

California Department of Education Statewide Assessment Division



Standards-based Tests in Spanish Technical Report Spring 2009 Administration

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Acronyms and Initialisms Used in the *STS Technical Report*

ADA	Americans with Disabilities Act	ICC	item characteristic curve
ARP	Assessment Review Panel	IEP	individualized education program
API	Academic Performance Index	IRT	item response theory
Aprenda 3	La prueba de logros en español, Tercera edición	LEA	local education agency
CI	confidence interval	MH DIF	Mantel-Haenszel DIF
CAPA	California Alternate Performance Assessment	NPS	nonsecure, nonsectarian school
CDE	California Department of Education	NSLP	National School Lunch Program
CDS	county/district/school	OTI	Office of Testing Integrity
CMA	California Modified Assessment	<i>p</i> -value	item proportion correct
CSEMs	conditional standard errors of measurement	Pt-Rbis	point-biserial correlations
CSTs	California Standards Tests	RACF	Random Access Control Facility
DIF	differential item functioning	RLA	reading/language arts
<i>DFA</i>	<i>Directions for Administration</i>	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	SR&T	Scoring, Reporting & Technology
ESEA	Elementary and Secondary Education Act	STAR	Standardized Testing and Reporting
ETS	Educational Testing Service	STAR TAC	STAR Technical Assistance Center
FIA	final item analyses	STS	Standards-based Tests in Spanish
GENASYS	Generalized Analysis System	WRMSD	weighted root-mean-square differences

Chapter 1: Introduction

Background

In 1997 and 1998, the California State Board of Education (SBE) adopted rigorous content standards in four major content areas: English–language arts (ELA), mathematics, history–social science, and science. These standards are designed to guide instruction and learning for all students in the state and to bring California students to world-class levels of achievement.

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). Senate Bill 1448, approved by the Legislature and the Governor in August 2004, reauthorized the STAR Program through January 1, 2011, in grades three through eleven. STAR Program testing in grade two has also been extended to the 2011 school year (spring 2011 administration) after Senate Bill 80 was passed in September 2007.

During its 2009 administration, the STAR Program had four components:

- California Standards based 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 disabilities who meet the CMA eligibility criteria approved by the SBE (In 2009, the CMA was administered for ELA in grades three through eight, for mathematics in grades three through seven, and for science in grades five and eight.)
- California Alternate Performance Assessment (CAPA), produced for students with significant cognitive disabilities who are not able to take the CSTs or the CMA.
- 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) (In 2009, the STS was administered for Reading-language arts [RLA] in grades two through eleven, for grade-level mathematics in grades two through seven, for end-of-course [EOC] Algebra I in grades seven through eleven, and for EOC Geometry in grades eight through eleven.)

Test Purpose

According to the California *Education Code* Section 60640 (<http://leginfo.legislature.ca.gov/faces/codes.xhtml>):

“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.”

The purpose of the STS program is to permit Spanish-speaking English learners (ELs) to demonstrate achievement of the California content standards in 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.

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, 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 are enrolled in an Algebra I course take the STS for Algebra I instead of the grade-level test.

In 2009, the STS tests included the following tests:

- 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 tests are targeted toward Spanish-speaking English learners who have been in school in the United States for less than a year 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” 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 necessarily 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.

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 California *Education Code* Section 60602, <http://leginfo.legislature.ca.gov/faces/codes.xhtml>):

“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 state and federal accountability purposes.

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, Title 5, Education, Division 1, Chapter 2, Subchapter 3.75, Article 2, § 855*; <http://www.cde.ca.gov/ta/tg/sr/starregs0207cln.doc>).

Significant Developments in 2009

Replacement of the Aprenda 3 with the STS

Aprenda: La prueba de logros en español, Tercera edición (Aprenda 3), published by Harcourt Assessment Inc., was previously given as the DPLT in grades two through eleven. In 2007, the STS replaced the Aprenda 3 in grades two through four. In 2008, grades five through seven were also replaced by the STS. In 2009, the STS also replaced the Aprenda 3 in grades eight through eleven.

Grade Levels Tested

2009 is the first year in which the RLA and mathematics tests were administered to eligible students in grades eight through eleven. Before 2009, the STS tests were only administered to eligible students in grades two through seven.

Scale Scores and Proficiency Levels Reported

2009 is the first year in which scale scores and proficiency levels were reported for the STS RLA and mathematics tests for grades two through four. Before 2009, only percent correct scores were reported. Scale scores and proficiency levels will be reported for grades five through seven in 2010 and in grades eight through eleven in 2012.

Limitations of the Assessment

Score Interpretation

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 test results (CDE, 2009). It is also important to note that a student's score in a content area probably contains a standard measurement error and could vary somewhat if the student was retested.

Out-of-Level Testing

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. 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 user 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 2009 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 user may compare results for the same subject and grade, within a classroom, within a school, between schools, or between a school and its district, its county, or the state to previous years. Comparisons between scores obtained in different grades or content areas should be avoided.

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

Finally, for students in grades two through four, scores obtained in 2009 should not be compared with those obtained in previous years because score scales were not reported before 2009.

Groups and Organizations Involved with the STAR Program

State Board of Education (SBE)

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 *Education Code*.

The SBE is responsible for assuring the compliance with programs that meet the requirement of the federal Elementary and Secondary Education Act (ESEA) and for reporting results in terms of the Academic Performance Index (API), which measures 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 (CDE)

The CDE oversees California's public school system, which is responsible for the education of more than seven million children and young adults in more than 9,000 schools. The CDE's mission is to provide leadership, assistance, oversight, and resources so that every child in California has access to an educational system that meets world-class standards.

As part of its mission to promote district and school accountability for improving student achievement as defined by the SBE, the CDE oversees the development and administration of the STAR Program.

Contractors

Educational Testing Service (ETS)

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 improve its overall assessment system and to coordinate the work of ETS and its subcontractor Pearson. Activities directly conducted by ETS include 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 production of all scannable test materials; packaging, distribution, and collection of test 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 2009. The technical report contains eight additional chapters as follows:

- Chapter 2 presents a conceptual overview of processes involved in a testing cycle for an STS test. 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.
- 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 applicable to the construction of STS tests for 2009.
- Chapter 5 presents the processes involved in the actual administration of the 2009 STS tests 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 conducted for the RLA and mathematics STS grades tests for grades two and four. In addition, results describing students' proficiency classifications and their reported scores are also provided.
- 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 item-level analyses performed during the spring 2009 administration of the tests. These include the classical item analyses; the results of reliability analyses that include assessments of test reliability and the consistency and

accuracy of the STS proficiency-level classifications; the procedures designed to ensure the validity of STS score uses and interpretations; item response theory (IRT) and model-fit analyses; and differential item functioning (DIF) analyses. This chapter also includes as well as documentation of the equating along with STS conversion tables.

- Chapter 9 highlights the importance of controlling and maintaining the quality of the STS.

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

References

California Department of Education. (2009). *Interpreting 2009 STAR program test results*. Sacramento, CA. <http://www.cde.ca.gov/ta/tg/sr/documents/star09intrprslt.pdf>.

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 an STS test; 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 below.

Item Development

Item Formats

All STS items are four-option multiple-choice items.

Item Development 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 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.

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 CSTs 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 development specifications, the item review process, the item utilization plan, and the rules for arranging items on the forms are presented in Chapter 3, starting on page 99.

Item Banking

The newly developed items are field tested to obtain information about item performance and to obtain statistics that can be used to assemble operational forms. Once items have been field tested, ETS prepares the items and the associated statistics for review by the content experts. The items are then placed in the item bank along with their corresponding review information. 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 STAR 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 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 108 in Chapter 3.

Item Refresh Rate and Released Test Questions

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 in Chapter 3. Due to the limited size of the STS item pool, which is still in the development stage, there is currently no plan to release STS operational items to the public.

Test Assembly

Test Length

The total number of items in each STS and the estimated time to complete a test is presented in Appendix 2.A on page 18. The total number of items in each STS includes both the operational and embedded field-test items. The STS RLA tests consist of 65 operational items and six field-test items in grades two and three, 75 operational items and six field-test items in grades four through seven, and 40 operational items and 41 field-test items in grades eight through eleven. The STS mathematics tests in grades two through seven and the STS for Geometry test consist of 65 operational items and six field-test items. The STS for Algebra I test consists of 40 operational items and 31 field-test items. For all tests, the operational items remain the same across test forms and the field test items are varied in terms of content. Factors taken into account when deciding on the test length are described on page 110 in Chapter 4.

Test Blueprint

ETS selects all STS test items to conform with 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 on the STS items in grades two through seven are grouped into subcontent areas, referred to as “reporting clusters.” Reporting cluster information is not available for the STS tests in grades eight through eleven. 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 seven and the standards that compose each reporting cluster are provided in Appendix 2.B, which begins on page 19.

Content Rules and Item Selection

When developing a new test 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 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 they are used to equate the test forms administered each year. In 2009, linking items were used to equate STS tests in grades two through four. No equating process was implemented for STS tests in grades five through eleven, which did not report scale scores in 2009. 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 110.

Psychometric Criteria

For the STS, the test developers and psychometricians strive to accomplish three goals while developing a test:

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. Such rules are referred to as statistical targets. Three types of assembly targets are developed for each STS: the total test target, the linking block target, and reporting cluster targets. 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 these targets.

The staff also assesses the projected test characteristics during the preliminary review of the assembled forms. The test targets used for the 2009 test development and the projected characteristics of the assembled forms are presented in Chapter 4, which begins on page 110.

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 in Chapter 4.

Test Administration

It is of utmost priority to ETS 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 124.

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 124.

- Test development process
- Item and data review process
- Item banking
- Transfer of forms and items to the CDE
- Security of electronic files via 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 tests, as described in this section.

Test Administrators

The STS tests are administered in conjunction with the other tests that comprise the STAR Program. In that respect, ETS employs personnel who facilitate various processes involved in the standardization of an administration cycle. Staff at school districts who are central to the processes include district STAR coordinators, test examiners, proctors, and scribes. The responsibilities for each of the staff members are included in the *STAR District and Test Site Coordinator Manual* (CDE, 2009), which is presented in more detail on page 130 in Chapter 5.

Test Directions

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

Directions for Administration (DFAs)—Manuals used by test examiners to administer the STS tests to students to be followed exactly so that all students have an equal opportunity to demonstrate their academic achievement

District and Test Site Coordinator Manual—Test administration procedures for district STAR coordinators and test site coordinators (see page 130 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

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 tests under standard conditions. Some students with disabilities, however, may need assistance when taking the STS tests. This assistance takes the form of test variations, accommodations, or modifications, as defined on the next page. 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 individualized education program (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. The purpose of test variations, accommodations, and modifications is to enable the students to take the STS tests, not to give them an advantage over other students or to improve their scores. Scores for students tested with modifications are counted as far below basic on the STAR summary reports for STS tests that report proficiency 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 tests with accommodations if specified in their IEP or Section 504 plan for use on the STS tests or for use during classroom instruction and assessment. Examples of accommodations are large-print or braille versions of the STS tests 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 tests with modifications if specified in the student’s IEP or Section 504 plan for use on the STS tests or for use during classroom instruction and assessment. Examples of modifications include reading the test to the student or the allowing use of a calculator by a student to perform computations on the mathematics test.

Appendix 2.C presents the 2009 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 STAR Program in 2009. The tables in Appendix 2.D summarizes participation for each test.

Accommodation Summaries

The percentage of students using various testing accommodations during the 2009 administration of all 18 STS tests is presented in Appendix 2.D, which starts on page 24. The data are organized into five sections within each table. The first section presents the percentages of students using each accommodation in the total testing population. The results for target and non-target 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 in U.S. schools for less than 12 months and students 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.

Most accommodations are common across the STS tests, although additional accommodations are included for the STS mathematics tests and involved having test questions read aloud.

Scores

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

For STS in grades two through four, total raw scores are transformed to three-digit scale scores using the equating process described starting on page 14. STS results are reported through the use of these scale scores; the scores range from 150 to 600 for each test. Also reported are performance levels obtained by categorizing the scale score into one of the following categories: far below basic, below basic, basic, proficient, or advanced. The state’s target is for all students to score at the proficient or advanced level.

STS performance on various reporting clusters is also reported for grades two through seven. 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 described on page 140 in Chapter 7.

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, independent charter school, district, county, and state levels. The aggregated scores are generated both for individual scores as well as group scores. The following section presents the types of aggregation performed on STS scores.

Individual Scores

Table 7.1 through Table 7.4 in Chapter 7 offer summary statistics for individual scores describing student performance on each STS test. Table 7.1 through Table 7.3 include the means and standard deviations of student scores expressed in terms of both raw scores and scale scores. Also given are the raw score means and standard deviations expressed as percentages of the total raw score points in each test for the overall, target, and non-target STS students respectively. Table 7.4 presents the percentages of STS target students in each performance category.

Group 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 in Appendix 7.B for overall and target STS students respectively. In the tables, students are grouped by demographic characteristics including gender, country of origin, economic status, 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 four, raw score means and standard deviations for grades five and through eleven, as well as mean percent correct scores for each reporting cluster for each demographic group for grades two through seven.

Table 2.1 defines the demographic groups included in the tables. Students' economic status is determined by considering the education level of their parents and whether or not they are eligible for the National School Lunch Program (NSLP).

Table 2.1 Subgroup Definitions

Subgroup	Definition
Gender	Female Male
Country of origin	United States Mexico Spain Puerto Rico Cuba Guatemala El Salvador Columbia Brazil Ecuador

Subgroup	Definition
	Venezuela Peru Bolivia Chile Paraguay Argentina Uruguay Panama Costa Rica 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

Equating

The STS tests in grades two through four are equated to a reference form using a common-item nonequivalent groups design and methods based on item response theory. The “base” or “reference” calibrations 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 2009 STS items in grades two through four were placed on the reference scale using a set of linking items selected from the 2008 forms and re-administered in 2009.

The procedure used for equating the STS tests in grades two through four involves three steps: item calibration, item parameter scaling, and true-score equating.

For the STS in grades five through eleven, no scale scores were reported in 2009 and no equating was conducted for these tests. Only item calibration was implemented 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 2009 items 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. 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 (WRMSD) between item characteristic curves (ICCs) based on the old and new difficulty estimates were removed from the linking set. The differences were calculated using the following formula:

$$\text{WRMSD} = \sqrt{\sum_{j=1}^{61} w_j [P_n(\theta_j) - P_r(\theta_j)]^2}, \quad (2.1)$$

where,

θ_j is an ability estimate that ranges from -3.0 to 3.0,

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 j , and

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

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.

True Score Equating

Once the new item calibrations for each test 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 (theta). The ability estimates can then be transformed to scale scores through linear transformation.

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

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

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 equating procedure first solves for the corresponding ability estimate using equation 2.2. The procedure uses this ability estimate

to find the corresponding scale score by applying linear transformation with the appropriate slope and intercept. The slope and intercept for STS in grades two through four were developed from the base forms, which are the 2008 operational forms, using the equations below:

$$\text{slope} = \frac{350 - 300}{\hat{\theta}_{\text{proficient}} - \hat{\theta}_{\text{basic}}} \quad (2.3)$$

$$\text{intercept} = 350 - \hat{\theta}_{\text{proficient}} \times \left(\frac{350 - 300}{\hat{\theta}_{\text{proficient}} - \hat{\theta}_{\text{basic}}} \right) \quad (2.4)$$

where

$\hat{\theta}_{\text{pro}}$ represents theta cut-score for proficient on spring 2008 base scale

$\hat{\theta}_{\text{bas}}$ represents theta cut-score for basic on spring 2008 base scale

Complete raw-to-scale score conversion tables for the 2009 STS tests in grades two through four are presented in Table 8.D.27 through Table 8.D.30 in Appendix 8.D, starting on page 260. The raw scores and corresponding unrounded converted scale scores are listed in those tables. For all of these STS tests, 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 scores defining the various proficiency-level cut points are presented in Table 2.2.

Table 2.2 Scale Score Ranges for Performance Levels

Subject	STS	Far Below Basic	Below Basic	Basic	Proficient	Advanced
<i>Reading/ Language Arts</i>	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
<i>Mathematics</i>	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

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 2009, all STS items could be translated into braille and no special braille form equating was needed.

References

- California Department of Education. (2009). *2009 STAR district and test site coordinator manual*. Sacramento, CA. http://www.startest.org/pdfs/STAR.coord_man.2009.pdf.
- Educational Testing Service. (2002). *ETS standards for quality and fairness*. Office of Testing Integrity, Princeton, NJ: Educational Testing Service.
- Stocking, M. L., and Lord, F. M. (1983). Developing a common metric in item response theory. *Applied Psychological Measurement*, Vol. 7, pp. 201–10.

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																		
Reading/Language Arts	150	170	150	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
Part 1	50	50	50	50	81	85	81	85	81	85	81	85	81	85	81	85	81	85	81	85
Part 2	50	50	50	50	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
Part 3—only grades 2 & 3	50	50	50	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mathematics	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
Part 1	50	50	50	50	71	75	71	75	71	75	71	75	71	75	71	75	71	75	71	75
Part 2	50	50	50	50	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Part 3—only grades 2 & 3	50	50	50	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

¹ 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

Writing Conventions	14 items
Written 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

Writing Conventions	13 items
Written 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

Writing Conventions	18 items
Written 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

Writing Conventions	17 items
Written 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

Writing Conventions	16 items
Written 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

Writing Conventions	16 items
Written Strategies	17 items

Mathematics**Mathematics Standards Test (Grade Two)***Number Sense*

Place value, addition, and subtraction	15 items
Multiplication, division, and fractions	23 items

<i>Algebra and Functions</i>	6 items
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<i>Measurement and Geometry</i>	14 items
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<i>Statistics, Data Analysis, and Probability</i>	7 items
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Mathematics Standards Test (Grade Three)*Number Sense*

Place value, fractions, and decimals	16 items
Addition, subtraction, multiplication, division	16 items

<i>Algebra and Functions</i>	12 items
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<i>Measurement and Geometry</i>	16 items
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<i>Statistics, Data Analysis, and Probability</i>	5 items
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Mathematics Standards Test (Grade Four)*Number Sense*

Decimals, fractions, and negative numbers	17 items
Operations and factoring	14 items

<i>Algebra and Functions</i>	18 items
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<i>Measurement and Geometry</i>	12 items
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<i>Statistics, Data Analysis, and Probability</i>	4 items
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Mathematics Standards Test (Grade Five)*Number Sense*

Estimation, percents, and factoring	12 items
Operations with fractions and decimals	17 items

<i>Algebra and Functions</i>	17 items
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<i>Measurement and Geometry</i>	15 items
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<i>Statistics, Data Analysis, and Probability</i>	4 items
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Mathematics Standards Test (Grade Six)

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

Mathematics Standards Test (Grade Seven)

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

Appendix 2.C—2009 Test Variations, Accommodations, and Modifications

Test Variation (1) Accommodation (2) Modification (3)	
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 or American Sign Language 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
Responses dictated [orally, or in Manually Coded English or American Sign Language] to a scribe for selected-response items (multiple-choice questions)	2
Assistive device that does not interfere with the independent work of the student on the multiple-choice and/or essay responses (writing portion of the test)	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 Reading, Language, Spelling
Calculator on the mathematics tests	3
Arithmetic table or formulas (not provided) on the mathematics tests	3

Test Variation (1) Accommodation (2) Modification (3)	
Math manipulatives on the mathematics tests	3
Assistive device that interferes with the independent work of the student on the multiple-choice and/or essay responses	3

Test Variation (1) = Eligible students may have testing variations if regularly used in the classroom.

Accommodation (2) = 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.

Modification (3) = 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—Accommodation Summary Tables

Note: The sum of the numbers of students across subgroups may not match exactly to the total testing population. For example, Students in Special Education + Students not in Special Education ≠ All Tested for the provision of an accommodation. This occurred because only valid primary disability codes were chosen to identify those subgroups.

Table 2.D.1 Accommodation Summary for RLA, Grades Two and Three

Accommodation 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	2	0.01%	1	0.01%
C: Dictated responses to a scribe	2	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	1	0.01%
J: Tested over more than one day	9	0.06%	3	0.03%
K: Had supervised breaks	22	0.14%	16	0.16%
L: Administered at most beneficial time of day	13	0.08%	1	0.01%
M: Administered at home or in a hospital	1	0.01%	2	0.02%
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	7	0.05%	2	0.02%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	5	0.03%	4	0.04%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	33	0.21%	19	0.19%
<i>Any Accommodation or Modification</i>	41	0.26%	26	0.25%
<i>No Accommodation or Modification</i>	15,460	99.74%	10,231	99.75%
Target Students Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	0	0.00%	1	0.01%
C: Dictated responses to a scribe	2	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	1	0.01%
J: Tested over more than one day	2	0.01%	2	0.02%
K: Had supervised breaks	10	0.07%	13	0.14%
L: Administered at most beneficial time of day	7	0.05%	0	0.00%
M: Administered at home or in a hospital	1	0.01%	2	0.02%
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%

Accommodation Summary for RLA, Grades Two and Three				
X: Used an unlisted accommodation	6	0.04%	2	0.02%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	5	0.04%	4	0.04%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	19	0.14%	17	0.19%
<i>Any</i> Accommodation or Modification	26	0.19%	23	0.25%
<i>No</i> Accommodation or Modification	13,368	99.81%	9,029	99.75%
Non-Target (Optional) Students Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	2	0.09%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	2	0.09%	0	0.00%
J: Tested over more than one day	7	0.33%	1	0.08%
K: Had supervised breaks	12	0.57%	3	0.25%
L: Administered at most beneficial time of day	6	0.28%	1	0.08%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.05%	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	14	0.66%	2	0.17%
<i>Any</i> Accommodation or Modification	15	0.71%	3	0.25%
<i>No</i> Accommodation or Modification	2,092	99.29%	1,202	99.75%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	0	0.00%
J: Tested over more than one day	3	0.02%	0	0.00%
K: Had supervised breaks	4	0.03%	1	0.01%
L: Administered at most beneficial time of day	2	0.01%	0	0.00%
M: Administered at home or in a hospital	1	0.01%	2	0.02%
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%

Accommodation Summary for RLA, Grades Two and Three				
X: Used an unlisted accommodation	0	0.00%	1	0.01%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.01%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	5	0.03%	2	0.02%
<i>Any</i> Accommodation or Modification	8	0.05%	5	0.05%
<i>No</i> Accommodation or Modification	14,659	99.95%	9,623	99.95%
Students in Special Education	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	2	0.24%	1	0.16%
C: Dictated responses to a scribe	2	0.24%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	2	0.24%	1	0.16%
J: Tested over more than one day	6	0.72%	3	0.48%
K: Had supervised breaks	18	2.16%	15	2.38%
L: Administered at most beneficial time of day	10	1.20%	1	0.16%
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	7	0.84%	1	0.16%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	3	0.36%	3	0.48%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	26	3.13%	17	2.70%
<i>Any</i> Accommodation or Modification	31	3.73%	21	3.34%
<i>No</i> Accommodation or Modification	801	96.27%	608	96.66%
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	1	0.05%	0	0.00%
F: Used non-interfering 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	2	0.11%	2	0.12%
L: Administered at most beneficial time of day	2	0.11%	0	0.00%
M: Administered at home or in a hospital	1	0.05%	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%

Accommodation Summary for RLA, Grades Two and Three				
X: Used an unlisted accommodation	1	0.05%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.05%	1	0.06%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.16%	2	0.12%
<i>Any</i> Accommodation or Modification	7	0.38%	3	0.18%
<i>No</i> Accommodation or Modification	1,821	99.62%	1,672	99.82%
Students in U.S. Schools >= 12 Months	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	2	0.01%	1	0.01%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	1	0.01%
J: Tested over more than one day	9	0.07%	3	0.03%
K: Had supervised breaks	20	0.15%	14	0.16%
L: Administered at most beneficial time of day	11	0.08%	1	0.01%
M: Administered at home or in a hospital	0	0.00%	2	0.02%
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	6	0.04%	2	0.02%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	4	0.03%	3	0.03%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	30	0.22%	17	0.20%
<i>Any</i> Accommodation or Modification	34	0.25%	23	0.27%
<i>No</i> Accommodation or Modification	13,639	99.75%	8,559	99.73%
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 non-interfering 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	0.20%	0	0.00%
L: Administered at most beneficial time of day	1	0.20%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

Accommodation 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	1	0.20%	0	0.00%
Any Accommodation or Modification	1	0.20%	0	0.00%
No Accommodation or Modification	492	99.80%	277	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	1	0.10%	0	0.00%
F: Used non-interfering 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	2	0.21%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.10%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.11%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.31%	0	0.00%
Any Accommodation or Modification	4	0.42%	1	0.11%
No Accommodation or Modification	952	99.58%	897	99.89%
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	1	0.08%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering 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	2	0.15%	0	0.00%
L: Administered at most beneficial time of day	1	0.08%	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%

Accommodation 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	3	0.23%	0	0.00%
Any Accommodation or Modification	4	0.31%	0	0.00%
No Accommodation or Modification	1,296	99.69%	837	100.00%
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%	1	0.01%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	1	0.01%
J: Tested over more than one day	2	0.02%	2	0.03%
K: Had supervised breaks	9	0.07%	13	0.17%
L: Administered at most beneficial time of day	5	0.04%	0	0.00%
M: Administered at home or in a hospital	1	0.01%	2	0.03%
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	5	0.04%	2	0.03%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	4	0.03%	3	0.04%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	17	0.14%	17	0.22%
Any Accommodation or Modification	21	0.17%	22	0.28%
No Accommodation or Modification	12,078	99.83%	7,723	99.72%
EL Program: Other EL Instructional Services	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	1	0.22%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.22%	0	0.00%
J: Tested over more than one day	5	1.12%	1	0.27%
K: Had supervised breaks	6	1.35%	3	0.81%
L: Administered at most beneficial time of day	5	1.12%	1	0.27%
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%

Accommodation Summary for RLA, Grades Two and Three				
X: Used an unlisted accommodation	1	0.22%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	6	1.35%	2	0.54%
Any Accommodation or Modification	8	1.80%	3	0.81%
No Accommodation or Modification	437	98.20%	368	99.19%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	3.85%	0	0.00%
K: Had supervised breaks	2	3.85%	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	3.85%	0	0.00%
Any Accommodation or Modification	2	3.85%	0	0.00%
No Accommodation or Modification	50	96.15%	19	100.00%

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

Accommodation 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	3	0.05%	1	0.02%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	2	0.04%	1	0.02%
H: Used large-print test	0	0.00%	1	0.02%
J: Tested over more than one day	4	0.07%	5	0.11%
K: Had supervised breaks	13	0.23%	13	0.30%
L: Administered at most beneficial time of day	2	0.04%	3	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	1	0.02%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	4	0.07%	4	0.09%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	18	0.32%	15	0.34%
<i>Any Accommodation or Modification</i>	20	0.36%	17	0.39%
<i>No Accommodation or Modification</i>	5,571	99.64%	4,347	99.61%
Target Students Tested	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked in test booklet	2	0.04%	1	0.03%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.02%	1	0.03%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.04%	4	0.11%
K: Had supervised breaks	9	0.18%	11	0.30%
L: Administered at most beneficial time of day	1	0.02%	2	0.05%
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	4	0.08%	4	0.11%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	13	0.26%	12	0.33%
<i>Any Accommodation or Modification</i>	15	0.31%	14	0.38%
<i>No Accommodation or Modification</i>	4,900	99.69%	3,676	99.62%

Accommodation Summary for RLA, Grades Four and Five				
Non-Target (Optional) Students Tested	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked in test booklet	1	0.15%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.15%	0	0.00%
H: Used large-print test	0	0.00%	1	0.15%
J: Tested over more than one day	2	0.30%	1	0.15%
K: Had supervised breaks	4	0.59%	2	0.30%
L: Administered at most beneficial time of day	1	0.15%	1	0.15%
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%
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	0.15%	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	5	0.74%	3	0.45%
<i>Any Accommodation or Modification</i>	5	0.74%	3	0.45%
<i>No Accommodation or Modification</i>	671	99.26%	671	99.55%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.04%	1	0.02%
K: Had supervised breaks	3	0.06%	3	0.07%
L: Administered at most beneficial time of day	1	0.02%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	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%	2	0.05%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.06%	2	0.05%
<i>Any Accommodation or Modification</i>	3	0.06%	4	0.10%
<i>No Accommodation or Modification</i>	5,268	99.94%	4,081	99.90%

Accommodation 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	3	0.94%	1	0.36%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	2	0.63%	1	0.36%
H: Used large-print test	0	0.00%	1	0.36%
J: Tested over more than one day	2	0.63%	4	1.43%
K: Had supervised breaks	10	3.13%	10	3.58%
L: Administered at most beneficial time of day	1	0.31%	3	1.08%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.31%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	3	0.94%	2	0.72%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	15	4.69%	13	4.66%
<i>Any Accommodation or Modification</i>	17	5.31%	13	4.66%
<i>No Accommodation or Modification</i>	303	94.69%	266	95.34%
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%	1	0.07%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.07%	1	0.07%
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	6	0.41%	8	0.54%
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	7	0.48%	6	0.41%
<i>Any Accommodation or Modification</i>	7	0.48%	8	0.54%
<i>No Accommodation or Modification</i>	1,457	99.52%	1,463	99.46%

Accommodation 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	3	0.07%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.02%	0	0.00%
H: Used large-print test	0	0.00%	1	0.03%
J: Tested over more than one day	4	0.10%	4	0.14%
K: Had supervised breaks	7	0.17%	5	0.17%
L: Administered at most beneficial time of day	2	0.05%	3	0.10%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.02%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	4	0.10%	4	0.14%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	11	0.27%	9	0.31%
<i>Any Accommodation or Modification</i>	13	0.31%	9	0.31%
<i>No Accommodation or Modification</i>	4,114	99.69%	2,884	99.69%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	162	100.00%	142	100.00%

Accommodation 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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.14%
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%	1	0.14%
No Accommodation or Modification	758	100.00%	727	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	1	0.16%	1	0.18%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	2	0.32%	1	0.18%
H: Used large-print test	0	0.00%	1	0.18%
J: Tested over more than one day	1	0.16%	1	0.18%
K: Had supervised breaks	1	0.16%	2	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	2	0.32%	2	0.35%
Any Accommodation or Modification	2	0.32%	3	0.53%
No Accommodation or Modification	624	99.68%	564	99.47%

Accommodation 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	0.05%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.05%	3	0.12%
K: Had supervised breaks	9	0.24%	8	0.33%
L: Administered at most beneficial time of day	1	0.03%	2	0.08%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
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	0.11%	4	0.16%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	12	0.32%	11	0.45%
Any Accommodation or Modification	14	0.38%	11	0.45%
No Accommodation or Modification	3,699	99.62%	2,425	99.55%
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 non-interfering 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	0.41%	1	0.25%
K: Had supervised breaks	3	1.22%	2	0.50%
L: Administered at most beneficial time of day	1	0.41%	1	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%
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	0.41%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	1.63%	2	0.50%
Any Accommodation or Modification	4	1.63%	2	0.50%
No Accommodation or Modification	242	98.37%	396	99.50%

Accommodation 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 non-interfering 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	14	100.00%	14	100.00%

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

Accommodation 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%	0	0.00%
F: Used non-interfering 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	10	0.38%	6	0.27%
L: Administered at most beneficial time of day	0	0.00%	5	0.22%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.04%	0	0.00%
X: Used an unlisted accommodation	1	0.04%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	3	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	12	0.45%	11	0.49%
<i>Any Accommodation or Modification</i>	13	0.49%	11	0.49%
<i>No Accommodation or Modification</i>	2,640	99.51%	2,229	99.51%
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 non-interfering 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	8	0.34%	6	0.30%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.04%	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	0.04%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	9	0.38%	6	0.30%
<i>Any Accommodation or Modification</i>	10	0.42%	6	0.30%
<i>No Accommodation or Modification</i>	2,346	99.58%	1,979	99.70%

Accommodation Summary for RLA, Grades Six and Seven

Non-Target (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%	0	0.00%
F: Used non-interfering 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	2	0.67%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	5	1.96%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.34%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.67%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	1.01%	5	1.96%
<i>Any Accommodation or Modification</i>	3	1.01%	5	1.96%
<i>No Accommodation or Modification</i>	294	98.99%	250	98.04%
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%	0	0.00%
F: Used non-interfering 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	0.12%	2	0.09%
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	0.08%	2	0.09%
<i>Any Accommodation or Modification</i>	3	0.12%	2	0.09%
<i>No Accommodation or Modification</i>	2,516	99.88%	2,165	99.91%

Accommodation 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 non-interfering 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	3.79%	4	5.48%
L: Administered at most beneficial time of day	0	0.00%	5	6.85%
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	1	0.76%	0	0.00%
X: Used an unlisted accommodation	1	0.76%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.76%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	8	6.06%	9	12.33%
<i>Any Accommodation or Modification</i>	8	6.06%	9	12.33%
<i>No Accommodation or Modification</i>	124	93.94%	64	87.67%
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 non-interfering 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	0.47%	5	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%	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	5	0.39%	5	0.32%
<i>Any Accommodation or Modification</i>	6	0.47%	5	0.32%
<i>No Accommodation or Modification</i>	1,273	99.53%	1,561	99.68%

Accommodation 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%	0	0.00%
F: Used non-interfering 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	4	0.29%	1	0.15%
L: Administered at most beneficial time of day	0	0.00%	5	0.74%
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	1	0.07%	0	0.00%
X: Used an unlisted accommodation	1	0.07%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	3	0.22%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	7	0.51%	6	0.89%
<i>Any Accommodation or Modification</i>	7	0.51%	6	0.89%
<i>No Accommodation or Modification</i>	1,367	99.49%	668	99.11%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	152	100.00%	198	100.00%

Accommodation 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 non-interfering 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	598	99.83%	707	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 non-interfering 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%	5	0.91%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	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%	5	0.91%
Any Accommodation or Modification	0	0.00%	5	0.91%
No Accommodation or Modification	484	100.00%	543	99.09%

Accommodation 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 non-interfering 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	7	0.57%	6	0.91%
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	1	0.08%	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	0.08%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	9	0.73%	6	0.91%
Any Accommodation or Modification	9	0.73%	6	0.91%
No Accommodation or Modification	1,222	99.27%	652	99.09%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.77%	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	0.77%	0	0.00%
Any Accommodation or Modification	1	0.77%	0	0.00%
No Accommodation or Modification	129	99.23%	55	100.00%

Accommodation 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 non-interfering 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	13	100.00%	21	100.00%

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

Accommodation 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	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	2	0.06%
F: Used non-interfering 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	0.03%
K: Had supervised breaks	0	0.00%	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%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.03%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	1	0.03%
<i>Any Accommodation or Modification</i>	0	0.00%	3	0.09%
<i>No Accommodation or Modification</i>	1,830	100.00%	3,470	99.91%
Target 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%	2	0.06%
F: Used non-interfering 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	0.03%
K: Had supervised breaks	0	0.00%	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%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.03%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	1	0.03%
<i>Any Accommodation or Modification</i>	0	0.00%	3	0.10%
<i>No Accommodation or Modification</i>	1,611	100.00%	3,132	99.90%

Accommodation Summary for RLA, Grades Eight and Nine				
Non-Target (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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	219	100.00%	338	100.00%
Students Not in Special Education	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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.03%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	1	0.03%
<i>No Accommodation or Modification</i>	1,791	100.00%	3,445	99.97%

Accommodation 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	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	2	7.41%
F: Used non-interfering 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	3.70%
K: Had supervised breaks	0	0.00%	1	3.70%
L: Administered at most beneficial time of day	0	0.00%	1	3.70%
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%	1	3.70%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	1	3.70%
<i>Any Accommodation or Modification</i>	0	0.00%	2	7.41%
<i>No Accommodation or Modification</i>	39	100.00%	25	92.59%
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%	2	0.07%
F: Used non-interfering 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	0.04%
K: Had supervised breaks	0	0.00%	1	0.04%
L: Most beneficial time of day	0	0.00%	1	0.04%
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%	1	0.04%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	1	0.04%
<i>Any Accommodation or Modification</i>	0	0.00%	2	0.07%
<i>No Accommodation or Modification</i>	1,275	100.00%	2,694	99.93%

Accommodation 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	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.13%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	1	0.13%
<i>No Accommodation or Modification</i>	555	100.00%	776	99.87%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	187	100.00%	375	100.00%

Accommodation 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 non-interfering 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	555	100.00%	946	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%	2	0.22%
F: Used non-interfering 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	0.11%
K: Had supervised breaks	0	0.00%	1	0.11%
L: Most beneficial time of day	0	0.00%	1	0.11%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	1	0.11%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	1	0.11%
Any Accommodation or Modification	0	0.00%	2	0.22%
No Accommodation or Modification	492	100.00%	890	99.78%

Accommodation 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	0	0.00%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.10%
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%	1	0.10%
No Accommodation or Modification	502	100.00%	988	99.90%
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 non-interfering 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	45	100.00%	155	100.00%

Accommodation 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 non-interfering 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%	41	100.00%

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

Accommodation 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 non-interfering assistive device	1	0.04%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.08%
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%
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	0.04%	1	0.08%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	2	0.09%	2	0.17%
<i>No Accommodation or Modification</i>	2,259	99.91%	1,194	99.83%
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 non-interfering assistive device	1	0.05%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.10%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.05%	1	0.10%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	2	0.10%	2	0.19%
<i>No Accommodation or Modification</i>	2,024	99.90%	1,050	99.81%

Accommodation Summary for RLA, Grades Ten and Eleven

Non-Target (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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	235	100.00%	144	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 non-interfering assistive device	1	0.04%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.08%
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%
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	0.04%	1	0.08%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	2	0.09%	2	0.17%
<i>No Accommodation or Modification</i>	2,247	99.91%	1,188	99.83%

Accommodation 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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	12	100.00%	6	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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.13%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
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	0.06%	1	0.13%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	1	0.06%	2	0.26%
<i>No Accommodation or Modification</i>	1,596	99.94%	754	99.74%

Accommodation 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 non-interfering assistive device	1	0.15%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	1	0.15%	0	0.00%
<i>No Accommodation or Modification</i>	663	99.85%	440	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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	0	0.00%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	0	0.00%	0	0.00%
<i>Any Accommodation or Modification</i>	0	0.00%	0	0.00%
<i>No Accommodation or Modification</i>	235	100.00%	117	100.00%

Accommodation 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 non-interfering 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	618	100.00%	340	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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	0	0.00%	0	0.00%
K: Had supervised breaks	0	0.00%	1	0.48%
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%	1	0.48%
No Accommodation or Modification	412	100.00%	207	99.52%

Accommodation 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 non-interfering assistive device	1	0.12%	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	1	0.12%	0	0.00%
No Accommodation or Modification	807	99.88%	397	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 non-interfering 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	1	1.03%	1	1.27%
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	1.03%	1	1.27%
No Accommodation or Modification	96	98.97%	78	98.73%

Accommodation 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 non-interfering 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	28	100.00%	19	100.00%

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

Accommodation 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	2	0.01%	1	0.01%
C: Dictated responses to a scribe	2	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	1	0.01%
J: Tested over more than one day	9	0.06%	3	0.03%
K: Had supervised breaks	18	0.12%	10	0.10%
L: Administered at most beneficial time of day	10	0.06%	1	0.01%
M: Administered at home or in a hospital	1	0.01%	1	0.01%
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	0.05%	2	0.02%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	12	0.08%	9	0.09%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	32	0.21%	18	0.18%
<i>Any Accommodation or Modification</i>	37	0.24%	23	0.23%
<i>No Accommodation or Modification</i>	15,396	99.76%	10,146	99.77%
Target Students Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	0	0.00%	1	0.01%
C: Dictated responses to a scribe	2	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	1	0.01%
J: Tested over more than one day	2	0.01%	2	0.02%
K: Had supervised breaks	6	0.04%	7	0.08%
L: Administered at most beneficial time of day	4	0.03%	0	0.00%
M: Administered at home or in a hospital	1	0.01%	1	0.01%
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%

Accommodation Summary for Mathematics, Grades Two and Three				
X: Used an unlisted accommodation	6	0.04%	2	0.02%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	6	0.04%	5	0.06%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	18	0.13%	13	0.14%
<i>Any Accommodation or Modification</i>	22	0.16%	17	0.19%
<i>No Accommodation or Modification</i>	13,327	99.84%	8,984	99.81%
Non-Target (Optional) Students Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	2	0.10%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	2	0.10%	0	0.00%
J: Tested over more than one day	7	0.34%	1	0.09%
K: Had supervised breaks	12	0.58%	3	0.26%
L: Administered at most beneficial time of day	6	0.29%	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%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.05%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	6	0.29%	4	0.34%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	14	0.67%	5	0.43%
<i>Any Accommodation or Modification</i>	15	0.72%	6	0.51%
<i>No Accommodation or Modification</i>	2,069	99.28%	1,162	99.49%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	0	0.00%
J: Tested over more than one day	2	0.01%	0	0.00%
K: Had supervised breaks	4	0.03%	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	1	0.01%	1	0.01%
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%

Accommodation 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	0	0.00%	1	0.01%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.01%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	5	0.03%	1	0.01%
<i>Any Accommodation or Modification</i>	6	0.04%	2	0.02%
<i>No Accommodation or Modification</i>	14,599	99.96%	9,543	99.98%
Students in Special Education	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	2	0.24%	1	0.16%
C: Dictated responses to a scribe	2	0.24%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	2	0.24%	1	0.16%
J: Tested over more than one day	7	0.85%	3	0.48%
K: Had supervised breaks	14	1.69%	10	1.60%
L: Administered at most beneficial time of day	10	1.21%	1	0.16%
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	0.85%	1	0.16%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	9	1.09%	9	1.44%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	26	3.15%	17	2.72%
<i>Any Accommodation or Modification</i>	30	3.63%	21	3.37%
<i>No Accommodation or Modification</i>	796	96.37%	603	96.63%
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	1	0.06%	0	0.00%
F: Used non-interfering 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%

Accommodation Summary for Mathematics, Grades Two and Three				
M: Administered at home or in a hospital	1	0.06%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.06%	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	0.06%	0	0.00%
<i>Any Accommodation or Modification</i>	3	0.17%	0	0.00%
<i>No Accommodation or Modification</i>	1,811	99.83%	1,666	100.00%
Students in U.S. Schools >= 12 Months	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	2	0.01%	1	0.01%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	3	0.02%	1	0.01%
J: Tested over more than one day	9	0.07%	3	0.04%
K: Had supervised breaks	18	0.13%	10	0.12%
L: Administered at most beneficial time of day	10	0.07%	1	0.01%
M: Administered at home or in a hospital	0	0.00%	1	0.01%
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	0.04%	2	0.02%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	12	0.09%	9	0.11%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	31	0.23%	18	0.21%
<i>Any Accommodation or Modification</i>	34	0.25%	23	0.27%
<i>No Accommodation or Modification</i>	13,585	99.75%	8,480	99.73%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%

Accommodation 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	1	0.20%	0	0.00%
L: Administered at most beneficial time of day	1	0.20%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	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	0.20%	0	0.00%
Any Accommodation or Modification	1	0.20%	0	0.00%
No Accommodation or Modification	488	99.80%	275	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	1	0.11%	0	0.00%
F: Used non-interfering 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	2	0.21%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.11%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.21%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	3	0.32%	0	0.00%
Any Accommodation or Modification	4	0.43%	0	0.00%
No Accommodation or Modification	928	99.57%	861	100.00%

Accommodation 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	1	0.08%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering 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	1	0.08%	0	0.00%
L: Administered at most beneficial time of day	1	0.08%	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	0.23%	0	0.00%
Any Accommodation or Modification	3	0.23%	0	0.00%
No Accommodation or Modification	1,292	99.77%	832	100.00%
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%	1	0.01%
C: Dictated responses to a scribe	1	0.01%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	1	0.01%	1	0.01%
J: Tested over more than one day	2	0.02%	2	0.03%
K: Had supervised breaks	6	0.05%	7	0.09%
L: Administered at most beneficial time of day	4	0.03%	0	0.00%
M: Administered at home or in a hospital	1	0.01%	1	0.01%
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	5	0.04%	2	0.03%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	6	0.05%	5	0.06%

Accommodation Summary for Mathematics, Grades Two and Three				
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	17	0.14%	13	0.17%
Any Accommodation or Modification	20	0.17%	17	0.22%
No Accommodation or Modification	12,047	99.83%	7,685	99.78%
EL Program: Other EL Instructional Services	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked in test booklet	1	0.23%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering 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	5	1.13%	1	0.27%
K: Had supervised breaks	6	1.35%	3	0.81%
L: Administered at most beneficial time of day	4	0.90%	1	0.27%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	1	0.23%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	4	0.90%	1	0.27%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	6	1.35%	2	0.54%
Any Accommodation or Modification	7	1.58%	3	0.81%
No Accommodation or Modification	437	98.42%	368	99.19%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	3.85%	0	0.00%
K: Had supervised breaks	2	3.85%	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%

Accommodation 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	2	3.85%	0	0.00%
Any Accommodation or Modification	2	3.85%	0	0.00%
No Accommodation or Modification	50	96.15%	19	100.00%

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

Accommodation 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	3	0.05%	1	0.02%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	2	0.04%	1	0.02%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	4	0.07%	5	0.12%
K: Had supervised breaks	6	0.11%	6	0.14%
L: Administered at most beneficial time of day	2	0.04%	3	0.07%
M: Administered at home or in a hospital	1	0.02%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	1	0.02%
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	7	0.13%	9	0.21%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	12	0.22%	14	0.32%
<i>Any Accommodation or Modification</i>	15	0.27%	14	0.32%
<i>No Accommodation or Modification</i>	5,532	99.73%	4,315	99.68%
Target Students Tested	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked in test booklet	2	0.04%	1	0.03%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.02%	1	0.03%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.04%	4	0.11%
K: Had supervised breaks	2	0.04%	4	0.11%
L: Administered at most beneficial time of day	1	0.02%	2	0.05%
M: Administered at home or in a hospital	1	0.02%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%

Accommodation Summary for Mathematics, Grades Four and Five				
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	6	0.12%	8	0.22%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	7	0.14%	11	0.30%
<i>Any Accommodation or Modification</i>	10	0.20%	11	0.30%
<i>No Accommodation or Modification</i>	4,895	99.80%	3,663	99.70%
Non-Target (Optional) Students Tested	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked in test booklet	1	0.16%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.16%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.31%	1	0.15%
K: Had supervised breaks	4	0.62%	2	0.31%
L: Administered at most beneficial time of day	1	0.16%	1	0.15%
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%	1	0.15%
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	0.16%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.16%	1	0.15%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	5	0.78%	3	0.46%
<i>Any Accommodation or Modification</i>	5	0.78%	3	0.46%
<i>No Accommodation or Modification</i>	637	99.22%	652	99.54%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.04%	1	0.02%
K: Had supervised breaks	2	0.04%	1	0.02%
L: Administered at most beneficial time of day	1	0.02%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%

Accommodation 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	0	0.00%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	2	0.04%	3	0.07%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	2	0.04%	3	0.07%
<i>Any Accommodation or Modification</i>	2	0.04%	3	0.07%
<i>No Accommodation or Modification</i>	5,224	99.96%	4,049	99.93%
Students in Special Education	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked in test booklet	3	0.93%	1	0.36%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	2	0.62%	1	0.36%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.62%	4	1.44%
K: Had supervised breaks	4	1.25%	5	1.81%
L: Administered at most beneficial time of day	1	0.31%	3	1.08%
M: Administered at home or in a hospital	1	0.31%	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%	1	0.36%
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	0.31%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	5	1.56%	6	2.17%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	10	3.12%	11	3.97%
<i>Any Accommodation or Modification</i>	13	4.05%	11	3.97%
<i>No Accommodation or Modification</i>	308	95.95%	266	96.03%
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%	1	0.07%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.07%	1	0.07%
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	0	0.00%	1	0.07%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%

Accommodation 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	0	0.00%	1	0.07%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	1	0.07%	2	0.14%
<i>Any Accommodation or Modification</i>	1	0.07%	2	0.14%
<i>No Accommodation or Modification</i>	1,457	99.93%	1,457	99.86%
Students in U.S. Schools >= 12 Months	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked in test booklet	3	0.07%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	1	0.02%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	4	0.10%	4	0.14%
K: Had supervised breaks	6	0.15%	5	0.17%
L: Administered at most beneficial time of day	2	0.05%	3	0.10%
M: Administered at home or in a hospital	1	0.02%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	1	0.03%
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	7	0.17%	8	0.28%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	11	0.27%	12	0.42%
<i>Any Accommodation or Modification</i>	14	0.34%	12	0.42%
<i>No Accommodation or Modification</i>	4,075	99.66%	2,858	99.58%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%

Accommodation 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	162	100.00%	140	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 non-interfering 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%	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%	1	0.14%
Any Accommodation or Modification	0	0.00%	1	0.14%
No Accommodation or Modification	745	100.00%	720	99.86%

Accommodation 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	1	0.17%	1	0.18%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	2	0.33%	1	0.18%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	1	0.17%	1	0.18%
K: Had supervised breaks	1	0.17%	1	0.18%
L: Administered at most beneficial time of day	0	0.00%	0	0.00%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
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	2	0.33%	1	0.18%
Any Accommodation or Modification	2	0.33%	1	0.18%
No Accommodation or Modification	597	99.67%	547	99.82%
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	0.05%	0	0.00%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%
H: Used large-print test	0	0.00%	0	0.00%
J: Tested over more than one day	2	0.05%	3	0.12%
K: Had supervised breaks	2	0.05%	3	0.12%
L: Administered at most beneficial time of day	1	0.03%	2	0.08%
M: Administered at home or in a hospital	1	0.03%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
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	6	0.16%	7	0.29%

Accommodation Summary for Mathematics, Grades Four and Five				
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	6	0.16%	9	0.37%
Any Accommodation or Modification	9	0.24%	9	0.37%
No Accommodation or Modification	3,699	99.76%	2,422	99.63%
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 non-interfering 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	0.41%	1	0.25%
K: Had supervised breaks	3	1.22%	2	0.51%
L: Administered at most beneficial time of day	1	0.41%	1	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%	1	0.25%
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	0.41%	0	0.00%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	1	0.41%	1	0.25%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	1.63%	3	0.76%
Any Accommodation or Modification	4	1.63%	3	0.76%
No Accommodation or Modification	242	98.37%	393	99.24%
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 non-interfering 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%

Accommodation 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	14	100.00%	14	100.00%

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

Accommodation 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%	0	0.00%
F: Used non-interfering 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	4	0.15%	1	0.05%
L: Administered at most beneficial time of day	0	0.00%	5	0.23%
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%	1	0.05%
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	1	0.04%	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	3	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	6	0.23%	7	0.32%
<i>Any Accommodation or Modification</i>	6	0.23%	7	0.32%
<i>No Accommodation or Modification</i>	2,611	99.77%	2,170	99.68%
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 non-interfering 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	2	0.09%	1	0.05%
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%	1	0.05%
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	1	0.04%	0	0.00%

Accommodation Summary for Mathematics, Grades Six and Seven				
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	0.04%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	0.17%	2	0.10%
<i>Any</i> Accommodation or Modification	4	0.17%	2	0.10%
<i>No</i> Accommodation or Modification	2,320	99.83%	1,935	99.90%
Non-Target (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%	0	0.00%
F: Used non-interfering 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	2	0.68%	0	0.00%
L: Administered at most beneficial time of day	0	0.00%	5	2.08%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%	0	0.00%
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	0.68%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	2	0.68%	5	2.08%
<i>Any</i> Accommodation or Modification	2	0.68%	5	2.08%
<i>No</i> Accommodation or Modification	291	99.32%	235	97.92%
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%	0	0.00%
F: Used non-interfering 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%	1	0.05%

Accommodation 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	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	0.05%
<i>Any</i> Accommodation or Modification	0	0.00%	1	0.05%
<i>No</i> Accommodation or Modification	2,484	100.00%	2,104	99.95%
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 non-interfering 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	2	1.53%	1	1.39%
L: Administered at most beneficial time of day	0	0.00%	5	6.94%
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	1	0.76%	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	0.76%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	3.05%	6	8.33%
<i>Any</i> Accommodation or Modification	4	3.05%	6	8.33%
<i>No</i> Accommodation or Modification	127	96.95%	66	91.67%
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 non-interfering 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%

Accommodation 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%	1	0.06%
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%	1	0.06%
<i>Any Accommodation or Modification</i>	0	0.00%	1	0.06%
<i>No Accommodation or Modification</i>	1,272	100.00%	1,539	99.94%
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 non-interfering 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	4	0.30%	1	0.16%
L: Administered at most beneficial time of day	0	0.00%	5	0.78%
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	1	0.07%	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	3	0.22%	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	6	0.45%	6	0.94%
<i>Any Accommodation or Modification</i>	6	0.45%	6	0.94%
<i>No Accommodation or Modification</i>	1,339	99.55%	631	99.06%
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 non-interfering assistive device	0	0.00%	0	0.00%
G: Used braille test	0	0.00%	0	0.00%

Accommodation 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	150	100.00%	192	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 non-interfering 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%	1	0.15%
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%	1	0.15%
Any Accommodation or Modification	0	0.00%	1	0.15%
No Accommodation or Modification	594	100.00%	683	99.85%

Accommodation 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 non-interfering 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%	5	0.92%
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%	5	0.92%
Any Accommodation or Modification	0	0.00%	5	0.92%
No Accommodation or Modification	479	100.00%	537	99.08%
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 non-interfering 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	2	0.17%	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	1	0.08%	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	0.08%	0	0.00%

Accommodation Summary for Mathematics, Grades Six and Seven				
Accommodation or Modification is in Section 504 plan	0	0.00%	0	0.00%
Accommodation or Modification is in IEP	4	0.33%	1	0.16%
Any Accommodation or Modification	4	0.33%	1	0.16%
No Accommodation or Modification	1,203	99.67%	635	99.84%
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 non-interfering 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	130	100.00%	54	100.00%
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 non-interfering 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%

Accommodation 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	13	100.00%	22	100.00%

Table 2.D.9 Accommodation Summary for Algebra I

Accommodation 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	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used non-interfering 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	1	1	0.02%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	0	0	0	1	1	0.02%
<i>No</i> Accommodation or Modification	15	550	1,986	1,148	450	4,149	99.98%
Target 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 non-interfering 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	1	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%

Accommodation Summary for Algebra I							
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	1	1	0.03%
No Accommodation or Modification	11	484	1,811	1,032	412	3,750	99.97%
Non-Target (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 non-interfering 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	4	66	175	116	38	399	100.00%
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 non-interfering 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	1	1	0.02%
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%

Accommodation 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%
<i>Any</i> Accommodation or Modification	0	0	0	0	1	1	0.02%
<i>No</i> Accommodation or Modification	14	536	1,974	1,141	448	4,113	99.98%
Students 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 non-interfering 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%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	1	14	12	7	2	36	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	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used non-interfering 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	1	1	0.03%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%

Accommodation 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	1	1	0.03%
No Accommodation or Modification	7	366	1,523	819	311	3,026	99.97%
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 non-interfering 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	8	184	463	329	139	1,123	100.00%
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 non-interfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0	0.00%

Accommodation 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%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	1	68	222	125	57	473	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 non-interfering 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%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	7	166	507	294	124	1,098	100.00%

Accommodation 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 non-interfering 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	1	1	0.11%
L: Administered at most beneficial time of day	0	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
<i>Any Accommodation or Modification</i>	0	0	0	0	1	1	0.11%
<i>No Accommodation or Modification</i>	2	152	484	218	91	947	99.89%
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	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used non-interfering 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%

Accommodation Summary for Algebra I							
X: Used an unlisted accommodation	0	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0	0.00%
No Accommodation or Modification	4	132	647	425	143	1,351	100.00%
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 non-interfering 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	22	74	35	12	144	100.00%
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 non-interfering 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%

Accommodation 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%
<i>Any Accommodation or Modification</i>	0	0	0	0	0	0	0.00%
<i>No Accommodation or Modification</i>	0	6	19	13	8	46	100.00%

Table 2.D.10 Accommodation Summary for Geometry

Accommodation 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 non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
<i>Any Accommodation or Modification</i>	0	0	0	0	0	0.00%
<i>No Accommodation or Modification</i>	0	78	270	216	564	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 non-interfering 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%

Accommodation 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	72	236	184	492	100.00%
Non-Target (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 non-interfering 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	6	34	32	72	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 non-interfering 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%

Accommodation 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	78	269	212	559	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 non-interfering 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	1	4	5	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 non-interfering 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%

Accommodation 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	54	160	92	306	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 non-interfering 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	110	124	258	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 non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%

Accommodation 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	7	28	10	45	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 non-interfering 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	30	55	36	121	100.00%

Accommodation 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 non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Administered at most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
<i>Any</i> Accommodation or Modification	0	0	0	0	0	0.00%
<i>No</i> Accommodation or Modification	0	8	39	20	67	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 non-interfering 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%

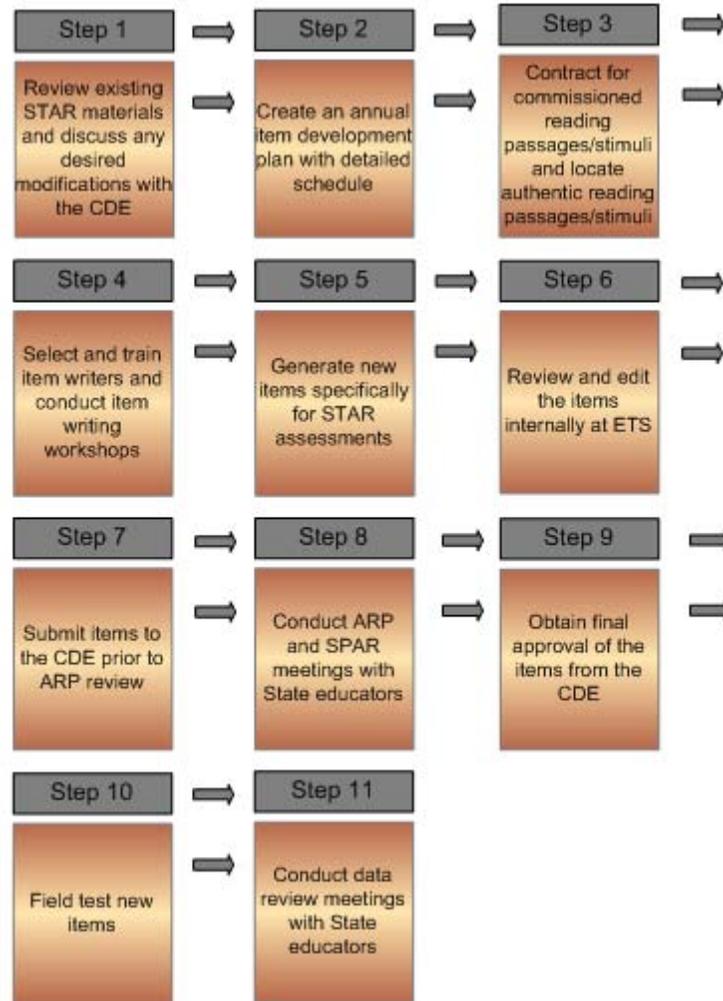
Accommodation Summary for Geometry						
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accommodation or Modification is in Section 504 plan	0	0	0	0	0	0.00%
Accommodation or Modification is in IEP	0	0	0	0	0	0.00%
Any Accommodation or Modification	0	0	0	0	0	0.00%
No Accommodation or Modification	0	25	117	120	262	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 non-interfering 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	24	23	52	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 non-interfering 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%

Accommodation 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	2	1	4	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 Item and Test Development Cycle



Rules for Item Development

ETS maintains item development specifications for the 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 Development 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 in the same way. To do 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 stimuli (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 connotation 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 subject area.

The Item Utilization Plan assumes that the percentage of items to be refreshed in an operational form each year matches the refresh rate listed for each test in Table 3.1; these items remain in the item bank for future use. The plan also assumes that five percent of the operational items are likely to become unusable because of normal attrition. In addition, the plan notes that there is a need to focus development on what are called “critical” standards, which are standards that are difficult to measure well.

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

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

Table 3.1 Field-test Percentages for the STS

Subject	Grade	Refresh Rate	Percentage of Operational Form to Be Field Tested	Number of Items to Be Field Tested
<i>Reading/ Language Arts</i>	2	20%	96%	72 items
	3	20%	96%	72 items
	4	20%	72%	54 items
	5	15%	48%	36 items
	6	10%	32%	24 items
	7	10%	32%	24 items
	8	10%	32%	24 items
	9	15%	40%	30 items
	10	10%	32%	24 items
	11	5%	16%	12 items
<i>Mathematics</i>	2	20%	111%	72 items
	3	20%	111%	72 items
	4	20%	83%	54 items
	5	20%	55%	36 items
	6	10%	37%	24 items
	7	10%	37%	24 items
	Algebra I	15%	46%	30 items
	Geometry	5%	9%	6 items

The plan calls for larger numbers of items to be field tested at the lower grades than at the higher grades because STS tests at lower grade levels have relatively higher refresh rates.

Selection of Item Writers

Criteria for Selecting Item Writers

The items for each STS test are written by panels of item writers that 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 on 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 Writer Training

ETS holds training sessions for item writers where ETS test development specialists train attendees in the basics of item writing. They also review items that participants create during the training, offering feedback in both group and individual settings. In 2009, item writer training was conducted over two days in Newport Beach, California. An effort was made to evenly distribute the 10 participants across the two STS content areas.

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, figures, or other illustrations

Each item is classified with a code for the standard it is intended to measure. The assessment specialists also 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, they may suggest revisions, or they may 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 for 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.

Content Expert Reviews

Assessment Review Panels (ARPs)

ETS is responsible for working with ARPs as items are developed for the STS. The ARPs are advisory panels to the CDE and ETS on areas related to item development for the STS. The ARPs are responsible for reviewing all newly developed items for alignment to the California content standards. The ARPs also review the items for accuracy of content, clarity of phrasing, and quality. ETS provides the ARPs with the opportunity to review the items with the applicable field-test statistics and to make recommendations for the use of items in subsequent test forms. In their examination of test items, the ARPs may raise concerns related to age/grade appropriateness and gender, racial, ethnic, and 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 subject 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 educators 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 final approval. 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 subject and total

	RLA	Math	Total
Total	24	18	42
Occupation (Members may teach multiple levels)			
Teacher or Program Specialist, Elementary/Middle School	8	5	13
Teacher or Program Specialist, High School	0	4	4
Teacher or Program Specialist, K–12	0	2	2
University Personnel	2	2	4
Other District Personnel (e.g., Director of Special Services, etc.)	11	5	16
Highest Degree Earned			
Bachelor's Degree	4	5	9
Master's Degree	11	5	16
Doctorate	2	1	3
Teaching Experience			
Elementary Teaching (multiple subjects)	16	6	22
Secondary Teaching (single subject)	1	8	9
Special Education	0	0	0
Reading Specialist	1	0	1

	RLA	Math	Total
Bilingual Education (BCLAD)	7	3	10
Administrative	8	3	11
Other	6	1	7
None (teaching at university level)	2	3	5

ARP Meetings for Review of STS Items

The 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 issues, 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 (SPAR) Panel

The SPAR panel is responsible for reviewing and approving a single achievement test 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 *Education Code* Section 60614. If the SPAR panel rejects specific items, the items are replaced with other items. For the SPAR panel meeting, the item development coordinator or an ETS content specialist, requested in advance by the CDE, attends the opening session and remains in a nearby location or near a telephone to be available to respond to any questions during the course of the meeting.

Field Testing

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

Stand-Alone Field Testing

From 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 occurred in the fall before the test became operational in the following spring.

For STS tests at 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 scattered 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 each operational test form. Different forms will contain the same operational items and different field test items.

Allocation of Students to Field-Test Items

The operational 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 in each operational form for each STS from grades two through seven and for Geometry. For Algebra I and RLA for grades eight and above, in 2009 field-test blocks of 31 to 41 items were included in the operational forms to allow for the maximum number of new items to be field-tested. The field-test item sets differ from form to form. The number of forms varies with subject area and grade level.

Table 3.3 shows the number of forms administered for each STS in 2009 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.

Table 3.3 Summary of Items and Forms Presented in the 2009 STS

Subject	STS	Operational		Field Test		
		No. Items	No. Examinees	No. Forms	No. Items	No. Examinees
<i>Reading/ Language Arts</i>	2	65	13,300	12	72	901–1,327
	3	65	8,992	12	72	727–763
	4	75	4,897	9	54	496–534
	5	75	3,672	6	36	574–595
	6	75	2,343	4	24	548–582
	7	75	1,974	4	24	465–486
	8	40	1,602	4	136	382–399
	9	40	3,094	5	149	509–685
	10	40	2,009	4	129	475–489
	11	40	1,036	2	82	493–496
	<i>Mathematics</i>	2	65	13,250	12	72
3		65	8,940	12	72	720–760
4		65	4,893	9	54	494–534
5		65	3,656	6	36	570–595
6		65	2,314	4	24	547–573
7		65	1,927	4	24	454–473
Algebra I		40	3,720	5	155	314–937
Geometry		65	483	1	6	483

Data Review Meetings

Once items have been field tested, ETS prepares the items and the associated statistics for review by the ARPs. ETS assessment specialists facilitate the data review sessions with qualified psychometric staff for technical assistance. Upon completion of the meeting, ETS provides the SBE and the CDE with summaries of the recommendations based on the field-test analyses and ARP reviews that are relevant to future form construction of the STS. All final decisions on acceptance of items rest with the CDE.

At data review meetings, the ARP members 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 panel members also use the results of analyses for differential item functioning (DIF) to make judgments about the appropriateness of items for various subgroups. The panelists respond to questions such as:

- Are there any instructional issues that have negatively affected the performance of the item?
- Is there a content problem within the item?

The panelists are requested to recommend whether to accept or reject each item for inclusion in the STAR item bank.

Item Banking

Once the ARP review is complete, the items are placed in the item bank along with their corresponding review information. Items that are accepted by the ARP 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 STAR 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 time, along with the administration data from every administration that has included the item.

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

Items that are released or pending release and awaiting CDE approval are updated with a “released” or “scheduled for release” status and remain unavailable in the bank. 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, used operationally, and released. All rejection and release indications are monitored and controlled through ETS’s assessment development processes.

References

- California Department of Education. (2009). *California content standards*. Sacramento, CA. <http://www.cde.ca.gov/be/st/ss/>.
- Educational Testing Service. (2002). *ETS standards for quality and fairness*. Office of Testing Integrity, Princeton, NJ: Educational Testing Service.
- 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.
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Chapter 4: Test Assembly

The STS is 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 psychometric attributes are used as the basis for assembling the test forms. For STS tests at grades eight and above, which are still in the development stage, the content standards were used as the major basis for test assembly in 2009.

Test Length

The number of items in each STS is decided 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's content standards for each grade and content area. Also considered is the goal that the tests be short enough that most of the students complete the test in a reasonable amount of time.

The STS tests for RLA for grades two and three contain 65 items and the tests for grades four to seven contain 75 items. The STS mathematics tests for grades two through seven contain 65 items.

In 2009 all STS tests at grades eight and above contained 40 items with the exception of the Geometry test, which contained 65 items¹. 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 on the STS items are grouped into subcontent areas, referred to as "reporting clusters." For each STS reporting cluster from grades two to seven, the percentage of questions correctly answered is reported on a student's score report. A description of the STS reporting clusters and the standards that compose each reporting cluster is provided in Appendix 2.B—Reporting Clusters, which starts on page 19.

Content Rules and Item Selection

When developing a new test 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 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 they 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

¹ 2009 is the first operational year for tests for grades eight and above. The numbers of operational items for these tests were temporarily reduced for the 2009 administration. This adjustment allowed the maximum number of newly developed items to be field-tested. These tests will be of their regular lengths in 2010 and after (i.e., 75 items for RLA grades eight to eleven and 65 items for Algebra I and Geometry).

linking items should come from that cluster. The linking items are selected for their strong match to the content and are reviewed to ensure that they meet set psychometric criteria.

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 the 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 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 on page 99 contains further information about the item development process.

These are rules that in general test developers follow to construct new forms for well-established tests. Slightly different test construction rules have been followed for the STS tests at grades five and above. From grade five to grade seven, the 2008 operational forms were reused in 2009. At grades eight and above, 2009 is the first operational year and therefore sets of linking items were not needed for these tests.

Psychometric Criteria

For the STS, the test developers and psychometricians strive to accomplish three goals while developing a test:

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. Such rules are referred to as statistical targets.

In 2009 the statistical targets were used only to develop new STS tests for grades two through four. For grades five through seven, no targets were needed because the 2008 tests were reused in 2009. For grades eight and above, field test data were not available and therefore no statistical targets were established for these tests. The forms were built primarily using content expertise.

Three types of assembly targets are developed for each STS from grade two through four: the total test target, the linking block target, and (reporting) cluster targets. These targets are provided to test developers before a test construction cycle begins.

The total test target or primary statistical targets used for assembling STS tests for the 2009 STAR administration were the test information function based on the item response theory (IRT) item parameters and an average point biserial correlation. When using the IRT Rasch model, the target information function makes it possible to choose items to produce a test that has the desired precision of measurement at all ability levels. The target mean and standard deviation of item difficulty (*b*-values) consistent with the information curves were

also provided to test development staff to help with the test construction process. The point biserial correlation is a measure of how well the items discriminate 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 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. These specifications were developed from the analyses of field-test items administered in the year 2006. The target values for STS grades two through four are presented in Table 4.3.

The linking block target consisted of a proportionally adjusted (for numbers of items) total 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 graphics for the total test and linking blocks are presented in Figure 4.A.1 and Figure 4.A.2, starting on page 116, for the RLA and mathematics tests respectively. These curves present the target test information curves and the projected information curves for the total test and the linking sets.

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 constructed information curves for the clusters than there is for the total test.

Figure 4.B.1 through Figure 4.B.6, starting on page 118, present similar information for the cluster scores for the RLA and mathematics tests respectively.

Table 4.3 Target Statistical Specifications for the STS

Subject	STS	Target Mean b	Target SD b	Min p -value	Max p -value	Mean Point Biserial	Min Point Biserial
<i>Reading/ Language Arts</i>	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
<i>Mathematics</i>	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

Projected Psychometric Properties of the Assembled Tests

Prior to the 2009 administration, 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 for the selected items, available in the California item bank. The test reliability was based on the Gulliksen (1987) formula for estimating test reliability (r_{xx}) from item p -values and item point-biserial correlations:

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

where,

K is the number of items in the test,

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

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

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

In addition, estimated test means were calculated by summing the item p -values, and estimated standard deviations were calculated by summing the item reliability indices. Table 4.A.1 on page 115 presents these summary values by content area and grade. These analyses are not applicable for STS tests at grades eight and above because no item bank data were available for these tests. For the projected technical qualities of STS tests at grades five through seven, please refer to the *STS Technical Report Spring 2008 Administration*, so the test assembly process and projected properties were described in the *2008 Technical Report*.

It should be noted that the projected reliabilities given in Table 4.A.1 were based on item p -values and point-biserial correlations that, for some of the items, were based on external field-testing using samples from 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 2009 STS administration.

Table 4.A.2 on page 115 shows the mean observed statistics, available in the item bank, of the items on each STS from grades two through four based on the most recent administration of those items. These values can be compared to the target values in Table 4.3.

The graphs in Figure 4.A.1 and Figure 4.A.2 show, for each STS, the target test information function and the projected test information function for the total test and the linking set. The information curves for the linking sets were adjusted so they could be directly compared to the information curves for the longer total tests. Figure 4.B.1 through Figure 4.B.6 present the target and projected information curves for the clusters in each STS.

Rules for Item Sequence and Layout

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

- **Reading/Language Arts:** 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 is sequenced 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.

Reference

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

Appendix 4.A—Technical Characteristics

Table 4.A.1 Summary of 2009 STS Projected Technical Characteristics

Content Area	STS	Number of Items	Mean Raw Score	Std. Dev. of Raw Scores	Reliability
<i>Reading/ Language Arts</i>	2	65	39.51	12.85	0.93
	3	65	36.29	11.51	0.90
	4	75	40.23	13.84	0.92
<i>Mathematics</i>	2	65	42.29	11.67	0.92
	3	65	40.39	12.66	0.93
	4	65	39.07	12.54	0.92

Table 4.A.2 Summary of 2009 STS Projected Statistical Attributes

Content Area	STS	Mean b	SD b	Mean ρ -value	Min ρ -value	Max ρ -value	Mean Point Biserial	Min Point Biserial
<i>Reading/ Language Arts</i>	2	-0.56	0.80	0.61	0.28	0.87	0.43	0.19
	3	-0.31	0.82	0.56	0.26	0.92	0.38	0.17
	4	-0.16	0.73	0.54	0.20	0.86	0.39	0.06
<i>Mathematics</i>	2	-0.77	0.85	0.65	0.32	0.94	0.40	0.24
	3	-0.63	0.84	0.62	0.25	0.94	0.42	0.23
	4	-0.50	0.68	0.60	0.31	0.86	0.41	0.22

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

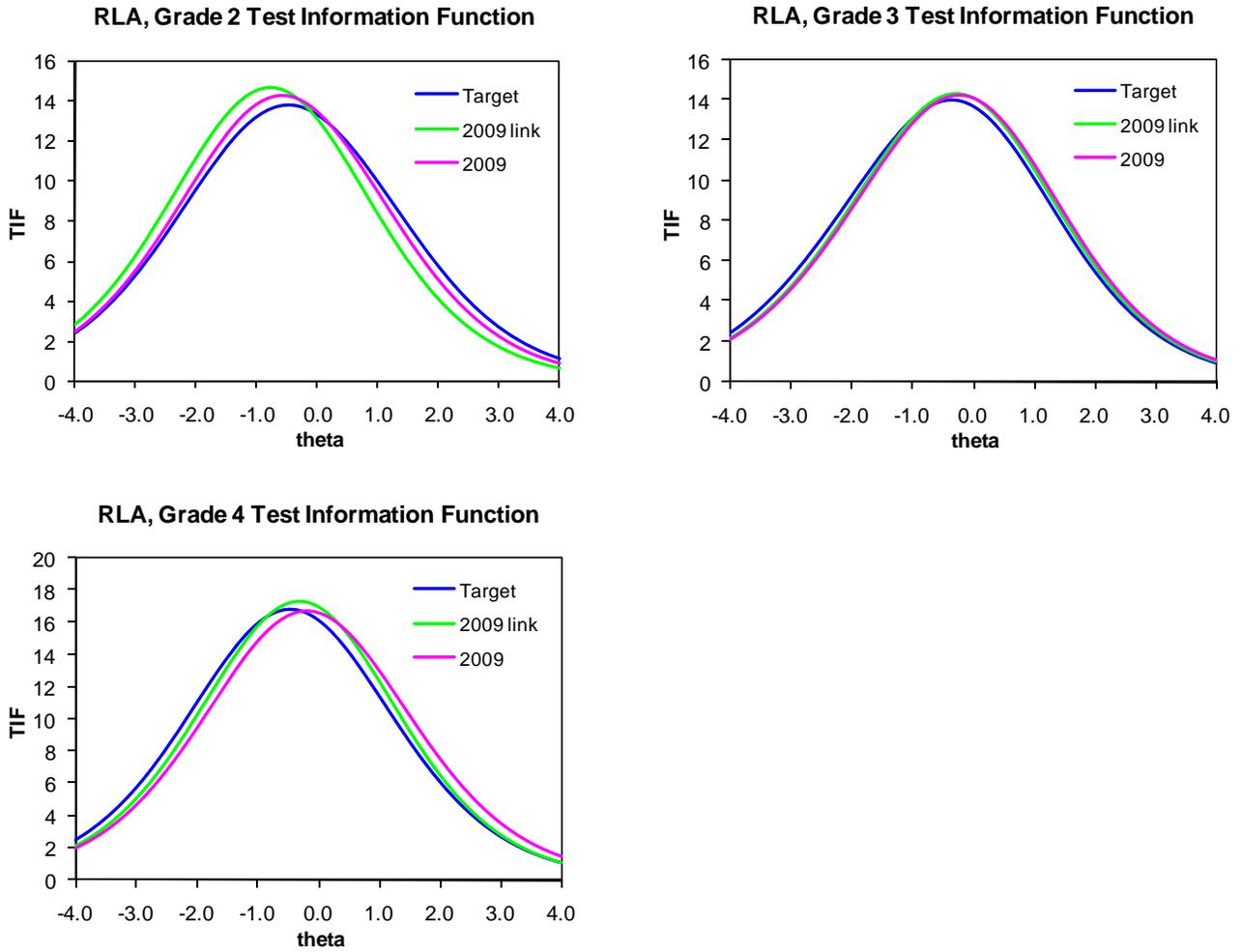
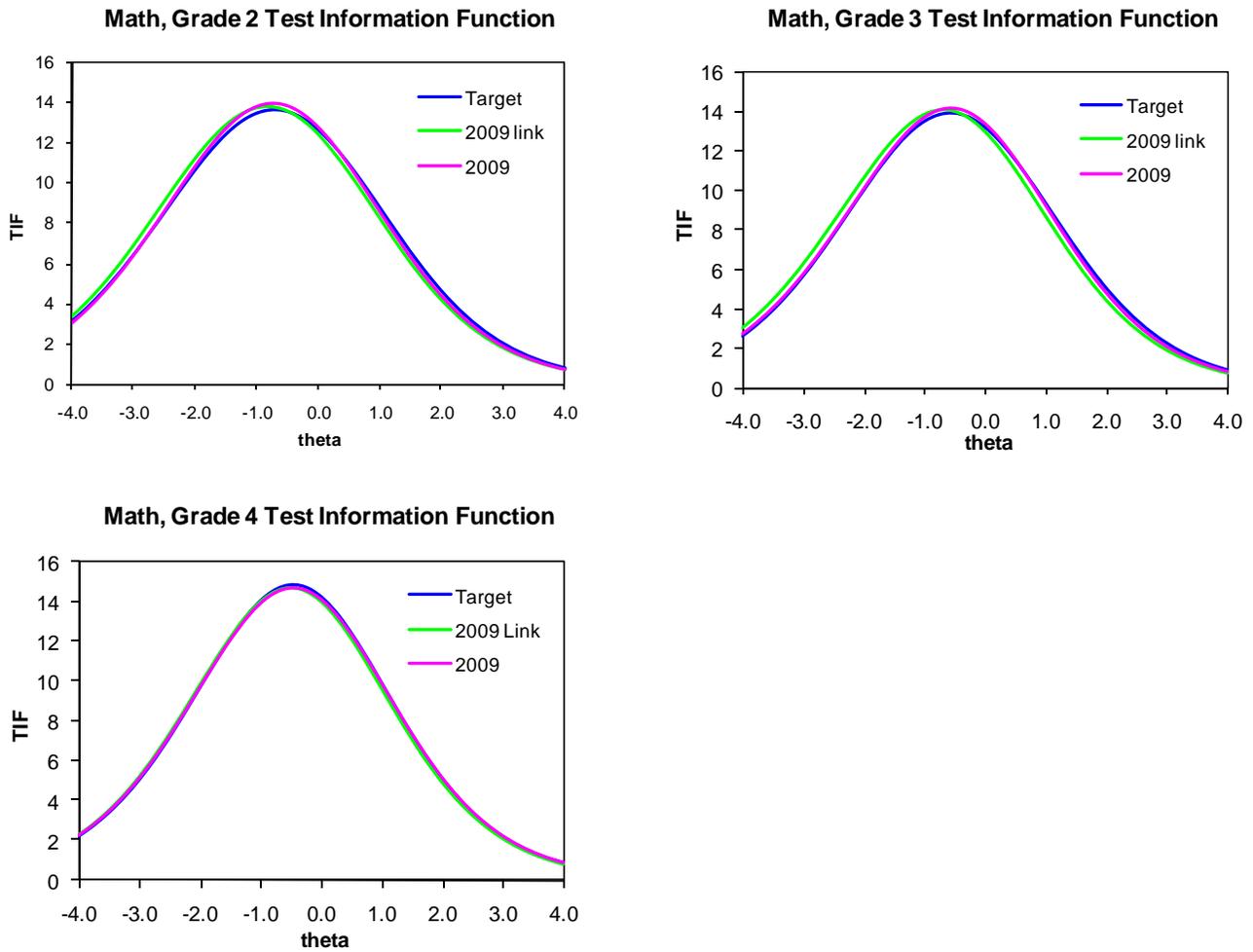


Figure 4.A.2 Plots for Target Information Function and Projected Information for Total Test and Linking Set for Mathematics



Appendix 4.B—Cluster Targets

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

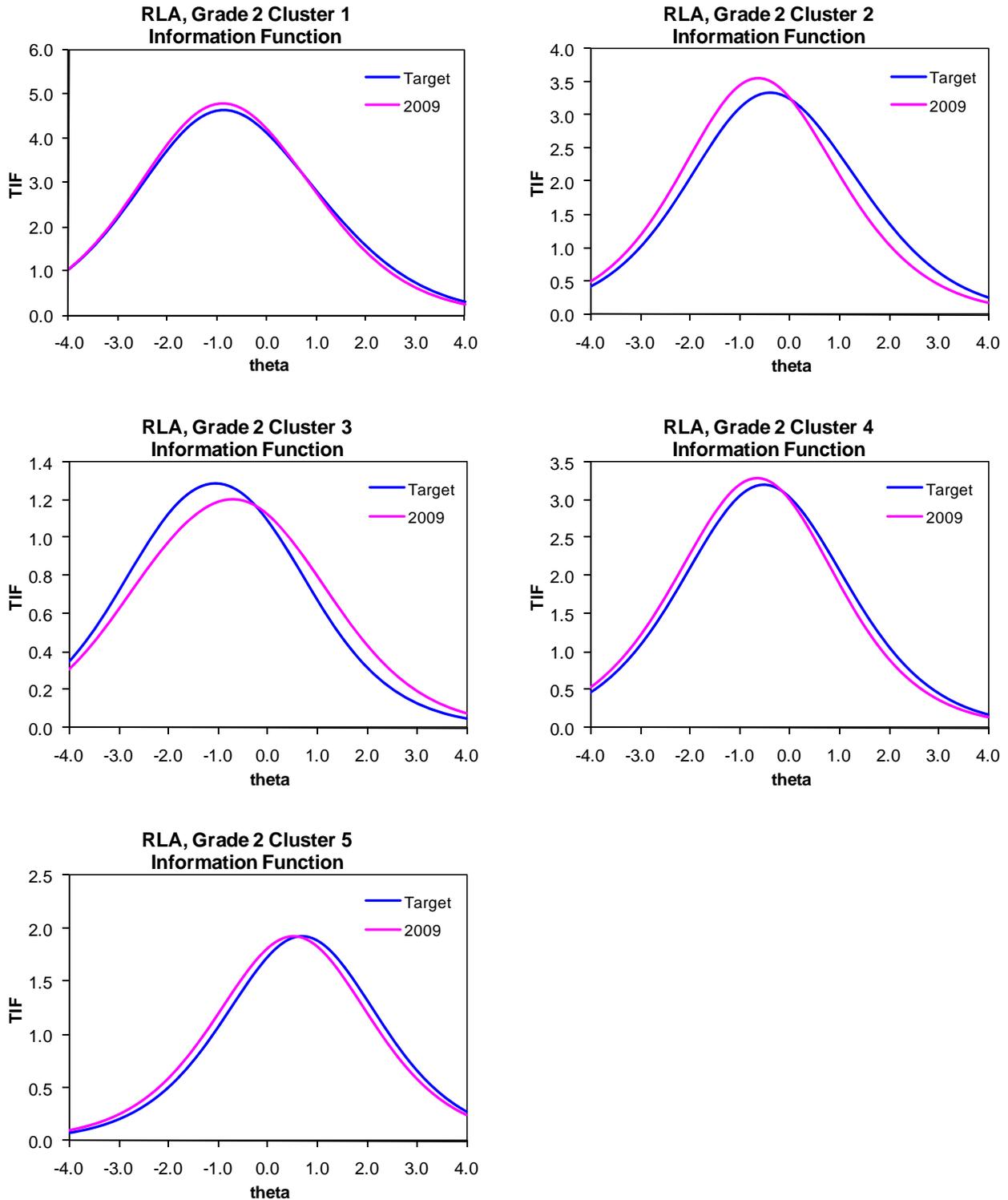


Figure 4.B.2 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Three

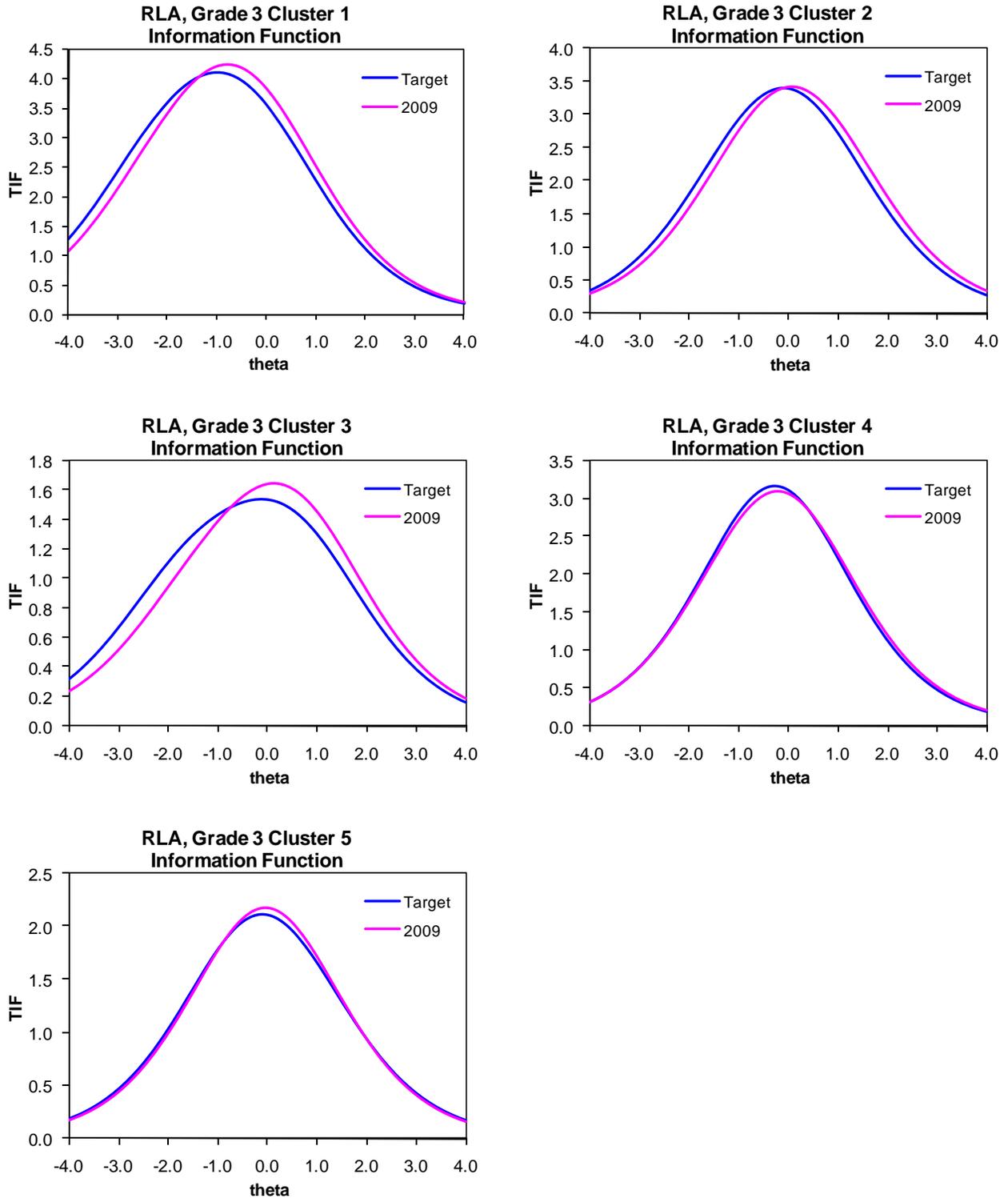


Figure 4.B.3 Plots of Target Information Functions and Projected Information for Clusters for RLA, Grade Four

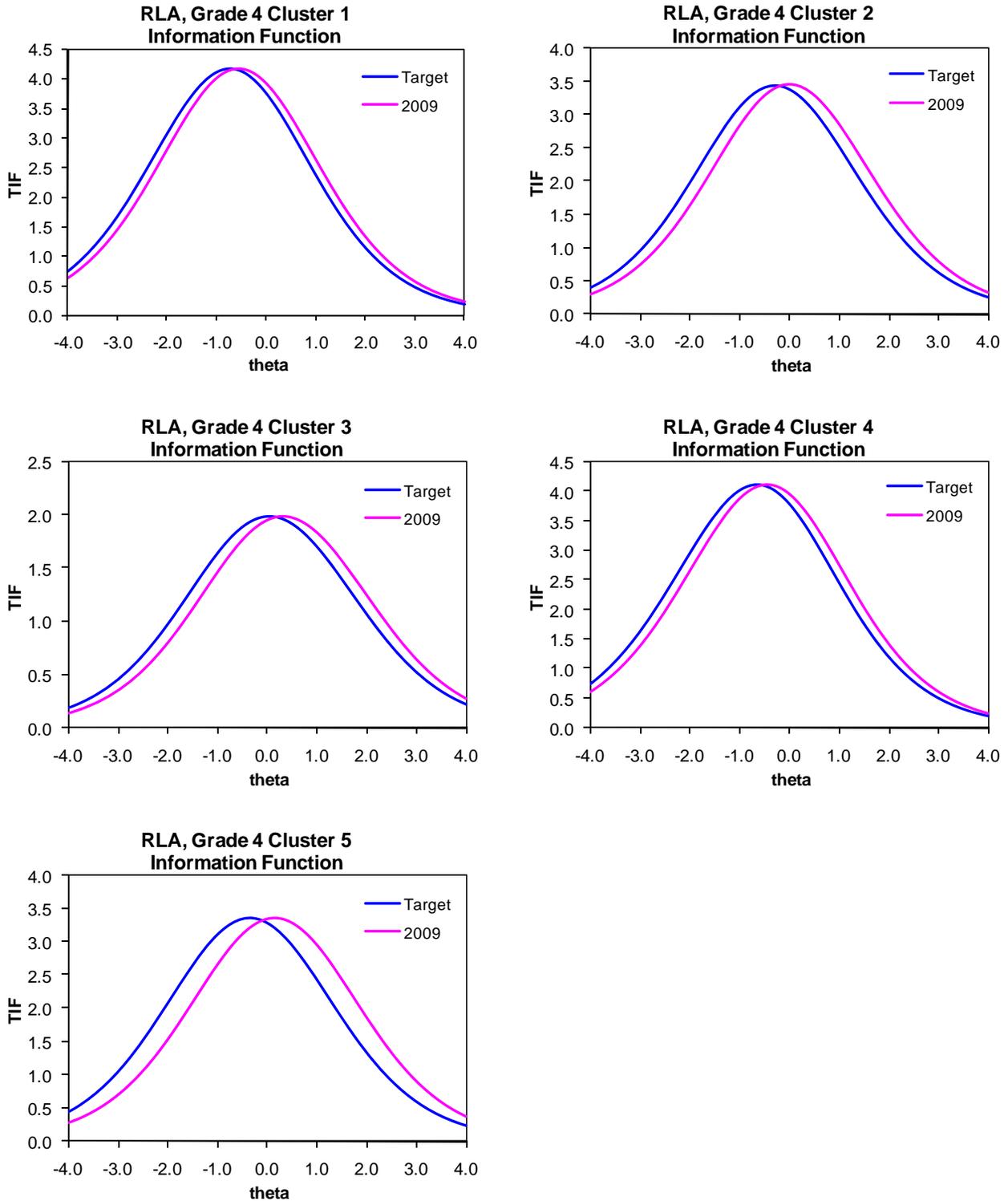


Figure 4.B.4 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Two

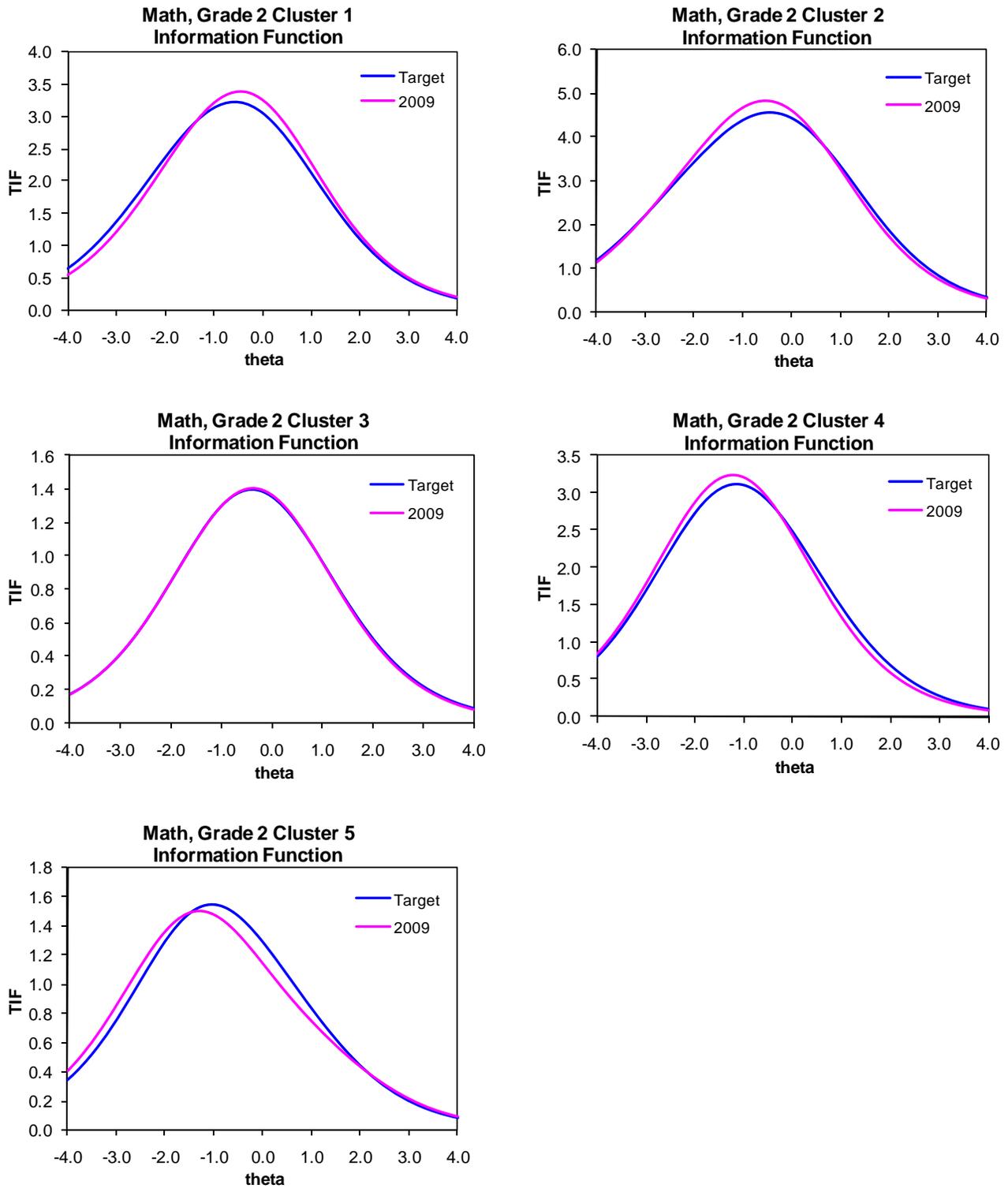


Figure 4.B.5 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Three

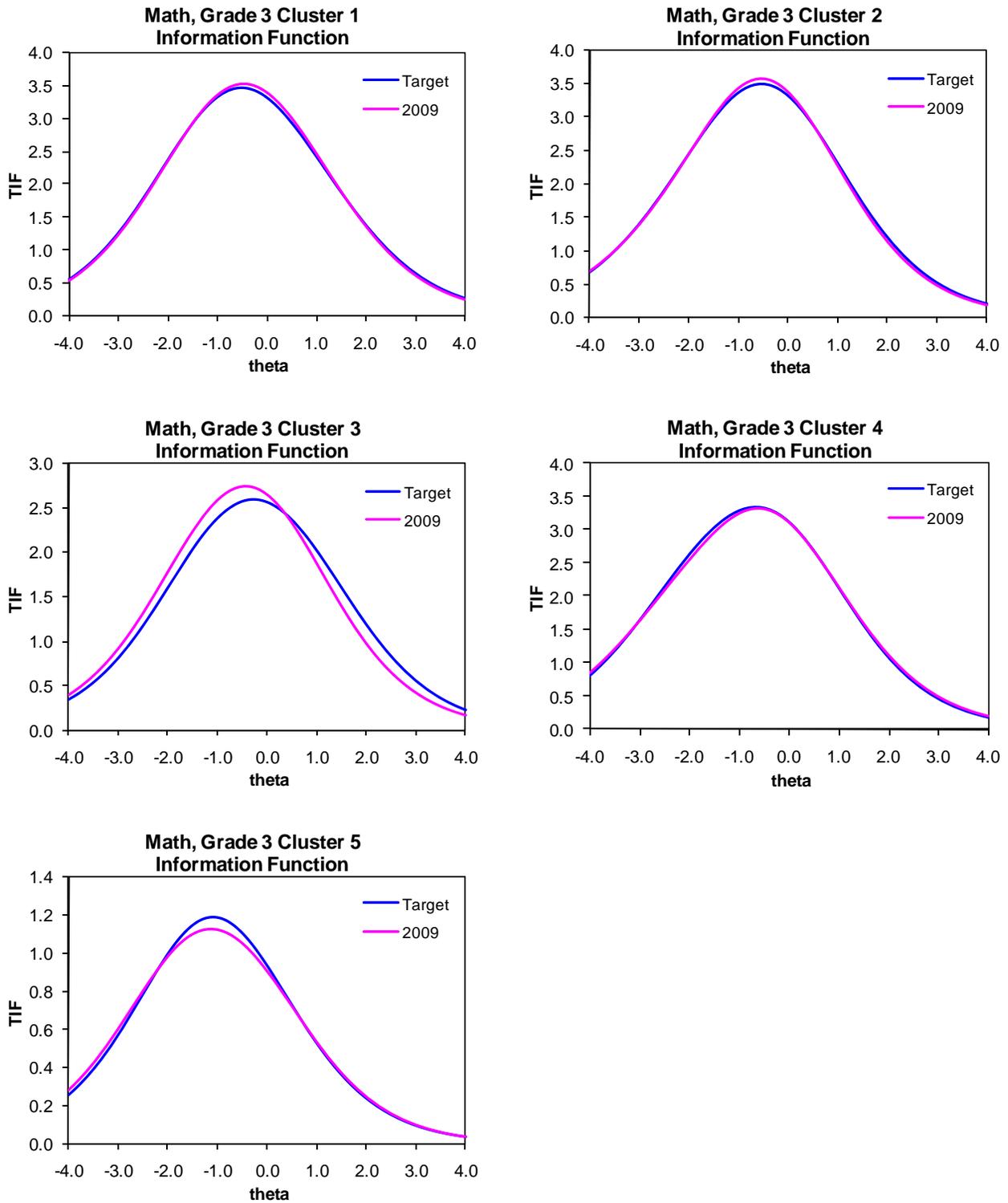
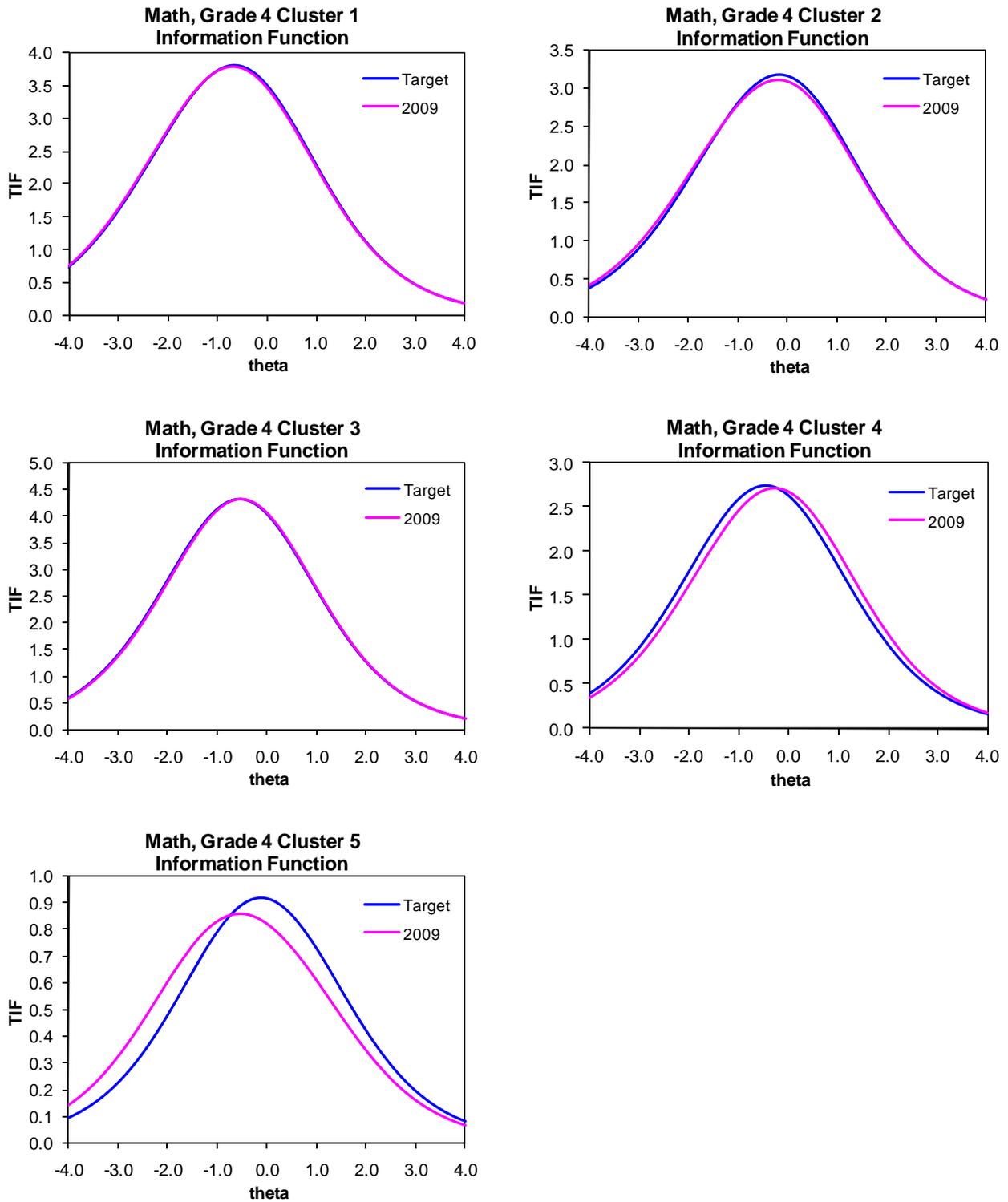


Figure 4.B.6 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Four



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 (OTI)

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 Quality Assurance division 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

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 and OTI strive to safeguard the various processes involved in a test development and administration cycle. These practices are discussed in detail in the following 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 in 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 in 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 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 strictly prohibited in the meeting rooms.

Item Bank

Once the ARP review is complete, the 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 STAR 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 authorize 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.

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.

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 Sacramento, California.

All electronic applications included in the STAR Management System (CDE, 2009a) 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

After items and test forms are approved, the files are sent for printing on a CD using a secure courier system. According to established procedures, the OTI pre-approves all printing vendors before they can work on secured confidential and proprietary testing material. 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 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 their 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 and test booklets 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 Scoring, Reporting and Technology (SR&T) area at ETS retrieves the Pearson data files from the SFTP site and loads them in 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 then keeps the files on secure servers and adheres to the ETS Code of Ethics to prevent any unauthorized access.

Reporting and Posting Results

After statistical analysis has been completed on student data, the files flow in three different directions. Paper reports, some with individual student results and others with summary results, are produced. Encrypted files of summary results are also sent to the CDE by means of SFTP. Any summary results that have fewer than ten students are not reported. The statistics based on the results are also 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, 2009b). 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 where this demographic information may appear, including in Pre-ID files and reports.

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 order to protect the confidentiality of ETS and client data. ETS staff's 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
- Analysis and reporting of erasure marks
- Internet postings
- 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 tests are administered in conjunction with the other tests that comprise the STAR Program. In that respect, 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 Manual* (CDE, 2009c). This manual is described in the next section.

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

District STAR Coordinator

Each local education agency¹ (LEA) designates a district STAR coordinator who is responsible for ensuring the proper and consistent administration of the STAR tests. They 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

¹ Local education agencies 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.

test site coordinators, receiving scorable and nonscorable materials from schools after an administration, and returning the materials to the STAR contractor for processing.

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, 2009d) 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 him or her 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 (DFA)

STS DFAs are manuals used by test examiners to administer the STS to students (CDE, 2009d). They must follow all directions and guidelines and read, word-for-word, the instructions to students in "SAY" boxes to ensure test standardization.

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, 2009c). However, the manual is not intended as a substitute for the *California Code of Regulations, 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, 2009e)

- **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, 2009f)
- **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, 2009b)
- **Extended Data Corrections**—This module allows school districts to correct the data that were submitted during Pre-ID up to seven days prior to the end of the school district’s selected testing window. (CDE, 2009g)

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. These versions are spiraled, or 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 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 audio CDs, large-print testing materials, and braille testing materials.

Accommodations for Students with Disabilities

All 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; the assistance takes the form of test variations, 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 that event on the students’ test booklets or answer documents.

Scoring

The purpose of test variations, accommodations, and modifications is to enable students to take the STS, not to give them an advantage over other students or to improve their scores.

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. Districts may correct data to: (1) Rescore uncoded or miscoded STS end-of-course mathematics tests; or (2) Obtain a corrected data CD-ROM for school district records (CDE, 2009h).

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 when 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, 2009c).

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* and the *STAR District and Test Site Coordinator Manual* (CDE, 2009c). 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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- California Department of Education. (2009g). *2009 STAR Extended Data Corrections manual*. Sacramento, CA. http://www.startest.org/pdfs/STAR.xdc_manual.2009.pdf.
- California Department of Education. (2009h). *2009 STAR Demographic Data Corrections manual*. Sacramento, CA. http://www.startest.org/pdfs/STAR.data_corrections_manual.2009.pdf.

Chapter 6: Performance Standards

Background

The STS tests for RLA and mathematics for grades two through four became part of the STAR Program in 2006. Five performance standards were developed in the winter of 2009 and adopted by the SBE for the 2009 administration of those tests.

In spring 2008, the STS tests for RLA and mathematics were introduced in grades five through seven. The performance standards for those tests are currently in the process of being established and will be reported beginning with the 2010 operational administration.

The STS tests for grades eight through eleven were introduced in 2009. Performance standards will be established for these tests in 2011 and reported operationally starting in 2012.

The performance standards for the STS were defined by the SBE as (1) far below basic, (2) below basic, (3) basic, (4) proficient, and (5) advanced. Performance standards are developed from a general description of the performance level (policy level descriptors) and competencies lists, which operationally define each level. Cut scores numerically define the performance levels. The state target is to have all students achieve the proficient and advanced levels by 2014. Schools and districts are expected to provide additional assistance to students scoring at and below the basic level.

ETS employed carefully designed standard-setting procedures to facilitate the development of performance standards for each STS test. All standard settings were conducted using the Bookmark method and one form of each test. One panel of educators was convened to set the standards for each test. After the standard-setting, ETS met with representatives of the CDE to review the preliminary results and provided to the CDE an executive summary of the procedure and tables that showed the panel-recommended cut scores and impact data. For STS grades two through four, the final cut scores were adopted by the SBE in May 2009. Please see the technical report for the standard setting (ETS, 2009) to obtain more information, which describes the process of developing performance standards to the STS operational tests grades two through four.

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 standard. The process generally requires a panel of subject matter experts and others with relevant perspectives (such as, teachers, school administrators) be assembled. The panelists for the STS standard setting were selected based on their knowledge of the subject matter assessed, experience in the education of students who take the STS in grades two through four, familiarity with the California content standards, an understanding of the STS, and an appreciation of the consequences of setting these cut scores. All panelists were bilingual and biliterate in Spanish and English. Panelists were recruited to be representative of the educators of the state’s STS-eligible students (ETS, 2009).

For each test, three cut scores were developed in order to report the four levels; far below basic was defined as chance-level performance. The standard setting processes employed required panelists to follow the steps listed below:

1. Prior to attending the workshop, all panelists received a pre-workshop assignment. The task was to review, on their own, the content standards upon which the test items are based and take notes on their own expectations in the content area. This allowed the panelists to understand how their perceptions may relate to the complexity of the content standards.
2. At the start of the workshop, panelists received training, which included the purpose of standard setting and their role in the work; the meaning of a “cut score” and “impact data”; and specific training and practice in the Bookmark method. Impact data include the percentage of examinees assessed in a previous test administration of the test that would fall into each level, given the panelists’ judgments of cut scores.
3. Panelists next 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 then 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 revised their judgments during the process if they wished.
7. The final recommended cut scores were based on the median of panelists’ judgments¹ at the end of three rounds. 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 are 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 were assembled to develop a list of competencies based on the California content standards and California policy level descriptors. For each content area, one panel of educators were assembled for each grade to identify and discuss the competencies required of students in 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 passing 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.

¹ In the bookmark method, the panel recommendation is calculated by taking the median of the small group (table) medians.

This method requires panelists to work through a test booklet in which the items have been re-ordered from easiest to hardest based on student performance data.² Panelists are asked to place a bookmark in the ordered booklet to demarcate each performance standard. 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 behind the bookmark with a probability of less than 0.67 (Huynh, 1998).

The cut scores are derived by averaging the corresponding bookmarks placed for the various performance standards across panelists.

Results

The cut scores obtained as a result of the standard-setting process are on the number-correct or raw score scale; 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 standards are derived using procedures based on item response theory (IRT) and usually vary by grade and subject area. The raw cut scores for a given test are mapped to IRT *thetas* ($\hat{\theta}_S$) using the test characteristic function³ and then transformed to the scale score metric using the following equation:

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

where

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

θ_{basic} represents the theta corresponding to the cut-score for basic.

The scale score ranges for each performance level for grades two through four are presented in Table 6.1. 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, because each grade and content area is scaled independently rather than using a continuous scale from the lowest to the highest grade.

Table 6.1 Scale Scores Ranges for Performance Levels

Subject	STS	Far Below Basic	Below Basic	Basic	Proficient	Advanced
<i>Reading/ Language Arts</i>	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

² An “item map” accompanies the ordered item booklet. The “map” 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.

³ An IRT test characteristic 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.

Subject	STS	Far Below Basic	Below Basic	Basic	Proficient	Advanced
<i>Mathematics</i>	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

Table 6.2 presents the percentages of examinees meeting each performance standard in 2009.

Table 6.2 Percentage of Examinees in Each Performance Level

Content Area	STS	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/ Advanced
<i>Reading/ Language Arts</i>	2	4%	23%	33%	23%	17%	40%
	3	4%	24%	35%	24%	13%	37%
	4	10%	23%	32%	22%	12%	35%
<i>Mathematics</i>	2	1%	19%	26%	33%	21%	54%
	3	1%	21%	27%	32%	19%	51%
	4	4%	19%	26%	32%	19%	52%

References

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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, attempts are made to ensure sufficient data are collected for the major subgroups of students. Such data help ETS to conduct analyses needed to ensure that the assessments are equitable for various groups of test takers.

Procedures for Maintaining and Retrieving Individual Scores

All STS items are multiple-choice items. 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. These specifications 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 district level and at the state level
- **"What If" List**—Provides a variety of anomalous scenarios that may occur when test materials are returned by 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 that all parties agree to 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 accord 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 district must return scorable and nonscorable materials within five working days after the last day for each test administration period.

Types of Scores and Subscores

Raw Score

For all of the tests, the raw score is simply the sum of correct responses to the test items.

Percent Correct Score

Percent correct scores are raw scores divided by the total number of items on the test. Percent correct scores are reported for STS tests in grades five through eleven.

Subscore

The items of each STS in grades two through seven are aggregated into groups, referred to as “reporting clusters.” A subscore is obtained by summing an examinee’s scores on the items in each reporting cluster. A description of the STS reporting clusters is provided in Appendix 2.B, which starts on page 19.

Scale Score

Raw scores on each STS in grades two through four are transformed into three-digit scale scores using the equating process described in Chapter 2 on page 14. Scale scores range from 150 to 600 on each test. The raw scores of these examinees cannot be meaningfully compared, because these scores are affected by the difficulty of the test taken as well as the ability of the examinee.

Performance Levels

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

Score Verification Procedures

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 Key Verification Process

Scoring keys, provided in the form planners, are produced by ETS and verified thoroughly by performing various 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. Various checks are performed before keys are finalized, as listed below:

- 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.
- The printed lists of the scoring keys are checked again once the keys have been loaded into the SKM system.
- The sequence of linking items¹ in the form planners are matched with their sequence in the actual test booklets.
- The demarcations of various sections in the actual test book are checked against the list of demarcations provided by ETS test development staff.
- 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.
- The entire scoring system is tested using a test deck that includes typical and extremely atypical responses vectors.
- Classical item analyses are run 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 2009, two kinds of scoring tables are produced: raw-to-scale score conversion tables for the STS in grades two through four and raw-to-percent-correct score conversion tables for the STS in grades five through eleven. Starting from 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 of one test form to another. Pearson utilizes the scoring tables to generate scale scores or percent correct scores for each student.

ETS verifies Pearson's scale scores or percent correct scores by independently generating the scale scores or percent correct scores for students in a small number of school districts and comparing these scores with those generated by Pearson. The selection of school districts is based on the availability of data for all schools included in those districts, known as "complete districts".

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 as

¹ Linking items are used to link the scores on current year's test form to scores obtained on the previous years' test forms to adjust for the difficulty level of the forms across years. This is accomplished during the equating process, as discussed in Chapter 2.

well as group scores. The next section presents the types of aggregation performed on STS scores.

Individual Scores

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

Score Distributions and Summary Statistics

Summary statistics are presented in Table 7.1 that describe the performance of students in the overall population on each STS. Analogous results are given in Table 7.2 and Table 7.3 for students in the target population and the optional population, respectively. Included in these 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 that reported scale scores in 2009 (i.e., grades two through four STS tests). The last two columns in the table list the raw score means and standard deviations as percentages of the total raw score points in each test. Summary statistics are not presented for groups with fewer than 11 examinees.

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. The last two rows in the summary tables present information on the grade-specific end-of-course testing groups.

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

Content Area	STS	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Scr. Pct Poss Range	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<i>Reading/ Language Arts</i>	2	65	15,399	333	52	42.10	12.33	64.77	18.97
	3	65	10,182	333	51	38.37	11.77	59.04	18.11
	4	75	5,572	325	51	42.91	13.90	57.22	18.54
	5	75	4,345	–	–	34.29	12.15	45.72	16.20
	6	75	2,637	–	–	36.35	11.70	48.46	15.59
	7	75	2,226	–	–	39.14	12.38	52.18	16.51
	8	40	1,821	–	–	18.59	5.45	46.47	13.63
	9	40	3,409	–	–	17.45	5.32	43.64	13.29
	10	40	2,235	–	–	17.80	5.22	44.50	13.05
	11	40	1,175	–	–	18.21	5.47	45.52	13.67
	<i>Mathematics</i>	2	65	15,323	359	72	43.74	11.57	67.29
3		65	10,092	358	74	42.65	12.80	65.61	19.69
4		65	5,531	359	73	41.22	12.53	63.42	19.28
5		65	4,310	–	–	33.20	10.99	51.07	16.91
6		65	2,606	–	–	31.66	11.18	48.71	17.21
7		65	2,167	–	–	28.17	9.83	43.35	15.12
Algebra I		40	4,115	–	–	11.80	4.42	29.51	11.05
Geometry	65	555	–	–	25.20	8.54	38.76	13.14	
<i>Grade-Specific</i>	Algebra I – 8	40	543	–	–	11.96	4.78	29.91	11.96
	Geometry – 9	65	76	–	–	25.18	9.03	38.74	13.89

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

Content Area	STS	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Scr. Pct Poss Range	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<i>Reading/ Language Arts</i>	2	65	13,300	333	53	42.18	12.36	64.90	19.02
	3	65	8,992	333	51	38.48	11.79	59.20	18.15
	4	75	4,897	325	51	42.93	13.85	57.24	18.47
	5	75	3,672	–	–	34.23	12.16	45.64	16.21
	6	75	2,343	–	–	36.59	11.66	48.79	15.55
	7	75	1,974	–	–	39.38	12.45	52.50	16.61
	8	40	1,602	–	–	18.73	5.45	46.83	13.62
	9	40	3,094	–	–	17.53	5.29	43.84	13.23
	10	40	2,009	–	–	17.85	5.21	44.61	13.02
	11	40	1,036	–	–	18.21	5.42	45.53	13.56
	<i>Mathematics</i>	2	65	13,250	360	72	43.80	11.59	67.38
3		65	8,940	359	74	42.78	12.78	65.82	19.67
4		65	4,893	359	72	41.27	12.40	63.49	19.08
5		65	3,656	–	–	32.94	10.88	50.67	16.74
6		65	2,314	–	–	31.79	11.12	48.91	17.11
7		65	1,927	–	–	28.15	9.76	43.31	15.02
Algebra I		40	3,720	–	–	11.81	4.42	29.53	11.04
Geometry		65	483	–	–	25.48	8.48	39.21	13.05
<i>Grade-Specific</i>	Algebra I – 8	40	478	–	–	11.98	4.73	29.96	11.84
	Geometry – 9	65	70	–	–	24.81	8.93	38.18	13.73

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

Content Area	STS	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Scr. Pct Poss Range	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<i>Reading/ Language Arts</i>	2	65	2,099	330	50	41.57	12.12	63.95	18.65
	3	65	1,190	329	49	37.57	11.59	57.79	17.84
	4	75	675	325	53	42.79	14.29	57.05	19.05
	5	75	673	–	–	34.63	12.10	46.17	16.14
	6	75	294	–	–	34.36	11.80	45.82	15.73
	7	75	252	–	–	37.25	11.67	49.67	15.57
	8	40	219	–	–	17.55	5.38	43.87	13.45
	9	40	315	–	–	16.67	5.50	41.67	13.76
	10	40	226	–	–	17.39	5.32	43.47	13.29
	11	40	139	–	–	18.18	5.82	45.45	14.55
	<i>Mathematics</i>	2	65	2,073	356	70	43.37	11.43	66.73
3		65	1,152	353	75	41.62	12.89	64.04	19.83
4		65	638	358	78	40.87	13.52	62.88	20.80
5		65	654	–	–	34.64	11.48	53.29	17.66
6		65	292	–	–	30.65	11.62	47.16	17.88
7		65	240	–	–	28.36	10.36	43.63	15.94
Algebra I		40	395	–	–	11.72	4.47	29.31	11.16
Geometry		65	72	–	–	23.26	8.71	35.79	13.41
<i>Grade-Specific</i>	Algebra I – 8	40	65	–	–	11.82	5.17	29.54	12.92
	Geometry – 9	65	6	–	–	–	–	–	–

The percentages of students in grades two through four in each performance category are presented in Table 7.4; please note that proficiency levels were not available for grades five through eleven during the spring 2009 operational administration. The last column in the table presents the overall proportion of examinees that were classified at the proficient level or higher.

Table 7.4 Percentage of Examinees in Proficiency Levels for the STS

Content Area	STS	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/Advanced
<i>Reading/ Language Arts</i>	2	4%	23%	33%	23%	17%	40%
	3	4%	24%	35%	24%	13%	37%
	4	10%	23%	32%	22%	12%	35%
<i>Mathematics</i>	2	1%	19%	26%	33%	21%	54%
	3	1%	21%	27%	32%	19%	51%
	4	4%	19%	26%	32%	19%	52%

Table 7.A.1 and Table 7.A.2 in Appendix 7.A, starting on page 149, show the distributions of scale scores for each STS test in grades two through four 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.

Table 7.A.3 through Table 7.A.8 show the distributions of raw scores for STS tests for grades five through eleven, which did not report scale scores in 2009. The tables show the distribution of examinees within each 5-point raw score interval. The raw scores range from 0 to 75 for RLA for grades five to seven, resulting in 15 score intervals. For mathematics for grades five through seven and Geometry for grades eight through eleven, raw scores range from 0 to 65, resulting in 13 score intervals. For RLA for grades eight through eleven and Algebra I for grades seven through eleven, raw scores range from 0 to 40, resulting in 8 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 for the STS tests. Two summary tables are provided for each STS test on the basis of the overall and target population respectively. In the tables, students are grouped by demographic characteristics, including gender, country of origin, economic status, enrollment in U.S. schools, English learner (EL) program participation, and special education programs.

The tables show the numbers of valid cases in each group as well as scale score means and standard deviations for each demographic group for the STS tests in grades two through four. For STS tests in grades five through eleven, means and standard deviations of raw scores instead of scale scores are provided. In addition, for tests in grades two through seven, mean percent correct scores within each reporting cluster are reported in these tables. Table 7.5, on the next page, defines 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).

Note that the statistics in these tables may slightly differ from the statewide statistics reported on the CDE Web site because the P2 data file was used for the analyses in this chapter, which includes 100 percent of the all districts but does not include district corrections of demographic data through the Demographic Data Corrections process. In addition, students testing with invalid scores were excluded from the tables.

Table 7.5 Subgroup Definitions

Subgroup	Definition
Gender	Male
	Female
Country of Origin	United States
	Mexico
	Spain
	Puerto Rico
	Cuba
	Guatemala
	El Salvador
	Columbia
	Brazil
	Ecuador
	Venezuela
	Peru
	Bolivia
	Chile
	Paraguay
	Argentina
	Uruguay
Panama	
Costa Rica	
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 tests in mathematics. 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 to be 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.

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 the table below.

Table 7.6 Types of STS Reports

1. Summary Reports	<ul style="list-style-type: none"> ▪ STAR Student Master List Summary ▪ STAR Student Master List Summary, End-of-Course ▪ STAR Subgroup Summary
2. Individual Reports	<ul style="list-style-type: none"> ▪ STAR Student Record Label ▪ STAR Student Master List ▪ STAR Student Report for the STS
3. Internet Reports	<ul style="list-style-type: none"> ▪ 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 reports to the child's parents or guardians and forwards a copy to the student's school or test site. Reports such as the STAR Student Report, Student Record Label, and Student Master List that include individual student results are not distributed beyond the student's school. Internet reports are described on the CDE Web site and are accessible to the public online at <http://star.cde.ca.gov/>.

Score Report Contents

The STAR Student Report provides scale scores, performance levels, and reporting cluster (subscore) results for each STS test taken by a student at grades two through four. Scale scores are reported on a scale ranging from 150 to 600. Results for these STS tests are also reported by performance levels, which 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 cluster score obtained by students who achieved the lowest score that qualifies a student to be classified as proficient on the total test, as well as the average percent correct cluster score obtained by students who achieved the lowest score that qualifies a student to be classified as advanced on the total test. These two averages are given as a range of values in the report.

For each STS test taken by a student in grades five through seven, the STAR student report provides the overall percent correct, number-correct, and percent correct in each reporting cluster. Also, reporting cluster results compare an individual student's percent correct score to the average percent correct for the state, as a whole, and for the district where a student attends school.

For each STS test taken by a student at grades eight through eleven, the STAR Student Report provides overall percent correct only. No reporting cluster results are reported.

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 non-accommodated tests. Modifications, however, change what is being tested and, therefore, change scores. If students use modifications, their scores are counted differently from non-modified test scores on summary reports. On the STAR summary

reports, the students' STS scores are counted as far below basic for tests that report proficiency 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 188.

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 to talk 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 to best 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 level and content area tested. Their findings are used to help determine:

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

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, 2009). 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 was retested.

Criteria for Interpreting Score Reports

The information presented on various reports must be interpreted with caution when making performance comparisons. When comparing scale score and performance level results for STS tests in grades two through four, 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. Comparisons between raw scores and cluster scores should be limited to comparisons within not only content area and grade but also test year. Comparing scores obtained in different grades or content areas should be avoided because the results are not on the same scale. The user may compare 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. For more details on the criteria for interpreting information provided on the score reports, see *2009 STAR Post-Test Guide* (CDE, 2009b).

References

California Department of Education. (2009a). *2009 STAR CST/CMA, CAPA, and STS printed reports*. Sacramento, CA. <http://www.startest.org/pdfs/STAR.reports.2009.pdf>.

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

Appendix 7.A—Score Distributions

Table 7.A.1 Distribution of STS Scale Scores, Grades Two through Four Overall Population

Scale Score	Reading/Language Arts			Mathematics		
	Grade 2	Grade 3	Grade 4	Grade 2	Grade 3	Grade 4
570 – 600	8	2	0	146	49	30
540 – 569	0	0	1	0	95	23
510 – 539	0	8	1	368	158	56
480 – 509	19	25	2	310	406	161
450 – 479	170	110	21	661	489	392
420 – 449	421	440	121	1,631	744	441
390 – 419	1,501	711	422	1,920	1,354	740
360 – 389	2,537	1,580	934	2,300	1,281	759
330 – 359	3,723	2,294	1,131	2,635	1,699	968
300 – 329	2,809	2,106	1,076	2,224	1,533	685
270 – 299	2,282	1,818	969	1,559	1,296	615
240 – 269	1,416	928	674	1,130	715	454
210 – 239	472	149	201	338	231	167
180 – 209	37	11	19	90	38	37
150 – 179	4	0	0	11	4	3

Table 7.A.2 Distribution of STS Scale Scores, Grades Two through Four Target Population

Scale Score	Reading/Language Arts			Mathematics		
	Grade 2	Grade 3	Grade 4	Grade 2	Grade 3	Grade 4
570 – 600	8	2	0	130	42	28
540 – 569	0	0	1	0	86	20
510 – 539	0	7	1	322	136	48
480 – 509	18	23	1	272	365	130
450 – 479	150	100	19	580	442	342
420 – 449	385	404	105	1,437	657	381
390 – 419	1,320	646	364	1,648	1,235	668
360 – 389	2,187	1,382	818	1,977	1,146	686
330 – 359	3,203	2,032	1,007	2,289	1,487	875
300 – 329	2,416	1,860	955	1,894	1,361	620
270 – 299	1,941	1,587	846	1,345	1,115	527
240 – 269	1,231	812	584	978	632	384
210 – 239	409	126	181	290	198	149
180 – 209	29	11	15	78	35	32
150 – 179	3	0	0	10	3	3

Table 7.A.3 Distribution of STS Raw Scores for RLA Overall Population

Raw Score	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 9	Gr. 10	Gr. 11
71 – 75	0	0	0	–	–	–	–
66 – 70	8	12	15	–	–	–	–
61 – 65	64	36	73	–	–	–	–
56 – 60	151	107	154	–	–	–	–
51 – 55	275	179	210	–	–	–	–
46 – 50	396	305	290	–	–	–	–
41 – 45	476	325	271	–	–	–	–
36 – 40	521	372	281	1	0	0	0
31 – 35	542	389	309	29	11	13	7
26 – 30	661	371	269	158	232	151	103
21 – 25	670	326	224	494	768	533	295
16 – 20	469	172	116	579	1,102	782	393
11 – 15	109	43	11	440	980	561	276
06 – 10	3	0	3	117	296	188	96
00 – 05	0	0	0	3	20	7	5

Table 7.A.4 Distribution of STS Raw Scores for RLA Target Population

Raw Score	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 9	Gr. 10	Gr. 11
71 – 75	0	0	0	–	–	–	–
66 – 70	7	11	14	–	–	–	–
61 – 65	51	33	68	–	–	–	–
56 – 60	127	96	141	–	–	–	–
51 – 55	231	162	195	–	–	–	–
46 – 50	335	275	259	–	–	–	–
41 – 45	411	297	237	–	–	–	–
36 – 40	432	337	249	1	0	0	0
31 – 35	451	346	268	27	11	12	6
26 – 30	557	322	235	137	213	134	89
21 – 25	569	287	195	463	705	488	260
16 – 20	407	139	101	500	1,004	707	352
11 – 15	92	38	9	371	882	497	242
06 – 10	2	0	3	100	264	166	83
00 – 05	0	0	0	3	15	5	4

Table 7.A.5 Distribution of STS Raw Scores for Mathematics Overall Population

Raw Score	Grade 5	Grade 6	Grade 7	Algebra I	Geometry
61 – 65	23	5	0	–	0
56 – 60	85	58	19	–	2
51 – 55	222	112	45	–	1
46 – 50	329	149	86	–	10
41 – 45	465	279	120	–	23
36 – 40	584	320	196	2	25
31 – 35	694	382	301	10	64
26 – 30	721	406	394	35	113
21 – 25	635	436	493	140	140
16 – 20	436	319	373	482	120
11 – 15	106	132	134	1,659	53
06 – 10	10	8	6	1,665	4
00 – 05	0	0	0	122	0

Table 7.A.6 Distribution of STS Raw Scores for Mathematics Target Population

Raw Score	Grade 5	Grade 6	Grade 7	Algebra I	Geometry
61 – 65	19	5	0	–	0
56 – 60	65	53	16	–	2
51 – 55	176	95	41	–	1
46 – 50	271	139	77	–	10
41 – 45	387	245	106	–	20
36 – 40	505	292	171	2	20
31 – 35	587	342	263	8	58
26 – 30	619	365	355	33	103
21 – 25	553	384	449	122	123
16 – 20	372	274	329	439	106
11 – 15	93	113	115	1,504	37
06 – 10	9	7	5	1,502	3
00 – 05	0	0	0	110	0

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

Raw Score	Algebra I – Grade 8	Geometry – Grade 9
61 – 65	–	0
56 – 60	–	1
51 – 55	–	0
46 – 50	–	2
41 – 45	–	3
36 – 40	0	1
31 – 35	2	10
26 – 30	5	14
21 – 25	29	22
16 – 20	63	16
11 – 15	210	6
06 – 10	213	1
00 – 05	21	0

Table 7.A.8 Distribution of STS Raw Scores for a Grade-Specific Target Population

Raw Score	Algebra I – Grade 8	Geometry – Grade 9
61 – 65	–	0
56 – 60	–	1
51 – 55	–	0
46 – 50	–	2
41 – 45	–	2
36 – 40	0	1
31 – 35	1	8
26 – 30	5	14
21 – 25	27	20
16 – 20	53	15
11 – 15	191	6
06 – 10	184	1
00 – 05	17	0

Appendix 7.B—Demographic Summaries

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Overall population valid scores	15,399	333	52	4%	23%	33%	23%	17%	71%	64%	65%	67%	44%
Female	7,648	339	52	3%	19%	32%	25%	20%	73%	68%	67%	70%	46%
Male	7,728	326	52	5%	27%	33%	22%	13%	69%	61%	63%	64%	42%
Gender unknown	23	322	43	0%	35%	43%	13%	9%	70%	60%	58%	59%	43%
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	4	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	13	354	62	8%	8%	31%	23%	31%	76%	77%	77%	70%	47%
Costa Rica	5	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	16	316	48	19%	6%	50%	19%	6%	61%	63%	67%	64%	37%
Ecuador	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	5	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	108	320	54	8%	23%	38%	16%	15%	66%	63%	61%	60%	40%
Mexico	2,623	324	54	7%	27%	31%	21%	14%	68%	62%	62%	62%	41%
Panama	2	—	—	—	—	—	—	—	—	—	—	—	—
Peru	12	314	54	8%	25%	42%	17%	8%	66%	55%	64%	54%	38%
Puerto Rico	7	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	1	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	147	304	55	16%	29%	32%	14%	9%	60%	57%	52%	52%	38%
United States	9,149	334	51	4%	22%	33%	24%	17%	72%	65%	66%	68%	44%
Uruguay	1	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	382	329	50	5%	23%	36%	21%	15%	71%	65%	63%	64%	42%
Country unknown	2,910	337	53	3%	22%	31%	24%	19%	73%	65%	65%	70%	46%
Not economically disadvantaged	1,016	340	54	4%	20%	30%	25%	22%	73%	68%	66%	69%	46%
Economically disadvantaged	14,126	332	52	4%	23%	33%	23%	16%	71%	64%	65%	67%	43%
Economic status unknown	257	338	52	3%	23%	28%	26%	20%	73%	67%	67%	69%	46%
In U.S. Schools >= 12 months	13,610	336	51	3%	21%	33%	25%	18%	73%	66%	66%	69%	45%
In U.S. Schools < 12 months	1,789	303	53	14%	36%	29%	13%	8%	60%	55%	54%	52%	36%
EL in ELD	491	323	56	8%	29%	28%	18%	16%	67%	62%	62%	61%	41%
EL in ELD and SDAIE	935	305	53	12%	34%	30%	16%	7%	60%	56%	55%	54%	36%
EL in ELD and SDAIE with primary language support	1,283	311	52	10%	33%	31%	16%	9%	63%	57%	58%	57%	37%
EL in ELD and academic subjects through primary language	12,043	338	51	3%	21%	33%	25%	19%	73%	66%	66%	69%	45%
Other EL instructional services	442	332	48	4%	20%	38%	26%	12%	71%	65%	65%	68%	44%
None (EL only)	52	311	54	4%	46%	23%	13%	13%	61%	55%	53%	59%	44%
Program participation unknown	153	330	56	7%	25%	24%	26%	18%	69%	65%	63%	65%	42%
No special education	14,583	334	52	4%	22%	33%	24%	17%	72%	65%	65%	68%	44%
Special education	816	299	47	11%	43%	30%	12%	4%	59%	50%	54%	53%	34%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				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	13,300	333	53	4%	23%	33%	23%	17%	72%	64%	65%	67%	44%
Female	6,593	340	52	3%	19%	32%	25%	21%	73%	68%	67%	70%	46%
Male	6,694	326	52	5%	27%	33%	22%	14%	70%	61%	63%	64%	42%
Gender unknown	13	329	48	0%	31%	46%	8%	15%	70%	65%	63%	63%	46%
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	3	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	10	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	4	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	14	317	51	21%	0%	50%	21%	7%	61%	63%	69%	66%	35%
Ecuador	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	5	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	102	320	55	9%	22%	39%	15%	16%	66%	63%	61%	60%	39%
Mexico	2,209	323	54	7%	28%	31%	20%	13%	68%	62%	62%	61%	40%
Panama	2	—	—	—	—	—	—	—	—	—	—	—	—
Peru	12	314	54	8%	25%	42%	17%	8%	66%	55%	64%	54%	38%
Puerto Rico	7	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	1	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	137	306	56	16%	28%	32%	15%	9%	60%	58%	54%	53%	39%
United States	8,093	335	51	4%	22%	33%	24%	17%	72%	65%	66%	68%	44%
Uruguay	1	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	346	332	50	5%	22%	35%	23%	16%	72%	66%	64%	65%	42%
Country unknown	2,340	339	54	3%	22%	30%	24%	21%	73%	65%	66%	70%	46%
Not economically disadvantaged	900	341	54	4%	20%	29%	25%	22%	73%	69%	67%	70%	47%
Economically disadvantaged	12,231	332	53	4%	23%	33%	23%	17%	71%	64%	65%	67%	44%
Economic status unknown	169	338	52	2%	25%	30%	24%	20%	73%	66%	68%	69%	46%
In U.S. Schools >= 12 months	11,511	338	51	3%	21%	33%	25%	19%	73%	66%	67%	69%	45%
In U.S. Schools < 12 months	1,789	303	53	14%	36%	29%	13%	8%	60%	55%	54%	52%	36%
EL in ELD	156	287	50	18%	49%	19%	8%	6%	53%	49%	49%	44%	33%
EL in ELD and SDAIE	550	290	47	17%	42%	29%	9%	3%	54%	51%	50%	45%	32%
EL in ELD and SDAIE with primary language support	490	288	48	21%	41%	27%	8%	3%	53%	49%	49%	46%	32%
EL in ELD and academic subjects through primary language	12,043	338	51	3%	21%	33%	25%	19%	73%	66%	66%	69%	45%
Other EL instructional services	21	298	61	24%	29%	29%	10%	10%	55%	54%	48%	55%	37%
None (EL only)	27	300	48	4%	52%	26%	11%	7%	58%	52%	50%	51%	41%
Program participation unknown	13	333	76	15%	23%	15%	15%	31%	66%	68%	56%	62%	48%
No special education	12,609	335	52	4%	22%	33%	24%	18%	72%	65%	65%	68%	44%
Special education	691	298	47	11%	43%	30%	11%	4%	59%	49%	54%	53%	34%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Overall population valid scores	10,182	333	51	4%	24%	35%	24%	13%	69%	51%	54%	59%	56%
Female	5,080	340	51	3%	21%	34%	27%	16%	71%	54%	56%	62%	59%
Male	5,077	326	49	5%	28%	36%	21%	10%	66%	48%	52%	56%	53%
Gender unknown	25	333	45	0%	32%	36%	16%	16%	71%	51%	52%	58%	55%
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	5	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	16	308	41	0%	56%	25%	13%	6%	61%	45%	50%	42%	44%
Costa Rica	3	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	6	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	102	321	51	8%	34%	26%	23%	9%	64%	49%	51%	52%	51%
Mexico	2,237	329	54	6%	27%	33%	22%	13%	68%	50%	54%	55%	53%
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—
Peru	25	344	38	0%	16%	36%	40%	8%	76%	52%	60%	64%	60%
Puerto Rico	5	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	1	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	168	319	49	9%	29%	35%	20%	7%	63%	47%	53%	51%	50%
United States	5,254	334	50	3%	24%	35%	25%	13%	69%	51%	54%	61%	57%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	4	—	—	—	—	—	—	—	—	—	—	—	—
Other	327	331	51	3%	28%	36%	19%	14%	67%	50%	53%	59%	56%
Country unknown	2,012	334	49	3%	23%	36%	25%	12%	68%	51%	54%	61%	58%
Not economically disadvantaged	735	339	55	4%	22%	30%	25%	18%	70%	53%	57%	61%	59%
Economically disadvantaged	9,295	332	50	4%	25%	35%	24%	12%	69%	50%	54%	59%	56%
Economic status unknown	152	326	50	5%	29%	30%	24%	13%	66%	49%	53%	56%	54%
In U.S. Schools >= 12 months	8,526	336	50	3%	23%	35%	25%	14%	70%	52%	55%	61%	58%
In U.S. Schools < 12 months	1,656	317	50	8%	33%	33%	18%	8%	64%	46%	51%	50%	48%
EL in ELD	272	319	50	8%	29%	35%	20%	8%	65%	47%	51%	52%	48%
EL in ELD and SDAIE	888	315	50	9%	33%	34%	17%	8%	63%	45%	50%	50%	48%
EL in ELD and SDAIE with primary language support	826	319	49	7%	33%	32%	21%	7%	65%	47%	51%	51%	49%
EL in ELD and academic subjects through primary language	7,702	337	50	3%	22%	35%	25%	14%	70%	52%	55%	61%	58%
Other EL instructional services	366	333	51	5%	24%	33%	26%	12%	68%	50%	52%	61%	59%
None (EL only)	19	314	57	11%	42%	21%	11%	16%	59%	46%	49%	49%	52%
Program participation unknown	109	310	47	7%	38%	30%	21%	4%	60%	46%	49%	48%	45%
No special education	9,566	335	50	4%	23%	35%	25%	13%	70%	51%	55%	60%	57%
Special education	616	297	42	13%	44%	30%	11%	2%	54%	38%	41%	46%	42%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	8,992	333	51	4%	24%	35%	24%	13%	69%	51%	54%	59%	56%
Female	4,482	340	52	3%	20%	34%	27%	16%	71%	54%	57%	62%	59%
Male	4,489	326	49	5%	28%	36%	21%	10%	67%	48%	52%	57%	53%
Gender unknown	21	338	46	0%	29%	33%	19%	19%	73%	53%	53%	60%	58%
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	5	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	13	309	45	0%	62%	15%	15%	8%	60%	47%	51%	41%	44%
Costa Rica	3	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	6	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	96	321	51	7%	35%	25%	24%	8%	64%	49%	51%	52%	51%
Mexico	2,026	329	53	6%	26%	34%	22%	13%	68%	50%	54%	55%	53%
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—
Peru	24	343	39	0%	17%	38%	38%	8%	75%	52%	59%	64%	60%
Puerto Rico	4	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	1	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	154	318	48	9%	29%	36%	20%	6%	63%	47%	53%	51%	49%
United States	4,701	335	50	3%	23%	35%	25%	13%	69%	51%	54%	61%	57%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	4	—	—	—	—	—	—	—	—	—	—	—	—
Other	298	334	51	3%	26%	36%	19%	15%	68%	51%	54%	60%	57%
Country unknown	1,641	335	50	3%	23%	36%	25%	13%	68%	51%	54%	61%	58%
Not economically disadvantaged	642	341	55	4%	21%	31%	25%	19%	70%	54%	58%	61%	60%
Economically disadvantaged	8,243	333	51	4%	24%	35%	24%	13%	69%	51%	54%	59%	56%
Economic status unknown	107	327	52	7%	27%	32%	21%	14%	66%	49%	54%	57%	53%
In U.S. Schools >= 12 months	7,336	337	50	3%	22%	35%	25%	14%	70%	52%	55%	61%	58%
In U.S. Schools < 12 months	1,656	317	50	8%	33%	33%	18%	8%	64%	46%	51%	50%	48%
EL in ELD	133	318	52	8%	32%	33%	19%	8%	66%	46%	51%	48%	48%
EL in ELD and SDAIE	601	309	50	11%	35%	33%	14%	7%	61%	43%	49%	47%	45%
EL in ELD and SDAIE with primary language support	493	310	47	9%	38%	31%	17%	5%	62%	44%	49%	47%	45%
EL in ELD and academic subjects through primary language	7,702	337	50	3%	22%	35%	25%	14%	70%	52%	55%	61%	58%
Other EL instructional services	26	301	57	8%	58%	19%	12%	4%	53%	42%	40%	46%	43%
None (EL only)	15	311	59	13%	40%	20%	7%	20%	58%	45%	48%	49%	50%
Program participation unknown	22	313	59	14%	27%	27%	23%	9%	59%	48%	46%	50%	46%
No special education	8,478	335	51	3%	23%	35%	25%	14%	70%	52%	55%	60%	57%
Special education	514	299	43	13%	42%	30%	12%	2%	55%	39%	42%	46%	43%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Overall population valid scores	5,572	325	51	10%	23%	32%	23%	12%	64%	52%	46%	65%	52%
Female	2,702	334	49	7%	19%	33%	26%	15%	68%	56%	49%	69%	55%
Male	2,862	316	52	13%	27%	31%	19%	10%	61%	50%	42%	61%	48%
Gender unknown	8	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	5	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	11	349	54	0%	27%	27%	27%	18%	71%	66%	57%	68%	59%
Costa Rica	1	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	1	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	1	—	—	—	—	—	—	—	—	—	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	80	302	50	15%	40%	28%	8%	10%	54%	44%	42%	53%	44%
Mexico	1,545	323	52	12%	23%	34%	21%	11%	63%	52%	45%	64%	51%
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—
Peru	22	328	42	5%	18%	41%	32%	5%	69%	53%	50%	65%	51%
Puerto Rico	6	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	160	323	52	11%	21%	41%	14%	14%	62%	52%	48%	63%	52%
United States	2,357	329	51	9%	22%	31%	24%	14%	66%	54%	46%	66%	53%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	0	—	—	—	—	—	—	—	—	—	—	—	—
Other	224	321	53	10%	29%	30%	18%	13%	63%	49%	46%	64%	50%
Country unknown	1,149	322	50	11%	24%	30%	24%	11%	63%	52%	44%	64%	51%
Not economically disadvantaged	483	331	54	7%	24%	29%	25%	15%	66%	55%	48%	66%	53%
Economically disadvantaged	4,939	324	51	11%	23%	32%	22%	12%	64%	52%	45%	64%	52%
Economic status unknown	150	327	50	9%	22%	31%	27%	11%	67%	54%	44%	64%	52%
In U.S. Schools >= 12 months	4,114	328	52	10%	22%	30%	24%	14%	66%	53%	46%	66%	53%
In U.S. Schools < 12 months	1,458	317	49	12%	26%	35%	19%	8%	60%	50%	44%	62%	49%
EL in ELD	162	315	48	10%	29%	37%	15%	8%	61%	49%	41%	61%	48%
EL in ELD and SDAIE	755	316	50	12%	27%	34%	19%	8%	60%	50%	44%	61%	48%
EL in ELD and SDAIE with primary language support	622	317	48	11%	26%	35%	19%	9%	61%	50%	43%	63%	49%
EL in ELD and academic subjects through primary language	3,701	328	51	9%	22%	31%	24%	14%	66%	54%	46%	66%	53%
Other EL instructional services	246	329	57	14%	20%	27%	21%	18%	65%	53%	46%	66%	53%
None (EL only)	14	328	70	14%	21%	36%	14%	14%	60%	51%	46%	65%	54%
Program participation unknown	72	312	53	18%	26%	26%	19%	10%	59%	46%	44%	60%	48%
No special education	5,258	327	51	9%	23%	32%	23%	13%	65%	53%	46%	65%	52%
Special education	314	289	47	31%	31%	24%	11%	3%	49%	40%	35%	50%	40%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				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	4,897	325	51	10%	23%	32%	22%	12%	64%	53%	46%	65%	52%
Female	2,380	335	49	7%	18%	33%	27%	15%	68%	56%	49%	69%	55%
Male	2,511	316	51	13%	28%	31%	19%	9%	61%	50%	42%	61%	48%
Gender unknown	6	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	4	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	9	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	1	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	1	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	1	—	—	—	—	—	—	—	—	—	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	72	303	52	15%	39%	28%	7%	11%	55%	45%	42%	53%	43%
Mexico	1,393	323	51	11%	23%	34%	21%	12%	64%	52%	45%	64%	51%
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	20	322	39	5%	20%	45%	30%	0%	66%	51%	48%	64%	48%
Puerto Rico	3	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	151	323	52	9%	23%	40%	14%	15%	62%	52%	48%	63%	52%
United States	2,085	329	51	9%	22%	31%	24%	14%	66%	54%	46%	66%	53%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	0	—	—	—	—	—	—	—	—	—	—	—	—
Other	154	322	50	8%	30%	32%	19%	10%	63%	49%	46%	64%	51%
Country unknown	994	321	50	11%	24%	31%	23%	10%	63%	52%	44%	63%	50%
Not economically disadvantaged	420	330	53	7%	23%	30%	24%	15%	66%	55%	47%	66%	53%
Economically disadvantaged	4,374	324	51	10%	23%	32%	22%	12%	64%	52%	45%	64%	51%
Economic status unknown	103	329	49	7%	21%	34%	26%	12%	67%	56%	44%	65%	52%
In U.S. Schools >= 12 months	3,439	328	52	9%	22%	31%	24%	14%	66%	54%	46%	66%	53%
In U.S. Schools < 12 months	1,458	317	49	12%	26%	35%	19%	8%	60%	50%	44%	62%	49%
EL in ELD	97	316	47	9%	28%	41%	12%	9%	61%	50%	41%	62%	48%
EL in ELD and SDAIE	579	312	49	14%	28%	34%	18%	6%	58%	49%	43%	60%	46%
EL in ELD and SDAIE with primary language support	464	316	49	12%	27%	36%	16%	9%	60%	49%	43%	62%	48%
EL in ELD and academic subjects through primary language	3,701	328	51	9%	22%	31%	24%	14%	66%	54%	46%	66%	53%
Other EL instructional services	27	315	45	15%	15%	48%	15%	7%	63%	46%	49%	58%	49%
None (EL only)	13	328	73	15%	23%	31%	15%	15%	59%	50%	47%	64%	54%
Program participation unknown	16	311	44	6%	31%	44%	19%	0%	59%	47%	43%	61%	45%
No special education	4,643	327	51	9%	23%	32%	23%	13%	65%	53%	46%	65%	52%
Special education	254	291	49	30%	28%	26%	12%	4%	50%	40%	36%	51%	41%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Overall population valid scores	4,345	34	12	46%	43%	44%	51%	44%
Female	2,145	36	12	47%	45%	48%	54%	47%
Male	2,196	32	12	44%	40%	41%	47%	42%
Gender unknown	4	–	–	–	–	–	–	–
Argentina	5	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–
Colombia	20	43	11	58%	54%	59%	64%	55%
Costa Rica	2	–	–	–	–	–	–	–
Cuba	6	–	–	–	–	–	–	–
Ecuador	3	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–
Guatemala	69	33	13	45%	39%	40%	49%	45%
Mexico	1,525	35	12	47%	44%	47%	51%	46%
Panama	1	–	–	–	–	–	–	–
Peru	19	39	9	48%	50%	52%	60%	46%
Puerto Rico	7	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	139	33	11	45%	40%	44%	48%	42%
United States	1,538	34	12	46%	43%	43%	51%	44%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	6	–	–	–	–	–	–	–
Other	160	32	12	42%	39%	41%	49%	41%
Country unknown	834	33	12	44%	41%	41%	49%	43%
Not economically disadvantaged	388	36	14	48%	46%	46%	54%	48%
Economically disadvantaged	3,848	34	12	46%	43%	44%	50%	44%
Economic status unknown	109	37	13	51%	46%	49%	55%	48%
In U.S. Schools >= 12 months	2,879	34	12	45%	43%	43%	51%	44%
In U.S. Schools < 12 months	1,466	35	13	47%	43%	46%	50%	46%
EL in ELD	142	35	12	46%	42%	46%	51%	45%
EL in ELD and SDAIE	725	34	12	47%	42%	45%	49%	44%
EL in ELD and SDAIE with primary language support	565	36	12	47%	44%	47%	52%	47%
EL in ELD and academic subjects through primary language	2,423	34	12	45%	43%	43%	51%	44%
Other EL instructional services	397	35	13	47%	43%	43%	54%	45%
None (EL only)	14	32	10	44%	40%	41%	48%	39%
Program participation unknown	79	33	12	45%	40%	41%	47%	45%
No special education	4,073	35	12	47%	44%	45%	51%	45%
Special education	272	27	11	36%	32%	33%	41%	36%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	3,672	34	12	46%	43%	44%	50%	44%
Female	1,796	36	12	47%	45%	48%	54%	47%
Male	1,874	32	12	44%	41%	41%	47%	42%
Gender unknown	2	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–
Colombia	18	43	11	57%	52%	58%	63%	54%
Costa Rica	2	–	–	–	–	–	–	–
Cuba	6	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–
Guatemala	58	34	12	45%	41%	42%	50%	47%
Mexico	1,327	35	12	47%	44%	47%	51%	46%
Panama	1	–	–	–	–	–	–	–
Peru	17	39	8	50%	50%	55%	59%	45%
Puerto Rico	6	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	128	33	11	45%	40%	44%	48%	43%
United States	1,257	34	12	46%	43%	43%	51%	44%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	6	–	–	–	–	–	–	–
Other	113	33	12	43%	41%	42%	51%	42%
Country unknown	717	32	12	43%	40%	40%	48%	42%
Not economically disadvantaged	326	36	13	48%	45%	47%	53%	48%
Economically disadvantaged	3,266	34	12	45%	43%	44%	50%	44%
Economic status unknown	80	37	14	49%	46%	48%	54%	48%
In U.S. Schools >= 12 months	2,206	34	12	45%	43%	43%	50%	43%
In U.S. Schools < 12 months	1,466	35	13	47%	43%	46%	50%	46%
EL in ELD	114	35	13	46%	42%	46%	50%	46%
EL in ELD and SDAIE	608	34	13	47%	42%	45%	49%	44%
EL in ELD and SDAIE with primary language support	466	36	13	47%	44%	48%	52%	47%
EL in ELD and academic subjects through primary language	2,423	34	12	45%	43%	43%	51%	44%
Other EL instructional services	22	33	14	39%	41%	45%	48%	45%
None (EL only)	11	33	11	45%	42%	45%	48%	43%
Program participation unknown	28	32	12	43%	39%	38%	44%	46%
No special education	3,463	35	12	46%	44%	45%	51%	45%
Special education	209	27	11	37%	33%	34%	41%	37%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Overall population valid scores	2,637	36	12	45%	49%	50%	55%	44%
Female	1,274	39	11	47%	52%	54%	60%	47%
Male	1,359	34	11	42%	46%	46%	50%	40%
Gender unknown	4	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–
Costa Rica	2	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–
Guatemala	69	36	12	43%	47%	51%	56%	45%
Mexico	1,111	37	12	47%	50%	51%	55%	45%
Panama	0	–	–	–	–	–	–	–
Peru	13	42	10	51%	57%	51%	64%	52%
Puerto Rico	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	141	33	13	42%	44%	45%	49%	40%
United States	777	37	11	44%	50%	49%	57%	44%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–
Other	73	36	12	46%	49%	48%	54%	41%
Country unknown	430	35	11	41%	48%	48%	52%	41%
Not economically disadvantaged	265	39	13	48%	52%	53%	58%	45%
Economically disadvantaged	2,319	36	12	44%	49%	49%	54%	43%
Economic status unknown	53	41	12	50%	56%	58%	63%	49%
In U.S. Schools >= 12 months	1,366	35	11	43%	48%	48%	55%	42%
In U.S. Schools < 12 months	1,271	37	12	47%	50%	51%	55%	45%
EL in ELD	152	37	12	44%	51%	53%	57%	44%
EL in ELD and SDAIE	596	38	12	47%	51%	52%	55%	45%
EL in ELD and SDAIE with primary language support	481	36	12	45%	47%	49%	52%	43%
EL in ELD and academic subjects through primary language	1,223	36	11	43%	49%	48%	56%	43%
Other EL instructional services	130	36	12	44%	50%	50%	54%	43%
None (EL only)	13	39	13	51%	53%	51%	61%	44%
Program participation unknown	42	32	11	43%	42%	45%	45%	38%
No special education	2,507	37	12	45%	50%	50%	56%	44%
Special education	130	27	9	33%	37%	37%	39%	32%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	2,343	37	12	45%	49%	50%	55%	44%
Female	1,132	39	11	48%	52%	54%	60%	48%
Male	1,208	34	11	42%	47%	46%	51%	40%
Gender unknown	3	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–
Costa Rica	2	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–
Guatemala	63	36	12	43%	46%	52%	56%	45%
Mexico	1,000	37	12	47%	50%	52%	55%	45%
Panama	0	–	–	–	–	–	–	–
Peru	12	43	10	52%	58%	53%	66%	54%
Puerto Rico	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	131	33	13	42%	44%	45%	48%	39%
United States	696	37	11	44%	50%	49%	57%	44%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	55	37	13	48%	51%	48%	56%	43%
Country unknown	366	35	11	42%	48%	48%	53%	42%
Not economically disadvantaged	237	39	13	49%	52%	54%	58%	46%
Economically disadvantaged	2,065	36	11	44%	49%	49%	55%	44%
Economic status unknown	41	43	12	50%	57%	61%	66%	51%
In U.S. Schools >= 12 months	1,072	36	11	43%	49%	48%	56%	42%
In U.S. Schools < 12 months	1,271	37	12	47%	50%	51%	55%	45%
EL in ELD	110	38	13	46%	50%	53%	58%	44%
EL in ELD and SDAIE	531	38	12	48%	52%	53%	56%	46%
EL in ELD and SDAIE with primary language support	425	36	12	46%	48%	50%	53%	44%
EL in ELD and academic subjects through primary language	1,223	36	11	43%	49%	48%	56%	43%
Other EL instructional services	29	36	10	44%	48%	50%	51%	44%
None (EL only)	11	41	14	54%	54%	53%	64%	47%
Program participation unknown	14	35	11	43%	45%	48%	53%	45%
No special education	2,255	37	12	45%	50%	50%	56%	44%
Special education	88	28	10	35%	39%	38%	42%	33%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Overall population valid scores	2,226	39	12	62%	46%	51%	55%	51%
Female	1,075	42	12	65%	49%	54%	58%	55%
Male	1,148	37	12	59%	44%	47%	51%	48%
Gender unknown	3	–	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	14	48	12	77%	62%	57%	64%	64%
Costa Rica	0	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–
Ecuador	4	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–
Guatemala	76	35	11	53%	42%	44%	51%	46%
Mexico	1,146	39	12	63%	46%	51%	54%	52%
Panama	2	–	–	–	–	–	–	–
Peru	13	52	9	85%	59%	62%	72%	71%
Puerto Rico	5	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	151	37	11	62%	44%	48%	50%	47%
United States	483	40	12	61%	48%	52%	57%	52%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	4	–	–	–	–	–	–	–
Other	84	37	12	58%	43%	48%	54%	49%
Country unknown	238	38	12	59%	45%	50%	54%	50%
Not economically disadvantaged	306	42	13	67%	50%	53%	58%	55%
Economically disadvantaged	1,868	39	12	61%	46%	50%	54%	51%
Economic status unknown	52	39	12	63%	47%	48%	54%	51%
In U.S. Schools >= 12 months	670	37	11	57%	43%	49%	53%	49%
In U.S. Schools < 12 months	1,556	40	13	64%	48%	51%	55%	52%
EL in ELD	198	37	12	59%	43%	48%	52%	48%
EL in ELD and SDAIE	701	41	13	65%	48%	52%	56%	53%
EL in ELD and SDAIE with primary language support	546	39	13	63%	47%	50%	53%	51%
EL in ELD and academic subjects through primary language	653	38	12	59%	45%	50%	55%	50%
Other EL instructional services	55	40	14	61%	47%	52%	56%	56%
None (EL only)	21	36	12	62%	42%	52%	43%	48%
Program participation unknown	52	39	11	65%	45%	51%	53%	51%
No special education	2,154	39	12	63%	47%	51%	55%	51%
Special education	72	30	9	43%	33%	38%	45%	43%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Target population valid scores	1,974	39	12	62%	47%	51%	55%	52%
Female	953	42	12	65%	49%	54%	58%	55%
Male	1,019	37	13	60%	45%	48%	52%	48%
Gender unknown	2	–	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–
Colombia	14	48	12	77%	62%	57%	64%	64%
Costa Rica	0	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–
Ecuador	4	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–
Guatemala	71	35	11	54%	42%	44%	52%	46%
Mexico	1,045	39	13	63%	47%	51%	54%	52%
Panama	2	–	–	–	–	–	–	–
Peru	13	52	9	85%	59%	62%	72%	71%
Puerto Rico	5	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	138	37	11	62%	44%	48%	50%	48%
United States	436	41	12	63%	48%	53%	58%	52%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	4	–	–	–	–	–	–	–
Other	74	37	12	58%	43%	47%	52%	48%
Country unknown	162	39	13	60%	45%	50%	54%	52%
Not economically disadvantaged	287	42	13	67%	50%	53%	58%	55%
Economically disadvantaged	1,657	39	12	61%	46%	50%	54%	51%
Economic status unknown	30	39	13	63%	48%	49%	54%	51%
In U.S. Schools >= 12 months	418	37	11	56%	43%	49%	54%	49%
In U.S. Schools < 12 months	1,556	40	13	64%	48%	51%	55%	52%
EL in ELD	156	37	13	60%	44%	48%	51%	48%
EL in ELD and SDAIE	615	41	13	66%	48%	53%	57%	53%
EL in ELD and SDAIE with primary language support	476	40	13	63%	47%	50%	54%	52%
EL in ELD and academic subjects through primary language	653	38	12	59%	45%	50%	55%	50%
Other EL instructional services	33	40	14	63%	49%	54%	52%	54%
None (EL only)	19	36	13	61%	42%	51%	42%	47%
Program participation unknown	22	41	12	66%	50%	52%	56%	54%
No special education	1,926	40	12	63%	47%	51%	55%	52%
Special education	48	29	9	41%	34%	36%	43%	43%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Overall population valid scores	1,821	19	5
Female	880	20	5
Male	934	18	5
Gender unknown	7	–	–
Argentina	1	–	–
Bolivia	4	–	–
Brazil	0	–	–
Chile	1	–	–
Colombia	7	–	–
Costa Rica	0	–	–
Cuba	4	–	–
Ecuador	4	–	–
Spain	3	–	–
Guatemala	52	17	5
Mexico	980	19	6
Panama	1	–	–
Peru	14	23	6
Puerto Rico	1	–	–
Paraguay	0	–	–
El Salvador	116	18	5
United States	354	18	5
Uruguay	0	–	–
Venezuela	1	–	–
Other	64	18	5
Country unknown	214	18	5
Not economically disadvantaged	238	20	6
Economically disadvantaged	1,526	18	5
Economic status unknown	57	19	6
In U.S. Schools >= 12 months	554	18	5
In U.S. Schools < 12 months	1,267	19	6
EL in ELD	187	18	6
EL in ELD and SDAIE	551	19	6
EL in ELD and SDAIE with primary language support	490	18	5
EL in ELD and academic subjects through primary language	499	18	5
Other EL instructional services	45	18	6
None (EL only)	17	18	5
Program participation unknown	32	17	4
No special education	1,783	19	5
Special education	38	15	5
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Target population valid scores	1,602	19	5
Female	782	20	5
Male	816	18	5
Gender unknown	4	–	–
Argentina	1	–	–
Bolivia	4	–	–
Brazil	0	–	–
Chile	1	–	–
Colombia	7	–	–
Costa Rica	0	–	–
Cuba	3	–	–
Ecuador	4	–	–
Spain	3	–	–
Guatemala	50	17	4
Mexico	863	19	6
Panama	1	–	–
Peru	13	23	6
Puerto Rico	1	–	–
Paraguay	0	–	–
El Salvador	108	18	5
United States	322	18	5
Uruguay	0	–	–
Venezuela	1	–	–
Other	56	18	5
Country unknown	164	18	5
Not economically disadvantaged	221	20	6
Economically disadvantaged	1,339	19	5
Economic status unknown	42	20	6
In U.S. Schools >= 12 months	335	18	5
In U.S. Schools < 12 months	1,267	19	6
EL in ELD	138	18	6
EL in ELD and SDAIE	491	19	6
EL in ELD and SDAIE with primary language support	426	19	5
EL in ELD and academic subjects through primary language	499	18	5
Other EL instructional services	23	19	7
None (EL only)	16	17	5
Program participation unknown	9	–	–
No special education	1,583	19	5
Special education	19	14	4
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Overall population valid scores	3,409	17	5
Female	1,507	19	5
Male	1,890	17	5
Gender unknown	12	18	6
Argentina	1	–	–
Bolivia	0	–	–
Brazil	0	–	–
Chile	3	–	–
Colombia	8	–	–
Costa Rica	1	–	–
Cuba	13	22	7
Ecuador	8	–	–
Spain	2	–	–
Guatemala	258	16	5
Mexico	1,624	18	5
Panama	2	–	–
Peru	30	19	4
Puerto Rico	2	–	–
Paraguay	1	–	–
El Salvador	407	17	5
United States	474	18	5
Uruguay	0	–	–
Venezuela	5	–	–
Other	154	17	5
Country unknown	416	17	5
Not economically disadvantaged	532	18	6
Economically disadvantaged	2,729	17	5
Economic status unknown	148	17	5
In U.S. Schools >= 12 months	737	16	5
In U.S. Schools < 12 months	2,672	18	5
EL in ELD	372	18	5
EL in ELD and SDAIE	940	18	5
EL in ELD and SDAIE with primary language support	876	18	5
EL in ELD and academic subjects through primary language	962	17	5
Other EL instructional services	154	16	6
None (EL only)	39	17	6
Program participation unknown	66	17	6
No special education	3,385	17	5
Special education	24	13	6
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Target population valid scores	3,094	18	5
Female	1,366	19	5
Male	1,718	17	5
Gender unknown	10	–	–
Argentina	1	–	–
Bolivia	0	–	–
Brazil	0	–	–
Chile	3	–	–
Colombia	7	–	–
Costa Rica	1	–	–
Cuba	10	–	–
Ecuador	7	–	–
Spain	2	–	–
Guatemala	247	16	5
Mexico	1,442	18	5
Panama	2	–	–
Peru	28	19	4
Puerto Rico	2	–	–
Paraguay	1	–	–
El Salvador	390	17	5
United States	434	18	5
Uruguay	0	–	–
Venezuela	5	–	–
Other	143	17	6
Country unknown	369	17	5
Not economically disadvantaged	480	18	6
Economically disadvantaged	2,507	18	5
Economic status unknown	107	17	5
In U.S. Schools >= 12 months	422	16	5
In U.S. Schools < 12 months	2,672	18	5
EL in ELD	309	18	5
EL in ELD and SDAIE	819	18	5
EL in ELD and SDAIE with primary language support	797	18	5
EL in ELD and academic subjects through primary language	962	17	5
Other EL instructional services	142	16	6
None (EL only)	36	17	6
Program participation unknown	29	18	6
No special education	3,080	18	5
Special education	14	14	6
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Overall population valid scores	2,235	18	5
Female	1,000	19	5
Male	1,223	17	5
Gender unknown	12	19	5
Argentina	0	–	–
Bolivia	2	–	–
Brazil	0	–	–
Chile	3	–	–
Colombia	11	22	3
Costa Rica	2	–	–
Cuba	8	–	–
Ecuador	6	–	–
Spain	4	–	–
Guatemala	68	16	5
Mexico	1,152	18	5
Panama	0	–	–
Peru	15	20	5
Puerto Rico	6	–	–
Paraguay	0	–	–
El Salvador	141	17	5
United States	478	18	5
Uruguay	0	–	–
Venezuela	2	–	–
Other	72	17	6
Country unknown	265	18	6
Not economically disadvantaged	418	19	5
Economically disadvantaged	1,708	18	5
Economic status unknown	109	16	5
In U.S. Schools >= 12 months	650	17	5
In U.S. Schools < 12 months	1,585	18	5
EL in ELD	233	19	5
EL in ELD and SDAIE	616	18	5
EL in ELD and SDAIE with primary language support	401	18	5
EL in ELD and academic subjects through primary language	800	17	5
Other EL instructional services	95	18	6
None (EL only)	27	18	6
Program participation unknown	63	17	5
No special education	2,224	18	5
Special education	11	14	4
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Target population valid scores	2,009	18	5
Female	913	19	5
Male	1,091	17	5
Gender unknown	5	–	–
Argentina	0	–	–
Bolivia	1	–	–
Brazil	0	–	–
Chile	2	–	–
Colombia	10	–	–
Costa Rica	2	–	–
Cuba	7	–	–
Ecuador	6	–	–
Spain	4	–	–
Guatemala	58	16	5
Mexico	1,034	18	5
Panama	0	–	–
Peru	13	21	5
Puerto Rico	4	–	–
Paraguay	0	–	–
El Salvador	131	17	5
United States	449	18	5
Uruguay	0	–	–
Venezuela	2	–	–
Other	64	17	5
Country unknown	222	18	6
Not economically disadvantaged	365	19	5
Economically disadvantaged	1,568	18	5
Economic status unknown	76	15	5
In U.S. Schools >= 12 months	424	16	5
In U.S. Schools < 12 months	1,585	18	5
EL in ELD	186	19	5
EL in ELD and SDAIE	544	19	5
EL in ELD and SDAIE with primary language support	351	18	5
EL in ELD and academic subjects through primary language	800	17	5
Other EL instructional services	82	18	6
None (EL only)	27	18	6
Program participation unknown	19	18	5
No special education	2,001	18	5
Special education	8	–	–
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Overall population valid scores	1,175	18	5
Female	509	20	5
Male	662	17	6
Gender unknown	4	–	–
Argentina	3	–	–
Bolivia	1	–	–
Brazil	0	–	–
Chile	3	–	–
Colombia	4	–	–
Costa Rica	1	–	–
Cuba	1	–	–
Ecuador	3	–	–
Spain	4	–	–
Guatemala	38	17	6
Mexico	603	18	5
Panama	5	–	–
Peru	15	20	5
Puerto Rico	3	–	–
Paraguay	0	–	–
El Salvador	60	17	6
United States	259	18	5
Uruguay	0	–	–
Venezuela	0	–	–
Other	40	19	5
Country unknown	132	18	5
Not economically disadvantaged	251	18	6
Economically disadvantaged	866	18	5
Economic status unknown	58	17	6
In U.S. Schools >= 12 months	428	18	5
In U.S. Schools < 12 months	747	19	6
EL in ELD	115	18	6
EL in ELD and SDAIE	338	19	5
EL in ELD and SDAIE with primary language support	203	18	6
EL in ELD and academic subjects through primary language	388	18	5
Other EL instructional services	77	18	6
None (EL only)	19	18	6
Program participation unknown	35	18	6
No special education	1,169	18	5
Special education	6	–	–
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Target population valid scores	1,036	18	5
Female	451	19	5
Male	584	17	6
Gender unknown	1	–	–
Argentina	3	–	–
Bolivia	1	–	–
Brazil	0	–	–
Chile	3	–	–
Colombia	4	–	–
Costa Rica	1	–	–
Cuba	1	–	–
Ecuador	3	–	–
Spain	4	–	–
Guatemala	35	17	6
Mexico	526	18	5
Panama	3	–	–
Peru	13	20	6
Puerto Rico	3	–	–
Paraguay	0	–	–
El Salvador	57	17	6
United States	240	18	5
Uruguay	0	–	–
Venezuela	0	–	–
Other	35	19	5
Country unknown	104	18	5
Not economically disadvantaged	230	18	6
Economically disadvantaged	773	18	5
Economic status unknown	33	17	6
In U.S. Schools >= 12 months	289	17	5
In U.S. Schools < 12 months	747	19	6
EL in ELD	92	18	5
EL in ELD and SDAIE	306	19	5
EL in ELD and SDAIE with primary language support	164	18	6
EL in ELD and academic subjects through primary language	388	18	5
Other EL instructional services	55	17	6
None (EL only)	18	19	6
Program participation unknown	13	20	7
No special education	1,032	18	5
Special education	4	–	–
Special education unknown	0	–	–

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				Fat 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
Overall population valid scores	15,323	359	72	1%	19%	26%	33%	20%	64%	66%	61%	74%	70%
Female	7,602	359	70	1%	19%	26%	34%	20%	64%	67%	59%	73%	70%
Male	7,699	360	73	1%	20%	26%	33%	21%	64%	66%	62%	74%	70%
Gender unknown	22	338	54	0%	18%	41%	32%	9%	59%	60%	55%	73%	66%
Argentina	6	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	4	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	13	392	107	0%	15%	38%	15%	31%	69%	68%	72%	82%	69%
Costa Rica	5	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	16	330	77	13%	19%	31%	19%	19%	53%	60%	57%	67%	66%
Ecuador	5	–	–	–	–	–	–	–	–	–	–	–	–
Spain	5	–	–	–	–	–	–	–	–	–	–	–	–
Guatemala	108	347	74	2%	28%	19%	36%	15%	60%	65%	57%	69%	67%
Mexico	2,609	348	71	1%	25%	26%	31%	17%	60%	64%	58%	72%	67%
Panama	2	–	–	–	–	–	–	–	–	–	–	–	–
Peru	12	334	63	0%	33%	33%	17%	17%	61%	55%	57%	70%	65%
Puerto Rico	7	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	1	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	150	326	77	3%	35%	29%	21%	11%	51%	58%	51%	66%	60%
United States	9,108	362	71	1%	18%	26%	34%	21%	65%	67%	61%	74%	71%
Uruguay	1	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–	–	–	–	–	–
Other	383	347	67	2%	20%	33%	31%	14%	59%	63%	58%	73%	70%
Country unknown	2,885	366	72	1%	17%	25%	34%	23%	66%	68%	62%	75%	72%
Not economically disadvantaged	1,011	367	74	0%	18%	25%	32%	26%	66%	68%	65%	75%	70%
Economically disadvantaged	14,059	358	71	1%	20%	26%	34%	20%	64%	66%	60%	74%	70%
Economic status unknown	253	367	73	0%	21%	19%	38%	22%	66%	68%	64%	76%	71%
In U.S. Schools >= 12 months	13,527	363	71	1%	18%	26%	35%	22%	65%	67%	61%	75%	72%
In U.S. Schools < 12 months	1,796	328	69	3%	33%	28%	25%	10%	53%	58%	54%	68%	59%
EL in ELD	488	342	70	2%	26%	28%	29%	14%	57%	62%	56%	72%	67%
EL in ELD and SDAIE	923	330	70	3%	32%	27%	28%	11%	53%	59%	54%	69%	61%
EL in ELD and SDAIE with primary language support	1,284	340	71	2%	27%	29%	29%	13%	57%	63%	56%	70%	64%
EL in ELD and academic subjects through primary language	11,983	364	71	1%	17%	25%	34%	22%	66%	68%	62%	75%	72%
Other EL instructional services	441	353	68	2%	18%	27%	36%	16%	63%	65%	58%	73%	70%
None (EL only)	52	349	80	0%	37%	15%	21%	27%	60%	65%	60%	68%	63%
Program participation unknown	152	364	77	0%	24%	16%	34%	26%	62%	69%	61%	75%	71%
No special education	14,514	361	71	1%	19%	26%	34%	21%	64%	67%	61%	74%	71%
Special education	807	325	69	3%	35%	27%	24%	10%	55%	56%	52%	65%	61%
Special education unknown	2	–	–	–	–	–	–	–	–	–	–	–	–

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				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	13,250	360	72	1%	19%	26%	33%	21%	64%	66%	61%	74%	70%
Female	6,561	359	71	1%	19%	26%	34%	20%	64%	67%	60%	73%	70%
Male	6,677	360	73	1%	20%	25%	32%	21%	64%	66%	62%	74%	70%
Gender unknown	12	346	46	0%	17%	33%	42%	8%	63%	63%	51%	76%	65%
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	3	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	10	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	4	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	14	340	75	14%	7%	36%	21%	21%	54%	65%	63%	68%	69%
Ecuador	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	5	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	102	350	75	2%	26%	19%	37%	16%	60%	65%	59%	69%	67%
Mexico	2,197	348	72	1%	26%	25%	31%	17%	60%	64%	58%	72%	66%
Panama	2	—	—	—	—	—	—	—	—	—	—	—	—
Peru	12	334	63	0%	33%	33%	17%	17%	61%	55%	57%	70%	65%
Puerto Rico	7	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	1	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	140	329	78	4%	33%	29%	22%	12%	52%	59%	52%	66%	61%
United States	8,055	362	71	1%	18%	26%	34%	22%	65%	67%	62%	74%	71%
Uruguay	1	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	1	—	—	—	—	—	—	—	—	—	—	—	—
Other	347	351	67	1%	18%	32%	33%	15%	61%	64%	60%	74%	71%
Country unknown	2,336	365	73	1%	18%	25%	33%	23%	66%	67%	61%	75%	72%
Not economically disadvantaged	897	367	74	1%	17%	24%	32%	26%	66%	68%	65%	75%	70%
Economically disadvantaged	12,186	359	72	1%	20%	26%	33%	20%	64%	66%	60%	74%	70%
Economic status unknown	167	363	74	1%	24%	21%	35%	20%	66%	67%	63%	74%	69%
In U.S. Schools >= 12 months	11,454	365	71	1%	17%	25%	34%	22%	66%	68%	62%	75%	72%
In U.S. Schools < 12 months	1,796	328	69	3%	33%	28%	25%	10%	53%	58%	54%	68%	59%
EL in ELD	155	311	65	4%	44%	28%	17%	6%	46%	54%	51%	64%	56%
EL in ELD and SDAIE	557	314	65	4%	39%	27%	24%	7%	48%	55%	52%	65%	55%
EL in ELD and SDAIE with primary language support	493	314	63	4%	40%	29%	21%	6%	48%	56%	51%	65%	53%
EL in ELD and academic subjects through primary language	11,983	364	71	1%	17%	25%	34%	22%	66%	68%	62%	75%	72%
Other EL instructional services	21	333	84	10%	29%	19%	33%	10%	53%	59%	62%	65%	64%
None (EL only)	27	330	72	0%	41%	26%	15%	19%	53%	61%	57%	65%	58%
Program participation unknown	14	363	99	0%	36%	14%	14%	36%	59%	66%	64%	74%	69%
No special education	12,565	361	72	1%	19%	26%	34%	21%	65%	67%	61%	74%	71%
Special education	683	325	70	3%	35%	27%	25%	11%	56%	56%	53%	65%	61%
Special education unknown	2	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				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
Overall population valid scores	10,092	358	74	1%	21%	27%	31%	19%	63%	66%	62%	68%	75%
Female	5,029	358	72	1%	20%	27%	33%	18%	62%	66%	62%	68%	76%
Male	5,038	358	75	2%	22%	26%	30%	20%	63%	65%	63%	68%	73%
Gender unknown	25	340	73	4%	28%	28%	28%	12%	55%	61%	57%	65%	70%
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	4	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	15	320	77	0%	53%	27%	0%	20%	50%	58%	43%	58%	61%
Costa Rica	3	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	6	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	5	—	—	—	—	—	—	—	—	—	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	101	334	76	6%	33%	25%	21%	16%	56%	60%	53%	61%	64%
Mexico	2,232	348	76	2%	27%	26%	28%	16%	60%	63%	59%	65%	70%
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—
Peru	25	368	49	0%	12%	24%	48%	16%	68%	74%	66%	70%	82%
Puerto Rico	5	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	165	322	68	4%	38%	27%	23%	9%	52%	57%	50%	59%	58%
United States	5,236	363	73	1%	19%	27%	33%	20%	64%	67%	64%	69%	77%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	4	—	—	—	—	—	—	—	—	—	—	—	—
Other	327	348	76	1%	29%	28%	25%	17%	59%	61%	60%	65%	73%
Country unknown	1,952	364	72	1%	18%	27%	33%	21%	65%	68%	64%	69%	77%
Not economically disadvantaged	724	363	76	2%	19%	25%	33%	21%	65%	67%	64%	68%	75%
Economically disadvantaged	9,215	358	73	1%	21%	27%	31%	19%	63%	66%	62%	68%	75%
Economic status unknown	153	352	78	4%	30%	16%	30%	20%	61%	66%	61%	65%	71%
In U.S. Schools >= 12 months	8,443	364	73	1%	19%	27%	33%	21%	64%	67%	64%	70%	77%
In U.S. Schools < 12 months	1,649	328	69	4%	34%	28%	23%	11%	54%	60%	54%	59%	62%
EL in ELD	272	337	75	3%	33%	26%	25%	14%	57%	59%	56%	61%	65%
EL in ELD and SDAIE	851	329	69	4%	34%	30%	21%	12%	54%	59%	53%	59%	63%
EL in ELD and SDAIE with primary language support	820	337	71	3%	31%	29%	24%	14%	57%	62%	56%	61%	65%
EL in ELD and academic subjects through primary language	7,655	365	73	1%	18%	26%	34%	21%	65%	67%	65%	70%	77%
Other EL instructional services	367	355	77	2%	25%	26%	27%	20%	61%	64%	61%	67%	75%
None (EL only)	18	333	94	6%	44%	11%	22%	17%	57%	56%	52%	58%	64%
Program participation unknown	109	325	66	2%	42%	23%	25%	8%	53%	58%	53%	58%	64%
No special education	9,476	361	73	1%	20%	27%	32%	20%	64%	67%	63%	69%	75%
Special education	616	316	66	5%	40%	27%	20%	7%	51%	52%	51%	56%	63%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				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	8,940	359	74	1%	21%	27%	32%	19%	63%	66%	63%	68%	75%
Female	4,452	359	72	1%	20%	27%	33%	19%	62%	66%	62%	68%	76%
Male	4,467	359	75	2%	22%	26%	31%	20%	63%	65%	63%	68%	74%
Gender unknown	21	349	71	0%	29%	29%	29%	14%	57%	63%	60%	69%	74%
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	4	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	2	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	12	311	77	0%	58%	25%	0%	17%	47%	54%	39%	57%	58%
Costa Rica	3	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	6	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	4	—	—	—	—	—	—	—	—	—	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	95	333	76	6%	33%	25%	21%	15%	56%	60%	53%	60%	64%
Mexico	2,027	348	75	2%	27%	27%	28%	16%	59%	63%	59%	65%	69%
Panama	1	—	—	—	—	—	—	—	—	—	—	—	—
Peru	24	368	50	0%	13%	25%	46%	17%	68%	74%	66%	69%	81%
Puerto Rico	4	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	152	322	68	4%	37%	26%	24%	9%	52%	57%	51%	59%	58%
United States	4,693	363	72	1%	18%	27%	33%	20%	64%	67%	64%	70%	77%
Uruguay	2	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	4	—	—	—	—	—	—	—	—	—	—	—	—
Other	297	352	77	1%	26%	28%	27%	18%	60%	63%	62%	66%	75%
Country unknown	1,603	366	72	1%	17%	26%	34%	22%	65%	68%	65%	70%	78%
Not economically disadvantaged	635	364	77	2%	18%	24%	33%	22%	65%	68%	64%	69%	75%
Economically disadvantaged	8,198	358	73	1%	21%	27%	32%	19%	63%	66%	63%	68%	75%
Economic status unknown	107	346	77	6%	31%	16%	29%	19%	59%	64%	59%	64%	67%
In U.S. Schools >= 12 months	7,291	366	73	1%	18%	26%	34%	21%	65%	67%	65%	70%	78%
In U.S. Schools < 12 months	1,649	328	69	4%	34%	28%	23%	11%	54%	60%	54%	59%	62%
EL in ELD	135	326	71	5%	35%	25%	23%	12%	54%	59%	54%	56%	61%
EL in ELD and SDAIE	594	321	66	5%	37%	29%	20%	9%	52%	58%	52%	57%	59%
EL in ELD and SDAIE with primary language support	493	320	65	4%	40%	27%	20%	9%	51%	58%	51%	57%	58%
EL in ELD and academic subjects through primary language	7,655	365	73	1%	18%	26%	34%	21%	65%	67%	65%	70%	77%
Other EL instructional services	26	323	67	4%	38%	31%	15%	12%	52%	56%	52%	58%	62%
None (EL only)	14	318	90	7%	50%	14%	14%	14%	52%	50%	49%	53%	63%
Program participation unknown	23	332	79	4%	35%	22%	22%	17%	57%	61%	54%	58%	52%
No special education	8,425	361	73	1%	20%	27%	32%	20%	64%	67%	63%	69%	75%
Special education	515	320	67	5%	37%	27%	23%	8%	52%	53%	52%	58%	64%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				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
Overall population valid scores	5,531	359	73	4%	19%	25%	32%	20%	67%	59%	67%	58%	64%
Female	2,681	362	69	2%	17%	27%	34%	20%	67%	61%	68%	60%	65%
Male	2,842	355	76	5%	21%	23%	30%	20%	67%	58%	65%	57%	62%
Gender unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Argentina	6	–	–	–	–	–	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	11	328	82	9%	45%	18%	9%	18%	64%	49%	49%	53%	61%
Costa Rica	1	–	–	–	–	–	–	–	–	–	–	–	–
Cuba	1	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–	–	–	–	–	–
Guatemala	80	321	69	9%	41%	19%	23%	9%	57%	48%	53%	52%	52%
Mexico	1,525	344	71	5%	24%	27%	29%	14%	63%	56%	62%	55%	61%
Panama	1	–	–	–	–	–	–	–	–	–	–	–	–
Peru	22	353	80	0%	36%	18%	23%	23%	65%	61%	64%	52%	59%
Puerto Rico	5	–	–	–	–	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–	–	–	–	–
El Salvador	160	334	70	5%	30%	32%	23%	11%	59%	53%	58%	55%	55%
United States	2,335	370	72	3%	15%	24%	34%	25%	70%	63%	70%	61%	66%
Uruguay	0	–	–	–	–	–	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–	–	–	–	–	–
Other	223	351	69	4%	22%	28%	28%	17%	66%	58%	65%	54%	60%
Country unknown	1,152	362	72	3%	18%	24%	35%	20%	68%	59%	68%	59%	66%
Not economically disadvantaged	485	362	74	3%	20%	23%	32%	22%	68%	61%	68%	58%	62%
Economically disadvantaged	4,919	358	72	4%	19%	26%	32%	20%	67%	59%	67%	58%	64%
Economic status unknown	127	355	75	6%	22%	17%	33%	22%	68%	59%	65%	55%	65%
In U.S. Schools >= 12 months	4,077	368	72	3%	16%	24%	34%	23%	69%	61%	70%	60%	65%
In U.S. Schools < 12 months	1,454	333	67	7%	28%	30%	25%	11%	60%	54%	58%	52%	59%
EL in ELD	162	333	67	6%	30%	27%	26%	11%	61%	54%	57%	52%	59%
EL in ELD and SDAIE	743	335	70	6%	28%	30%	24%	12%	61%	55%	58%	51%	59%
EL in ELD and SDAIE with primary language support	595	340	69	6%	26%	28%	25%	15%	61%	56%	60%	55%	59%
EL in ELD and academic subjects through primary language	3,700	368	71	3%	15%	24%	35%	22%	69%	61%	70%	61%	66%
Other EL instructional services	246	364	83	6%	22%	14%	29%	29%	68%	61%	68%	59%	62%
None (EL only)	14	310	59	0%	57%	29%	7%	7%	52%	41%	49%	52%	61%
Program participation unknown	71	335	70	3%	38%	23%	23%	14%	60%	53%	60%	51%	59%
No special education	5,213	361	72	3%	18%	25%	33%	20%	67%	60%	68%	59%	64%
Special education	318	322	75	12%	35%	22%	20%	11%	58%	48%	53%	50%	56%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

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

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Content Area				
				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	4,893	359	72	4%	19%	26%	32%	19%	67%	59%	67%	58%	64%
Female	2,377	362	68	2%	16%	27%	34%	19%	67%	61%	69%	60%	66%
Male	2,510	355	75	5%	21%	24%	31%	19%	67%	58%	65%	57%	62%
Gender unknown	6	—	—	—	—	—	—	—	—	—	—	—	—
Argentina	6	—	—	—	—	—	—	—	—	—	—	—	—
Bolivia	2	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	0	—	—	—	—	—	—	—	—	—	—	—	—
Chile	4	—	—	—	—	—	—	—	—	—	—	—	—
Colombia	9	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rica	1	—	—	—	—	—	—	—	—	—	—	—	—
Cuba	1	—	—	—	—	—	—	—	—	—	—	—	—
Ecuador	1	—	—	—	—	—	—	—	—	—	—	—	—
Spain	1	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala	72	324	71	8%	42%	15%	25%	10%	57%	50%	54%	52%	52%
Mexico	1,389	345	70	6%	23%	28%	29%	14%	63%	57%	62%	55%	61%
Panama	0	—	—	—	—	—	—	—	—	—	—	—	—
Peru	20	346	80	0%	40%	20%	20%	20%	64%	58%	62%	50%	56%
Puerto Rico	3	—	—	—	—	—	—	—	—	—	—	—	—
Paraguay	0	—	—	—	—	—	—	—	—	—	—	—	—
El Salvador	151	335	70	5%	30%	31%	24%	11%	60%	53%	59%	55%	55%
United States	2,083	370	72	3%	14%	24%	35%	24%	70%	63%	70%	61%	66%
Uruguay	0	—	—	—	—	—	—	—	—	—	—	—	—
Venezuela	0	—	—	—	—	—	—	—	—	—	—	—	—
Other	153	350	59	1%	18%	38%	28%	14%	66%	58%	66%	55%	62%
Country unknown	997	362	71	3%	18%	24%	35%	20%	68%	59%	68%	59%	66%
Not economically disadvantaged	421	362	74	3%	19%	23%	33%	21%	67%	62%	68%	58%	63%
Economically disadvantaged	4,369	358	72	4%	19%	26%	32%	19%	67%	59%	67%	58%	64%
Economic status unknown	103	359	73	6%	18%	17%	37%	22%	69%	60%	66%	56%	67%
In U.S. Schools >= 12 months	3,439	369	71	3%	15%	24%	36%	23%	70%	62%	71%	61%	66%
In U.S. Schools < 12 months	1,454	333	67	7%	28%	30%	25%	11%	60%	54%	58%	52%	59%
EL in ELD	97	339	63	6%	21%	33%	28%	12%	63%	56%	58%	54%	62%
EL in ELD and SDAIE	577	327	65	6%	31%	31%	23%	9%	59%	54%	55%	49%	57%
EL in ELD and SDAIE with primary language support	463	334	67	7%	28%	29%	23%	13%	59%	54%	58%	54%	58%
EL in ELD and academic subjects through primary language	3,700	368	71	3%	15%	24%	35%	22%	69%	61%	70%	61%	66%
Other EL instructional services	27	326	60	11%	22%	30%	37%	0%	59%	51%	57%	51%	58%
None (EL only)	13	308	61	0%	62%	23%	8%	8%	49%	42%	49%	52%	60%
Program participation unknown	16	326	79	6%	44%	19%	13%	19%	56%	49%	59%	47%	56%
No special education	4,634	360	71	3%	18%	26%	33%	20%	67%	60%	67%	59%	64%
Special education	259	328	78	12%	31%	22%	23%	13%	58%	50%	55%	52%	57%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Overall population valid scores	4,310	33	11	52%	46%	57%	49%	55%
Female	2,128	34	11	52%	48%	59%	50%	56%
Male	2,179	32	11	52%	45%	55%	48%	53%
Gender unknown	3	–	–	–	–	–	–	–
Argentina	5	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–
Colombia	19	34	10	55%	45%	56%	53%	61%
Costa Rica	2	–	–	–	–	–	–	–
Cuba	6	–	–	–	–	–	–	–
Ecuador	3	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–
Guatemala	68	30	10	48%	45%	50%	44%	47%
Mexico	1,513	32	11	51%	46%	54%	48%	54%
Panama	1	–	–	–	–	–	–	–
Peru	19	33	11	49%	47%	59%	47%	58%
Puerto Rico	7	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	137	27	9	46%	38%	44%	41%	45%
United States	1,519	35	11	54%	48%	61%	51%	57%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	6	–	–	–	–	–	–	–
Other	162	30	10	51%	42%	49%	46%	47%
Country unknown	832	34	11	52%	45%	58%	50%	54%
Not economically disadvantaged	387	34	12	53%	48%	56%	51%	55%
Economically disadvantaged	3,832	33	11	52%	46%	57%	48%	54%
Economic status unknown	91	35	10	54%	48%	60%	55%	62%
In U.S. Schools \geq 12 months	2,858	34	11	53%	47%	60%	50%	56%
In U.S. Schools $<$ 12 months	1,452	31	11	49%	45%	50%	46%	51%
EL in ELD	140	31	11	49%	46%	48%	48%	53%
EL in ELD and SDAIE	716	31	11	49%	45%	50%	45%	51%
EL in ELD and SDAIE with primary language support	546	31	11	48%	45%	50%	46%	51%
EL in ELD and academic subjects through primary language	2,420	34	11	53%	46%	60%	50%	57%
Other EL instructional services	395	35	12	54%	50%	61%	51%	55%
None (EL only)	14	30	10	45%	44%	49%	44%	50%
Program participation unknown	79	32	11	51%	48%	52%	50%	46%
No special education	4,036	34	11	52%	47%	57%	49%	55%
Special education	274	28	10	44%	37%	46%	42%	49%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Target population valid scores	3,656	33	11	52%	46%	56%	48%	55%
Female	1,789	34	11	51%	47%	58%	50%	57%
Male	1,865	32	11	52%	44%	54%	47%	52%
Gender unknown	2	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–
Bolivia	2	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	5	–	–	–	–	–	–	–
Colombia	17	33	9	54%	44%	55%	50%	56%
Costa Rica	2	–	–	–	–	–	–	–
Cuba	6	–	–	–	–	–	–	–
Ecuador	2	–	–	–	–	–	–	–
Spain	4	–	–	–	–	–	–	–
Guatemala	57	31	10	48%	46%	49%	44%	50%
Mexico	1,323	32	11	50%	46%	53%	47%	54%
Panama	1	–	–	–	–	–	–	–
Peru	17	33	10	50%	46%	61%	46%	59%
Puerto Rico	6	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	126	27	9	45%	37%	44%	41%	45%
United States	1,249	35	11	54%	48%	60%	51%	58%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	6	–	–	–	–	–	–	–
Other	115	31	11	52%	42%	49%	46%	48%
Country unknown	715	33	10	51%	44%	58%	49%	54%
Not economically disadvantaged	325	33	12	52%	48%	55%	50%	55%
Economically disadvantaged	3,252	33	11	52%	45%	56%	48%	54%
Economic status unknown	79	35	11	53%	47%	59%	56%	63%
In U.S. Schools >= 12 months	2,204	34	11	53%	46%	60%	50%	57%
In U.S. Schools < 12 months	1,452	31	11	49%	45%	50%	46%	51%
EL in ELD	112	30	10	48%	46%	45%	46%	51%
EL in ELD and SDAIE	600	31	11	49%	45%	49%	45%	51%
EL in ELD and SDAIE with primary language support	464	30	11	48%	45%	49%	45%	51%
EL in ELD and academic subjects through primary language	2,420	34	11	53%	46%	60%	50%	57%
Other EL instructional services	21	28	9	43%	40%	47%	42%	46%
None (EL only)	11	30	10	45%	44%	50%	44%	55%
Program participation unknown	28	28	10	44%	40%	44%	45%	42%
No special education	3,443	33	11	52%	46%	57%	49%	55%
Special education	213	28	10	45%	38%	48%	42%	51%
Special education unknown	0	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				Ratios, Proportions, Percentages, and Negative Numbers	Operations with Problem Solving with Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Overall population valid scores	2,606	32	11	56%	53%	52%	38%	39%
Female	1,251	33	11	58%	54%	54%	38%	41%
Male	1,351	31	11	54%	52%	51%	38%	37%
Gender unknown	4	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–
Colombia	9	–	–	–	–	–	–	–
Costa Rica	2	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–
Guatemala	69	29	12	50%	47%	49%	36%	35%
Mexico	1,096	31	11	56%	52%	51%	38%	39%
Panama	0	–	–	–	–	–	–	–
Peru	14	33	9	60%	59%	57%	33%	38%
Puerto Rico	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	142	25	10	41%	43%	41%	31%	34%
United States	758	34	11	60%	57%	57%	40%	43%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	1	–	–	–	–	–	–	–
Other	71	29	11	50%	50%	49%	36%	35%
Country unknown	433	31	11	54%	53%	51%	37%	37%
Not economically disadvantaged	264	32	12	56%	53%	53%	40%	42%
Economically disadvantaged	2,288	32	11	56%	53%	52%	38%	39%
Economic status unknown	54	33	11	58%	55%	58%	40%	40%
In U.S. Schools >= 12 months	1,341	33	11	58%	56%	55%	40%	41%
In U.S. Schools < 12 months	1,265	30	11	53%	50%	49%	36%	38%
EL in ELD	150	31	11	55%	51%	51%	39%	39%
EL in ELD and SDAIE	590	30	11	54%	50%	50%	35%	38%
EL in ELD and SDAIE with primary language support	476	28	11	49%	46%	45%	34%	35%
EL in ELD and academic subjects through primary language	1,203	34	11	59%	57%	56%	40%	42%
Other EL instructional services	130	33	12	60%	55%	54%	42%	40%
None (EL only)	13	31	10	55%	52%	50%	39%	33%
Program participation unknown	44	28	10	48%	46%	47%	32%	36%
No special education	2,474	32	11	56%	53%	53%	38%	40%
Special education	130	25	10	44%	43%	41%	32%	32%
Special education unknown	2	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area				
				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	2,314	32	11	56%	53%	52%	38%	40%
Female	1,111	33	11	58%	54%	54%	38%	41%
Male	1,200	31	11	54%	53%	51%	38%	38%
Gender unknown	3	–	–	–	–	–	–	–
Argentina	3	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–
Chile	3	–	–	–	–	–	–	–
Colombia	7	–	–	–	–	–	–	–
Costa Rica	2	–	–	–	–	–	–	–
Cuba	2	–	–	–	–	–	–	–
Ecuador	1	–	–	–	–	–	–	–
Spain	1	–	–	–	–	–	–	–
Guatemala	63	29	12	51%	47%	49%	37%	35%
Mexico	985	32	11	56%	52%	52%	38%	39%
Panama	0	–	–	–	–	–	–	–
Peru	13	34	9	59%	62%	59%	34%	38%
Puerto Rico	0	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–
El Salvador	132	25	10	41%	43%	40%	31%	33%
United States	679	34	11	59%	56%	56%	40%	43%
Uruguay	0	–	–	–	–	–	–	–
Venezuela	0	–	–	–	–	–	–	–
Other	53	30	11	49%	52%	50%	37%	36%
Country unknown	369	31	11	55%	55%	51%	38%	37%
Not economically disadvantaged	236	33	12	57%	54%	53%	40%	42%
Economically disadvantaged	2,038	32	11	56%	53%	52%	38%	39%
Economic status unknown	40	35	11	58%	60%	60%	43%	41%
In U.S. Schools >= 12 months	1,049	34	11	59%	58%	56%	40%	42%
In U.S. Schools < 12 months	1,265	30	11	53%	50%	49%	36%	38%
EL in ELD	108	32	11	56%	51%	52%	40%	39%
EL in ELD and SDAIE	527	31	11	55%	51%	50%	36%	38%
EL in ELD and SDAIE with primary language support	422	28	11	49%	46%	46%	34%	35%
EL in ELD and academic subjects through primary language	1,203	34	11	59%	57%	56%	40%	42%
Other EL instructional services	29	28	9	52%	47%	43%	36%	34%
None (EL only)	11	31	10	57%	53%	50%	39%	36%
Program participation unknown	14	29	9	49%	44%	48%	33%	40%
No special education	2,225	32	11	56%	53%	53%	38%	40%
Special education	89	28	10	48%	48%	45%	34%	35%
Special education unknown	0	–	–	–	–	–	–	–

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

	No. Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area					
				Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Overall population valid scores	2,167	28	10	43%	37%	44%	46%	43%	48%
Female	1,043	28	10	43%	37%	46%	45%	44%	49%
Male	1,121	28	10	43%	37%	42%	46%	42%	47%
Gender unknown	3	–	–	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–	–
Colombia	13	35	13	51%	50%	54%	58%	50%	68%
Costa Rica	0	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–
Ecuador	3	–	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–	–
Guatemala	76	25	8	37%	32%	42%	40%	39%	43%
Mexico	1,112	28	10	43%	37%	43%	46%	43%	48%
Panama	2	–	–	–	–	–	–	–	–
Peru	13	37	13	57%	58%	58%	65%	53%	45%
Puerto Rico	5	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–
El Salvador	148	24	7	35%	32%	36%	39%	37%	41%
United States	464	30	10	45%	39%	46%	48%	45%	49%
Uruguay	0	–	–	–	–	–	–	–	–
Venezuela	4	–	–	–	–	–	–	–	–
Other	84	27	9	43%	33%	45%	42%	42%	51%
Country unknown	237	28	10	44%	37%	43%	45%	42%	47%
Not economically disadvantaged	297	30	11	46%	40%	46%	50%	46%	53%
Economically disadvantaged	1,820	28	10	43%	37%	43%	45%	42%	47%
Economic status unknown	50	28	9	39%	31%	41%	47%	47%	49%
In U.S. Schools >= 12 months	637	29	10	45%	40%	45%	47%	41%	46%
In U.S. Schools < 12 months	1,530	28	10	42%	36%	43%	45%	44%	49%
EL in ELD	192	26	10	41%	34%	40%	41%	41%	43%
EL in ELD and SDAIE	681	29	10	43%	37%	44%	46%	45%	50%
EL in ELD and SDAIE with primary language support	540	27	10	40%	35%	41%	44%	42%	46%
EL in ELD and academic subjects through primary language	632	29	10	46%	41%	46%	47%	42%	47%
Other EL instructional services	53	32	11	47%	41%	48%	56%	48%	58%
None (EL only)	22	26	12	39%	28%	40%	45%	42%	49%
Program participation unknown	47	28	8	42%	34%	42%	46%	45%	50%
No special education	2,096	28	10	43%	37%	44%	46%	43%	48%
Special education	71	24	9	37%	30%	40%	38%	35%	41%
Special education unknown	0	–	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores	Mean Percent Correct in Content Area					
				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	1,927	28	10	43%	37%	44%	45%	43%	48%
Female	924	28	9	43%	37%	45%	45%	44%	49%
Male	1,001	28	10	43%	37%	42%	46%	42%	47%
Gender unknown	2	–	–	–	–	–	–	–	–
Argentina	0	–	–	–	–	–	–	–	–
Bolivia	1	–	–	–	–	–	–	–	–
Brazil	0	–	–	–	–	–	–	–	–
Chile	1	–	–	–	–	–	–	–	–
Colombia	13	35	13	51%	50%	54%	58%	50%	68%
Costa Rica	0	–	–	–	–	–	–	–	–
Cuba	4	–	–	–	–	–	–	–	–
Ecuador	3	–	–	–	–	–	–	–	–
Spain	0	–	–	–	–	–	–	–	–
Guatemala	71	25	8	37%	33%	42%	40%	40%	44%
Mexico	1,019	28	10	43%	38%	44%	46%	44%	48%
Panama	2	–	–	–	–	–	–	–	–
Peru	13	37	13	57%	58%	58%	65%	53%	45%
Puerto Rico	5	–	–	–	–	–	–	–	–
Paraguay	0	–	–	–	–	–	–	–	–
El Salvador	136	24	7	35%	32%	37%	39%	37%	41%
United States	419	29	10	45%	39%	46%	48%	45%	49%
Uruguay	0	–	–	–	–	–	–	–	–
Venezuela	4	–	–	–	–	–	–	–	–
Other	74	27	9	42%	33%	44%	41%	43%	51%
Country unknown	162	27	9	43%	34%	42%	44%	41%	47%
Not economically disadvantaged	278	30	11	46%	40%	46%	50%	46%	52%
Economically disadvantaged	1,620	28	10	43%	37%	43%	45%	43%	47%
Economic status unknown	29	28	10	42%	28%	40%	49%	50%	48%
In U.S. Schools >= 12 months	397	29	9	46%	41%	45%	46%	41%	44%
In U.S. Schools < 12 months	1,530	28	10	42%	36%	43%	45%	44%	49%
EL in ELD	153	26	10	41%	34%	40%	42%	41%	43%
EL in ELD and SDAIE	598	29	10	43%	37%	44%	46%	45%	50%
EL in ELD and SDAIE with primary language support	472	27	9	40%	34%	41%	44%	42%	47%
EL in ELD and academic subjects through primary language	632	29	10	46%	41%	46%	47%	42%	47%
Other EL instructional services	31	30	10	45%	35%	43%	52%	48%	54%
None (EL only)	20	26	11	37%	28%	40%	43%	41%	46%
Program participation unknown	21	29	10	44%	33%	43%	47%	48%	50%
No special education	1,880	28	10	43%	37%	44%	46%	43%	48%
Special education	47	23	7	36%	29%	39%	37%	33%	36%
Special education unknown	0	–	–	–	–	–	–	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Overall population valid scores	4,115	12	4
Grade 7	15	12	6
Grade 8	543	12	5
Grade 9	1,964	11	4
Grade 10	1,144	12	5
Grade 11	449	12	5
Female	1,872	12	4
Male	2,228	12	4
Gender unknown	15	12	3
Argentina	1	–	–
Bolivia	3	–	–
Brazil	0	–	–
Chile	5	–	–
Colombia	7	–	–
Costa Rica	1	–	–
Cuba	15	13	5
Ecuador	14	13	4
Spain	5	–	–
Guatemala	204	11	4
Mexico	1,991	12	4
Panama	3	–	–
Peru	33	16	6
Puerto Rico	6	–	–
Paraguay	1	–	–
El Salvador	435	11	4
United States	714	12	4
Uruguay	0	–	–
Venezuela	4	–	–
Other	185	11	4
Country unknown	488	12	4
Not economically disadvantaged	690	12	4
Economically disadvantaged	3,243	12	4
Economic status unknown	182	12	5
In U.S. Schools >= 12 months	1,109	12	4
In U.S. Schools < 12 months	3,006	12	4
EL in ELD	471	12	5
EL in ELD and SDAIE	1,085	12	4
EL in ELD and SDAIE with primary language support	945	12	4
EL in ELD and academic subjects through primary language	1,336	12	4
Other EL instructional services	144	11	5
None (EL only)	45	11	5
Program participation unknown	89	12	5
No special education	4,080	12	4
Special education	35	11	4
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Target population valid scores	3,720	12	4
Grade 7	11	13	7
Grade 8	478	12	5
Grade 9	1,791	11	4
Grade 10	1,029	12	5
Grade 11	411	12	5
Female	1,700	12	4
Male	2,012	12	4
Gender unknown	8	–	–
Argentina	1	–	–
Bolivia	2	–	–
Brazil	0	–	–
Chile	4	–	–
Colombia	7	–	–
Costa Rica	1	–	–
Cuba	13	14	5
Ecuador	13	13	4
Spain	5	–	–
Guatemala	190	11	4
Mexico	1,796	12	4
Panama	3	–	–
Peru	31	16	6
Puerto Rico	4	–	–
Paraguay	1	–	–
El Salvador	414	11	4
United States	666	12	4
Uruguay	0	–	–
Venezuela	4	–	–
Other	170	11	4
Country unknown	395	12	4
Not economically disadvantaged	624	12	4
Economically disadvantaged	2,980	12	4
Economic status unknown	116	12	4
In U.S. Schools >= 12 months	714	12	4
In U.S. Schools < 12 months	3,006	12	4
EL in ELD	395	12	5
EL in ELD and SDAIE	933	12	5
EL in ELD and SDAIE with primary language support	862	12	4
EL in ELD and academic subjects through primary language	1,336	12	4
Other EL instructional services	121	11	5
None (EL only)	41	11	5
Program participation unknown	32	13	5
No special education	3,699	12	4
Special education	21	11	4
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Overall population valid scores	555	25	9
Grade 8	0	–	–
Grade 9	76	25	9
Grade 10	265	26	9
Grade 11	214	25	8
Female	247	26	8
Male	306	25	9
Gender unknown	2	–	–
Argentina	1	–	–
Bolivia	0	–	–
Brazil	0	–	–
Chile	1	–	–
Colombia	5	–	–
Costa Rica	1	–	–
Cuba	1	–	–
Ecuador	2	–	–
Spain	4	–	–
Guatemala	19	22	7
Mexico	237	25	8
Panama	0	–	–
Peru	9	–	–
Puerto Rico	1	–	–
Paraguay	0	–	–
El Salvador	39	23	7
United States	143	26	8
Uruguay	0	–	–
Venezuela	2	–	–
Other	16	26	12
Country unknown	74	24	8
Not economically disadvantaged	148	26	10
Economically disadvantaged	392	25	8
Economic status unknown	15	22	8
In U.S. Schools >= 12 months	253	23	7
In U.S. Schools < 12 months	302	27	9
EL in ELD	45	26	10
EL in ELD and SDAIE	119	27	10
EL in ELD and SDAIE with primary language support	65	23	9
EL in ELD and academic subjects through primary language	257	24	7
Other EL instructional services	52	27	9
None (EL only)	4	–	–
Program participation unknown	13	27	10
No special education	550	25	9
Special education	5	–	–
Special education unknown	0	–	–

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

	Number Tested	Mean Number Correct Score	Std. Dev. of Number Correct Scores
Target population valid scores	483	25	8
Grade 8	0	–	–
Grade 9	70	25	9
Grade 10	231	26	9
Grade 11	182	25	8
Female	220	26	8
Male	262	25	9
Gender unknown	1	–	–
Argentina	1	–	–
Bolivia	0	–	–
Brazil	0	–	–
Chile	1	–	–
Colombia	4	–	–
Costa Rica	1	–	–
Cuba	1	–	–
Ecuador	2	–	–
Spain	4	–	–
Guatemala	17	22	8
Mexico	203	26	8
Panama	0	–	–
Peru	8	–	–
Puerto Rico	1	–	–
Paraguay	0	–	–
El Salvador	34	23	8
United States	131	25	8
Uruguay	0	–	–
Venezuela	2	–	–
Other	12	27	11
Country unknown	61	25	8
Not economically disadvantaged	126	28	10
Economically disadvantaged	350	25	8
Economic status unknown	7	–	–
In U.S. Schools >= 12 months	181	23	7
In U.S. Schools < 12 months	302	27	9
EL in ELD	30	30	10
EL in ELD and SDAIE	98	28	10
EL in ELD and SDAIE with primary language support	51	25	9
EL in ELD and academic subjects through primary language	257	24	7
Other EL instructional services	41	26	9
None (EL only)	4	–	–
Program participation unknown	2	–	–
No special education	480	26	8
Special education	3	–	–
Special education unknown	0	–	–

Appendix 7.C—Types of Score Reports

Table 7.C.1 Score Reports Reflecting STS Results

2009 STAR STS Printed Reports	
Description	Distribution
The STAR Student Report	
<p>This report provides parents/guardians and teachers with the student's results, presented in tables and graphs. It primarily includes the following:</p> <ul style="list-style-type: none"> • Scale scores for grades two through four • Performance levels for grades two through four • Overall percent correct for grades five through eleven • Number and percent correct in each reporting cluster for grades two through seven • 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 for grades two through four 	<p>This report includes individual student results and is not distributed beyond parents/guardians and the student's school.</p> <p>Two color copies of this report are provided for each student: One is for the student's current teacher, and one is to be distributed to parents/guardians by the district.</p>
Student Record Label	
<p>These reports are printed on adhesive labels to be affixed to the student's permanent school records. Each pupil shall have an individual record of accomplishment; that includes STAR testing results (see California <i>Education Code</i> section 60607[a]). Significant information includes scale scores and performance levels for grades two through four and overall percent correct for grades five through eleven).</p>	<p>This report includes individual student results and is not distributed beyond the student's school.</p>
Student Master List	
<p>This report is an alphabetical roster of individual student results. It primarily includes the following:</p> <ul style="list-style-type: none"> • Percent correct for each reporting cluster within each content area tested in grades two through seven • A scale score and a performance level for each content area tested in grades two through four • Overall percent correct for each content area tested at grades five through eleven 	<p>This report provides administrators and teachers with all students' results within each grade or within each grade and year-round schedule at a school. Because this report includes individual student results, it is not distributed beyond the student's school.</p>

2009 STAR STS Printed Reports	
Description	Distribution
Student Master List Summary	
<p>This report summarizes student results at the school, district, county, and state levels for each grade. It does <i>not</i> include any individual student information. The following data are summarized by content area tested:</p> <ul style="list-style-type: none"> • Number of students enrolled, number and percent of students tested, number and percent of valid scores, and number tested with scores • Mean percent correct, mean scale score, and scale score standard deviation for each content area tested in grades two through four • Number and percent of students scoring at each performance level in grades two through four • Mean percent correct and standard deviation for each subject area tested in grades five through eleven • The number of items for each reporting cluster and the mean percent correct in grades two through seven <p>Note: Summaries for specific mathematics STS tests across grades are provided in the Student Master List Summary—End-of-Course (STS) report.</p>	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is sent to the school, and one to the district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p>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.</p>
Student Master List Summary—End-of-Course	
<p>This report summarizes Student Master List information for end-of-course mathematics STS tests across grades at the school, district, county, and state level. It does <i>not</i> include any individual student information.</p> <p>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 for each of these tests:</p> <ul style="list-style-type: none"> • Number of students enrolled • Number and percent of students tested • Number and percent of valid scores • Number tested with scores • Mean percent correct 	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is sent to the school, and one to the district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p>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.</p>
Subgroup Summary	
<p>This set of reports disaggregates and reports results by the following subgroups:</p> <ul style="list-style-type: none"> • All students • Disability status • Economic status • Gender • English proficiency 	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is sent to the school, and one copy to the school district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p>Note: The data on this report may be shared with</p>

2009 STAR STS Printed Reports	
Description	Distribution
<ul style="list-style-type: none"> • Primary ethnicity <p>These reports contain no individual student-identifying information and are aggregated at the school, district, county, and state levels.</p> <p>For each subgroup within a report and for the total number of students, the following data are included:</p> <ul style="list-style-type: none"> • Total number tested in the subgroup • Percent tested in subgroup as a percent of all students tested • Number and percent of valid scores • Number tested who received scores • Mean scale score in grades two through four • Standard deviation of scale scores in grades two through four • Number and percent of students scoring at each STS performance level (grades two through four) • Mean percent correct for each content area tested in grades five through eleven 	<p>parents/guardians, community members, and the media only if the data are for 11 or more students.</p>

Chapter 8: Analyses

This chapter summarizes the item- and test-level statistics obtained for the STS administered during spring of 2009.

The statistics presented in this chapter are divided into six 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 appendices as listed below.

1. Appendix 8.A presents the classical item analyses including p -value and point-biserial for each item in each operational test. In addition, the average and median proportion correct values (p -value) and point-biserial correlations (Pt-Rbis) for the operational tests are presented in Table 8.1 on page 192.
2. Appendix 8.B 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 consistency and accuracy of the performance classifications.
3. Appendix 8.C presents tables showing the correlation between scores obtained in the different content areas measured by the STS tests, which are provided as an 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 presents the results of IRT analyses including the distribution of items based on their fit to the Rasch model. The appendix also includes summaries of Rasch item difficulty statistics (b -values) for the operational and field-test items. In addition, appendix presents the scoring tables obtained as a result of the IRT equating process. Related information related to the evaluation of linking items is presented in Table 8.7; these linking items were used in the test equating discussed later in this chapter.
5. Appendix 8.E 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 in the testing process and involved various samples from the full STS population. Most STS analyses presented in this chapter, including the classical item-analysis presented in Appendix 8.A, the reliability statistics included in Appendix 8.B, the content area correlations presented in Appendix 8.C, the IRT item difficulty and fit summary results presented in Appendix 8.D, and the item-level DIF results presented in Appendix 8.E were conducted based on the STS target population using P2 data, which includes 100 percent of all districts but does not have district corrections of demographic data incorporated. The scoring tables presented in

Appendix 8.D were obtained based on equating data, which contained more than 30 percent of the test results from the overall target population.

Following the standards for educational and psychological testing (AERA, APA, & NCME, 1999, Standard 6.4), the results of the classical item analyses and reliability analyses for the two EOC mathematics STS tests are also presented for the grade-specific population in addition to the overall target test-taking population. The statistics for grade-specific EOC testing groups are based the population of test takers in grade nine taking the STS for Algebra I and students in grade ten taking the STS for Geometry.¹ DIF and IRT analyses for the EOC mathematics STS tests include all students taking these tests. No grade-specific DIF or IRT analyses were conducted for these tests.

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 point-biserial correlation is a special case of the Pearson product-moment correlation used to measure strength of the relationship between two variables, one dichotomous 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:

$$R_{it} = \frac{Cov(i, t)}{\sigma_{xi} \sigma_t} \quad (8.1)$$

where,

$Cov(i, t)$ is the Covariance between an item i and total score t

σ_{xi} is the standard deviation for an item i

σ_t is the standard deviation for 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 213.

Table 8.1 Average and Median Proportion Correct and Point-Biserial

Subject	STS	No. of Items	No. of Examinees	Mean		Median	
				p-value	Pt-Bis	p-value	Pt-Bis
Reading/ Language Arts	2	65	13,300	0.65	0.43	0.66	0.44
	3	65	8,992	0.59	0.39	0.59	0.39
	4	75	4,897	0.57	0.39	0.58	0.41
	5	75	3,672	0.46	0.33	0.46	0.34
	6	75	2,343	0.49	0.32	0.49	0.34
	7	75	1,974	0.53	0.35	0.54	0.37
	8	40	1,602	0.47	0.29	0.43	0.31
	9	40	3,094	0.44	0.28	0.43	0.32
	10	40	2,009	0.45	0.28	0.41	0.29
	11	40	1,036	0.46	0.28	0.45	0.27

¹ The students in this population will be referred to as the “grade-specific” population.

Subject	STS	No. of Items	No. of Examinees	Mean		Median	
				p-value	Pt-Bis	p-value	Pt-Bis
Mathematics	2	65	13,250	0.67	0.40	0.69	0.41
	3	65	8,940	0.66	0.44	0.65	0.45
	4	65	4,893	0.63	0.41	0.65	0.43
	5	65	3,656	0.51	0.34	0.48	0.35
	6	65	2,314	0.49	0.35	0.47	0.37
	7	65	1,927	0.43	0.31	0.43	0.34
	Algebra I	40	3,720	0.30	0.25	0.27	0.26
	Geometry	65	483	0.39	0.28	0.39	0.28
Grade-Specific	Algebra I – 8	40	478	0.30	0.26	0.29	0.28
	Geometry – 9	65	70	0.38	0.29	0.36	0.29

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 distributions 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 reported below:

$$\alpha = \frac{n}{n-1} \left[1 - \frac{\sum_{i=1}^n \sigma_i^2}{\sigma_t^2} \right] \quad (8.2)$$

where,

n is the number of items,

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

σ_t^2 is the variance of the total score (either the total raw score or scale score).

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

$$\sigma_e = \sigma_t \sqrt{1 - \alpha} \quad (8.3)$$

where,

α is the reliability estimated using (8.2) above, and

σ_t is the standard deviation of the total raw scores.

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 for each of the 18 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 two EOC mathematics STS tests—grade eight for Algebra I and grade nine for Geometry—are also presented in this table.

Table 8.2 Reliabilities and SEMs for the STS

Subject	STS	No. of Items	No. of Examinees	Reliab.	Scale Score			Raw Score		
					Mean	Std. Dev.	SEM	Mean	Std. Dev.	SEM
<i>Reading/ Language Arts</i>	2	65	13,300	0.93	333	53	14.22	42.18	12.36	3.34
	3	65	8,992	0.91	333	51	15.19	38.48	11.79	3.51
	4	75	4,897	0.93	325	51	14.00	42.93	13.85	3.79
	5	75	3,672	0.89	–	–	–	34.23	12.16	3.99
	6	75	2,343	0.88	–	–	–	36.59	11.66	3.96
	7	75	1,974	0.90	–	–	–	39.38	12.45	3.87
	8	40	1,602	0.72	–	–	–	18.73	5.45	2.86
	9	40	3,094	0.71	–	–	–	17.53	5.29	2.85
	10	40	2,009	0.69	–	–	–	17.85	5.21	2.89
	11	40	1,036	0.71	–	–	–	18.21	5.42	2.94
	<i>Mathematics</i>	2	65	13,250	0.92	360	72	20.50	43.80	11.59
3		65	8,940	0.93	359	74	19.03	42.78	12.78	3.30
4		65	4,893	0.92	359	72	19.82	41.27	12.40	3.42
5		65	3,656	0.88	–	–	–	32.94	10.88	3.71
6		65	2,314	0.89	–	–	–	31.79	11.12	3.68
7		65	1,927	0.86	–	–	–	28.15	9.76	3.70
Algebra I		40	3,720	0.62	–	–	–	11.81	4.42	2.73
<i>Grade-Specific</i>	Geometry	65	483	0.82	–	–	–	25.48	8.48	3.59
	Algebra I – 8	40	478	0.67	–	–	–	11.98	4.73	2.74
	Geometry – 9	65	70	0.84	–	–	–	24.81	8.93	3.60

Intercorrelations, Reliabilities, and SEMs for Reporting Clusters

For each STS test at grades two through seven, number-correct scores are computed for four to six reporting clusters.² Intercorrelations and reliability estimates for the reporting clusters are presented in Table 8.B.1 and Table 8.B.2 for the STS tests for grades two through seven. As expected, the reliabilities across reporting clusters varied significantly according to the number of items in each cluster.

Subgroup Reliabilities and SEMs

The reliabilities of the 18 operational STS tests and the two grade-specific STS tests were examined for various subgroups of the examinee population. The subgroups included in

² Statistics are presented for reporting clusters with fewer than ten items. However, cluster scores should not be used in making inferences about individual students.

these analyses were defined by their gender, economic status, provision of special services, attendance in U.S. schools, and EL program participation.

Reliability and SEM information is reported for the total test scores for all subgroup analyses, and also for the cluster scores for subgroup analyses for grades two through seven. Table 8.B.3 through Table 8.B.7 present the overall reliabilities. Table 8.B.8 through Table 8.B.13 present the cluster-level reliabilities for the various subgroups. Table 8.B.8 and Table 8.B.9 present the cluster-level reliabilities for the subgroups based on gender and economic status. Table 8.B.10 and Table 8.B.11 show the same analyses for the subgroups based on provision of special services and attendance in U.S. schools. The last set of tables, Table 8.B.12 and Table 8.B.13, present the cluster-based reliabilities for the subgroups based on EL program participation.

The overall reliabilities for the various subgroups are compiled in Table 8.B.14 and Table 8.B.15.

Note that the reliabilities are reported only for samples that are comprised of 10 or more examinees.

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 item response theory and are calculated by the IRTEQUATE module in GENASYS.

The CSEM is estimated as a function of measured ability. It is typically smaller in scale score units toward the center of the scale in the test metric where more items are located, and larger at the extremes where there are fewer items. An examinee's CSEM under the IRT framework is equal to the inverse of the square root of the test information function:

$$\text{CSEM}(\hat{\theta}) = \frac{1}{\sqrt{I(\theta)}} a, \quad (8.6)$$

where,

CSEM($\hat{\theta}$) is the standard error of measurement and
I(θ) is the test information function.

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 subject.

Standard errors of measurement 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 in grades two through four. These CSEMS tend to be similar within families of tests.

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 because (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 Cut Points

Subject Area	STS	Below Basic		Basic		Proficient		Advanced	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
<i>Reading/ Language Arts</i>	2	242	14	300	13	350	14	386	17
	3	251	15	300	14	350	15	393	17
	4	256	14	300	13	350	14	387	16
<i>Mathematics</i>	2	217	19	300	17	350	18	417	23
	3	229	18	300	16	350	17	421	22
	4	243	19	300	17	350	18	420	23

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). RELCLASS-COMP 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. 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).

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 display the tables used in the analyses.

Figure 8.1 Decision Accuracy for Achieving a Performance Level

		Decision made on a form actually 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	Mis-classification
	Achieves a performance level	Mis-classification	Correct classification

Figure 8.2 Decision Consistency for Achieving a Performance Level

		Decision made on the second form taken	
		Does not achieve a performance level	Achieves a performance level
Decision made on the first form taken	Does not achieve a performance level	Correct classification	Mis-classification
	Achieves a performance level	Mis-classification	Correct classification

The results of these analyses are presented in Table 8.B.16 through Table 8.B.21 in Appendix 8.B.

Each table includes the contingency tables for the various performance-level classifications. The proportion of accurately classified students is determined by summing across the diagonals of the upper tables, and 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 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 does not involve 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 AERA, APA, and NCME's *The Standards for Educational and Psychological Testing* (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, 2009; see Appendix A).

The next section defines the purpose of the STS tests, followed by a description and discussion of the kinds of validity evidence that has 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. 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 federal and state accountability systems.

The Constructs to Be Measured

The 18 STS tests, given 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 subject 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 tests can be found on the CDE 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.

The Scores Generated and the Interpretations and Uses of these Scores

Total scores expressed as scale scores and student performance levels are generated for each subject area test for grades two through four. On the basis of a student's total score, an inference is drawn about how much knowledge and skill in the subject area the student has. The total score also is used to classify students in terms of their level of knowledge and skill in the subject area. These levels are called performance levels and are as follows: advanced, proficient, basic, below basic, and far below basic. For STS tests in grades five through eleven, total scores expressed as percent correct scores are generated for each subject area test.

Subscores for each reporting cluster are generated for STS tests in grades two through seven. 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. For STS tests in grades two through four, 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 category; and (2) the average percent correct for students who received the lowest score qualifying for the advanced category. A detailed description of the uses and applications of STS scores is presented in Chapter 7.

The tests that make up the STS testing program 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,

Standard 1.3). The user is advised to gather evidence to support these additional interpretations or uses (AERA, APA, & NCME, Standard 1.4).

Intended Test Population(s)

The STS tests are targeted toward Spanish-speaking English learners who have been in school in the United States for less than a year 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 called 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 12 or more cumulative months.

Validity Evidence Collected

Evidence Based on Content

According to the AERA, APA and NCME’s *The Standards for Educational and Psychological Testing* (1999), analyses that demonstrate a strong relationship between a test’s 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’s *Test Standards*, 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, this 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 through a primary language test in Spanish.

Specifications and blueprints—ETS maintains item development 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 99.

Once the items are developed, ETS selects all STS test items to conform to the SBE-approved California content standards and test blueprints. Test blueprints for the components of the STS program were proposed by ETS and reviewed and approved by the Assessment Review Panel (ARPs). The ARPs are advisory panels to the CDE and ETS on areas related to item development for the STS tests. They were also reviewed and approved by the CDE and presented to the SBE for adoption. The content blueprints for the STS tests 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 content and psychometric criteria applicable to the construction of the 2009 STS tests is presented in Chapter 4, starting on page 110.

Item review process—Chapter 3 explains in detail the extensive item review process applied to items written for use in the STS tests. In brief, items written for the STS tests go through 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—The content standards, blueprints, and test specifications for each test are used as the basis for choosing items for the test. 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 110.

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 106.

Evidence Based on Relations to Other Variables

Empirical results concerning the relationships between 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 AERA, APA, and NCME *Test Standards* (1999), the variables investigated can include other tests that measure the same construct and different constructs, criterion measures that score 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.

Relationships between test scores and other measures intended to measure similar constructs provide convergent validity evidence. For STS reading/language arts and mathematics, the convergent evidence can be collected through 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 at their grade

level. CST and STS tests measure the same California content standards except that they are given in different languages. The STS mathematics tests are expected to relate closely to the CST mathematics tests, as they are intended to measure the same construct of mathematics ability. The STS for RLA tests should relate somewhat to the CSTs for ELA because both measure the construct of reading ability. However, given that the STS for RLA measure reading in Spanish and the CSTs for ELA measure reading in English, the correlation will be limited. Two groups of correlations were examined:

- Correlations between students' scores on the STS for RLA tests and the CST for ELA tests, and
- Correlations between students scores on the STS for mathematics tests and the CST for mathematics tests.

Table 8.4 and Table 8.5 present correlations between 2009 CST and STS test scores on the basis of the matched observations of students who obtained valid scores on both the STS and the CSTs. Most of the cases were matched on the basis of the unique student ID. A few were matched on the basis of student name and 14-digit school code. CST records could be found for over 85 percent of the STS examinees. The match rate was higher in the lower grades.

Correlations were computed for both the overall STS population and the STS target population. For each correlation index, the total STS sample size before matching and the matched sample size are provided in the tables.

The results showed that the STS for mathematics scores correlated highly with the CST test scores, while the STS for RLA scores exhibited slightly lower correlations with the CST for ELA test scores. It is also noted that, for both reading and mathematics, the STS scores and the CST scores correlate more highly at the lower grade levels than at the higher grade levels. This is partly due to varying levels of internal consistency for these tests. As Table 8.2 indicates, the internal consistency of STS tests declined somewhat as grade level increased.

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

Grades	Overall STS Population			Target STS Population		
	Total No. of Examinees	No. of Examinees Matched	RLA (STS)/ ELA (CST)	Total No. of Examinees	No. of Examinees Matched	RLA (STS)/ ELA (CST)
2	15,399	15,205	0.72	13,300	13,148	0.72
3	10,182	10,013	0.72	8,992	8,842	0.72
4	5,572	5,443	0.68	4,897	4,787	0.67
5	4,345	4,214	0.59	3,672	3,552	0.57
6	2,637	2,528	0.53	2,343	2,247	0.52
7	2,226	2,128	0.49	1,974	1,889	0.52
8	1,821	1,730	0.43	1,602	1,524	0.43
9	3,409	3,170	0.38	3,094	2,891	0.39
10	2,235	2,095	0.50	2,009	1,892	0.52
11	1,175	1,098	0.51	1,036	972	0.50

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

Grades	Overall STS Population			Target STS Population		
	Total No. of Examinees	No. of Examinees Matched	Math (STS)/ Math (CST)	Total No. of Examinees	No. of Examinees Matched	Math (STS)/ Math (CST)
2	15,323	15,148	0.85	13,250	13,115	0.85
3	10,092	9,929	0.88	8,940	8,793	0.88
4	5,531	5,422	0.86	4,893	4,801	0.86
5	4,310	4,195	0.84	3,656	3,554	0.83
6	2,606	2,502	0.81	2,314	2,224	0.80
7	2,167	2,080	0.78	1,927	1,851	0.78
Algebra I	4,115	3,504	0.64	3,720	3,189	0.64
Geometry	555	478	0.74	483	422	0.76

Differential Item Functioning Analyses

Analyses of DIF can provide evidence of the degree to which a score interpretation or use is valid for individuals who differ in particular demographic characteristics. For the STS tests, 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. 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.

Intercorrelations Between Content Areas

To the degree that students' content area scores correlate as expected, evidence of the validity of regarding those scores as measures of the intended constructs is provided. Table 8.6 presents the correlations between scores on the STS tests and the numbers of students on which these correlations were based.

Results in the tables 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 end-of-course content of the Algebra and Geometry tests.

Table 8.C.1 through Table 8.C.18 in Appendix 8.C provide the content area correlations by gender, economic status, 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.

Caution must be used in the interpretation of content area correlations based on small sample sizes. Although all correlations are reported regardless of the sample sizes, correlations based on sample sizes at or below 10 should not be regarded as reliable.

Table 8.6 2009 STS Content Area Correlations (Target Population Valid Scores)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	13,300	0.73	
	2. Mathematics	13,202	13,250	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	8,992	0.77	
	2. Mathematics	8,910	8,940	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	4,897	0.72	
	2. Mathematics	4,877	4,893	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	3,672	0.65	
	2. Mathematics	3,646	3,656	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	2,343	0.67	
	2. Mathematics	2,305	2,314	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,974	0.68	0.55
	2. Mathematics	1,920	1,927	–
	3. Algebra I	11	0	11
Grade	STS	1.	2.	
8	1. Reading/Language Arts	1,602	0.32	
	2. Algebra I	477	478	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	3,094	0.35	0.37
	2. Algebra I	1,762	1,791	–
	3. Geometry	70	0	70
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	2,009	0.38	0.54
	2. Algebra I	1,011	1,029	–
	3. Geometry	228	0	231
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	1,036	0.47	0.44
	2. Algebra I	400	411	–
	3. Geometry	174	0	182

Inter-correlations between the reporting clusters are presented in Table 8.C.1 through Table 8.C.18 for the STS tests for grades two through seven. 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 the tables show that, in general, the inter-correlations ranged between .30 and .78.

Evidence Based on Response Processes

As noted in the AERA, APA, and NCME's *The Standards for Educational and Psychological Testing* (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. Finally, evidence may also be derived from evidence provided by observers or judges involved in the scoring of examinee responses. The CDE and ETS are in the process of determining what kinds of information can be gathered to assess the response processes of the STS tests.

Evidence Based on Internal Structure

As suggested by the *Standards*, 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 test, support is gained for interpreting these score as measures of the construct.

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

With respect to the subscores that are reported, these scores are intended to reflect examinees' knowledge and/or skill in an area that is part of the construct underlying the total test. Analyses of the intercorrelations among the subscores themselves and between the subscores and total test score can be used for this purpose. 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 biserials for the items in the STS tests are presented in Table 8.A.1 through Table 8.A.3. The average point biserial correlation index was greater than or equal to 0.39 for STS tests at grades two through four, between .31 and .35 for grades five through seven, and between 0.25 and 0.29 for grades eight and through eleven.

Also germane to the validity of a score interpretation are the ranges of item difficulties 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 are 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 indicate that all STS tests, except for EOC mathematics tests, on average, had p -values ranging from 0.40 to 0.65 and had a range of item b -values. The p -values for the EOC STS tests tend to be somewhat lower and somewhat less variable in terms of difficulty; efforts are being made to increase these values in future administrations.

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 all STS tests in grades

two through seven and the Geometry test were moderately high, ranging from 0.86 to 0.95. Reliability estimates for RLA for grades eight through eleven and Algebra I were lower due to shorter test length in 2009.

Subgroup reliabilities—The reliabilities of the 18 operational STS tests and the two grade-specific STS 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, attendance in U.S. schools, and EL program participation. The results of these analyses can be found in Table 8.B.3 through Table 8.B.7.

Reporting cluster reliabilities—For each STS in grades two through seven, 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. The reliabilities of reporting clusters invariably are lower than those for the total tests because they are based on very few items. Because the reliabilities of scores at the cluster level are lower, schools supplement the score results with other information when interpreting the results.

Consistent with the findings of previous years, the cluster reliabilities also are affected by the number of items in each cluster, with cluster scores based on more items having somewhat higher reliabilities than cluster scores based on fewer items.

Reliability of Performance Classifications—The methodology used for estimating the reliability of classification decisions is described in the section “Decision Classification Analyses” on page 196. The results of these analyses for STS tests in grades two through four are presented in Table 8.B.16 through Table 8.B.21 in Appendix 8.B, which start on page 233. When the decisions 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 about .92 for all STS tests in grades two through four. Similarly, the proportion of students that were classified consistently ranged from 0.88 to 0.90 for students classified into below-proficient versus proficient and advanced. These represent high levels of 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” (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 tests.

IRT Analyses

The STS tests for grades two through four are equated to a reference form using a common-item nonequivalent groups design and methods based on item response theory (IRT). The “base” or “reference” calibrations for the STS tests 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 2009 items were placed on the reference scale through a set of linking items that appeared in the 2008 operational forms and were re-administered in 2009.

The procedures used for equating the STS tests for grades two through four involve three steps: item calibration, item parameter scaling, and true-score equating. ETS uses a computer system called the Generalized Analysis System (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).

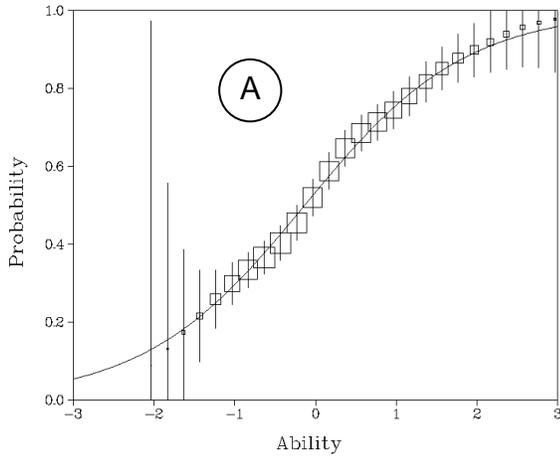
For the STS tests in grades five through eleven, no scale scores were reported and, therefore, no equating procedure was implemented in 2009. IRT analyses for these tests include item calibration only.

The details on all IRT calibration, scaling, and equating procedures are presented in Chapter 2 starting on page 14.

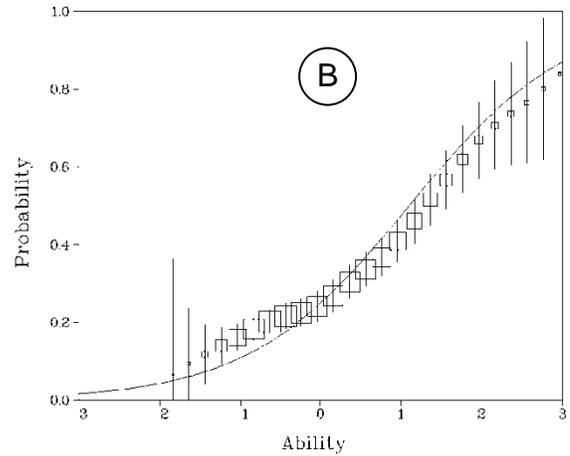
IRT Model-Data Fit Analyses

Because the Rasch model is used in equating the STS tests, an important part of IRT analyses is the assessment of model-data fit. ETS psychometricians classify operational and field-test items for the STS tests 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 208. 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, as well as the corresponding rating categories.

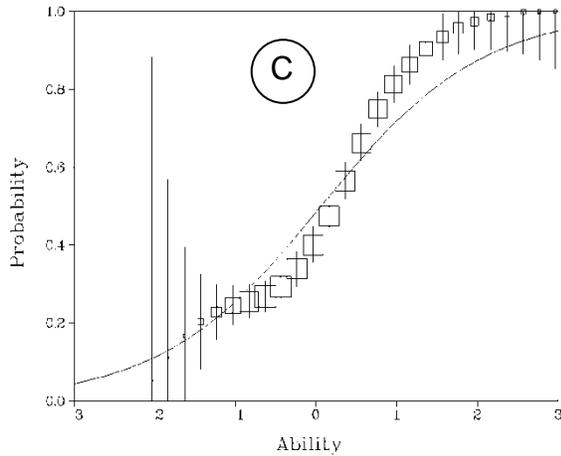
Figure 8.3 Items from the 2005 CST History–Social Science Grade Ten Field-Test Calibration



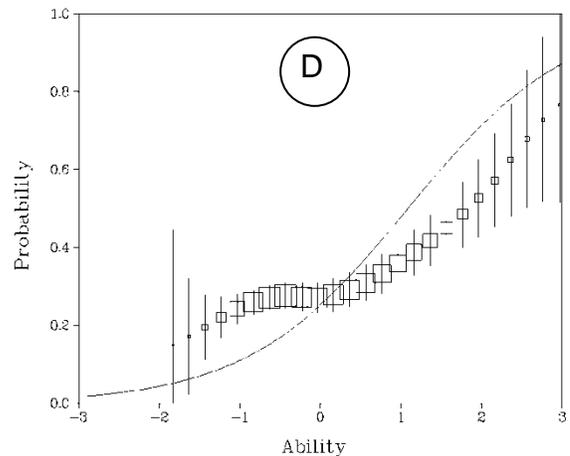
Version 30, Seq 29 (#236) CSV23487 4-Choice P+ = 0.563
 a = 0.588 F, b = -0.135, c = 0.000 F, CHI = 5.41, N = 5,912



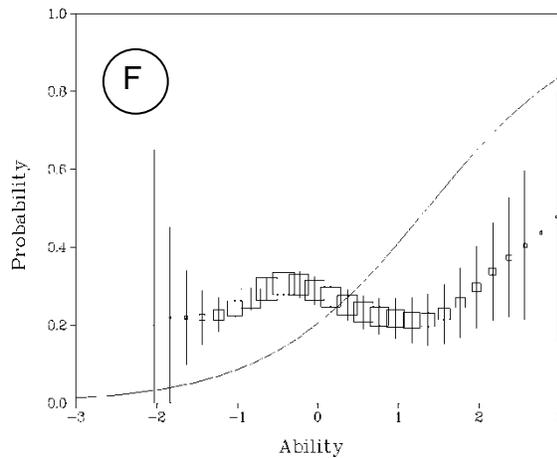
Version 1, Seq 28 (#61) CSV22589 4 Choice P+ = 0.307
 a = 0.588 F, b = 1.104, c = 0.000 F, CHI = 66.70, N = 6,348



Version 18, Seq 30 (#165) CSV20282 4-Choice P+ = 0.523
 a = 0.588 F, b = 0.066, c = 0.000 F, CHI = 208.99, N = 6,183



Version 9, Seq 32 (#113) CSV20317 4-Choice P+ = 0.314
 a = 0.588 F, b = 1.089, c = 0.000 F, CHI = 361.31, N = 6,047



Version 21, Seq 31 (#184) CSV20311 4-Choice P+ = 0.263
 a = 0.588 F, b = 1.356, c = 0.000 F, CHI = 1027.57, N = 6,277

Flag A (Item 236, CSV23487)

- Good fit of theoretical curve to empirical data along the entire ability range, may have some small divergence at the extremes
- Small Chi-square value relative to the other items in the calibration with similar sample sizes

Flag B (Item 061, CSV22589)

- Theoretical curve within error range across most of ability range, may have some small divergence at the extremes
- Acceptable Chi-square value relative to the other items in the calibration with similar sample sizes

Flag C (Item 165, CSV20282)

- Theoretical curve within error range at some regions and slightly outside of error range at remaining regions of ability range
- Moderate Chi-square value relative to the other items in the calibration with similar sample sizes
- This category often applies to items that appear to be functioning well, but that are not well fit by the Rasch model

Flag D (Item 113, CSV20317)

- Theoretical curve outside of error range at some regions across ability range
- Large Chi-square value relative to the other items in the calibration with similar sample sizes

Flag F (Item 184, CSV20311)

- Theoretical curve outside of error range at most regions across ability range
- Probability of answering item correctly may be higher at lower ability than higher ability (U-shaped empirical curve)
- Very large Chi-square value relative to the other items with similar sample sizes and classical item statistics tend also to be very poor.

In general, items with flagging categories of A, B, or C are all considered acceptable. Ratings of D are considered questionable, and the ratings of F indicate a poor model fit.

Model Fit Assessment Results

The model fit assessment is performed twice in the administration cycle. 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.

The distributions of the operational items across the IRT model data fit classifications are presented in Table 8.D.1 and Table 8.D.2. The distributions for the field test items are presented in Table 8.D.3 and Table 8.D.4.

Evaluation of Scaling

Calibrations of the 2009 forms were scaled to the previously obtained reference scale estimates in the item bank using the Stocking and Lord (1983) procedure for STS tests in

grades two through four. Details on the scaling procedures are provided on page 15 of 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 (WRMSD) between item characteristic curves (ICCs) based on 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 presents, for each STS for grades two through four, the number of common items between the 2009 (new) and the test form to which it was linked (reference); 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

Subject	STS	# of Linking Items	Linking Items Removed	Final Correlation	WRMSD*
<i>Reading/ Language Arts</i>	2	45	0	0.99	0.02
	3	49	0	0.99	0.02
	4	55	0	0.98	0.02
<i>Mathematics</i>	2	52	0	0.99	0.02
	3	52	0	0.99	0.02
	4	52	0	0.99	0.02

* Average over retained items

Summaries of IRT *b*-values

Once the IRT *b*-values are placed on the item bank scale for STS tests for grades two through four, 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 tests for grades five through eleven, 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 univariate statistics (mean, standard deviation, minimum, and maximum) for the scaled IRT *b*-values. The results for the overall test are presented separately for the operational items and the field test items. For the operational items for grades two through seven, the results are also presented for each reporting cluster.

Table 8.D.23 through Table 8.D.26 show the distributions of operational and field-test items across 16 intervals of *b*-values. In these tables the intervals range from “less than –3.5” to “greater than or equal to 3.5”.

Post-Equating Results

As described on page 15 of Chapter 2, once the new item calibrations for each test in grades two through four 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 2009

forms were developed based on standard setting carried out using the 2008 operational forms.

Complete raw-to-scale score conversion tables for the 2009 STS tests in grades two through four are presented in Table 8.D.27 through Table 8.D.30 starting on page 260. The raw scores and corresponding converted scale scores are listed on those tables. For all these tests, scale scores were truncated at both ends of the scale so that the minimum reported scale score was 150 and the maximum reported scale score was 600. The scale scores defining the various performance level cut points are presented in Chapter 6 on page 136.

DIF Analyses

Analyses of differential item functioning (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 sizes were based on standard operating procedures with respect to DIF analyses at ETS. The DIF analyses utilized the Mantel-Haenszel (MH) DIF statistic (Mantel & Haenszel, 1959; Holland & Thayer, 1985). This statistic is based on the estimate of constant odds ratio and is described as:

The α_{MH} is the constant odds ratio taken from Dorans and Holland (1993, equation 7) and computed as:

$$\alpha_{MH} = \frac{\left(\sum_m R_{rm} \frac{W_{fm}}{N_{tm}} \right)}{\left(\sum_m R_{fm} \frac{W_{rm}}{N_{tm}} \right)} \quad (8.2)$$

$$MH \ D - DIF = -2.35 \ln [\alpha_{MH}] \quad (8.3)$$

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 l 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 is as follows:

DIF Category	Definition
A (negligible)	MH D-DIF not significantly different from zero, or has an absolute value less than one.
B (moderate)	MH D-DIF is significantly different from zero, and is either (1) less than 1.5; or (2) not significantly different from one.
C (large)	MH D-DIF is significantly different from one, and has an absolute value greater than 1.5.

The factors considered in the DIF analyses included gender and primary disability. The results of the DIF analyses are presented in Appendix 8.E.

Table 8.E.1 lists the operational items exhibiting significant DIF. Table 8.E.2 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 disadvantage 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

STS Items	Item-by-item p -value and Point-Biserial for RLA																	
	2	3	4	5	6	7	8	9	10	11	Pt-Rbis	p -value	Pt-Rbis	p -value				
1	0.76	0.45	0.88	0.22	0.70	0.49	0.61	0.41	0.71	0.32	0.87	0.24	0.42	0.20	0.68	0.35	0.42	0.15
2	0.85	0.44	0.92	0.22	0.62	0.33	0.50	0.32	0.69	0.28	0.58	0.30	0.40	0.24	0.20	0.18	0.65	0.18
3	0.75	0.43	0.73	0.39	0.45	0.35	0.43	0.24	0.68	0.33	0.67	0.44	0.28	0.20	0.18	0.79	0.34	0.21
4	0.67	0.31	0.32	0.26	0.83	0.36	0.35	0.20	0.57	0.16	0.71	0.28	0.24	-0.08	0.37	0.23	0.22	0.08
5	0.61	0.28	0.30	0.26	0.54	0.37	0.72	0.36	0.48	0.35	0.48	0.31	0.86	0.26	0.43	0.31	0.52	0.48
6	0.83	0.43	0.65	0.46	0.71	0.36	0.54	0.44	0.45	0.33	0.56	0.43	0.26	0.19	0.27	0.38	0.27	0.10
7	0.84	0.52	0.59	0.40	0.68	0.41	0.70	0.48	0.65	0.39	0.72	0.40	0.40	0.22	0.83	0.34	0.46	0.25
8	0.34	0.22	0.82	0.38	0.72	0.47	0.50	0.45	0.62	0.35	0.27	0.37	0.68	0.39	0.70	0.38	0.73	0.28
9	0.68	0.46	0.86	0.43	0.72	0.41	0.26	0.17	0.12	0.18	0.75	0.46	0.66	0.30	0.63	0.29	0.58	0.42
10	0.68	0.54	0.72	0.48	0.66	0.41	0.32	0.45	0.67	0.44	0.74	0.41	0.58	0.27	0.41	0.22	0.39	0.66
11	0.68	0.50	0.52	0.35	0.56	0.41	0.52	0.35	0.38	0.35	0.44	0.39	0.81	0.45	0.44	0.34	0.42	0.30
12	0.61	0.51	0.58	0.32	0.41	0.39	0.46	0.31	0.34	0.18	0.44	0.31	0.30	0.17	0.22	-0.02	0.70	0.24
13	0.28	0.11	0.35	0.23	0.34	0.23	0.48	0.35	0.60	0.46	0.67	0.39	0.34	0.27	0.59	0.45	0.30	0.15
14	0.66	0.38	0.78	0.38	0.58	0.43	0.58	0.44	0.69	0.38	0.51	0.35	0.36	0.34	0.46	0.39	0.48	0.33
15	0.77	0.36	0.52	0.42	0.73	0.47	0.37	0.30	0.47	0.22	0.37	0.41	0.49	0.37	0.67	0.43	0.64	0.40
16	0.65	0.39	0.33	0.23	0.80	0.46	0.48	0.33	0.25	0.12	0.59	0.33	0.44	0.17	0.19	0.09	0.29	0.23
17	0.75	0.53	0.60	0.41	0.50	0.42	0.45	0.44	0.31	0.08	0.47	0.49	0.70	0.50	0.50	0.42	0.70	0.44
18	0.60	0.31	0.60	0.44	0.65	0.40	0.25	0.24	0.45	0.35	0.54	0.31	0.47	0.35	0.62	0.41	0.26	0.13
19	0.69	0.49	0.78	0.47	0.50	0.33	0.59	0.46	0.81	0.46	0.74	0.44	0.29	0.11	0.59	0.47	0.25	0.19
20	0.32	0.24	0.85	0.35	0.52	0.45	0.29	0.07	0.65	0.49	0.42	0.42	0.37	0.32	0.46	0.38	0.34	0.09
21	0.60	0.40	0.76	0.39	0.21	0.02	0.40	0.25	0.51	0.37	0.42	0.20	0.21	0.10	0.36	0.08	0.23	0.16
22	0.40	0.31	0.48	0.39	0.34	0.19	0.46	0.48	0.35	0.27	0.38	0.24	0.49	0.41	0.35	0.24	0.48	0.35
23	0.82	0.39	0.60	0.44	0.50	0.37	0.56	0.53	0.54	0.49	0.71	0.47	0.35	0.33	0.50	0.37	0.25	0.03
24	0.86	0.41	0.57	0.38	0.45	0.32	0.44	0.40	0.65	0.41	0.73	0.52	0.21	-0.03	0.35	0.35	0.33	0.23
25	0.87	0.40	0.55	0.39	0.49	0.40	0.42	0.33	0.54	0.43	0.52	0.38	0.80	0.43	0.50	0.30	0.37	0.18
26	0.65	0.40	0.44	0.40	0.67	0.56	0.32	0.30	0.41	0.36	0.45	0.29	0.28	0.17	0.43	0.40	0.52	0.33
27	0.62	0.46	0.60	0.48	0.53	0.41	0.41	0.39	0.54	0.34	0.31	0.24	0.60	0.28	0.76	0.42	0.41	0.34
28	0.90	0.47	0.51	0.48	0.55	0.43	0.42	0.45	0.35	0.23	0.52	0.44	0.74	0.37	0.71	0.48	0.77	0.48
29	0.88	0.39	0.69	0.39	0.56	0.49	0.39	0.41	0.28	0.14	0.18	-0.01	0.43	0.30	0.27	0.08	0.34	0.25
30	0.64	0.45	0.92	0.30	0.65	0.54	0.53	0.44	0.55	0.33	0.30	0.21	0.27	0.01	0.39	0.17	0.33	0.24
31	0.62	0.46	0.39	0.32	0.54	0.38	0.38	0.36	0.54	0.41	0.35	0.17	0.65	0.41	0.38	0.11	0.58	0.32
32	0.87	0.49	0.38	0.29	0.68	0.47	0.34	0.24	0.33	0.18	0.54	0.26	0.64	0.45	0.37	0.27	0.27	0.39
33	0.81	0.51	0.35	0.17	0.63	0.45	0.43	0.28	0.47	0.30	0.33	0.27	0.43	0.39	0.31	0.15	0.55	0.41
34	0.81	0.51	0.55	0.36	0.58	0.33	0.26	0.20	0.23	0.10	0.34	0.15	0.62	0.38	0.58	0.44	0.21	0.07
35	0.53	0.42	0.69	0.50	0.28	0.18	0.32	0.20	0.24	0.11	0.60	0.49	0.51	0.44	0.19	0.18	0.58	0.49
36	0.78	0.49	0.69	0.47	0.19	0.06	0.33	0.15	0.30	0.28	0.38	0.26	0.58	0.37	0.61	0.45	0.38	0.36
37	0.75	0.55	0.38	0.43	0.56	0.36	0.36	0.38	0.48	0.29	0.39	0.31	0.28	0.25	0.33	0.36	0.57	0.40

STS	Item-by-item p-value and Point-Biserial for RLA																			
	2	3	4	5	6	7	8	9	10	11										
Items	p-value	Pt-Rbis	p-value	Pt-Rbis	p-value	Pt-Rbis	p-value	Pt-Rbis	p-value	Pt-Rbis	p-value	Pt-Rbis	p-value	Pt-Rbis	p-value	Pt-Rbis				
38	0.66	0.46	0.52	0.41	0.60	0.24	0.51	0.44	0.32	0.16	0.46	0.35	0.54	0.35	0.69	0.49	0.34	0.17	0.30	0.14
39	0.76	0.57	0.66	0.49	0.84	0.46	0.50	0.28	0.49	0.41	0.38	0.18	0.33	0.36	0.23	0.01	0.46	0.35	0.62	0.47
40	0.59	0.50	0.60	0.39	0.88	0.44	0.51	0.22	0.40	0.25	0.69	0.50	0.43	0.36	0.26	0.00	0.49	0.34	0.25	0.06
41	0.61	0.41	0.74	0.47	0.74	0.48	0.58	0.29	0.73	0.49	0.45	0.24								
42	0.57	0.43	0.58	0.34	0.52	0.40	0.49	0.11	0.62	0.35	0.59	0.41								
43	0.72	0.54	0.58	0.50	0.65	0.41	0.47	0.23	0.53	0.40	0.71	0.37								
44	0.67	0.52	0.59	0.30	0.73	0.43	0.46	0.30	0.46	0.34	0.77	0.36								
45	0.53	0.42	0.61	0.43	0.76	0.41	0.55	0.38	0.52	0.38	0.27	0.18								
46	0.63	0.40	0.59	0.47	0.47	0.33	0.34	0.19	0.34	0.06	0.54	0.43								
47	0.34	0.21	0.55	0.31	0.68	0.54	0.32	0.18	0.41	0.26	0.55	0.41								
48	0.41	0.27	0.59	0.42	0.61	0.46	0.71	0.42	0.39	0.31	0.54	0.48								
49	0.70	0.40	0.62	0.49	0.48	0.36	0.33	0.21	0.84	0.44	0.69	0.35								
50	0.58	0.47	0.70	0.46	0.59	0.45	0.55	0.33	0.49	0.36	0.23	0.11								
51	0.40	0.28	0.66	0.42	0.62	0.41	0.66	0.44	0.52	0.13	0.46	0.34								
52	0.67	0.50	0.77	0.53	0.57	0.47	0.48	0.28	0.34	0.39	0.68	0.44								
53	0.53	0.39	0.57	0.29	0.50	0.28	0.27	0.18	0.58	0.41	0.77	0.50								
54	0.76	0.55	0.53	0.42	0.40	0.37	0.44	0.34	0.52	0.34	0.65	0.31								
55	0.41	0.31	0.43	0.36	0.37	0.31	0.61	0.45	0.63	0.48	0.61	0.50								
56	0.89	0.38	0.43	0.32	0.81	0.54	0.37	0.35	0.45	0.34	0.34	0.37								
57	0.42	0.43	0.50	0.42	0.25	0.18	0.44	0.18	0.57	0.33	0.70	0.46								
58	0.60	0.48	0.56	0.53	0.49	0.43	0.40	0.31	0.37	0.13	0.63	0.52								
59	0.40	0.21	0.71	0.51	0.60	0.42	0.46	0.25	0.54	0.37	0.64	0.42								
60	0.57	0.44	0.52	0.35	0.70	0.59	0.64	0.44	0.49	0.36	0.73	0.46								
61	0.70	0.50	0.49	0.48	0.66	0.54	0.53	0.25	0.46	0.32	0.42	0.29								
62	0.66	0.52	0.56	0.38	0.67	0.56	0.57	0.49	0.51	0.47	0.48	0.45								
63	0.58	0.51	0.42	0.18	0.57	0.46	0.47	0.35	0.32	0.16	0.35	0.27								
64	0.71	0.58	0.59	0.37	0.61	0.46	0.49	0.36	0.35	0.30	0.47	0.30								
65	0.67	0.55	0.52	0.44	0.45	0.21	0.40	0.48	0.39	0.27	0.48	0.42								
66					0.70	0.50	0.33	0.18	0.39	0.32	0.65	0.42								
67					0.70	0.47	0.50	0.34	0.62	0.45	0.64	0.51								
68					0.41	0.25	0.30	0.33	0.51	0.46	0.75	0.36								
69					0.39	0.29	0.49	0.43	0.42	0.29	0.58	0.48								
70					0.36	0.31	0.39	0.37	0.56	0.46	0.39	0.25								
71					0.61	0.44	0.47	0.40	0.67	0.41	0.46	0.42								
72					0.70	0.51	0.29	0.33	0.46	0.34	0.55	0.41								
73					0.39	0.21	0.43	0.36	0.57	0.49	0.28	0.14								
74					0.67	0.44	0.43	0.41	0.55	0.48	0.22	0.01								
75					0.53	0.52	0.60	0.46	0.36	0.22	0.54	0.37								

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-Rbis														
1	0.71	0.50	0.81	0.40	0.38	0.30	0.41	0.35	0.43	0.45	0.38	0.23	0.25	0.31	0.62	0.26
2	0.81	0.41	0.70	0.43	0.65	0.35	0.62	0.18	0.77	0.36	0.62	0.33	0.42	0.15	0.31	0.22
3	0.50	0.49	0.71	0.32	0.78	0.43	0.78	0.42	0.63	0.41	0.54	0.30	0.37	0.42	0.62	0.34
4	0.91	0.27	0.58	0.47	0.69	0.37	0.48	0.26	0.57	0.25	0.35	0.41	0.20	0.29	0.61	0.33
5	0.87	0.40	0.56	0.35	0.48	0.38	0.52	0.40	0.60	0.41	0.22	0.20	0.36	0.22	0.43	0.27
6	0.72	0.47	0.51	0.51	0.78	0.46	0.42	0.13	0.53	0.47	0.46	0.39	0.53	0.29	0.58	0.43
7	0.87	0.28	0.80	0.51	0.55	0.50	0.61	0.36	0.52	0.44	0.37	0.18	0.31	0.28	0.18	-0.07
8	0.78	0.35	0.64	0.57	0.81	0.40	0.46	0.37	0.53	0.40	0.19	0.26	0.22	0.26	0.23	0.20
9	0.71	0.47	0.71	0.58	0.71	0.45	0.27	0.07	0.43	0.36	0.51	0.23	0.36	0.27	0.30	0.34
10	0.65	0.47	0.75	0.40	0.67	0.44	0.38	0.43	0.72	0.33	0.43	0.31	0.16	0.27	0.65	0.38
11	0.68	0.42	0.63	0.57	0.64	0.38	0.38	0.50	0.68	0.30	0.44	0.45	0.29	0.26	0.63	0.27
12	0.69	0.43	0.39	0.51	0.88	0.33	0.64	0.41	0.41	0.17	0.44	0.39	0.27	0.26	0.80	0.38
13	0.54	0.42	0.42	0.52	0.53	0.48	0.58	0.49	0.49	0.40	0.78	0.36	0.21	0.34	0.40	0.43
14	0.43	0.45	0.71	0.47	0.67	0.47	0.42	0.16	0.53	0.40	0.37	0.34	0.09	0.10	0.63	0.44
15	0.60	0.46	0.43	0.52	0.65	0.51	0.33	0.40	0.27	0.19	0.39	0.23	0.37	0.32	0.74	0.41
16	0.55	0.45	0.63	0.44	0.88	0.35	0.40	0.39	0.53	0.47	0.34	0.37	0.20	0.12	0.27	0.28
17	0.69	0.46	0.72	0.43	0.44	0.25	0.78	0.22	0.55	0.45	0.34	0.16	0.29	0.33	0.37	0.35
18	0.53	0.39	0.67	0.44	0.48	0.27	0.43	0.11	0.83	0.39	0.29	0.09	0.29	0.27	0.66	0.44
19	0.54	0.42	0.64	0.45	0.40	0.31	0.38	0.31	0.40	0.43	0.50	0.34	0.39	0.31	0.23	0.12
20	0.77	0.41	0.37	0.32	0.62	0.45	0.59	0.50	0.52	0.46	0.32	0.24	0.62	0.36	0.42	0.27
21	0.57	0.33	0.82	0.41	0.73	0.46	0.42	0.30	0.60	0.38	0.42	0.43	0.16	0.21	0.46	0.48
22	0.54	0.50	0.58	0.53	0.56	0.32	0.51	0.11	0.54	0.24	0.30	0.44	0.37	0.24	0.20	0.10
23	0.79	0.37	0.61	0.53	0.68	0.44	0.41	0.31	0.60	0.40	0.48	0.24	0.52	0.37	0.24	0.06
24	0.61	0.40	0.59	0.47	0.88	0.38	0.56	0.42	0.47	0.42	0.35	0.18	0.39	0.32	0.28	0.07
25	0.73	0.41	0.60	0.45	0.67	0.46	0.37	0.35	0.54	0.44	0.29	0.13	0.24	0.31	0.13	0.26
26	0.53	0.49	0.75	0.51	0.82	0.38	0.42	0.35	0.54	0.30	0.52	0.36	0.29	0.22	0.23	0.24
27	0.46	0.47	0.85	0.45	0.52	0.43	0.38	0.23	0.47	0.25	0.54	0.49	0.23	0.12	0.40	0.28
28	0.65	0.40	0.94	0.33	0.48	0.37	0.36	0.17	0.48	0.34	0.42	0.34	0.50	0.19	0.65	0.37
29	0.61	0.40	0.32	0.40	0.66	0.52	0.63	0.39	0.38	0.42	0.45	0.37	0.49	0.34	0.41	0.28
30	0.67	0.42	0.80	0.46	0.51	0.41	0.57	0.44	0.63	0.50	0.33	0.13	0.25	0.26	0.40	0.20
31	0.57	0.55	0.75	0.39	0.47	0.46	0.76	0.42	0.69	0.50	0.42	0.44	0.32	0.23	0.45	0.44
32	0.94	0.34	0.65	0.39	0.64	0.61	0.71	0.51	0.47	0.53	0.47	0.42	0.16	0.06	0.41	0.34
33	0.64	0.47	0.52	0.33	0.75	0.49	0.45	0.21	0.42	0.33	0.39	0.28	0.22	0.13	0.17	0.06
34	0.46	0.38	0.51	0.48	0.55	0.36	0.48	0.43	0.72	0.43	0.66	0.46	0.18	0.32	0.15	0.15
35	0.36	0.36	0.56	0.42	0.54	0.40	0.41	0.29	0.42	0.38	0.43	0.38	0.19	0.23	0.57	0.35
36	0.79	0.44	0.81	0.49	0.80	0.52	0.53	0.35	0.58	0.39	0.49	-0.03	0.28	0.20	0.56	0.33
37	0.52	0.46	0.50	0.57	0.75	0.47	0.66	0.47	0.33	0.30	0.36	0.22	0.23	0.21	0.34	0.16
38	0.91	0.37	0.80	0.45	0.81	0.50	0.46	0.41	0.67	0.42	0.34	0.17	0.16	0.11	0.39	0.38
39	0.51	0.39	0.74	0.49	0.55	0.44	0.72	0.53	0.36	0.15	0.46	0.32	0.18	0.23	0.14	0.06
40	0.52	0.41	0.48	0.40	0.66	0.51	0.59	0.52	0.35	0.35	0.65	0.46	0.24	0.17	0.45	0.35
41	0.49	0.42	0.63	0.54	0.67	0.53	0.47	0.28	0.62	0.57	0.30	0.37			0.51	0.41
42	0.76	0.29	0.76	0.49	0.67	0.38	0.44	0.51	0.71	0.42	0.40	0.23			0.18	0.16
43	0.75	0.47	0.69	0.46	0.72	0.49	0.64	0.45	0.53	0.51	0.38	0.38			0.39	0.30
44	0.63	0.45	0.53	0.47	0.73	0.52	0.45	0.36	0.56	0.51	0.29	0.20			0.59	0.46
45	0.46	0.25	0.72	0.26	0.66	0.58	0.62	0.48	0.29	0.07	0.79	0.34			0.37	0.44
46	0.65	0.26	0.27	0.32	0.62	0.49	0.55	0.45	0.25	0.03	0.61	0.47			0.57	0.36
47	0.71	0.37	0.73	0.30	0.61	0.49	0.56	0.22	0.46	0.44	0.36	0.29			0.31	0.41
48	0.73	0.36	0.64	0.36	0.64	0.56	0.43	0.30	0.36	0.22	0.44	0.34			0.41	0.43
49	0.67	0.31	0.61	0.39	0.65	0.49	0.54	0.31	0.39	0.14	0.54	0.38			0.31	0.13
50	0.78	0.31	0.63	0.46	0.77	0.34	0.54	0.38	0.50	0.24	0.18	0.15			0.23	0.18
51	0.81	0.33	0.66	0.39	0.38	0.23	0.43	0.30	0.42	0.37	0.31	0.18			0.17	0.18
52	0.76	0.42	0.89	0.43	0.64	0.46	0.40	0.33	0.37	0.35	0.45	0.33			0.49	0.37
53	0.88	0.31	0.91	0.27	0.84	0.40	0.62	0.30	0.33	0.40	0.46	0.31			0.35	0.17
54	0.79	0.41	0.60	0.43	0.70	0.39	0.40	0.23	0.44	0.30	0.49	0.39			0.33	0.30
55	0.76	0.33	0.92	0.37	0.62	0.44	0.47	0.42	0.33	0.34	0.54	0.40			0.20	0.00
56	0.59	0.50	0.70	0.46	0.52	0.34	0.42	0.36	0.47	0.36	0.35	0.26			0.18	0.23
57	0.89	0.36	0.70	0.34	0.59	0.38	0.70	0.38	0.41	0.46	0.23	0.38			0.33	0.13
58	0.86	0.43	0.55	0.37	0.38	0.29	0.45	0.32	0.39	0.31	0.50	0.41			0.46	0.31
59	0.87	0.44	0.56	0.54	0.69	0.47	0.50	0.22	0.39	0.30	0.62	0.26			0.43	0.38
60	0.65	0.44	0.84	0.28	0.49	0.33	0.38	0.28	0.39	0.31	0.48	0.36			0.19	0.28
61	0.78	0.38	0.86	0.45	0.37	0.20	0.45	0.46	0.33	0.20	0.53	0.32			0.42	0.42
62	0.80	0.42	0.85	0.49	0.76	0.45	0.52	0.29	0.42	0.31	0.43	0.32			0.31	0.07
63	0.84	0.31	0.61	0.50	0.37	0.29	0.50	0.35	0.36	0.22	0.49	0.35			0.39	0.39
64	0.78	0.47	0.80	0.37	0.60	0.26	0.67	0.43	0.50	0.33	0.57	0.42			0.28	0.11
65	0.20	0.21	0.61	0.44	0.82	0.35	0.49	0.32	0.37	0.24	0.37	0.39			0.37	0.28

Table 8.A.3 Item-by-item ρ -value and Point-Biserial for Grade-specific STS Tests

Item-by-item ρ -value and Point-Biserial for Grade-Specific STS				
STS	Algebra I (Grade 8)		Geometry (Grade 9)	
Items	ρ -value	Pt-Rbis	ρ -value	Pt-Rbis
1	0.26	0.35	0.59	0.28
2	0.44	0.21	0.27	0.17
3	0.33	0.47	0.60	0.33
4	0.25	0.25	0.63	0.40
5	0.41	0.34	0.57	0.26
6	0.50	0.32	0.54	0.47
7	0.34	0.36	0.17	-0.14
8	0.20	0.23	0.19	0.26
9	0.37	0.29	0.31	0.41
10	0.15	0.30	0.64	0.33
11	0.32	0.35	0.50	0.11
12	0.31	0.25	0.77	0.40
13	0.22	0.40	0.34	0.47
14	0.08	0.10	0.59	0.44
15	0.42	0.33	0.63	0.41
16	0.19	0.14	0.33	0.29
17	0.29	0.34	0.39	0.29
18	0.33	0.30	0.67	0.52
19	0.38	0.33	0.27	0.24
20	0.55	0.40	0.46	0.28
21	0.18	0.26	0.47	0.38
22	0.36	0.24	0.16	0.19
23	0.56	0.38	0.26	-0.04
24	0.40	0.33	0.30	-0.05
25	0.24	0.24	0.17	0.32
26	0.29	0.27	0.20	0.20
27	0.22	0.10	0.39	0.31
28	0.52	0.10	0.60	0.25
29	0.46	0.30	0.37	0.38
30	0.25	0.32	0.39	0.14
31	0.30	0.31	0.33	0.45
32	0.18	0.03	0.34	0.21
33	0.20	0.16	0.29	0.24
34	0.19	0.31	0.14	0.26
35	0.17	0.20	0.57	0.46
36	0.30	0.22	0.56	0.36
37	0.22	0.20	0.43	0.16
38	0.19	0.12	0.27	0.40
39	0.17	0.22	0.13	0.03
40	0.26	0.14	0.51	0.27
41			0.54	0.54
42			0.23	0.25
43			0.36	0.41
44			0.51	0.51
45			0.39	0.37
46			0.51	0.24
47			0.31	0.42
48			0.37	0.42
49			0.29	0.04
50			0.17	0.30
51			0.17	0.46
52			0.47	0.48
53			0.39	0.12
54			0.34	0.32
55			0.23	0.01
56			0.17	0.14
57			0.30	0.10
58			0.51	0.30
59			0.43	0.48
60			0.11	0.25
61			0.44	0.42
62			0.33	-0.05
63			0.27	0.57
64			0.31	0.25
65			0.31	0.25

Appendix 8.B—Reliability Analyses

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

Subscore Area	# of Items	Correlation					Reliab.	SEM
		1	2	3	4	5		
Grade 2								
1. Word Analysis and Vocabulary Development	22	1.00	0.74	0.61	0.75	0.53	0.81	1.83
2. Reading Comprehension	15	0.74	1.00	0.60	0.72	0.55	0.80	1.61
3. Literary Response and Analysis	6	0.61	0.60	1.00	0.57	0.44	0.48	0.99
4. Written Conventions	14	0.75	0.72	0.57	1.00	0.57	0.81	1.51
5. Writing Strategies	8	0.53	0.55	0.44	0.57	1.00	0.49	1.31
Grade 3								
1. Word Analysis and Vocabulary Development	20	1.00	0.67	0.60	0.66	0.65	0.77	1.82
2. Reading Comprehension	15	0.67	1.00	0.62	0.61	0.63	0.68	1.75
3. Literary Response and Analysis	8	0.60	0.62	1.00	0.54	0.57	0.54	1.22
4. Written Conventions	13	0.66	0.61	0.54	1.00	0.66	0.71	1.60
5. Writing Strategies	9	0.65	0.63	0.57	0.66	1.00	0.67	1.33
Grade 4								
1. Word Analysis and Vocabulary Development	18	1.00	0.70	0.54	0.72	0.69	0.80	1.80
2. Reading Comprehension	15	0.70	1.00	0.54	0.64	0.65	0.72	1.73
3. Literary Response and Analysis	9	0.54	0.54	1.00	0.51	0.53	0.45	1.36
4. Written Conventions	18	0.72	0.64	0.51	1.00	0.72	0.80	1.76
5. Writing Strategies	15	0.69	0.65	0.53	0.72	1.00	0.71	1.72
Grade 5								
1. Word Analysis and Vocabulary Development	14	1.00	0.62	0.60	0.59	0.57	0.60	1.72
2. Reading Comprehension	16	0.62	1.00	0.65	0.56	0.59	0.65	1.82
3. Literary Response and Analysis	12	0.60	0.65	1.00	0.55	0.60	0.66	1.57
4. Written Conventions	17	0.59	0.56	0.55	1.00	0.61	0.66	1.93
5. Writing Strategies	16	0.57	0.59	0.60	0.61	1.00	0.63	1.84
Grade 6								
1. Word Analysis and Vocabulary Development	13	1.00	0.59	0.51	0.58	0.55	0.55	1.68
2. Reading Comprehension	17	0.59	1.00	0.57	0.61	0.60	0.64	1.87
3. Literary Response and Analysis	12	0.51	0.57	1.00	0.53	0.52	0.54	1.51
4. Written Conventions	16	0.58	0.61	0.53	1.00	0.64	0.71	1.80
5. Writing Strategies	17	0.55	0.60	0.52	0.64	1.00	0.63	1.93
Grade 7								
1. Word Analysis and Vocabulary Development	11	1.00	0.62	0.58	0.61	0.63	0.71	1.42
2. Reading Comprehension	18	0.62	1.00	0.63	0.58	0.61	0.64	1.95
3. Literary Response and Analysis	13	0.58	0.63	1.00	0.55	0.59	0.59	1.59
4. Written Conventions	16	0.61	0.58	0.55	1.00	0.66	0.72	1.75
5. Writing Strategies	17	0.63	0.61	0.59	0.66	1.00	0.70	1.84

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

Subscore Area	# of Items	Correlation						Reliab.	SEM
		1	2	3	4	5	6		
Grade 2									
1. Number Sense: Place Value, Addition, and Subtraction	15	1.00	0.75	0.57	0.60	0.57	–	0.77	1.64
2. Number Sense: Multiplication, Division, and Fractions	23	0.75	1.00	0.59	0.66	0.61	–	0.82	1.95
3. Algebra and Functions	6	0.57	0.59	1.00	0.47	0.45	–	0.60	1.04
4. Measurement and Geometry	14	0.60	0.66	0.47	1.00	0.54	–	0.67	1.48
5. Statistics, Data Analysis, and Probability	7	0.57	0.61	0.45	0.54	1.00	–	0.57	0.98
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	1.00	0.78	0.73	0.68	0.59	–	0.78	1.66
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.78	1.00	0.74	0.67	0.58	–	0.82	1.60
3. Algebra and Functions	12	0.73	0.74	1.00	0.65	0.58	–	0.77	1.44
4. Measurement and Geometry	16	0.68	0.67	0.65	1.00	0.59	–	0.73	1.62
5. Statistics, Data Analysis, and Probability	5	0.59	0.58	0.58	0.59	1.00	–	0.61	0.82
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	1.00	0.68	0.70	0.56	0.45	–	0.74	1.72
2. Number Sense: Operations, and Factoring	14	0.68	1.00	0.71	0.57	0.42	–	0.77	1.59
3. Algebra and Functions	18	0.70	0.71	1.00	0.62	0.47	–	0.86	1.71
4. Measurement and Geometry	12	0.56	0.57	0.62	1.00	0.44	–	0.66	1.51
5. Statistics, Data Analysis, and Probability	4	0.45	0.42	0.47	0.44	1.00	–	0.32	0.85
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	1.00	0.54	0.56	0.51	0.34	–	0.49	1.60
2. Number Sense: Operations with Fractions and Decimals	17	0.54	1.00	0.61	0.57	0.40	–	0.67	1.90
3. Algebra and Functions	17	0.56	0.61	1.00	0.62	0.48	–	0.79	1.81
4. Measurement and Geometry	15	0.51	0.57	0.62	1.00	0.42	–	0.61	1.81
5. Statistics, Data Analysis, and Probability	4	0.34	0.40	0.48	0.42	1.00	–	0.39	0.91
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages, and Negative Numbers	15	1.00	0.58	0.64	0.47	0.47	–	0.74	1.70
2. Number Sense: Operations with Problem Solving with Fractions	10	0.58	1.00	0.59	0.39	0.43	–	0.61	1.45
3. Algebra and Functions	19	0.64	0.59	1.00	0.48	0.54	–	0.78	1.93
4. Measurement and Geometry	10	0.47	0.39	0.48	1.00	0.40	–	0.40	1.47
5. Statistics, Data Analysis, and Probability	11	0.47	0.43	0.54	0.40	1.00	–	0.57	1.52
Grade 7									
1. Number Sense: Rational Numbers	14	1.00	0.46	0.39	0.56	0.49	0.40	0.59	1.74
2. Number Sense: Exponent, Powers and Roots	8	0.46	1.00	0.38	0.47	0.38	0.30	0.43	1.22
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.39	0.38	1.00	0.43	0.39	0.32	0.32	1.46
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.56	0.47	0.43	1.00	0.57	0.46	0.66	1.78
5. Measurement and Geometry	13	0.49	0.38	0.39	0.57	1.00	0.48	0.59	1.64
6. Statistics, Data Analysis, and Probability	5	0.40	0.30	0.32	0.46	0.48	1.00	0.48	1.02

Table 8.B.3 Reliabilities and SEMs for the STS by Gender

Subject	STS	N	Male		Female		
			Rel	SEM	N	Rel	SEM
<i>Reading/ Language Arts</i>	2	6,694	0.93	3.39	6,593	0.93	3.27
	3	4,489	0.91	3.56	4,482	0.91	3.47
	4	2,511	0.93	3.84	2,380	0.92	3.73
	5	1,874	0.89	4.00	1,796	0.89	3.98
	6	1,208	0.88	3.99	1,132	0.88	3.91
	7	1,019	0.90	3.91	953	0.90	3.83
	8	816	0.72	2.88	782	0.71	2.83
	9	1,718	0.69	2.85	1,366	0.71	2.83
	10	1,091	0.70	2.90	913	0.67	2.87
	11	584	0.72	2.95	451	0.66	2.93
	<i>Mathematics</i>	2	6,677	0.92	3.30	6,561	0.92
3		4,467	0.94	3.31	4,452	0.93	3.29
4		2,510	0.93	3.43	2,377	0.92	3.41
5		1,865	0.88	3.72	1,789	0.88	3.70
6		1,200	0.89	3.68	1,111	0.89	3.67
7		1,001	0.86	3.70	924	0.85	3.71
Algebra I		2,012	0.62	2.74	1,700	0.61	2.72
Geometry		262	0.84	3.58	220	0.79	3.59
<i>Grade-Specific</i>	Algebra I – 8	248	0.64	2.74	228	0.70	2.73
	Geometry – 9	36	0.87	3.59	34	0.78	3.61

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

Subject	STS	Not Econ. Disadvantaged			Econ. Disadvantaged		
		N	Rel	SEM	N	Rel	SEM
<i>Reading/ Language Arts</i>	2	900	0.93	3.27	12,231	0.93	3.34
	3	642	0.92	3.45	8,243	0.91	3.52
	4	420	0.93	3.76	4,374	0.92	3.79
	5	326	0.91	3.96	3,266	0.89	4.00
	6	237	0.91	3.89	2,065	0.88	3.97
	7	287	0.92	3.80	1,657	0.90	3.88
	8	221	0.77	2.84	1,339	0.71	2.86
	9	480	0.74	2.84	2,507	0.71	2.85
	10	365	0.72	2.87	1,568	0.68	2.89
	11	230	0.74	2.93	773	0.69	2.95
	<i>Mathematics</i>	2	897	0.92	3.26	12,186	0.92
3		635	0.94	3.26	8,198	0.93	3.31
4		421	0.93	3.40	4,369	0.92	3.42
5		325	0.90	3.70	3,252	0.88	3.71
6		236	0.91	3.66	2,038	0.89	3.68
7		278	0.88	3.68	1,620	0.85	3.71
Algebra I		624	0.60	2.74	2,980	0.62	2.73
Geometry		126	0.88	3.57	350	0.78	3.59
<i>Grade-Specific</i>	Algebra I – 8	75	0.66	2.80	393	0.66	2.73
	Geometry – 9	15	0.93	3.54	54	0.76	3.61

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

Subject	STS	No Special Services			Special Services		
		N	Rel	SEM	N	Rel	SEM
<i>Reading– Language Arts</i>	2	12,609	0.93	3.32	691	0.91	3.58
	3	8,478	0.91	3.50	514	0.88	3.65
	4	4,643	0.92	3.78	254	0.92	3.92
	5	3,463	0.89	3.99	209	0.88	3.93
	6	2,255	0.88	3.95	88	0.83	3.98
	7	1,926	0.90	3.87	48	0.79	4.01
	8	1,583	0.72	2.86	19	0.57	2.84
	9	3,080	0.71	2.85	14	0.78	2.78
	10	2,001	0.69	2.89	8	–	–
	11	1,032	0.71	2.94	4	–	–
	<i>Mathematics</i>	2	12,565	0.92	3.30	683	0.92
3		8,425	0.93	3.29	515	0.93	3.49
4		4,634	0.92	3.41	259	0.94	3.52
5		3,443	0.88	3.71	213	0.86	3.74
6		2,225	0.89	3.68	89	0.87	3.66
7		1,880	0.86	3.70	47	0.72	3.69
Algebra I		3,699	0.62	2.73	21	0.61	2.69
Geometry		480	0.82	3.59	3	–	–
<i>Grade-Specific</i>	Algebra I – 8	472	0.67	2.74	6	–	–
	Geometry – 9	70	0.84	3.60	0	–	–

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

Subject	STS	In U.S. Schools <12 Months			In U.S. Schools ≥12 Months		
		N	Rel	SEM	N	Rel	SEM
<i>Reading– Language Arts</i>	2	1,789	0.93	3.53	11,511	0.92	3.30
	3	1,656	0.91	3.58	7,336	0.91	3.49
	4	1,458	0.92	3.84	3,439	0.93	3.75
	5	1,466	0.90	3.97	2,206	0.89	3.99
	6	1,271	0.89	3.93	1,072	0.87	3.98
	7	1,556	0.91	3.84	418	0.88	3.95
	8	1,267	0.74	2.85	335	0.65	2.87
	9	2,672	0.71	2.84	422	0.67	2.87
	10	1,585	0.68	2.89	424	0.68	2.89
	11	747	0.71	2.94	289	0.66	2.95
	<i>Mathematics</i>	2	1,796	0.92	3.49	11,454	0.92
3		1,649	0.93	3.46	7,291	0.93	3.26
4		1,454	0.92	3.55	3,439	0.92	3.36
5		1,452	0.88	3.74	2,204	0.88	3.68
6		1,265	0.89	3.68	1,049	0.88	3.65
7		1,530	0.86	3.70	397	0.85	3.72
Algebra I		3,006	0.62	2.73	714	0.62	2.74
Geometry	302	0.85	3.58	181	0.72	3.59	
<i>Grade-Specific</i>	Algebra I – 8	361	0.56	2.71	117	0.76	2.80
	Geometry – 9	53	0.86	3.59	17	0.73	3.60

Table 8.B.7 Reliabilities and SEMs for the STS by EL Program Participation

Subject	STS	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)		
		N	Rel	SEM	N	Rel	SEM	N	Rel	SEM	N	Rel	SEM	N	Rel	SEM	N	Rel	SEM
<i>Reading/ Language Arts</i>	2	156	0.92	3.60	550	0.92	3.60	490	0.92	3.61	12,043	0.92	3.30	21	0.95	3.49	27	0.91	3.60
	3	133	0.92	3.54	601	0.91	3.60	493	0.90	3.61	7,702	0.91	3.49	26	0.91	3.65	15	0.94	3.57
	4	97	0.91	3.84	579	0.92	3.85	464	0.92	3.84	3,701	0.93	3.76	27	0.90	3.91	13	0.95	3.75
	5	114	0.90	3.97	608	0.90	3.96	466	0.90	3.97	2,423	0.89	3.99	22	0.92	3.94	11	0.85	4.08
	6	110	0.91	3.89	531	0.90	3.92	425	0.89	3.94	1,223	0.87	3.97	29	0.85	3.96	11	0.92	3.91
	7	156	0.91	3.90	615	0.91	3.82	476	0.91	3.83	653	0.88	3.93	33	0.92	3.86	19	0.90	3.92
	8	138	0.76	2.89	491	0.75	2.84	426	0.72	2.85	499	0.68	2.87	23	0.83	2.88	16	0.67	2.89
	9	309	0.72	2.84	819	0.71	2.84	797	0.69	2.83	962	0.70	2.86	142	0.75	2.85	36	0.78	2.84
	10	186	0.68	2.86	544	0.68	2.87	351	0.64	2.90	800	0.70	2.89	82	0.76	2.91	27	0.77	2.88
	11	92	0.71	2.94	306	0.69	2.95	164	0.73	2.93	388	0.69	2.95	55	0.74	2.95	18	0.73	2.97
	<i>Math</i>	2	155	0.90	3.56	557	0.91	3.53	493	0.91	3.55	11,983	0.92	3.28	21	0.94	3.43	27	0.92
3		135	0.93	3.47	594	0.93	3.50	493	0.92	3.50	7,655	0.93	3.26	26	0.91	3.57	14	0.95	3.46
4		97	0.91	3.54	577	0.91	3.58	463	0.92	3.55	3,700	0.92	3.37	27	0.91	3.58	13	0.88	3.72
5		112	0.87	3.76	600	0.88	3.74	464	0.88	3.73	2,420	0.88	3.68	21	0.83	3.79	11	0.85	3.84
6		108	0.90	3.68	527	0.89	3.68	422	0.88	3.68	1,203	0.89	3.65	29	0.81	3.78	11	0.87	3.76
7		153	0.86	3.67	598	0.86	3.69	472	0.85	3.69	632	0.85	3.73	31	0.86	3.68	20	0.89	3.64
Algebra I Geometry		395	0.65	2.71	933	0.63	2.74	862	0.63	2.73	1,336	0.58	2.74	121	0.65	2.71	41	0.65	2.69
<i>Grade- Specific</i>	Algebra I - 8	56	0.45	2.71	139	0.62	2.71	139	0.49	2.71	257	0.75	3.58	41	0.84	3.64	4	—	—
	Geometry - 9	6	—	—	27	0.84	3.63	8	—	—	131	0.75	2.80	8	—	—	4	—	—
											24	0.73	3.59	4	—	—	1	—	—

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

Subscore Area	# of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2									
1. Word Analysis and Vocabulary Development	22	0.82	1.86	0.80	1.79	0.82	1.80	0.81	1.83
2. Reading Comprehension	15	0.79	1.65	0.79	1.57	0.81	1.55	0.80	1.62
3. Literary Response and Analysis	6	0.47	1.01	0.49	0.97	0.53	0.97	0.48	0.99
4. Written Conventions	14	0.80	1.55	0.81	1.47	0.82	1.46	0.81	1.52
5. Writing Strategies	8	0.49	1.30	0.48	1.32	0.50	1.31	0.49	1.31
Grade 3									
1. Word Analysis and Vocabulary Development	20	0.77	1.86	0.77	1.78	0.80	1.78	0.77	1.82
2. Reading Comprehension	15	0.66	1.76	0.68	1.73	0.72	1.72	0.67	1.75
3. Literary Response and Analysis	8	0.52	1.24	0.56	1.21	0.61	1.20	0.54	1.22
4. Written Conventions	13	0.71	1.62	0.71	1.58	0.74	1.58	0.71	1.60
5. Writing Strategies	9	0.65	1.35	0.68	1.31	0.70	1.29	0.66	1.33
Grade 4									
1. Word Analysis and Vocabulary Development	18	0.80	1.83	0.79	1.75	0.79	1.78	0.80	1.80
2. Reading Comprehension	15	0.73	1.74	0.71	1.72	0.70	1.72	0.72	1.73
3. Literary Response and Analysis	9	0.44	1.36	0.44	1.36	0.44	1.37	0.46	1.36
4. Written Conventions	18	0.80	1.81	0.79	1.71	0.82	1.75	0.80	1.77
5. Writing Strategies	15	0.71	1.73	0.69	1.71	0.75	1.70	0.70	1.73
Grade 5									
1. Word Analysis and Vocabulary Development	14	0.59	1.73	0.60	1.71	0.66	1.70	0.59	1.72
2. Reading Comprehension	16	0.62	1.83	0.66	1.81	0.71	1.80	0.64	1.82
3. Literary Response and Analysis	12	0.63	1.57	0.66	1.57	0.69	1.56	0.65	1.57
4. Written Conventions	17	0.64	1.93	0.65	1.92	0.69	1.91	0.65	1.93
5. Writing Strategies	16	0.61	1.84	0.64	1.83	0.68	1.84	0.62	1.84
Grade 6									
1. Word Analysis and Vocabulary Development	13	0.50	1.69	0.57	1.66	0.66	1.65	0.53	1.68
2. Reading Comprehension	17	0.64	1.88	0.62	1.86	0.73	1.81	0.62	1.88
3. Literary Response and Analysis	12	0.50	1.55	0.54	1.47	0.57	1.48	0.54	1.52
4. Written Conventions	16	0.69	1.83	0.69	1.76	0.76	1.76	0.70	1.80
5. Writing Strategies	17	0.60	1.92	0.63	1.93	0.67	1.91	0.63	1.93
Grade 7									
1. Word Analysis and Vocabulary Development	11	0.72	1.43	0.67	1.40	0.75	1.35	0.70	1.43
2. Reading Comprehension	18	0.65	1.95	0.61	1.95	0.70	1.93	0.62	1.96
3. Literary Response and Analysis	13	0.56	1.61	0.59	1.56	0.58	1.60	0.59	1.59
4. Written Conventions	16	0.71	1.78	0.71	1.72	0.75	1.70	0.71	1.76
5. Writing Strategies	17	0.70	1.85	0.68	1.82	0.75	1.82	0.69	1.84

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

Subscore Area	# of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.77	1.63	0.76	1.64	0.78	1.61	0.77	1.64
2. Number Sense: Multiplication, Division, and Fractions	23	0.83	1.95	0.82	1.94	0.83	1.92	0.82	1.95
3. Algebra and Functions	6	0.61	1.04	0.58	1.05	0.62	1.01	0.59	1.05
4. Measurement and Geometry	14	0.68	1.47	0.67	1.50	0.68	1.45	0.67	1.49
5. Statistics, Data Analysis and Probability	7	0.58	0.98	0.56	0.98	0.62	0.97	0.57	0.98
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.66	0.77	1.66	0.80	1.63	0.78	1.66
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.82	1.61	0.82	1.59	0.83	1.58	0.82	1.60
3. Algebra and Functions	12	0.78	1.43	0.76	1.44	0.79	1.41	0.77	1.44
4. Measurement and Geometry	16	0.73	1.63	0.72	1.62	0.73	1.62	0.72	1.62
5. Statistics, Data Analysis and Probability	5	0.62	0.82	0.59	0.81	0.61	0.82	0.61	0.82
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.77	1.70	0.70	1.73	0.74	1.71	0.74	1.72
2. Number Sense: Operations and Factoring	14	0.78	1.59	0.75	1.59	0.79	1.57	0.77	1.59
3. Algebra and Functions	18	0.86	1.72	0.85	1.70	0.87	1.67	0.85	1.71
4. Measurement and Geometry	12	0.67	1.51	0.63	1.51	0.63	1.53	0.66	1.51
5. Statistics, Data Analysis, and Probability	4	0.33	0.87	0.30	0.82	0.24	0.87	0.32	0.84
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.50	1.60	0.48	1.59	0.54	1.60	0.49	1.59
2. Number Sense: Operations with Fractions and Decimals	17	0.68	1.89	0.66	1.90	0.72	1.88	0.66	1.90
3. Algebra and Functions	17	0.78	1.83	0.79	1.79	0.80	1.80	0.78	1.81
4. Measurement and Geometry	15	0.63	1.81	0.58	1.82	0.65	1.80	0.60	1.82
5. Statistics, Data Analysis, and Probability	4	0.41	0.91	0.37	0.91	0.41	0.90	0.39	0.91
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages and Negative Numbers	15	0.75	1.70	0.73	1.70	0.77	1.69	0.74	1.70
2. Number Sense: Operations with Problem Solving with Fractions	10	0.63	1.44	0.58	1.45	0.65	1.43	0.60	1.45
3. Algebra and Functions	19	0.79	1.93	0.78	1.93	0.82	1.90	0.78	1.94
4. Measurement and Geometry	10	0.39	1.48	0.41	1.46	0.45	1.48	0.39	1.47
5. Statistics, Data Analysis, and Probability	11	0.54	1.53	0.60	1.52	0.62	1.52	0.57	1.52
Grade 7									
1. Number Sense: Rational Numbers	14	0.60	1.73	0.58	1.74	0.67	1.72	0.57	1.74
2. Number Sense: Exponent, Powers and Roots	8	0.46	1.23	0.38	1.22	0.57	1.20	0.39	1.23
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.36	1.45	0.28	1.46	0.42	1.45	0.31	1.46
4. Algebra and Functions: Multi-Step Problems, Graphing and Functions	15	0.67	1.77	0.65	1.79	0.68	1.78	0.65	1.78
5. Measurement and Geometry	13	0.61	1.64	0.57	1.64	0.63	1.63	0.59	1.64
6. Statistics, Data Analysis, and Probability	5	0.51	1.01	0.44	1.02	0.50	1.01	0.48	1.02

Table 8.B.10 Subscore Reliabilities and SEM for RLA by Special Services/Attendance in U.S. Schools

Subscore Area	# of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools >=12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2									
1. Word Analysis and Vocabulary Development	22	0.81	1.82	0.78	2.04	0.83	2.00	0.79	1.80
2. Reading Comprehension	15	0.79	1.60	0.77	1.73	0.81	1.68	0.79	1.60
3. Literary Response and Analysis	6	0.48	0.99	0.42	1.05	0.50	1.08	0.46	0.97
4. Written Conventions	14	0.81	1.50	0.77	1.64	0.80	1.62	0.80	1.49
5. Writing Strategies	8	0.49	1.31	0.44	1.27	0.46	1.28	0.48	1.31
Grade 3									
1. Word Analysis and Vocabulary Development	20	0.77	1.81	0.76	1.97	0.80	1.88	0.77	1.80
2. Reading Comprehension	15	0.67	1.74	0.59	1.76	0.67	1.76	0.67	1.74
3. Literary Response and Analysis	8	0.54	1.22	0.41	1.25	0.56	1.23	0.54	1.22
4. Written Conventions	13	0.71	1.60	0.64	1.67	0.69	1.64	0.70	1.59
5. Writing Strategies	9	0.67	1.33	0.58	1.37	0.65	1.35	0.66	1.32
Grade 4									
1. Word Analysis and Vocabulary Development	18	0.79	1.79	0.79	1.90	0.78	1.83	0.81	1.77
2. Reading Comprehension	15	0.72	1.72	0.64	1.77	0.68	1.73	0.74	1.71
3. Literary Response and Analysis	9	0.45	1.36	0.36	1.37	0.38	1.38	0.48	1.35
4. Written Conventions	18	0.80	1.76	0.81	1.86	0.81	1.80	0.80	1.74
5. Writing Strategies	15	0.70	1.72	0.67	1.75	0.70	1.73	0.71	1.72
Grade 5									
1. Word Analysis and Vocabulary Development	14	0.59	1.72	0.48	1.72	0.63	1.71	0.57	1.72
2. Reading Comprehension	16	0.64	1.82	0.63	1.77	0.65	1.83	0.65	1.81
3. Literary Response and Analysis	12	0.65	1.57	0.62	1.52	0.69	1.55	0.63	1.57
4. Written Conventions	17	0.65	1.93	0.69	1.89	0.68	1.91	0.64	1.93
5. Writing Strategies	16	0.63	1.84	0.57	1.82	0.65	1.83	0.62	1.84
Grade 6									
1. Word Analysis and Vocabulary Development	13	0.55	1.68	0.35	1.66	0.59	1.67	0.47	1.68
2. Reading Comprehension	17	0.64	1.87	0.51	1.89	0.67	1.85	0.59	1.89
3. Literary Response and Analysis	12	0.54	1.51	0.39	1.59	0.54	1.48	0.54	1.54
4. Written Conventions	16	0.71	1.79	0.61	1.85	0.74	1.78	0.67	1.80
5. Writing Strategies	17	0.63	1.93	0.57	1.87	0.64	1.92	0.61	1.93
Grade 7									
1. Word Analysis and Vocabulary Development	11	0.70	1.41	0.37	1.57	0.71	1.40	0.65	1.47
2. Reading Comprehension	18	0.64	1.95	0.47	1.93	0.65	1.95	0.57	1.97
3. Literary Response and Analysis	13	0.58	1.59	0.19	1.67	0.60	1.58	0.52	1.64
4. Written Conventions	16	0.72	1.75	0.61	1.82	0.73	1.74	0.65	1.79
5. Writing Strategies	17	0.70	1.84	0.56	1.92	0.72	1.83	0.63	1.87

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

Subscore Area	# of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools ≥12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.77	1.63	0.74	1.72	0.76	1.71	0.76	1.62
2. Number Sense: Multiplication, Division, and Fractions	23	0.82	1.94	0.83	2.04	0.82	2.03	0.82	1.93
3. Algebra and Functions	6	0.59	1.04	0.60	1.07	0.58	1.07	0.59	1.04
4. Measurement and Geometry	14	0.67	1.48	0.71	1.59	0.70	1.59	0.66	1.46
5. Statistics, Data Analysis and Probability	7	0.57	0.97	0.57	1.10	0.59	1.09	0.55	0.96
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.65	0.74	1.76	0.78	1.72	0.77	1.64
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.82	1.60	0.81	1.69	0.81	1.67	0.82	1.59
3. Algebra and Functions	12	0.77	1.43	0.72	1.53	0.76	1.49	0.76	1.42
4. Measurement and Geometry	16	0.72	1.62	0.75	1.71	0.71	1.71	0.71	1.60
5. Statistics, Data Analysis and Probability	5	0.60	0.81	0.61	0.90	0.60	0.93	0.58	0.79
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.73	1.71	0.80	1.77	0.74	1.78	0.72	1.69
2. Number Sense: Operations and Factoring	14	0.77	1.59	0.80	1.60	0.75	1.63	0.77	1.57
3. Algebra and Functions	18	0.85	1.70	0.86	1.81	0.84	1.83	0.85	1.65
4. Measurement and Geometry	12	0.65	1.51	0.67	1.54	0.61	1.55	0.65	1.49
5. Statistics, Data Analysis, and Probability	4	0.31	0.84	0.34	0.89	0.33	0.87	0.29	0.83
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.49	1.59	0.51	1.60	0.42	1.62	0.53	1.57
2. Number Sense: Operations with Fractions and Decimals	17	0.67	1.90	0.58	1.89	0.68	1.90	0.66	1.89
3. Algebra and Functions	17	0.78	1.81	0.77	1.85	0.77	1.85	0.78	1.78
4. Measurement and Geometry	15	0.61	1.82	0.54	1.82	0.59	1.82	0.61	1.81
5. Statistics, Data Analysis, and Probability	4	0.40	0.91	0.33	0.94	0.38	0.92	0.40	0.90
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages and Negative Numbers	15	0.74	1.70	0.71	1.71	0.75	1.71	0.73	1.68
2. Number Sense: Operations with Problem Solving with Fractions	10	0.61	1.45	0.61	1.43	0.60	1.45	0.59	1.43
3. Algebra and Functions	19	0.78	1.93	0.76	1.93	0.79	1.93	0.76	1.92
4. Measurement and Geometry	10	0.40	1.47	0.23	1.46	0.40	1.46	0.39	1.47
5. Statistics, Data Analysis, and Probability	11	0.58	1.52	0.42	1.52	0.56	1.52	0.59	1.53
Grade 7									
1. Number Sense: Rational Numbers	14	0.60	1.74	0.15	1.75	0.60	1.73	0.54	1.75
2. Number Sense: Exponent, Powers and Roots	8	0.42	1.22	0.37	1.16	0.41	1.22	0.44	1.23
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.33	1.46	0.15	1.45	0.32	1.45	0.34	1.46
4. Algebra and Functions: Multi-Step Problems, Graphing and Functions	15	0.66	1.78	0.54	1.79	0.66	1.78	0.66	1.79

Subscore Area	# of Items	No Spec. Serv.		Spec. Serv.		In U.S. Schools <12 Months		In U.S. Schools >=12 Months	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
5. Measurement and Geometry	13	0.60	1.64	0.21	1.65	0.61	1.64	0.54	1.65
6. Statistics, Data Analysis, and Probability	5	0.48	1.02	0.42	1.01	0.49	1.01	0.46	1.02

Table 8.B.12 Subscore Reliabilities and SEM for RLA by EL Program Participation

Subscore Reliabilities and SEM for RLA by EL Program Participation													
Subscore Area	# of Items	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 (EL only)			
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM		
Grade 2													
1. Word Analysis and Vocabulary Development	22	0.81	2.06	0.79	2.07	0.80	2.07	0.79	1.80	0.89	1.98	0.80	2.03
2. Reading Comprehension	15	0.79	1.71	0.78	1.72	0.80	1.70	0.79	1.60	0.84	1.66	0.61	1.83
3. Literary Response and Analysis	6	0.31	1.16	0.50	1.09	0.48	1.11	0.46	0.98	0.80	0.95	0.03	1.09
4. Written Conventions	14	0.76	1.64	0.76	1.65	0.72	1.68	0.80	1.49	0.81	1.63	0.81	1.63
5. Writing Strategies	8	0.44	1.26	0.46	1.25	0.36	1.26	0.48	1.31	0.44	1.30	-0.10	1.40
Grade 3													
1. Word Analysis and Vocabulary Development	20	0.80	1.85	0.80	1.91	0.78	1.91	0.77	1.80	0.76	2.03	0.87	1.90
2. Reading Comprehension	15	0.69	1.75	0.66	1.75	0.65	1.76	0.67	1.74	0.73	1.71	0.72	1.72
3. Literary Response and Analysis	8	0.60	1.21	0.57	1.23	0.54	1.24	0.54	1.22	0.48	1.23	0.41	1.33
4. Written Conventions	13	0.68	1.65	0.70	1.63	0.66	1.65	0.70	1.59	0.58	1.72	0.73	1.64
5. Writing Strategies	9	0.71	1.32	0.62	1.36	0.63	1.36	0.66	1.32	0.72	1.29	0.80	1.25
Grade 4													
1. Word Analysis and Vocabulary Development	18	0.70	1.85	0.80	1.82	0.78	1.83	0.80	1.77	0.68	1.87	0.78	1.89
2. Reading Comprehension	15	0.69	1.72	0.65	1.73	0.67	1.74	0.74	1.72	0.69	1.68	0.77	1.70
3. Literary Response and Analysis	9	0.40	1.39	0.35	1.40	0.32	1.39	0.48	1.34	0.25	1.45	0.63	1.24
4. Written Conventions	18	0.83	1.78	0.81	1.82	0.82	1.80	0.80	1.74	0.80	1.87	0.86	1.76
5. Writing Strategies	15	0.70	1.71	0.70	1.73	0.69	1.73	0.71	1.72	0.52	1.82	0.71	1.74
Grade 5													
1. Word Analysis and Vocabulary Development	14	0.61	1.72	0.62	1.71	0.63	1.71	0.58	1.72	0.74	1.64	0.68	1.74
2. Reading Comprehension	16	0.60	1.84	0.64	1.82	0.65	1.83	0.65	1.81	0.70	1.83	0.67	1.77
3. Literary Response and Analysis	12	0.69	1.56	0.68	1.55	0.71	1.54	0.63	1.58	0.78	1.50	0.30	1.65
4. Written Conventions	17	0.71	1.88	0.70	1.90	0.65	1.91	0.64	1.93	0.80	1.81	0.37	2.03
5. Writing Strategies	16	0.64	1.84	0.66	1.82	0.65	1.83	0.62	1.84	0.53	1.91	0.56	1.87

Subscore Reliabilities and SEM for RLA by EL Program Participation

Subscore Area	# of Items	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)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 6													
1. Word Analysis and Vocabulary Development	13	0.65	1.64	0.59	1.67	0.55	1.68	0.49	1.68	0.68	1.57	0.54	1.75
2. Reading Comprehension	17	0.70	1.85	0.66	1.85	0.67	1.87	0.61	1.88	0.61	1.83	0.74	1.79
3. Literary Response and Analysis	12	0.67	1.46	0.49	1.49	0.57	1.47	0.54	1.53	0.21	1.54	0.55	1.54
4. Written Conventions	16	0.74	1.77	0.73	1.78	0.75	1.79	0.67	1.80	0.80	1.74	0.79	1.73
5. Writing Strategies	17	0.61	1.91	0.66	1.91	0.62	1.92	0.63	1.93	0.43	1.98	0.62	1.95
Grade 7													
1. Word Analysis and Vocabulary Development	11	0.64	1.47	0.73	1.37	0.72	1.40	0.66	1.46	0.66	1.43	0.77	1.43
2. Reading Comprehension	18	0.68	1.93	0.65	1.95	0.66	1.94	0.58	1.97	0.67	1.95	0.79	1.86
3. Literary Response and Analysis	13	0.55	1.61	0.61	1.57	0.63	1.56	0.52	1.63	0.63	1.57	0.55	1.63
4. Written Conventions	16	0.77	1.74	0.73	1.72	0.71	1.76	0.69	1.77	0.74	1.79	0.77	1.71
5. Writing Strategies	17	0.70	1.86	0.73	1.82	0.72	1.82	0.65	1.87	0.79	1.82	0.58	1.93

Table 8.B.13 Subscore Reliabilities and SEM for Mathematics by EL Program Participation

Subscore Reliabilities and SEM for Mathematics by EL Program Participation													
Subscore Area	# of Items	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)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2													
1. Number Sense: Place Value, Addition, and Subtraction	15	0.64	1.78	0.71	1.73	0.72	1.73	0.76	1.62	0.83	1.65	0.73	1.78
2. Number Sense: Multiplication, Division, and Fractions	23	0.80	2.07	0.81	2.05	0.80	2.06	0.82	1.93	0.84	2.06	0.81	2.03
3. Algebra and Functions	6	0.61	1.06	0.58	1.08	0.49	1.10	0.59	1.04	0.67	1.01	0.65	1.05
4. Measurement and Geometry	14	0.70	1.63	0.72	1.61	0.69	1.64	0.66	1.47	0.86	1.50	0.73	1.63
5. Statistics, Data Analysis and Probability	7	0.46	1.15	0.59	1.12	0.56	1.12	0.54	0.96	0.56	1.08	0.67	1.08
Grade 3													
1. Number Sense: Place Value, Fractions, and Decimals	16	0.80	1.73	0.76	1.75	0.77	1.73	0.77	1.64	0.77	1.77	0.85	1.70
2. Number Sense: Addition, Subtraction, Multiplication, Division	16	0.82	1.68	0.81	1.69	0.80	1.68	0.82	1.59	0.68	1.84	0.81	1.75
3. Algebra and Functions	12	0.77	1.49	0.75	1.51	0.73	1.52	0.77	1.42	0.73	1.50	0.87	1.38
4. Measurement and Geometry	16	0.72	1.69	0.69	1.73	0.69	1.72	0.71	1.60	0.68	1.73	0.84	1.67
5. Statistics, Data Analysis and Probability	5	0.56	0.96	0.62	0.93	0.56	0.97	0.58	0.80	0.47	0.96	0.34	1.05
Grade 4													
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.75	1.74	0.72	1.79	0.76	1.77	0.73	1.69	0.76	1.77	0.33	1.96
2. Number Sense: Operations and Factoring	14	0.74	1.62	0.74	1.64	0.75	1.63	0.77	1.57	0.65	1.68	0.70	1.65
3. Algebra and Functions	18	0.82	1.84	0.83	1.84	0.84	1.83	0.85	1.66	0.86	1.82	0.70	1.98
4. Measurement and Geometry	12	0.59	1.55	0.59	1.57	0.64	1.53	0.65	1.50	0.33	1.57	0.71	1.56
5. Statistics, Data Analysis, and Probability	4	0.24	0.86	0.37	0.88	0.37	0.87	0.29	0.84	0.09	0.92	0.38	0.88

Subscore Reliabilities and SEM for Mathematics by EL Program Participation

Subscore Area	# of Items	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)	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 5													
1. Number Sense: Estimation, Percents, and Factoring	12	0.39	1.61	0.44	1.62	0.43	1.61	0.51	1.58	0.28	1.65	0.22	1.74
2. Number Sense: Operations with Fractions and Decimals	17	0.72	1.88	0.69	1.90	0.69	1.89	0.66	1.89	0.66	1.93	0.41	2.01
3. Algebra and Functions	17	0.76	1.86	0.77	1.85	0.76	1.85	0.78	1.79	0.60	1.90	0.68	1.91
4. Measurement and Geometry	15	0.52	1.84	0.59	1.82	0.59	1.82	0.61	1.81	0.46	1.83	0.64	1.84
5. Statistics, Data Analysis, and Probability	4	0.30	0.95	0.38	0.92	0.38	0.92	0.40	0.91	0.45	0.91	0.30	0.82
Grade 6													
1. Number Sense: Ratios, Proportions, Percentages and Negative Numbers	15	0.76	1.71	0.76	1.70	0.73	1.73	0.73	1.68	0.68	1.76	0.61	1.82
2. Number Sense: Operations with Problem Solving with Fractions	10	0.63	1.44	0.58	1.46	0.60	1.45	0.59	1.43	0.43	1.48	0.72	1.43
3. Algebra and Functions	19	0.79	1.92	0.79	1.94	0.79	1.94	0.76	1.92	0.70	2.00	0.81	1.89
4. Measurement and Geometry	10	0.44	1.48	0.34	1.47	0.40	1.44	0.41	1.47	0.31	1.49	-0.34	1.59
5. Statistics, Data Analysis, and Probability	11	0.70	1.47	0.53	1.53	0.52	1.51	0.59	1.53	-0.24	1.59	0.60	1.50
Grade 7													
1. Number Sense: Rational Numbers	14	0.64	1.71	0.59	1.74	0.59	1.72	0.56	1.75	0.27	1.82	0.76	1.62
2. Number Sense: Exponent, Powers and Roots	8	0.31	1.24	0.45	1.21	0.34	1.22	0.46	1.22	0.41	1.21	0.21	1.21
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.15	1.45	0.33	1.45	0.26	1.45	0.37	1.46	0.55	1.40	0.19	1.52
4. Algebra and Functions: Multi-Step Problems, Graphing and Functions	15	0.70	1.76	0.67	1.77	0.63	1.78	0.64	1.79	0.69	1.73	0.79	1.70
5. Measurement and Geometry	13	0.66	1.61	0.61	1.64	0.54	1.65	0.58	1.65	0.64	1.62	0.71	1.60
6. Statistics, Data Analysis, and Probability	5	0.45	1.01	0.53	1.00	0.47	1.02	0.44	1.03	0.53	1.01	0.39	1.05

Table 8.B.14 Overall Subgroup Reliabilities

Overall Subgroup Reliabilities for the STS (table 1 of 2)									
Content Area	STS	Gender		Econ. Dis.		Special Service		Attend. U.S. Schools	
		Male	Female	No	Yes	No	Yes	<12 Months	>=12 Months
<i>Reading/ Language Arts</i>	2	0.93	0.93	0.93	0.93	0.93	0.91	0.93	0.92
	3	0.91	0.91	0.92	0.91	0.91	0.88	0.91	0.91
	4	0.93	0.92	0.93	0.92	0.92	0.92	0.92	0.93
	5	0.89	0.89	0.91	0.89	0.89	0.88	0.90	0.89
	6	0.88	0.88	0.91	0.88	0.88	0.83	0.89	0.87
	7	0.90	0.90	0.92	0.90	0.90	0.79	0.91	0.88
	8	0.72	0.71	0.77	0.71	0.72	0.57	0.74	0.65
	9	0.69	0.71	0.74	0.71	0.71	0.78	0.71	0.67
	10	0.70	0.67	0.72	0.68	0.69	–	0.68	0.68
	11	0.72	0.66	0.74	0.69	0.71	–	0.71	0.66
	<i>Mathematics</i>	2	0.92	0.92	0.92	0.92	0.92	0.92	0.92
3		0.94	0.93	0.94	0.93	0.93	0.93	0.93	0.93
4		0.93	0.92	0.93	0.92	0.92	0.94	0.92	0.92
5		0.88	0.88	0.90	0.88	0.88	0.86	0.88	0.88
6		0.89	0.89	0.91	0.89	0.89	0.87	0.89	0.88
7		0.86	0.85	0.88	0.85	0.86	0.72	0.86	0.85
Algebra I Geometry		0.62 0.84	0.61 0.79	0.60 0.88	0.62 0.78	0.62 0.82	0.61 –	0.62 0.85	0.62 0.72
<i>Grade=Specific</i>	Algebra I - 8 Geometry - 9	0.64 0.87	0.70 0.78	0.66 0.93	0.66 0.76	0.67 0.84	– –	0.56 0.86	0.76 0.73

Table 8.B.15 Overall Subgroup Reliabilities (continued)
Overall Subgroup Reliabilities for the STS (table 2 of 2)

Content Area	STS	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)
Reading/Language Arts	2	0.92	0.92	0.92	0.92	0.92	0.91
	3	0.92	0.91	0.90	0.91	0.91	0.94
	4	0.91	0.92	0.92	0.93	0.90	0.95
	5	0.90	0.90	0.90	0.89	0.92	0.85
	6	0.91	0.90	0.89	0.87	0.85	0.92
	7	0.91	0.91	0.91	0.88	0.92	0.90
	8	0.76	0.75	0.72	0.68	0.83	0.67
	9	0.72	0.71	0.69	0.70	0.75	0.78
	10	0.68	0.68	0.64	0.70	0.76	0.77
	11	0.71	0.69	0.73	0.69	0.74	0.73
	Mathematics	2	0.90	0.91	0.91	0.92	0.94
3		0.93	0.93	0.92	0.93	0.91	0.95
4		0.91	0.91	0.92	0.92	0.91	0.88
5		0.87	0.88	0.88	0.88	0.83	0.85
6		0.90	0.89	0.88	0.89	0.81	0.87
7		0.86	0.86	0.85	0.85	0.86	0.89
Algebra I Geometry		0.65 0.87	0.63 0.87	0.63 0.83	0.58 0.75	0.65 0.84	0.65 —
Grade Specific	Algebra I - 8	0.45	0.62	0.49	0.75	—	—
	Geometry - 9	—	0.84	—	0.73	—	—

Table 8.B.16 Reliability of Classification for RLA, Grade Two

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0–18	0.03	0.01	0.00	0.00	0.00	0.04
	19–34	0.01	0.19	0.03	0.00	0.00	0.23
All-forms Average	35–47	0.00	0.03	0.26	0.04	0.00	0.32
	48–54	0.00	0.00	0.04	0.15	0.04	0.23
	55–65	0.00	0.00	0.00	0.03	0.14	0.17
Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92							
Decision Consistency	0–18	0.03	0.02	0.00	0.00	0.00	0.04
	19–34	0.02	0.17	0.04	0.00	0.00	0.23
Alternate Form	35–47	0.00	0.04	0.23	0.05	0.00	0.32
	48–54	0.00	0.00	0.05	0.12	0.05	0.23
	55–65	0.00	0.00	0.00	0.04	0.13	0.17
Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89							

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

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0–18	0.02	0.02	0.00	0.00	0.00	0.04
	19–30	0.01	0.19	0.04	0.00	0.00	0.24
All-forms Average	31–43	0.00	0.03	0.28	0.04	0.00	0.35
	44–52	0.00	0.00	0.04	0.17	0.02	0.24
	53–65	0.00	0.00	0.00	0.03	0.10	0.13
Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92							
Decision Consistency	0–18	0.02	0.02	0.00	0.00	0.00	0.04
	19–30	0.02	0.16	0.06	0.00	0.00	0.24
Alternate Form	31–43	0.00	0.05	0.24	0.05	0.00	0.35
	44–52	0.00	0.00	0.06	0.14	0.04	0.24
	53–65	0.00	0.00	0.00	0.03	0.10	0.13
Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.89							

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

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0–23	0.08	0.02	0.00	0.00	0.00	0.10
	24–36	0.02	0.18	0.03	0.00	0.00	0.23
All-forms Average	37–50	0.00	0.03	0.25	0.04	0.00	0.32
	51–59	0.00	0.00	0.04	0.15	0.03	0.22
	60–75	0.00	0.00	0.00	0.03	0.09	0.12
Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92							
Decision Consistency	0–23	0.07	0.03	0.00	0.00	0.00	0.10
	24–36	0.03	0.16	0.04	0.00	0.00	0.23
Alternate Form	37–50	0.00	0.05	0.22	0.05	0.00	0.32
	51–59	0.00	0.00	0.05	0.13	0.04	0.22
	60–75	0.00	0.00	0.00	0.04	0.09	0.12
Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90							

Table 8.B.19 Reliability of Classification for Mathematics, Grade Two

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–33	0.00	0.16	0.03	0.00	0.00	0.19
	34–43	0.00	0.03	0.19	0.04	0.00	0.26
	44–54	0.00	0.00	0.04	0.26	0.03	0.33
All-forms Average	55–65	0.00	0.00	0.00	0.04	0.17	0.21
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–33	0.01	0.15	0.04	0.00	0.00	0.19
	34–43	0.00	0.04	0.15	0.06	0.00	0.26
	44–54	0.00	0.00	0.06	0.23	0.05	0.33
Alternate Form	55–65	0.00	0.00	0.00	0.05	0.16	0.21
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.88						

Table 8.B.20 Reliability of Classification for Mathematics, Grade Three

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–31	0.00	0.17	0.03	0.00	0.00	0.21
	32–43	0.00	0.03	0.20	0.03	0.00	0.27
	44–55	0.00	0.00	0.04	0.25	0.03	0.32
All-forms Average	56–65	0.00	0.00	0.00	0.03	0.16	0.19
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.92						
Decision Consistency	0–16	0.00	0.01	0.00	0.00	0.00	0.01
	17–31	0.01	0.15	0.04	0.00	0.00	0.21
	32–43	0.00	0.04	0.17	0.05	0.00	0.27
	44–55	0.00	0.00	0.05	0.22	0.04	0.32
Alternate Form	56–65	0.00	0.00	0.00	0.04	0.15	0.19
	Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.89						

Table 8.B.21 Reliability of Classification for Mathematics, Grade Four

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0–18	0.02	0.02	0.00	0.00	0.00	0.04
	19–30	0.01	0.14	0.04	0.00	0.00	0.19
	31–41	0.00	0.03	0.19	0.04	0.00	0.26
	42–53	0.00	0.00	0.04	0.26	0.03	0.32
All-forms Average	54–65	0.00	0.00	0.00	0.04	0.16	0.19
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency	0–18	0.02	0.02	0.00	0.00	0.00	0.04
	19–30	0.02	0.12	0.04	0.00	0.00	0.19
	31–41	0.00	0.04	0.16	0.05	0.00	0.26
	42–53	0.00	0.00	0.05	0.22	0.05	0.32
Alternate Form	54–65	0.00	0.00	0.00	0.05	0.15	0.19
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

Appendix 8.C—Validity Analyses

Table 8.C.1 2009 STS Content Area Correlations (Female)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	6,593	0.74	
	2. Mathematics	6,544	6,561	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	4,482	0.78	
	2. Mathematics	4,439	4,452	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	2,380	0.72	
	2. Mathematics	2,368	2,377	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	1,796	0.65	
	2. Mathematics	1,784	1,789	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	1,132	0.67	
	2. Mathematics	1,108	1,111	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	953	0.66	-0.48
	2. Mathematics	920	924	–
	3. Algebra I	6	0	6
Grade	STS	1.	2.	
8	1. Reading/Language Arts	782	0.42	
	2. Algebra I	228	228	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	1,366	0.37	0.34
	2. Algebra I	799	811	–
	3. Geometry	34	0	34
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	913	0.37	0.54
	2. Algebra I	468	475	–
	3. Geometry	102	0	102
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	451	0.45	0.49
	2. Algebra I	178	180	–
	3. Geometry	80	0	84

Table 8.C.2 2009 STS Content Area Correlations (Male)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	6,694	0.73	
	2. Mathematics	6,646	6,677	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	4,489	0.76	
	2. Mathematics	4,450	4,467	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	2,511	0.73	
	2. Mathematics	2,503	2,510	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	1,874	0.65	
	2. Mathematics	1,860	1,865	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	1,208	0.68	
	2. Mathematics	1,194	1,200	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,019	0.70	0.74
	2. Mathematics	998	1,001	–
	3. Algebra I	5	0	5
Grade	STS	1.	2.	
8	1. Reading/Language Arts	816	0.24	
	2. Algebra I	247	248	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	1,718	0.33	0.45
	2. Algebra I	960	977	–
	3. Geometry	36	0	36
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	1,091	0.39	0.53
	2. Algebra I	541	552	–
	3. Geometry	125	0	128
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	584	0.52	0.44
	2. Algebra I	221	230	–
	3. Geometry	94	0	98

Table 8.C.3 2009 STS Content Area Correlations (Gender unknown)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	13	0.57	
	2. Mathematics	12	12	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	21	0.75	
	2. Mathematics	21	21	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	6	0.85	
	2. Mathematics	6	6	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	2	1.00	
	2. Mathematics	2	2	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	3	-0.96	
	2. Mathematics	3	3	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	2	1.00	-
	2. Mathematics	2	2	-
	3. Algebra I	0	0	0
Grade	STS	1.	2.	
8	1. Reading/Language Arts	4	1.00	
	2. Algebra I	2	2	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	10	0.99	-
	2. Algebra I	3	3	-
	3. Geometry	0	0	0
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	5	1.00	-
	2. Algebra I	2	2	-
	3. Geometry	1	0	1
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	1	-	-
	2. Algebra I	1	1	-
	3. Geometry	0	0	0

Table 8.C.4 2009 STS Content Area Correlations (Not Economically Disadvantaged)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	900	0.74	
	2. Mathematics	895	897	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	642	0.80	
	2. Mathematics	635	635	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	420	0.73	
	2. Mathematics	420	421	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	326	0.70	
	2. Mathematics	325	325	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	237	0.73	
	2. Mathematics	235	236	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	287	0.70	0.61
	2. Mathematics	278	278	–
	3. Algebra I	4	0	4
Grade	STS	1.	2.	
8	1. Reading/Language Arts	221	0.34	
	2. Algebra I	75	75	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	480	0.31	0.75
	2. Algebra I	278	278	–
	3. Geometry	15	0	15
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	365	0.44	0.55
	2. Algebra I	175	178	–
	3. Geometry	68	0	70
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	230	0.46	0.47
	2. Algebra I	87	89	–
	3. Geometry	41	0	41

Table 8.C.5 2009 STS Content Area Correlations (Economically Disadvantaged)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	12,231	0.73	
	2. Mathematics	12,141	12,186	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	8,243	0.76	
	2. Mathematics	8,170	8,198	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	4,374	0.73	
	2. Mathematics	4,354	4,369	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	3,266	0.65	
	2. Mathematics	3,242	3,252	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	2,065	0.66	
	2. Mathematics	2,030	2,038	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,657	0.67	0.03
	2. Mathematics	1,614	1,620	–
	3. Algebra I	7	0	7
Grade	STS	1.	2.	
8	1. Reading/Language Arts	1,339	0.33	
	2. Algebra I	392	393	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	2,507	0.35	0.15
	2. Algebra I	1,439	1,468	–
	3. Geometry	54	0	54
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	1,568	0.37	0.51
	2. Algebra I	793	808	–
	3. Geometry	157	0	158
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	773	0.46	0.41
	2. Algebra I	295	304	–
	3. Geometry	130	0	138

Table 8.C.6 2009 STS Content Area Correlations (Economic Status unknown)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	169	0.74	
	2. Mathematics	166	167	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	107	0.82	
	2. Mathematics	105	107	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	103	0.65	
	2. Mathematics	103	103	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	80	0.67	
	2. Mathematics	79	79	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	41	0.62	
	2. Mathematics	40	40	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	30	0.68	–
	2. Mathematics	28	29	–
	3. Algebra I	0	0	0
Grade	STS	1.	2.	
8	1. Reading/Language Arts	42	–0.07	
	2. Algebra I	10	10	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	107	0.27	–
	2. Algebra I	45	45	–
	3. Geometry	1	0	1
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	76	0.34	–0.55
	2. Algebra I	43	43	–
	3. Geometry	3	0	3
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	33	0.70	0.78
	2. Algebra I	18	18	–
	3. Geometry	3	0	3

Table 8.C.7 2009 STS Content Area Correlations (In U.S. Schools \geq 12 Months)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	11,511	0.72	
	2. Mathematics	11,425	11,454	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	7,336	0.76	
	2. Mathematics	7,273	7,291	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	3,439	0.72	
	2. Mathematics	3,426	3,439	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	2,206	0.64	
	2. Mathematics	2,195	2,204	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	1,072	0.64	
	2. Mathematics	1,046	1,049	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	418	0.63	-0.39
	2. Mathematics	397	397	-
	3. Algebra I	4	0	4
Grade	STS	1.	2.	
8	1. Reading/Language Arts	335	0.39	
	2. Algebra I	117	117	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	422	0.28	-0.04
	2. Algebra I	264	280	-
	3. Geometry	17	0	17
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	424	0.32	0.53
	2. Algebra I	205	213	-
	3. Geometry	74	0	74
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	289	0.40	0.36
	2. Algebra I	96	100	-
	3. Geometry	83	0	90

Table 8.C.8 2009 STS Content Area Correlations (In U.S. Schools < 12 Months)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	1,789	0.72	
	2. Mathematics	1,777	1,796	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	1,656	0.77	
	2. Mathematics	1,637	1,649	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	1,458	0.74	
	2. Mathematics	1,451	1,454	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	1,466	0.71	
	2. Mathematics	1,451	1,452	
Grade	STS	1.	2.	3.
6	1. Reading/Language Arts	1,271	0.73	
	2. Mathematics	1,259	1,265	
	3. Algebra I	7	0	7
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,556	0.70	0.65
	2. Mathematics	1,523	1,530	–
Grade	STS	1.	2.	3.
8	1. Reading/Language Arts	1,267	0.32	
	2. Algebra I	360	361	
	3. Geometry	53	0	53
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	2,672	0.35	0.46
	2. Algebra I	1,498	1,511	–
	3. Geometry	53	0	53
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	1,585	0.38	0.51
	2. Algebra I	806	816	–
	3. Geometry	154	0	157
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	747	0.48	0.48
	2. Algebra I	304	311	–
	3. Geometry	91	0	92

Table 8.C.9 2009 STS Content Area Correlations (EL in ELD)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	156	0.71	
	2. Mathematics	154	155	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	133	0.74	
	2. Mathematics	133	135	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	97	0.71	
	2. Mathematics	97	97	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	114	0.75	
	2. Mathematics	112	112	
Grade	STS	1.	2.	3.
6	1. Reading/Language Arts	110	0.75	
	2. Mathematics	108	108	
	3. Algebra I	0	0	0
Grade	STS	1.	2.	
8	1. Reading/Language Arts	138	0.25	
	2. Algebra I	56	56	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	309	0.30	0.56
	2. Algebra I	188	189	–
	3. Geometry	6	0	6
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	186	0.48	0.34
	2. Algebra I	103	104	–
	3. Geometry	17	0	17
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	92	0.28	–0.03
	2. Algebra I	46	46	–
	3. Geometry	7	0	7

Table 8.C.10 2009 STS Content Area Correlations (EL in ELD and SDAIE)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	550	0.67	
	2. Mathematics	546	557	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	601	0.77	
	2. Mathematics	593	594	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	579	0.71	
	2. Mathematics	575	577	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	608	0.71	
	2. Mathematics	600	600	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	531	0.75	
	2. Mathematics	525	527	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	615	0.68	0.79
	2. Mathematics	597	598	–
	3. Algebra I	4	0	4
Grade	STS	1.	2.	
8	1. Reading/Language Arts	491	0.38	
	2. Algebra I	138	139	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	819	0.39	0.45
	2. Algebra I	421	425	–
	3. Geometry	27	0	27
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	544	0.36	0.54
	2. Algebra I	250	251	–
	3. Geometry	46	0	46
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	306	0.48	0.49
	2. Algebra I	111	114	–
	3. Geometry	25	0	25

Table 8.C.11 2009 STS Content Area Correlations (EL in ELD and SDAIE with Primary Language Support)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	490	0.65	
	2. Mathematics	487	493	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	493	0.75	
	2. Mathematics	487	493	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	464	0.75	
	2. Mathematics	462	463	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	466	0.74	
	2. Mathematics	463	464	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	425	0.73	
	2. Mathematics	421	422	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	476	0.69	-1.00
	2. Mathematics	471	472	-
	3. Algebra I	2	0	2
Grade	STS	1.	2.	
8	1. Reading/Language Arts	426	0.30	
	2. Algebra I	139	139	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	797	0.36	-0.07
	2. Algebra I	441	446	-
	3. Geometry	8	0	8
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	351	0.33	0.44
	2. Algebra I	188	193	-
	3. Geometry	29	0	29
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	164	0.54	0.58
	2. Algebra I	80	82	-
	3. Geometry	14	0	14

Table 8.C.12 2009 STS Content Area Correlations (EL in ELD and Academic Subjects through Primary Language)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	12,043	0.72	
	2. Mathematics	11,954	11,983	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	7,702	0.76	
	2. Mathematics	7,635	7,655	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	3,701	0.72	
	2. Mathematics	3,687	3,700	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	2,423	0.64	
	2. Mathematics	2,411	2,420	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	1,223	0.64	
	2. Mathematics	1,197	1,203	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	653	0.64	-0.39
	2. Mathematics	629	632	-
	3. Algebra I	4	0	4
Grade	STS	1.	2.	
8	1. Reading/Language Arts	499	0.40	
	2. Algebra I	131	131	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	962	0.28	0.15
	2. Algebra I	618	635	-
	3. Geometry	24	0	24
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	800	0.37	0.50
	2. Algebra I	414	424	-
	3. Geometry	115	0	115
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	388	0.43	0.41
	2. Algebra I	137	142	-
	3. Geometry	111	0	118

Table 8.C.13 2009 STS Content Area Correlations (Other EL Instructional Services)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	21	0.87	
	2. Mathematics	21	21	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	26	0.84	
	2. Mathematics	26	26	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	27	0.72	
	2. Mathematics	27	27	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	22	0.72	
	2. Mathematics	21	21	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	29	0.62	
	2. Mathematics	29	29	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	33	0.84	–
	2. Mathematics	31	31	–
	3. Algebra I	1	0	1
Grade	STS	1.	2.	
8	1. Reading/Language Arts	23	0.34	
	2. Algebra I	8	8	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	142	0.50	0.99
	2. Algebra I	68	69	–
	3. Geometry	4	0	4
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	82	0.28	0.77
	2. Algebra I	32	33	–
	3. Geometry	18	0	21
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	55	0.42	0.63
	2. Algebra I	9	10	–
	3. Geometry	15	0	16

Table 8.C.14 2009 STS Content Area Correlations (None (EL only))

Grade	STS	1.	2.	
2	1. Reading/Language Arts	27	0.73	
	2. Mathematics	27	27	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	15	0.79	
	2. Mathematics	14	14	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	13	0.88	
	2. Mathematics	13	13	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	11	0.30	
	2. Mathematics	11	11	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	11	0.77	
	2. Mathematics	11	11	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	19	0.80	–
	2. Mathematics	19	20	–
	3. Algebra I	0	0	0
Grade	STS	1.	2.	
8	1. Reading/Language Arts	16	–0.66	
	2. Algebra I	4	4	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	36	0.30	–
	2. Algebra I	16	17	–
	3. Geometry	1	0	1
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	27	0.25	–1.00
	2. Algebra I	12	12	–
	3. Geometry	2	0	2
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	18	0.60	–
	2. Algebra I	8	8	–
	3. Geometry	1	0	1

Table 8.C.15 2009 STS Content Area Correlations (Program Participation unknown)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	13	0.84	
	2. Mathematics	13	14	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	22	0.81	
	2. Mathematics	22	23	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	16	0.65	
	2. Mathematics	16	16	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	28	0.55	
	2. Mathematics	28	28	
Grade	STS	1.	2.	3.
6	1. Reading/Language Arts	14	0.61	
	2. Mathematics	14	14	
	3. Algebra I	0	0	0
Grade	STS	1.	2.	
8	1. Reading/Language Arts	9	–	
	2. Algebra I	1	1	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	29	0.65	–
	2. Algebra I	10	10	–
	3. Geometry	0	0	0
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	19	0.73	–
	2. Algebra I	12	12	–
	3. Geometry	1	0	1
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	13	0.51	–
	2. Algebra I	9	9	–
	3. Geometry	1	0	1

Table 8.C.16 2009 STS Content Area Correlations (No Special Education)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	12,609	0.72	
	2. Mathematics	12,525	12,565	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	8,478	0.76	
	2. Mathematics	8,402	8,425	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	4,643	0.72	
	2. Mathematics	4,625	4,634	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	3,463	0.65	
	2. Mathematics	3,438	3,443	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	2,255	0.67	
	2. Mathematics	2,217	2,225	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	1,926	0.67	0.58
	2. Mathematics	1,873	1,880	–
	3. Algebra I	10	0	10
Grade	STS	1.	2.	
8	1. Reading/Language Arts	1,583	0.33	
	2. Algebra I	471	472	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	3,080	0.34	0.37
	2. Algebra I	1,757	1,785	–
	3. Geometry	70	0	70
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	2,001	0.38	0.54
	2. Algebra I	1,006	1,023	–
	3. Geometry	227	0	230
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	1,032	0.47	0.44
	2. Algebra I	398	409	–
	3. Geometry	172	0	180

Table 8.C.17 2009 STS Content Area Correlations (Special Education)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	691	0.70	
	2. Mathematics	677	683	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	514	0.74	
	2. Mathematics	508	515	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	254	0.77	
	2. Mathematics	252	259	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	209	0.65	
	2. Mathematics	208	213	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	88	0.66	
	2. Mathematics	88	89	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	48	0.72	–
	2. Mathematics	47	47	–
	3. Algebra I	1	0	1
Grade	STS	1.	2.	
8	1. Reading/Language Arts	19	–0.66	
	2. Algebra I	6	6	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	14	0.24	–
	2. Algebra I	5	6	–
	3. Geometry	0	0	0
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	8	–0.15	–
	2. Algebra I	5	6	–
	3. Geometry	1	0	1
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	4	–1.00	1.00
	2. Algebra I	2	2	–
	3. Geometry	2	0	2

Table 8.C.18 2009 STS Content Area Correlations (Special Education unknown)

Grade	STS	1.	2.	
2	1. Reading/Language Arts	0	–	
	2. Mathematics	0	2	
Grade	STS	1.	2.	
3	1. Reading/Language Arts	0	–	
	2. Mathematics	0	0	
Grade	STS	1.	2.	
4	1. Reading/Language Arts	0	–	
	2. Mathematics	0	0	
Grade	STS	1.	2.	
5	1. Reading/Language Arts	0	–	
	2. Mathematics	0	0	
Grade	STS	1.	2.	
6	1. Reading/Language Arts	0	–	
	2. Mathematics	0	0	
Grade	STS	1.	2.	3.
7	1. Reading/Language Arts	0	–	–
	2. Mathematics	0	0	–
	3. Algebra I	0	0	0
Grade	STS	1.	2.	
8	1. Reading/Language Arts	0	–	
	2. Algebra I	0	0	
Grade	STS	1.	2.	3.
9	1. Reading/Language Arts	0	–	–
	2. Algebra I	0	0	–
	3. Geometry	0	0	0
Grade	STS	1.	2.	3.
10	1. Reading/Language Arts	0	–	–
	2. Algebra I	0	0	–
	3. Geometry	0	0	0
Grade	STS	1.	2.	3.
11	1. Reading/Language Arts	0	–	–
	2. Algebra I	0	0	–
	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														
A	16	25%	27	42%	25	33%	25	33%	27	36%	12	16%	12	30%	9	23%	16	40%	15	38%
B	19	29%	15	23%	21	28%	19	25%	18	24%	22	29%	8	20%	13	33%	10	25%	14	35%
C	27	42%	21	32%	27	36%	29	39%	27	36%	38	51%	15	38%	14	35%	11	28%	10	25%
D	3	5%	2	3%	2	3%	1	1%	2	3%	1	1%	3	8%	3	8%	3	8%	1	3%
F	0	0%	0	0%	0	0%	1	1%	1	1%	2	3%	2	5%	1	3%	0	0%	0	0%
Total	65	100%	65	100%	75	100%	75	100%	75	100%	75	100%	40	100%	40	100%	40	100%	40	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.											
A	35	54%	25	38%	17	26%	20	31%	17	26%	16	25%	22	55%	22	34%
B	16	25%	13	20%	25	38%	16	25%	17	26%	20	31%	12	30%	15	23%
C	13	20%	27	42%	22	34%	24	37%	29	45%	27	42%	6	15%	25	38%
D	1	2%	0	0%	1	2%	5	8%	2	3%	1	2%	0	0%	2	3%
F	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	0	0%	1	2%
Total	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	40	100%	65	100%

Table 8.D.3 IRT Model Data Fit Distribution for RLA (field-test items)

F.T. 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.															
A	13	18%	11	15%	7	13%	9	25%	4	17%	7	29%	58	43%	57	38%	56	43%	35	43%
B	17	24%	10	14%	6	11%	6	17%	6	25%	7	29%	27	20%	35	23%	21	16%	18	22%
C	28	39%	40	56%	28	52%	16	44%	8	33%	6	25%	41	30%	44	30%	41	32%	25	30%
D	11	15%	7	10%	9	17%	2	6%	4	17%	4	17%	7	5%	7	5%	8	6%	3	4%
F	3	4%	4	6%	4	7%	3	8%	2	8%	0	0%	3	2%	6	4%	3	2%	1	1%
Total	72	100%	72	100%	54	100%	36	100%	24	100%	24	100%	136	100%	149	100%	129	100%	82	100%

Table 8.D.4 IRT Model Data Fit Distribution for Mathematics (field-test items)

F.T. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Algebra I		Geometry		
	Flag	N	Pct.	N	Pct.	N	Pct.										
A		24	33%	20	28%	11	20%	8	22%	3	13%	13	54%	73	47%	5	83%
B		19	26%	6	8%	6	11%	4	11%	4	17%	3	13%	26	17%	0	0%
C		25	35%	36	50%	24	44%	19	53%	11	46%	5	21%	46	30%	1	17%
D		4	6%	4	6%	9	17%	1	3%	6	25%	2	8%	9	6%	0	0%
F		0	0%	6	8%	4	7%	4	11%	0	0%	1	4%	1	1%	0	0%
Total		72	100%	72	100%	54	100%	36	100%	24	100%	24	100%	155	100%	6	100%

Table 8.D.5 IRT *b*-values for RLA, Grade Two

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	22	-0.99	0.90	-2.37	1.06
Reading Comprehension	15	-0.51	0.59	-1.31	1.18
Literary Response and Analysis	6	-0.64	1.28	-2.09	1.40
Written Conventions	14	-0.68	0.59	-2.29	0.12
Writing Strategies	8	0.55	0.43	-0.26	1.07
All operational items	65	-0.59	0.88	-2.37	1.40
Field-test items	72	0.29	0.96	-2.20	2.72

Table 8.D.6 IRT *b*-values for RLA, Grade Three

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	20	-0.86	0.91	-2.57	0.57
Reading Comprehension	15	0.14	0.70	-1.27	1.20
Literary Response and Analysis	8	-0.08	1.04	-1.81	1.08
Written Conventions	13	-0.28	0.43	-1.24	0.53
Writing Strategies	9	-0.12	0.41	-0.89	0.50
All operational items	65	-0.31	0.82	-2.57	1.20
Field-test items	72	0.55	0.81	-1.89	2.08

Table 8.D.7 IRT *b*-values for RLA, Grade Four

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	18	-0.53	0.57	-1.64	0.74
Reading Comprehension	15	0.07	0.67	-0.94	1.71
Literary Response and Analysis	9	0.43	0.85	-0.81	1.87
Written Conventions	18	-0.58	0.73	-2.12	0.63
Writing Strategies	15	0.11	0.73	-0.97	1.50
All operational items	75	-0.18	0.78	-2.12	1.87
Field-test items	54	0.79	0.52	-0.41	1.89

Table 8.D.8 IRT *b*-values for RLA, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	14	0.21	0.59	-1.03	1.00
Reading Comprehension	16	0.34	0.58	-0.91	1.17
Literary Response and Analysis	12	0.28	0.45	-0.36	1.24
Written Conventions	17	-0.01	0.39	-0.61	0.75
Writing Strategies	16	0.26	0.55	-0.97	1.09
All operational items	75	0.21	0.52	-1.03	1.24
Field-test items	36	0.59	0.50	-0.34	1.39

Table 8.D.9 IRT *b*-values for RLA, Grade Six

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	13	0.23	0.51	-0.57	1.05
Reading Comprehension	17	0.02	0.73	-1.00	1.30
Literary Response and Analysis	12	0.02	1.07	-1.62	2.20
Written Conventions	16	-0.28	0.62	-1.82	0.81
Writing Strategies	17	0.26	0.38	-0.38	0.75
All operational items	75	0.05	0.69	-1.82	2.20
Field-test items	24	0.72	0.63	-0.60	1.89

Table 8.D.10 IRT *b*-values for RLA, Grade Seven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	11	-0.61	0.57	-1.25	0.52
Reading Comprehension	18	0.14	0.64	-1.20	1.10
Literary Response and Analysis	13	-0.06	1.00	-2.14	1.72
Written Conventions	16	-0.25	0.80	-1.40	1.33
Writing Strategies	17	-0.09	0.77	-1.35	1.40
All operational items	75	-0.14	0.79	-2.14	1.72
Field-test items	24	0.52	0.71	-1.05	1.62

Table 8.D.11 IRT *b*-values for RLA, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
All operational items	40	0.12	0.85	-1.92	1.43
Field-test items	136	0.23	0.79	-1.75	2.25

Table 8.D.12 IRT *b*-values for RLA, Grade Nine

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
All operational items	40	0.28	0.85	-1.67	1.61
Field-test items	149	0.35	0.80	-1.68	2.04

Table 8.D.13 IRT *b*-values for RLA, Grade Ten

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
All operational items	40	0.23	0.77	-1.40	1.46
Field-test items	129	0.26	0.76	-1.61	2.14

Table 8.D.14 IRT *b*-values for RLA, Grade Eleven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
All operational items	40	0.20	0.63	-0.86	1.40
Field-test items	82	0.37	0.82	-2.01	2.20

Table 8.D.15 IRT *b*-values for Mathematics, Grade Two

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Addition, and Subtraction	15	-0.56	0.68	-2.08	0.38
Multiplication, Division, and Fractions	23	-0.75	1.02	-2.87	0.89
Algebra and Functions	6	-0.37	0.64	-1.16	0.27
Measurement and Geometry	14	-1.13	0.73	-2.27	0.42
Statistics, Data Analysis, and Probability	7	-0.93	1.32	-2.00	1.88
All operational items	65	-0.77	0.90	-2.87	1.88
Field-test items	72	-0.66	1.11	-2.94	1.60

Table 8.D.16 IRT *b*-values for Mathematics, Grade Three

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Fractions, and Decimals	16	-0.43	0.89	-1.81	1.25
Addition, Subtraction, Multiplication, Division	16	-0.64	0.90	-3.01	0.68
Algebra and Functions	12	-0.41	0.70	-1.46	0.40
Measurement and Geometry	16	-0.79	1.06	-2.58	1.59
Statistics, Data Analysis, and Probability	5	-1.16	0.80	-1.90	-0.30
All operational items	65	-0.62	0.90	-3.01	1.59
Field-test items	72	0.36	1.11	-1.75	2.25

Table 8.D.17 IRT *b*-values for Mathematics, Grade Four

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Decimals, Fractions, and Negative Numbers	17	-0.69	0.85	-2.14	0.72
Operations and Factoring	14	-0.27	0.76	-1.57	0.82
Algebra and Functions	18	-0.63	0.45	-1.49	0.04
Measurement and Geometry	12	-0.21	0.85	-1.73	0.91
Statistics, Data Analysis, and Probability	4	-0.52	1.10	-1.58	0.90
All operational items	65	-0.48	0.76	-2.14	0.91
Field-test items	54	0.62	0.92	-1.71	2.39

Table 8.D.18 IRT *b*-values for Mathematics, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Estimation, Percents, and Factoring	12	-0.06	0.73	-1.39	0.66
Operations with Fractions and Decimals	17	0.24	0.51	-0.63	1.18
Algebra and Functions	17	-0.25	0.52	-1.22	0.44
Measurement and Geometry	15	0.10	0.41	-0.89	0.58
Statistics, Data Analysis, and Probability	4	-0.18	0.39	-0.76	0.06
All operational items	65	0.00	0.55	-1.39	1.18
Field-test items	36	0.76	0.76	-0.94	2.57

Table 8.D.19 IRT *b*-values for Mathematics, Grade Six

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Ratios, Proportions, Percentages, and Negative Numbers	15	-0.30	0.68	-1.76	1.08
Operations with Problem Solving with Fractions	10	-0.17	0.44	-1.07	0.40
Algebra and Functions	19	-0.13	0.60	-1.06	0.79
Measurement and Geometry	10	0.54	0.38	0.00	1.24
Statistics, Data Analysis, and Probability	11	0.47	0.25	-0.02	0.78
All operational items	65	0.03	0.61	-1.76	1.24
Field-test items	24	0.89	0.69	-0.18	2.64

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

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.28	0.41	-0.57	0.88
Exponents, Powers, and Roots	8	0.58	0.90	-1.40	1.57
Quant. Relationships and Evaluating Expressions	10	0.24	0.77	-1.49	0.94
Multistep Problems, Graphing, and Functions	15	0.17	0.45	-0.75	0.95
Measurement and Geometry	13	0.30	0.63	-0.57	1.59
Statistics, Data Analysis, and Probability	5	0.06	0.36	-0.34	0.54
All operational items	65	0.27	0.59	-1.49	1.59
Field-test items	24	0.75	0.65	-0.37	2.48

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

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
All operational items	40	0.94	0.61	-0.56	2.30
Field-test items	155	0.79	0.49	-0.56	1.98

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

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
All operational items	65	0.49	0.80	-1.52	1.99
Field-test items	6	0.81	0.83	-0.50	1.80

Table 8.D.23 Distribution of IRT *b*-values for RLA

IRT <i>b</i> -value	Grade									
	2	3	4	5	6	7	8	9	10	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	1	0	0	0	0	0
1.5 - < 2.0	0	0	3	0	0	1	0	5	0	0
1.0 - < 1.5	4	2	1	5	4	5	8	4	8	4
0.5 - < 1.0	6	9	9	16	15	11	7	7	9	5
0.0 - < 0.5	3	10	14	31	18	17	9	9	8	18
-0.5 - < 0.0	15	22	19	16	20	15	5	6	7	3
-1.0 - < -0.5	16	10	20	5	12	12	6	6	4	9
-1.5 - < -1.0	8	5	4	1	2	12	2	1	3	0
-2.0 - < -1.5	7	3	3	0	2	0	2	1	0	0
-2.5 - < -2.0	5	1	1	0	0	1	0	0	0	0
-3.0 - < -2.5	0	2	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	65	65	75	75	75	75	40	40	40	40

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

IRT <i>b</i> -value	Grade							Algebra I	Geometry
	2	3	4	5	6	7			
>=3.5	0	0	0	0	0	0	0	0	
3.0 - < 3.5	0	0	0	0	0	0	0	0	
2.5 - < 3.0	0	0	0	0	0	0	0	0	
2.0 - < 2.5	0	0	0	0	0	0	1	0	
1.5 - < 2.0	0	1	0	0	0	2	6	9	
1.0 - < 1.5	0	1	0	1	2	2	12	8	
0.5 - < 1.0	2	4	7	9	11	20	12	13	
0.0 - < 0.5	12	7	11	26	21	22	3	18	
-0.5 - < 0.0	9	19	14	15	19	11	4	6	
-1.0 - < -0.5	16	12	18	9	6	5	1	8	
-1.5 - < -1.0	14	11	8	4	4	2	0	1	
-2.0 - < -1.5	3	5	3	0	1	0	0	1	
-2.5 - < -2.0	6	1	3	0	0	0	0	0	
-3.0 - < -2.5	2	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	40	65	

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

IRT <i>b</i> -value	Grade									
	2	3	4	5	6	7	8	9	10	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	1	0	0	0	0	0	0	0	0	0
2.0 - < 2.5	1	3	0	0	0	0	2	3	1	2
1.5 - < 2.0	5	3	3	0	2	2	6	7	7	5
1.0 - < 1.5	9	19	17	9	6	4	10	20	11	12
0.5 - < 1.0	13	17	18	12	6	8	36	41	33	15
0.0 - < 0.5	15	11	11	9	7	2	33	33	24	20
-0.5 - < 0.0	10	11	4	5	1	5	22	23	31	15
-1.0 - < -0.5	10	4	0	0	1	1	20	11	15	7
-1.5 - < -1.0	4	2	0	0	0	1	2	8	5	4
-2.0 - < -1.5	2	1	0	0	0	0	4	2	1	0
-2.5 - < -2.0	1	0	0	0	0	0	0	0	0	1
-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	136	149	129	82

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

IRT <i>b</i> -value	Grade	Grade	Grade	Grade	Grade	Grade	Algebra I	Geometry
	2	3	4	5	6	7		
≥ 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	1	1	0	0	0
2.0 - < 2.5	0	3	3	1	1	1	0	0
1.5 - < 2.0	1	12	5	3	1	1	7	1
1.0 - < 1.5	3	6	9	6	7	6	45	2
0.5 - < 1.0	6	11	16	11	6	8	63	0
0.0 - < 0.5	14	13	7	7	5	5	29	1
-0.5 - < 0.0	9	11	6	5	2	2	8	1
-1.0 - < -0.5	5	4	4	1	0	0	2	0
-1.5 - < -1.0	16	6	1	0	0	0	0	0
-2.0 - < -1.5	7	5	2	0	0	0	0	0
-2.5 - < -2.0	8	0	0	0	0	0	0	0
-3.0 - < -2.5	2	0	0	0	0	0	0	0
-3.5 - < -3.0	0	0	0	0	0	0	0	0
< -3.5	1	1	1	1	1	1	1	1
Total	72	72	54	36	24	24	155	6

Scaling and Post-Equating Results**Table 8.D.27 2009 New Conversions for RLA, Grades Two and Three**

Grade 2						Grade 3					
Raw Scr.	Theta	Rprtd Score	Raw Scr.	Theta	Rprtd Score	Raw Scr.	Theta	Rprtd Score	Raw Scr.	Theta	Rprtd Score
0	–	150	41	0.0245	322	0	–	150	41	0.3122	339
1	–5.0881	150	42	0.1017	326	1	–4.8289	150	42	0.3866	343
2	–4.3678	150	43	0.1803	330	2	–4.1008	150	43	0.4623	347
3	–3.9349	150	44	0.2605	334	3	–3.6608	150	44	0.5395	351
4	–3.6195	150	45	0.3426	338	4	–3.3391	150	45	0.6183	355
5	–3.3684	160	46	0.4268	342	5	–3.0823	162	46	0.6992	359
6	–3.1580	170	47	0.5135	346	6	–2.8669	173	47	0.7824	363
7	–2.9755	179	48	0.6029	350	7	–2.6800	183	48	0.8682	368
8	–2.8135	187	49	0.6955	354	8	–2.5140	192	49	0.9570	373
9	–2.6670	194	50	0.7917	359	9	–2.3640	199	50	1.0494	377
10	–2.5326	200	51	0.8922	364	10	–2.2267	207	51	1.1458	382
11	–2.4081	206	52	0.9975	369	11	–2.0996	213	52	1.2468	388
12	–2.2917	212	53	1.1086	374	12	–1.9809	219	53	1.3536	393
13	–2.1819	217	54	1.2265	380	13	–1.8692	225	54	1.4669	399
14	–2.0778	222	55	1.3526	386	14	–1.7635	231	55	1.5882	406
15	–1.9784	227	56	1.4885	392	15	–1.6629	236	56	1.7192	412
16	–1.8832	231	57	1.6368	399	16	–1.5667	241	57	1.8624	420
17	–1.7916	236	58	1.8007	407	17	–1.4743	246	58	2.0210	428
18	–1.7031	240	59	1.9851	416	18	–1.3853	250	59	2.2000	437
19	–1.6172	244	60	2.1978	426	19	–1.2991	255	60	2.4068	448
20	–1.5338	248	61	2.4512	438	20	–1.2155	259	61	2.6542	461
21	–1.4524	252	62	2.7690	454	21	–1.1341	264	62	2.9659	477
22	–1.3727	256	63	3.2046	474	22	–1.0548	268	63	3.3951	500
23	–1.2947	259	64	3.9277	509	23	–0.9771	272	64	4.1115	537
24	–1.2180	263	65	–	600	24	–0.9010	276	65	–	600
25	–1.1425	267				25	–0.8262	280			
26	–1.0679	270				26	–0.7525	283			
27	–0.9942	274				27	–0.6798	287			
28	–0.9212	277				28	–0.6079	291			
29	–0.8488	281				29	–0.5367	295			
30	–0.7767	284				30	–0.4661	298			
31	–0.7050	287				31	–0.3958	302			
32	–0.6334	291				32	–0.3259	306			
33	–0.5619	294				33	–0.2560	309			
34	–0.4902	298				34	–0.1863	313			
35	–0.4184	301				35	–0.1164	317			
36	–0.3462	305				36	–0.0463	320			
37	–0.2735	308				37	0.0242	324			
38	–0.2003	312				38	0.0951	328			
39	–0.1263	315				39	0.1667	331			
40	–0.0514	319				40	0.2390	335			

Table 8.D.28 New Conversions for RLA, Grade Four

Grade 4					
Raw			Raw		
Scr.	Theta	Reported Score	Scr.	Theta	Reported Score
0	–	150	41	0.0231	316
1	–4.7496	150	42	0.0840	319
2	–4.0346	150	43	0.1452	322
3	–3.6070	150	44	0.2070	326
4	–3.2972	150	45	0.2693	329
5	–3.0518	150	46	0.3323	332
6	–2.8472	161	47	0.3960	336
7	–2.6707	171	48	0.4606	339
8	–2.5147	179	49	0.5263	343
9	–2.3744	187	50	0.5931	346
10	–2.2463	194	51	0.6612	350
11	–2.1282	200	52	0.7307	354
12	–2.0182	206	53	0.8018	358
13	–1.9150	211	54	0.8747	361
14	–1.8175	217	55	0.9497	365
15	–1.7250	222	56	1.0269	370
16	–1.6367	226	57	1.1067	374
17	–1.5521	231	58	1.1894	378
18	–1.4707	235	59	1.2754	383
19	–1.3921	240	60	1.3651	388
20	–1.3160	244	61	1.4592	393
21	–1.2422	248	62	1.5583	398
22	–1.1703	252	63	1.6632	404
23	–1.1001	255	64	1.7749	410
24	–1.0314	259	65	1.8950	416
25	–0.9642	263	66	2.0249	423
26	–0.8981	266	67	2.1674	431
27	–0.8331	270	68	2.3256	439
28	–0.7691	273	69	2.5044	449
29	–0.7059	276	70	2.7114	460
30	–0.6434	280	71	2.9593	473
31	–0.5815	283	72	3.2717	490
32	–0.5201	286	73	3.7018	513
33	–0.4592	290	74	4.4198	552
34	–0.3986	293	75	–	600
35	–0.3382	296			
36	–0.2780	299			
37	–0.2179	303			
38	–0.1578	306			
39	–0.0977	309			
40	–0.0374	312			

Table 8.D.29 2009 New Conversions for Mathematics, Grades Two and Three

Grade 2						Grade 3					
Raw Scr.	Theta	Rprtd Score	Raw Scr.	Theta	Rprtd Score	Raw Scr.	Theta	Rprtd Score	Raw Scr.	Theta	Rprtd Score
0	-	150	41	-0.1422	335	0	-	150	41	0.0051	339
1	-5.3273	150	42	-0.0644	340	1	-5.1770	150	42	0.0818	344
2	-4.6031	150	43	0.0146	345	2	-4.4491	150	43	0.1599	348
3	-4.1665	150	44	0.0953	350	3	-4.0095	150	44	0.2396	353
4	-3.8477	150	45	0.1778	355	4	-3.6881	150	45	0.3211	358
5	-3.5933	150	46	0.2623	361	5	-3.4316	150	46	0.4047	363
6	-3.3798	150	47	0.3493	366	6	-3.2163	150	47	0.4907	368
7	-3.1944	150	48	0.4389	372	7	-3.0295	160	48	0.5795	373
8	-3.0296	151	49	0.5317	378	8	-2.8635	170	49	0.6714	378
9	-2.8804	161	50	0.6282	384	9	-2.7135	179	50	0.7670	384
10	-2.7436	170	51	0.7288	390	10	-2.5759	187	51	0.8668	390
11	-2.6166	178	52	0.8344	397	11	-2.4485	194	52	0.9715	396
12	-2.4979	185	53	0.9457	404	12	-2.3294	201	53	1.0820	403
13	-2.3859	192	54	1.0639	412	13	-2.2173	208	54	1.1993	409
14	-2.2796	199	55	1.1903	420	14	-2.1110	214	55	1.3249	417
15	-2.1782	205	56	1.3268	428	15	-2.0098	220	56	1.4605	425
16	-2.0811	212	57	1.4758	438	16	-1.9128	226	57	1.6084	434
17	-1.9876	218	58	1.6406	448	17	-1.8196	231	58	1.7721	443
18	-1.8972	223	59	1.8264	460	18	-1.7296	237	59	1.9565	454
19	-1.8096	229	60	2.0407	474	19	-1.6425	242	60	2.1693	467
20	-1.7244	234	61	2.2964	490	20	-1.5578	247	61	2.4230	482
21	-1.6413	240	62	2.6172	510	21	-1.4754	252	62	2.7414	500
22	-1.5601	245	63	3.0568	538	22	-1.3948	256	63	3.1779	526
23	-1.4805	250	64	3.7847	585	23	-1.3159	261	64	3.9021	569
24	-1.4023	255	65	-	600	24	-1.2385	266	65	-	600
25	-1.3254	260				25	-1.1623	270			
26	-1.2494	265				26	-1.0873	275			
27	-1.1744	269				27	-1.0131	279			
28	-1.1001	274				28	-0.9397	283			
29	-1.0264	279				29	-0.8670	288			
30	-0.9532	283				30	-0.7947	292			
31	-0.8803	288				31	-0.7228	296			
32	-0.8076	293				32	-0.6511	300			
33	-0.7350	297				33	-0.5795	305			
34	-0.6624	302				34	-0.5079	309			
35	-0.5896	306				35	-0.4362	313			
36	-0.5165	311				36	-0.3641	317			
37	-0.4430	316				37	-0.2917	322			
38	-0.3690	320				38	-0.2187	326			
39	-0.2943	325				39	-0.1450	330			
40	-0.2187	330				40	-0.0705	335			

Table 8.D.30 2009 New Conversions for Mathematics, Grade Four

Grade 4					
Raw			Raw		
Scr.	Theta	Rprtd Score	Scr.	Theta	Rprtd Score
0	–	150	41	0.1249	349
1	–4.9066	150	42	0.1996	354
2	–4.1884	150	43	0.2755	359
3	–3.7574	150	44	0.3530	364
4	–3.4440	150	45	0.4324	369
5	–3.1950	150	46	0.5137	374
6	–2.9866	150	47	0.5974	380
7	–2.8061	156	48	0.6837	386
8	–2.6461	166	49	0.7731	391
9	–2.5016	176	50	0.8661	398
10	–2.3692	184	51	0.9631	404
11	–2.2467	193	52	1.0649	411
12	–2.1322	200	53	1.1723	418
13	–2.0244	207	54	1.2863	425
14	–1.9222	214	55	1.4084	433
15	–1.8248	220	56	1.5402	442
16	–1.7316	226	57	1.6842	451
17	–1.6419	232	58	1.8436	462
18	–1.5553	238	59	2.0235	474
19	–1.4714	244	60	2.2312	487
20	–1.3898	249	61	2.4795	504
21	–1.3103	254	62	2.7920	524
22	–1.2326	259	63	3.2222	553
23	–1.1564	264	64	3.9395	600
24	–1.0816	269	65	–	600
25	–1.0080	274			
26	–0.9354	279			
27	–0.8637	284			
28	–0.7926	288			
29	–0.7221	293			
30	–0.6521	298			
31	–0.5824	302			
32	–0.5128	307			
33	–0.4433	311			
34	–0.3738	316			
35	–0.3041	320			
36	–0.2341	325			
37	–0.1637	330			
38	–0.0927	334			
39	–0.0211	339			
40	0.0514	344			

Appendix 8.E—DIF Analyses

Table 8.E.1 Operational Items Exhibiting Significant DIF

Operational Items Exhibiting Significant DIF					
Test	Item Number	Item Seq. No.	Male-Female	Non-Disabled-Disabled	
RLA Grade 5	STR20838.OSA	71	C-	A-	
Math Grade 5	STM12864	11	C-	A-	
Math Grade 7	STM11872	22	C-	‡	
Geometry	STM13736	27	C-	‡	

‡ Minimum sample size for DIF analysis not met.

Table 8.E.2 Field-test Items Exhibiting Significant DIF

Field-test Items Exhibiting Significant DIF						
Test	Item Number	Form	Item Seq. No.	Male-Female	Non-Disabled-Disabled	
RLA Grade 7	STR21682.079	3	41	C+	‡	
Math Grade 2	STM14346	12	49	C-	A-	
Math Grade 3	STM10400	4	18	C+	‡	

‡ Minimum sample size for DIF analysis not met.

Table 8.E.3 DIF Classifications for RLA, Grades Two through Four Operational Items

DIF category	Grade 2						Grade 3						Grade 4						
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	34	52	29	45	30	46	32	49	33	51	28	43	34	45	37	49	40	53	
A+	30	46	35	54	33	51	33	51	32	49	37	57	41	55	37	49	34	45	
B+	1	2	1	2	2	3	0	0	0	0	0	0	0	0	1	1	1	1	
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	75	100	75	100	75	100	

Table 8.E.4 Classifications for RLA, Grades Five through Seven Operational Items

DIF category	Grade 5						Grade 6						Grade 7					
	M-F		NonD-Dis		Total		M-F		NonD-Dis		Total		M-F		NonD-Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	3	4	3	4	0	0	0	0	0	0	0	0	0	0	0	0
A-	31	41	34	45	38	51	35	47	0	0	35	47	42	56	0	0	42	56
A+	43	57	36	48	31	41	40	53	0	0	40	53	32	43	0	0	32	43
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	5	0	0	2	5	1	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
A-	19	48	0	0	19	48	19	48	0	0	19	48	23	58	0	0	23	58	19	48	0	0	19	48
A+	18	45	0	0	18	45	19	48	0	0	19	48	16	40	0	0	16	40	21	53	0	0	21	53
B+	1	3	0	0	1	3	1	3	0	0	1	3	1	3	0	0	1	3	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	40	100	0	0	0	0	40	100	0	0	0	0	40	100	0	0	0	0	0	0	40	100
TOTAL	40	100	40	100	40	100	40	100	40	100	40	100	40	100	40	100	40	100	40	100	40	100	40	100

Table 8.E.6 DIF Classifications for Mathematics, Grades Two through Four Operational Items

DIF category	Grade 2						Grade 3						Grade 4						
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	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	0	0	2	3	2	3	
A-	28	43	30	46	33	51	28	43	33	51	31	48	32	49	32	49	31	48	
A+	37	57	35	54	32	49	35	54	31	48	31	48	32	49	30	46	30	46	
B+	0	0	0	0	0	0	0	0	1	2	1	2	1	2	1	2	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

DIF category	Grade 5						Grade 6						Grade 7					
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	2	0	0	1	2	0	0	0	0	0	0	1	2	0	0	1	2
B-	1	2	2	3	3	5	3	5	0	0	3	5	0	0	0	0	0	0
A-	27	42	29	45	24	37	28	43	0	0	28	43	31	48	0	0	31	48
A+	36	55	33	51	36	55	34	52	0	0	34	52	32	49	0	0	32	49
B+	0	0	1	2	1	2	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	0	0	0	0	0	0	65	100	0	0	0	0	65	100	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 8.E.8 DIF Classifications for Algebra I and Geometry, Operational Items

DIF category	Algebra I						Geometry					
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	1	2	0	0	1	2
B-	0	0	0	0	0	0	1	2	0	0	1	2
A-	23	58	0	0	23	58	30	46	0	0	30	46
A+	17	43	0	0	17	43	31	48	0	0	31	48
B+	0	0	0	0	0	0	2	3	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	40	100	0	0	0	0	65	100	0	0
TOTAL	40	100	40	100	40	100	65	100	65	100	65	100

Table 8.E.9 DIF Classifications for RLA, Grades Two through Four Field-test Items

DIF category	Grade 2						Grade 3						Grade 4						
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	1	0	0	1	1	1	1	0	0	1	1	4	7	0	0	4	7	
A-	27	38	5	7	29	40	33	46	0	0	33	46	23	43	0	0	23	43	
A+	43	60	1	1	41	57	35	49	0	0	35	49	27	50	0	0	27	50	
B+	1	1	0	0	1	1	3	4	0	0	3	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	66	92	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

DIF category	Grade 5						Grade 6						Grade 7						
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
A-	13	36	0	0	13	36	8	33	0	0	8	33	12	50	0	0	12	50	
A+	21	58	0	0	21	58	14	58	0	0	14	58	10	42	0	0	10	42	
B+	2	6	0	0	2	6	2	8	0	0	2	8	1	4	0	0	1	4	
C+	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	1	4	
Small N	0	0	36	100	0	0	0	0	24	100	0	0	0	0	24	100	0	0	
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 RL-A, 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.
C-	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0
A-	11	8	0	11	8	57	38	0	0	57	38	33
A+	12	9	0	12	9	76	51	0	0	76	51	82
B+	0	0	0	0	0	7	5	0	0	7	5	10
C+	0	0	0	0	0	0	0	0	0	0	0	0
Small N	113	83	136	100	113	83	0	0	149	100	0	0
TOTAL	136	100	136	100	149	100	149	100	149	100	129	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.	
C-	1	1	0	0	1	1	0	0	0	0	0
B-	4	6	0	0	3	4	5	7	0	0	5
A-	32	44	3	4	32	44	30	42	0	0	30
A+	33	46	2	3	33	46	35	49	0	0	35
B+	2	3	1	1	3	4	1	1	0	0	1
C+	0	0	0	0	0	0	1	1	0	0	1
Small N	0	0	66	92	0	0	0	0	72	100	0
TOTAL	72	100	72	100	72	100	72	100	72	100	54

Table 8.E.13 DIF Classifications for Mathematics, Grades Five through Seven Field-test Items

DIF category	Grade 5						Grade 6						Grade 7						
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		M-F		NonD- Dis		Total		
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	3	0	0	1	3	1	4	0	0	1	4	0	0	0	0	0	0	0
A-	20	56	0	0	20	56	12	50	0	0	12	50	11	46	0	0	11	46	0
A+	14	39	0	0	14	39	11	46	0	0	11	46	12	50	0	0	12	50	0
B+	1	3	0	0	1	3	0	0	0	0	0	0	1	4	0	0	1	4	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	36	100	0	0	0	0	24	100	0	0	0	0	24	100	0	0	0
TOTAL	36	100	36	100	36	100	24	100	24	100	24	100	24	100	24	100	24	100	24

Table 8.E.14 DIF Classifications for Algebra I and Geometry, Field-test Items

DIF category	Algebra I						Geometry					
	M-F		NonD- Dis		Total		M-F		NonD- Dis		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	0	0	0	0	0	0
B-	3	2	0	0	3	2	1	17	0	0	1	17
A-	50	32	0	0	50	32	3	50	0	0	3	50
A+	96	62	0	0	96	62	2	33	0	0	2	33
B+	6	4	0	0	6	4	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	155	100	0	0	0	0	6	100	0	0
TOTAL	155	100	155	100	155	100	6	100	6	100	6	100

Chapter 9: Quality Control Procedures

ETS implements rigorous quality control procedures 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 Quality Assurance division of 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 99. The following sections highlight elements of the process devoted specifically to quality control of item development.

Item Specifications

ETS maintains item development specifications for each STS test 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 test are written by panels of 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. 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. ETS strives for error-free items beginning with the initial rounds of review.

Fairness Review

One of the final steps in the ETS internal review process is to have all items and stimuli reviewed for fairness. Only ETS staff members who have participated in the ETS Fairness Training, a rigorous internal training course, conduct this bias and sensitivity review. These staff members have been trained to identify and eliminate test questions that contain content that could be construed as offensive to, or biased against, members of specific ethnic, racial, or gender groups.

Assessment Director Review

As a final quality control step, the content area's assessment director or another senior-level content reviewer will read each item before it is presented to the CDE.

Assessment Review Panel (ARP) 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.

Statewide Pupil Assessment Review (SPAR) Panel Review

The SPAR panel is responsible for reviewing and approving a single achievement test 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 *Education Code* Section 60614. The constructed-response writing tasks are also presented to the SPAR panel for review. If the SPAR panel rejects specific items and/or constructed-response writing tasks, the items and/or tasks are replaced with other items and/or tasks.

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, which is 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 panel members also use the results of analyses for differential item functioning (DIF) to make judgments about the appropriateness of items for various subgroups. The panelists respond to questions such as:

- Are there any instructional issues that have negatively affected the performance of the item?
- Is there a content problem within the item?

The panelists make recommendations about whether to accept or reject each item for inclusion in the STAR item bank.

Quality Control of the Item Bank

After the data review meetings, 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 STAR 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 STAR item bank deliveries are quality-controlled for accuracy.

Quality of the item bank and secure transfer of the STAR item bank to 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 to deliver the STAR electronic item bank to the CDE.

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 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 coordinator online are included in the data used for the paper reporting and for the technical reports.

Quality Control of Image Editing

Prior to submitting any STAR operational documents through the image editing process, Pearson creates a mock set of documents to test all of the errors listed in the edit specifications. The set of test documents is used to verify that each image of the document is saved so that an editor would be able to review the documents through an interactive interface. The edits are confirmed to show the appropriate error, the correct image to edit the item, and the appropriate problem and resolution text that instructs the editor on the actions that should be taken.

Once the set of mock test documents is created, the image edit system completes the following procedures:

1. Scan the set of test documents.
2. Verify that the images from the documents are saved correctly.
3. Verify that the appropriate problem and resolution text displays for each type of error.
4. Submit the post-edit program.
5. Make changes and resubmit the post-edit program if errors are identified that requires correction.
6. Print a listing of the post-edit file, the correction card file, and the original scan file.

Pearson checks correction cards against the post file for corrections 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.
- All school districts and grades are compared to the CDE County/District/School (CDS) Master File.

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 are 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, which begins on page 139. 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 have cleared the clean-post process, they are palletized and placed in the secure storage facilities at Pearson. The materials are stored until October 31 of each year, after which ETS requests permission to destroy the materials. After receiving CDE approval, the materials are destroyed in a secure manner.

Quality Control of Psychometric Processes

Score Key Verification Procedures

ETS and Pearson take various necessary measures to ascertain that the scoring keys are applied to the student responses as expected and the student scores are computed accurately. Scoring keys, provided in the form planners, are produced by ETS and verified thoroughly by performing various 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. Various checks are performed before keys are finalized, as listed below:

1. 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.
2. The printed lists of the scoring keys are checked again once the keys have been loaded into the SKM system.
3. The sequence of linking items¹ in the form planners are matched with their sequence in the actual test booklets for grades two through four.
4. The demarcations of various sections in the actual test book are checked against the list of demarcations provided by test development staff.

¹ Linking items are used to link the scores on current year's test form to scores obtained on the previous years' test forms to adjust for the difficulty level of the forms across years. This is accomplished during the equating process, as discussed in Chapter 2.

5. 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.
6. The entire scoring system is tested using a test deck that includes typical and extremely atypical responses vectors, as described earlier in "Processing of Answer Documents" on page 274.
7. Classical item analyses are run 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 performed that will exclude it from further analyses.

Quality Control of Item Analyses, DIF and 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 test. Quality assurance checks also include a review 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 above-mentioned 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 managers 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, 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 difficulties, standard errors for the Rasch item difficulties, 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 data fit the model.

Scaling

During the scaling process, checks are made on the number of linking items, the average item difficulty for the linking items, the number of items dropped during the stability check of the scaling process, Rasch item difficulties, standard errors for the Rasch item difficulties, and the scaling constant.

Scoring Tables

Once the equating activities are complete and scoring tables are generated, the psychometricians carry out quality control checks on each scoring table. Scoring tables are checked to verify that all raw scores are included in the tables, scale scores/percent-correct scores increase as raw scores increase, and that, for grades two through four, the cut points for the performance levels are correctly identified.

After all quality control steps are completed and any differences are resolved, a senior psychometrician inspects the scoring tables as the final step in quality control.

Score Verification Process

Pearson utilizes the raw-to-scale scoring tables to compute scale scores for each student in grades two through four, and the raw-to-percent-correct scoring tables to compute percent-correct scores for each student in grades five through eleven. ETS verifies Pearson's scale scores/percent-correct scores by independently generating the scale scores/percent-correct 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 on all schools included in those districts, known as "complete districts."

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:

- Comparing report formats to input sources from the CDE-approved samples
- Validating and verifying the report data by querying the appropriate student data
- 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
- Proofreading of 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 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 districts that contain examples of key reporting characteristics representative of the state as a whole. The first production batch test incorporates client-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 and 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 (e.g., a grade eight mathematics test where the specific mathematics test is unknown) are also covered in the specifications.