425	369	325	251	289
300 – 329	602	557	412	326	327	290
270 – 299	583	562	388	345	327	226
240 – 269	460	397	271	241	208	166
210 – 239	169	212	88	123	66	47
180 – 209	23	16	13	7	1	1
150 – 179	1	1	NA	3	1	NA

Table 10.A.7 Observed Score Distributions of the STS Across Base Year (2009), 2010 and 2011 for Mathematics, Grades Two Through Four

Observed Score Distributions	Math Grade 2			Math Grade 3			Math Grade 4		
	Base	2010	2011	Base	2010	2011	Base	2010	2011
570 – 600	130	177	141	42	136	109	28	8	24
540 – 569	NA	NA	NA	86	NA	NA	20	21	32
510 – 539	322	184	174	136	111	115	48	52	55
480 – 509	272	518	424	365	356	326	130	161	172
450 – 479	580	631	556	442	398	662	342	346	390
420 – 449	1,437	967	932	657	955	688	381	383	432
390 – 419	1,648	1,693	1,387	1,235	970	978	668	664	639
360 – 389	1,977	1,684	1,940	1,146	1,313	990	686	673	604
330 – 359	2,289	1,874	1,736	1,487	1,217	1,253	875	613	604
300 – 329	1,894	1,552	1,450	1,361	1,374	1,021	620	520	575
270 – 299	1,345	1,329	1,147	1,115	852	749	527	518	426
240 – 269	978	637	591	632	588	500	384	289	300
210 – 239	290	205	238	198	104	164	149	150	133
180 – 209	78	45	48	35	8	28	32	28	21
150 – 179	10	9	7	3	NA	2	3	2	2

Table 10.A.8 Observed Score Distributions of the STS for Base Year (2010) and 2011 for Mathematics, Grades Five Through Seven

Observed Score Distributions	Math Grade 5		Math Grade 6		Math Grade 7	
	Base	2011	Base	2011	Base	2011
570 – 600	49	50	16	9	2	3
540 – 569	54	25	11	15	4	3
510 – 539	75	68	14	19	6	6
480 – 509	62	76	36	51	5	15
450 – 479	190	122	56	61	38	31
420 – 449	171	207	100	94	41	63
390 – 419	327	284	189	176	98	103
360 – 389	311	395	218	206	154	139
330 – 359	395	432	271	247	192	200
300 – 329	474	395	291	305	325	294
270 – 299	338	323	304	293	311	295
240 – 269	289	266	253	257	224	187
210 – 239	210	164	143	123	128	102
180 – 209	81	59	39	40	20	15
150 – 179	17	23	11	9	1	1

Appendix 10.B—Historical Comparisons Tables

Table 10.B.1 Average Proportion-Correct for Operational Test Items Across Base Year (2009), 2010, and 2011, Grades Two Through Four

Content Area	Grade-level STS	Average *p*-value		
		Base	2010	2011
Reading/Language Arts	2	0.65	0.62	0.64
	3	0.59	0.59	0.58
	4	0.57	0.58	0.59
Mathematics	2	0.67	0.69	0.69
	3	0.66	0.67	0.67
	4	0.63	0.64	0.66

Table 10.B.2 Average Proportion-Correct for Operational Test Items for Base Year (2010) and 2011, Grades Five Through Seven

Content Area	Grade-level STS	Average *p*-value	
		Base	2011
Reading/Language Arts	5	0.49	0.51
	6	0.48	0.51
	7	0.53	0.55
Mathematics	5	0.54	0.55
	6	0.50	0.50
	7	0.44	0.46

Table 10.B.3 Overall IRT *b*-values for Operational Test Items Across Base Year (2009), 2010 and 2011, Grades Two Through Four

Content Area	Grade-level STS	Mean IRT *b*-value		
		Base	2010	2011
Reading/Language Arts	2	–0.59	–0.46	–0.59
	3	–0.31	–0.31	–0.26
	4	–0.18	–0.24	–0.24
Mathematics	2	–0.77	–0.77	–0.78
	3	–0.62	–0.57	–0.56
	4	–0.48	–0.46	–0.48

Table 10.B.4 Overall IRT *b*-values for Operational Test Items for Base Year (2010) and 2011, Grades Five Through Seven

Content Area	Grade-level STS	Mean IRT *b*-value	
		Base	2011
Reading/Language Arts	5	0.09	0.00
	6	0.05	–0.03
	7	–0.16	–0.16
Mathematics	5	–0.06	–0.08
	6	0.04	0.00
	7	0.29	0.28

Table 10.B.5 Average Point-Biserial Correlation for Operational Test Items Across Base Year (2009), 2010 and 2011, Grades Two Through Four

Content Area	Grade-level STS	Average Point-Biserial Correlation		
		Base	2010	2011
Reading/Language Arts	2	0.43	0.42	0.44
	3	0.39	0.40	0.39
	4	0.39	0.41	0.41
Mathematics	2	0.40	0.41	0.41
	3	0.44	0.43	0.44
	4	0.41	0.43	0.43

Table 10.B.6 Average Point-Biserial Correlation for Operational Test Items for Base Year (2010) and 2011, Grades Five Through Seven

Content Area	Grade-level STS	Average Point-Biserial Correlation	
		Base	2011
Reading/Language Arts	5	0.36	0.38
	6	0.33	0.36
	7	0.35	0.36
Mathematics	5	0.39	0.37
	6	0.37	0.38
	7	0.33	0.33

Table 10.B.7 Score Reliabilities (Cronbach's Alpha) and Standard Error of Measurement (SEM) Across Base Year (2009), 2010 and 2011, Grades Two Through Four

Content Area	Grade-level STS	Reliability			SEM		
		Base	2010	2011	Base	2010	2011
Reading/Language Arts	2	0.93	0.93	0.93	3.34	3.42	3.38
	3	0.91	0.92	0.91	3.51	3.52	3.55
	4	0.93	0.93	0.93	3.79	3.77	3.78
Mathematics	2	0.92	0.92	0.92	3.31	3.28	3.28
	3	0.93	0.93	0.94	3.30	3.29	3.24
	4	0.92	0.93	0.93	3.42	3.38	3.33

Table 10.B.8 Score Reliabilities (Cronbach's Alpha) and Standard Error of Measurement (SEM) for Base Year (2010) and 2011, Grades Five Through Seven

Content Area	Grade-level STS	Reliability		SEM	
		Base	2011	Base	2011
Reading/Language Arts	5	0.91	0.92	3.96	3.94
	6	0.89	0.91	3.95	3.95
	7	0.90	0.91	3.89	3.87
Mathematics	5	0.91	0.90	3.62	3.65
	6	0.91	0.91	3.61	3.62
	7	0.87	0.88	3.69	3.68