

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



**California Standards Tests
Technical Report
Spring 2011 Administration**

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Acronyms and Initialisms Used in the CST Technical Report

ADA	Americans with Disabilities Act	GENASYS	Generalized Analysis System
ARP	Assessment Review Panel	HumRRO	Human Resource Research Organization
API	Academic Performance Index	ICC	item characteristic curve
ASL	American Sign Language	IEP	individualized education program
AYP	adequate yearly progress	I-FEP	initially fluent English proficient
CAHSEE	California High School Exit Examination	IRT	item response theory
CAPA	California Alternate Performance Assessment	IT	Information Technology
CCR	<i>California Code of Regulations</i>	LEA	local education agency
CDE	California Department of Education	MC	multiple choice
CDS	county/district/school	MCE	Manually Coded English
CELDT	California English Language Development Test	MH DIF	Mantel-Haenszel DIF
CI	confidence interval	NRT	norm-referenced test
CMA	California Modified Assessment	NPS	nonpublic, nonsectarian school
CR	constructed response	NSLP	National School Lunch Program
CRL	California Reading List	OIB	ordered item booklet
CSTs	California Standards Tests	OTI	Office of Testing Integrity
CSEMs	conditional standard errors of measurement	<i>p</i> -value	item proportion correct
CSU	California State University	PSAA	Public School Accountability Act
DFA	<i>Directions for Administration</i>	Pt-Bis	point-biserial correlations
DIF	differential item functioning	QC	quality control
DOK	depth of knowledge	RACF	Random Access Control Facility
DPLT	designated primary language test	R-FEP	reclassified fluent English proficient
DQS	Data Quality Services	RTQs	released test questions
d-study	decision study	SBE	State Board of Education
EAP	Early Assessment Program	SD	standard deviation
EC	<i>Education Code</i>	SEM	standard error of measurement
EL	English learner	SFTP	secure file transfer protocol
ELA	English–language arts	SGID	School and Grade Identification sheet
EM	expectation maximization	SKM	score key management
EOC	end-of-course	SPAR	Statewide Pupil Assessment Review
ePen™	Electronic Performance Evaluation Network	STAR	Standardized Testing and Reporting
ESEA	Elementary and Secondary Education Act	STAR TAC	STAR Technical Assistance Center
ETS	Educational Testing Service	STS	Standards-based Tests in Spanish
FIA	final item analysis	TIF	test information function
g-study	generalizability study	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 provide state-level input into instruction curricula and serve as a foundation for the state’s school accountability programs.

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

During its 2011 administration, the STAR Program had four components:

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

Test Purpose

A total of 38 CSTs form the cornerstone of the STAR program. The CSTs, given in English, are designed to show how well students in grades two through eleven are performing with respect to California’s content standards. These standards describe what students should know and be able to do at each grade level in selected content areas.

CSTs carry the most weight in school and district Academic Performance Index (API) calculations. In addition, the CSTs for ELA and mathematics (grades two through eight) are used in determining Adequate Yearly Progress (AYP), which is used to meet the requirement of the federal Elementary and Secondary Education Act (ESEA) that all students score at the proficient level or above by 2014.

Test Content

CSTs are administered in four content areas: ELA, mathematics, history–social science, and science. Students in grades two through eleven are tested in ELA and mathematics, with end-of-course (EOC) tests in mathematics offered to students in grades seven and above. Students in grades four and seven also take a writing test (essay) administered in conjunction with the CST for ELA. In addition, students in grades five, eight, and ten take a grade-level science test, and students in grades eight and eleven are tested in grade-level history–social science. Students in grades nine through eleven may also take the EOC CST for World

History and an EOC science test; the end-of-course CSTs are designed to address the content standards for courses available at the secondary level. Students in grade seven who are enrolled in an Algebra I course take the CST for Algebra I instead of the grade-level mathematics test.

While most CSTs are designed to assess content standards for a particular grade or course, a few CSTs address selected content standards for multiple grades or courses for a single subject; these include the CST for General Mathematics, the CST for Summative High School Mathematics, the CST for History–Social Science (Grade 8) the CST for Science (Grade 5), and the CST for Life Science (Grade 10).

In 2011, the CSTs included the following tests:

<ul style="list-style-type: none"> ▪ English–Language Arts (Grades 2–11) ▪ Mathematics (Grades 2–7) ▪ General Mathematics (Grades 8 and 9) ▪ Algebra I (Grades 7–11) ▪ Geometry (Grades 8–11) ▪ Algebra II (Grades 8–11) ▪ Summative High School Mathematics (Grades 9–11) ▪ Integrated Mathematics 1 (Grades 8–11) ▪ Integrated Mathematics 2 (Grades 8–11) ▪ Integrated Mathematics 3 (Grades 8–11) ▪ History–Social Science (Grade 8) ▪ U.S. History (Grade 11) ▪ World History (Grades 9–11) 	<ul style="list-style-type: none"> ▪ Science (Grades 5 and 8) ▪ Life Science (Grade 10) ▪ Biology (Grades 9–11) ▪ Chemistry (Grades 9–11) ▪ Earth Science (Grades 9–11) ▪ Physics (Grades 9–11) ▪ Integrated/Coordinated Science 1 (Grades 9–11) ▪ Integrated/Coordinated Science 2 (Grades 9–11) ▪ Integrated/Coordinated Science 3 (Grades 9–11) ▪ Integrated/Coordinated Science 4 (Grades 9–11)
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Intended Population

Each grade-level CST was administered to approximately 400,000 to 470,000 test-takers in 2011. Volumes for the EOC CSTs varied by content. There were more than 400,000 examinees for Algebra I (approximately 739,000), Biology (approximately 550,000), Geometry (approximately 408,000), and World History (approximately 480,000). For all other tests, there were fewer.

All students enrolled in grades two through eleven in California public schools on the day testing begins are required to take the CSTs, the CMA (available for eligible students in grades three through eleven in ELA, grades three through seven in mathematics, EOC Algebra I and Geometry, and grades five, eight, and ten in science), or the CAPA. This requirement includes English learners regardless of the length of time they have been in U.S. schools or their fluency in English, as well as students with disabilities who receive special education services. For students with cognitive disabilities, the decision to administer the CSTs, the CMA, or the CAPA is made by their IEP team.

Parents may submit a written request to have their child exempted from taking any or all parts of the tests within the STAR Program. For the ELA tests in grades four and seven, parents can submit a written request to have their child exempted from taking the essay

portion of the ELA test. Only students whose parents submit a written request may be exempted from taking the tests (*Education Code [EC]* Section 60615).

Intended Use and Purpose of Test Scores

The results for tests within the STAR Program are used for three primary purposes, described as follows (excerpted from the *EC* Section 60602 Web page at

<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=60001-61000&file=60600-60603>): [Note: the preceding Web address is no longer valid.]

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

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

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

“60602. (d) It is the intent of the Legislature, insofar as is practically feasible and following the completion of annual testing, that the content, test structure, and test items in the assessments that are part of the Standardized Testing and Reporting Program become open and transparent to teachers, parents, and pupils, to assist all the stakeholders in working together to demonstrate improvement in pupil academic achievement. A planned change in annual test content, format, or design, should be made available to educators and the public well before the beginning of the school year in which the change will be implemented.”

In addition, STAR Program assessments are used to provide data for state and federal accountability purposes.

Testing Window

The CSTs are administered at different times, depending on the progression of the school year within each particular school district. Specifically, schools must administer the CSTs, CMA, CAPA, and STS within a 21-day window which begins 10 days before and ends 10 days after the day on which 85 percent of the instructional year is completed. School districts may use all or any part of the 21 days for testing but are encouraged to schedule testing over no more than a 10- to 15-day period (*California Code of Regulations [CCR]*, Title 5, Education, Division 1, Chapter 2, Subchapter 3.75, Article 2, § 855; in the California Department of Education [CDE] Web document at <http://www.cde.ca.gov/ta/tg/sr/starregs0207cln.doc>). (This regulation was updated in June 2011. The new regulation,

which will take effect beginning with the 2012 STAR administration, extends the STAR testing window by 4 days, from 21 instructional days to 25 instructional days.)

Significant STAR Developments in 2011

Restoration of the California Writing Standards Test in Grade Four

The writing test, which had been suspended in 2010, was administered to students in grade four as a part of the CST for ELA in 2011. The Writing Applications cluster was included in determining results for the CST for ELA in 2011.

Limitations of the Assessment

Score Interpretation

A school district may use CST 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 CST results (CDE, 2009). It is important to note that student scores in a content area contain measurement error and could vary somewhat if students were retested.

Out-of-Level Testing

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

Score Comparison

When comparing scale score results for the CSTs, the reviewer is limited to comparing results only within the same content area and grade. For example, it is appropriate to compare scores obtained by students and/or schools on the 2011 grade three mathematics test; it would not be appropriate to compare scores obtained on the grade three mathematics test with those obtained on the grade four mathematics test. The reviewer may compare results for the same content area and grade, within a school, between schools, or between a school and its district, its county, or the state within the same year or to previous years. Comparisons between scores obtained in different grades or content areas should be avoided.

Groups and Organizations Involved with the STAR Program

State Board of Education

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

The SBE is responsible for assuring the compliance with programs that meet the requirement of the federal ESEA and the state's Public School Accountability Act (PSAA) and for reporting results in terms of the AYP and API, which measure the academic performance and growth of schools on a variety of academic measures. In order to provide

information on student progress in public schools, as essential for those programs, the SBE supervises the administration and progress of the STAR Program.

California Department of Education

The CDE oversees California's public school system, which is responsible for the education of more than 7,000,000 children and young adults in more than 9,000 schools. California will provide a world-class education for all students, from early childhood to adulthood. The Department of Education serves California by innovating and collaborating with educators, schools, parents, and community partners which together, as a team, prepares students to live, work, and thrive in a highly connected world.

Contractors

Educational Testing Service

The CDE and the SBE contracted with Educational Testing Service (ETS) to develop and administer the STAR Program. As the prime contractor, ETS has overall responsibility for working with the CDE to implement and maintain an effective assessment system and to coordinate the work of ETS and its subcontractor Pearson. Activities directly conducted by ETS include the following:

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

Pearson

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

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

Overview of the Technical Report

This technical report addresses the characteristics of the CSTs administered in spring 2011. The technical report contains nine additional chapters as follows:

- Chapter 2 presents a conceptual overview of processes involved in a testing cycle for a CST. This includes test construction, test administration, generation of test scores, and dissemination of score reports. Information about the distributions of scores aggregated by subgroups based on demographics and the use of special services is also included in this chapter. Also included are the references to various chapters that detail the processes briefly discussed in this chapter.

- Chapter 3 describes the procedures followed during the development of valid CST items; the chapter explains the process of field-testing new items and the review of items by contractors and content experts.
- Chapter 4 details the content and psychometric criteria that guided the construction of the CSTs for 2011.
- Chapter 5 presents the processes involved in the actual administration of the 2011 CSTs with an emphasis on efforts made to ensure standardization of the tests. It also includes a detailed section that describes the procedures that were followed by ETS to ensure test security.
- Chapter 6 describes the standard-setting process previously conducted for newly introduced CSTs.
- Chapter 7 details the types of scores and score reports that are produced at the end of each administration of the CSTs.
- Chapter 8 summarizes the results of the test and item-level analyses performed during the spring 2011 administration of the tests. These include the classical item analyses, the reliability analyses that include assessments of test reliability and the consistency and accuracy of the CST performance-level classifications, and the procedures designed to ensure the validity of CST score uses and interpretations. Also discussed in this chapter are the item response theory (IRT) and model-fit analyses, as well as documentation of the equating along with CST conversion tables. Finally, the chapter summarizes the results of analyses investigating the differential item functioning (DIF) for each CST.
- Chapter 9 highlights the importance of controlling and maintaining the quality of the CSTs.
- Chapter 10 presents historical comparisons of various item- and test-level results for the past three years and for the base year.

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

Reference

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

Chapter 2: An Overview of CST Processes

This chapter provides an overview of the processes involved in a typical test development and administration cycle for a CST. Also described are the specifications maintained by ETS to carry out each of those processes. The chapter is organized to provide a brief description of each process followed by a summary of the associated specifications. More details about the specifications and the analyses associated with each process are described in other chapters that are referenced in the sections that follow.

Item Development

Item Formats

All CSTs contain four-option multiple-choice items. The CSTs for ELA in grades four and seven also include a writing component, the CST for Writing, which contains one writing task.

Item Development Specifications

The CST 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 CST 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 CSTs.

The items selected for each CST 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 188.

Item Banking

Before newly developed items are placed in the item bank, ETS prepares the items for review by content experts and various external review organizations such as the Assessment Review Panels (ARPs), which are described in Chapter 3 starting on page 192; and the Statewide Pupil Assessment Review (SPAR) panel, described in Chapter 3 starting on page 195.

Once the ARP review is complete, the items are placed in the item bank along with their corresponding information obtained at the review sessions. Items that are accepted by the content experts are updated to a “field-test ready” status; items that are rejected are updated to a “rejected before use” status. ETS then delivers the items to the CDE by means of a delivery of the California electronic item bank. Items are then field tested to obtain information about item performance and item statistics that can be used to assemble operational forms. Subsequent updates to item content and statistics are based on data collected from the operational use of the items. However, only the latest content of the item is retained in the bank at any time, along with the administration data from every administration that has included the item.

Further details on item banking are presented on page 197 in Chapter 3.

Item Refresh Rate

The item utilization plan assumes that each year, 35 percent of items on an operational form are refreshed (replaced); these items remain in the item bank for future use.

Test Assembly

Test Length

The number of operational items in each CST varies by content area and grade. The CSTs for ELA consist of 75 operational items with the exception of the CSTs for ELA administered in grades two and three, which consist of 65 operational items each. The CSTs for Mathematics are composed of 65 operational items and the CSTs for Science are composed of 60 operational items each. The CST for History–Social Science (Grade 8) consists of 75 operational items, while the CST for U.S. History administered in grade eleven and the end-of-course CST for World History consist of 60 operational items. The considerations in deciding upon the test length are described on page 200 in Chapter 4.

Each CST also includes six field-test items in addition to the operational items. The total number of items including operational and field-test items in each CST form and the estimated time to complete a test form is presented in Appendix 2.A on page 21.

Test Blueprints

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

Although the test blueprints call for the number of items at the individual standard level, scores for the CST items are grouped into subcontent areas referred to as “reporting clusters.” For each CST reporting cluster, the percentage of questions correctly answered is reported on a student’s score report. A description of the CST reporting clusters and the standards that comprise each cluster are provided in Appendix 2.B, which starts on page 23.

Content Rules and Item Selection

When developing a new test form for a given grade and content area, test developers follow a number of rules. First and foremost, they select items that meet the blueprint for that grade and content area. Using an electronic item bank, assessment specialists begin by identifying a number of linking items. These are items that appeared in the previous year’s operational administration and are used to equate the test forms administered each year. 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 200.

Psychometric Criteria

The staff assesses the projected test characteristics during the preliminary review of the assembled forms. The statistical targets used for the 2011 test development and the projected characteristics of the assembled forms are presented starting from page 201 in Chapter 4.

The items in test forms are organized and sequenced differently according to the requirements of the content area. Further details on the arrangement of items during test assembly are also described on page 201 in Chapter 4.

Test Administration

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

Test Security and Confidentiality

All tests within the STAR Program are secure documents. For the CST administration, every person having access to test materials maintains the security and confidentiality of the tests. ETS's Code of Ethics requires that all test information, including tangible materials (such as test booklets, test questions, test results), confidential files, processes, and activities are kept secure. To ensure security for all tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI). A detailed description of the OTI and its mission is presented in Chapter 5 on page 246.

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 246, and are as follows:

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

Procedures to Maintain Standardization

The CST 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 CSTs, as described in this section.

Test Administrators

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

Staff at school districts who are central to the processes include district STAR coordinators, test examiners, proctors, and scribes. The responsibilities of each of the staff members are included in the *STAR District and Test Site Coordinator Manual* (CDE, 2011); see page 252 in Chapter 5 for more information.

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 CSTs to students to be followed exactly so that all students have an equal opportunity to demonstrate their academic achievement (See page 252 in Chapter 5 for more information.)

District and Test Site Coordinator Manual—Test administration procedures for district STAR coordinators and test site coordinators (See page 252 in Chapter 5 for more information.)

STAR Management System manuals—Instructions for the Web-based modules that allow district STAR coordinators to set up test administrations, order materials, and submit and correct student Pre-ID data; every module has its own user manual with detailed instructions on how to use the STAR Management System (See page 253 in Chapter 5 for more information.)

Test Variations, Accommodations, and Modifications

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

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

Accommodations change the way the test is given but do not change what is tested. Modifications fundamentally change what is being tested and may interfere with the construct being measured. The purpose of test variations, accommodations, and modifications for the CSTs is to enable the students to take the assessments, not to give them an advantage over other students or to artificially inflate their scores. Scores for students tested with modifications are counted as far below basic for API calculations and not proficient for AYP calculations. Test administration variations and accommodations do not result in changes to students' scores for API or AYP calculations.

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 CSTs with accommodations specified in their IEP or Section 504 plan for use on the CSTs or for use during classroom instruction and assessment. Examples of accommodations are large-print or braille versions of the CSTs or providing more than one day for a test designed for a single sitting.

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

Appendix 2.C presents the 2011 Matrix of Test Variations, Accommodations, and Modifications for Administration of California Statewide Assessments. The matrix provides a complete list of the variations, accommodations, and modifications that were allowed for the STAR Program in 2011.

Special Services Summaries

The percentage of students using various testing variations, accommodations, and modifications during the 2011 administration of the CSTs is presented in Appendix 2.D, which starts on page 36. The data are organized into three sections within each table. The first section presents the percentages of students using each accommodation or modification in the total testing population. The next section presents the results for students in special education and for those not in special education. The final section presents the results for various categories based on the following levels of English-language proficiency:

- **English only (EO)**—A student for whom there is a report of English as the primary language (i.e., language first learned, most frequently used at home, or most frequently spoken by the parents or adults in the home) on the “Home Language Survey”
- **Initially fluent English proficient (I-FEP)**—A student whose primary language is a language other than English who initially met the district criteria for determining proficiency in English
- **English learner (EL)**—A student who first learned or has a home language other than English who was determined to lack sufficient fluency in English on the basis of state oral language (K–12) and literacy (3–12) assessments to succeed in the school’s regular instructional program (For students tested for initial classification prior to May 2001, this determination is made on the basis of the state-approved instrument the district was using. For students tested after May 2001, use the California English Language Development [CELDT] results.)
- **Reclassified fluent English proficient (R-FEP)**—A student whose primary language is a language other than English who was reclassified from English learner to fluent-English proficient

The information within each section is presented for the relevant grades. Most variations, accommodations, and modifications are common across CSTs, although the CSTs for grades four and seven ELA also include variations, accommodations, and modifications related to the writing task. Additional modifications are included for CSTs for mathematics that involved the use of calculators, arithmetic tables, and manipulatives.

Scores

The CST total test raw scores equal the sum of examinees' scores on the operational multiple-choice test items. In grades four and seven, the total ELA raw score equals the sum of examinees' scores on both the multiple-choice items and the writing task. Examinee responses to the writing task are rated on a 0–4 scale by a single reader. The writing score is obtained by doubling the rating and is reported on a scale with possible scores of 0, 2, 4, 6 and 8. Details about CST writing scores and scoring rubrics are described on page 264 in Chapter 7.

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

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

Detailed descriptions of CST scores are found in Chapter 7 starting on page 263.

Aggregation Procedures

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

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

1. Met attemptedness criteria.
2. Did not have a parental exemption.
3. Did not miss any part of the test due to illness or medical emergency.
4. Did not take a modified test.
5. Identified, in the case of end-of-course mathematics and science tests, the particular test taken.
6. Did not test out of level (grade inappropriate).

Individual Scores

Table 7.1 and Table 7.2 starting on page 268 in Chapter 7 offer summary statistics for individual scores aggregated at the state level, describing overall student performance on each CST. Included in the tables are the means and standard deviations of student scores expressed in terms of both raw scores and scale scores; the raw score means and standard deviations expressed as percentages of the total raw score points in each test; and the percentages of students in each performance level. Statistics summarizing CST student performance by content area and grade are provided in Table 7.B.1 through Table 7.B.6 starting on page 282 in Appendix 7.B.

Demographic Subgroup Scores

In Table 7.C.1 through Table 7.C.38 starting on page 286, students are grouped by demographic characteristics including gender, ethnicity, English-language fluency, use of special education services, and economic status. The tables show the numbers of students with valid scores in each group, scale score means and standard deviations, and percent in a performance level, as well as percent correct for each reporting cluster for each demographic group. Table 7.3 on page 270 provides definitions for the demographic groups included in the tables.

Equating

The CSTs are equated to a reference form using a common-item nonequivalent groups data collection design and methods based on item response theory (Hambleton & Swaminathan, 1985). The “base” or “reference” calibrations for the CSTs were established by calibrating samples of item response data from a specific administration. Doing so established a scale to which subsequent item calibrations could be linked. The 2011 items were placed on the reference scale using a set of linking items selected from the 2010 forms and readministered in 2011.

The procedure used for equating the CSTs involves three steps: item calibration, item parameter scaling, and true score equating. Each of those procedures, as described below, is applied to all CSTs except the four CSTs for Integrated/Coordinated Science. Special scaling procedures are employed for these CSTs that are described later in this section.

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 and the Rasch partial credit model for polytomously scored items, which was used to obtain calibrations for the writing prompt in the CSTs for ELA administered in grades four and seven. This approach is in keeping with previous CST equating and scaling procedures achieved using the WINSTEPS program (Linacre, 2000). For the purpose of equating, only the operational items are calibrated for each test.

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

Scaling

Calibrations of the 2011 items were linked to the previously obtained reference scale estimates using linking items and the Stocking and Lord (1983) procedure. In the case of the one-parameter model calibrations, this procedure is equivalent to setting the mean of the new item parameter estimates for the linking set equal to the mean of the previously scaled estimates. As noted earlier, the linking set is a collection of items in a current test form that also appeared in last year’s form and was scaled at that time.

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

mean-square differences (WRMSDs) between item characteristic curves (ICCs) based on the old and new difficulty estimates were removed from the linking set. The differences are calculated using the following formula:

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

where,

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

n_g is the number of intervals/groups,

θ_j is the mean of the ability estimates that fall in interval j ,

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

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

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

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

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 respective reference form number-correct scale. These converted raw scores can then be transformed to scale scores through table lookup and linear interpolation.

The true-score equating procedure is based on the relationship between raw scores and ability (theta). For the CSTs 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 ELA in grades four and seven, $\xi(\theta)$ is based on a sum of multiple-choice and constructed response essay items; the relationship can be defined as:

$$\xi(\theta) = \sum_{i=1}^{nmc} P_i(\theta) + \sum_{j=1}^{ncr} \sum_{x=1}^m s_{xj} P_{xj}(\theta), \quad (2.3)$$

where,

nmc is the number of multiple-choice items in the test,

ncr is the number of constructed response items in the test,

m is the number of score categories for each constructed response item, and

s_{xj} is the value for score category x for the constructed response item j ,

$P_{xj}(\theta)$ is the probability that an examinee with ability θ obtains score s_x on the constructed response item j .

For each integer score ξ_n on the new form, the true-score equating procedure is used to first solve for the corresponding ability estimate using equation 2.2 except in the case of the grades four and seven ELA tests, where equation 2.3 is used. The procedure uses this ability estimate to find the corresponding number-correct true score ξ_b on the reference form. Finally, each score ξ_b is transformed to the appropriate CST scale score using the reference form CST raw-score-to-scale-score conversion tables and linear interpolation.

Complete raw-to-scale score conversion tables for the 2011 CSTs are presented in Table 8.D.55 through Table 8.D.79 in Appendix 8.D, starting on page 550. The raw scores and corresponding transformed scale scores are listed on those tables.

For all the 2011 CSTs, scale scores were adjusted at both ends of the scale so that the minimum reported scale score was 150 and the maximum reported scale score was 600. The scale score ranges defining the various performance levels are presented in Table 2.1.

Table 2.1 Scale Scores Ranges for Performance Levels

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced
English–Language Arts	2	150 – 261	262 – 299	300 – 349	350 – 401	402 – 600
	3	150 – 258	259 – 299	300 – 349	350 – 401	402 – 600
	4	150 – 268	269 – 299	300 – 349	350 – 392	393 – 600
	5	150 – 270	271 – 299	300 – 349	350 – 394	395 – 600
	6	150 – 267	268 – 299	300 – 349	350 – 393	394 – 600
	7	150 – 262	263 – 299	300 – 349	350 – 400	401 – 600
	8	150 – 265	266 – 299	300 – 349	350 – 394	395 – 600
	9	150 – 264	265 – 299	300 – 349	350 – 396	397 – 600
	10	150 – 262	263 – 299	300 – 349	350 – 391	392 – 600
	11	150 – 258	259 – 299	300 – 349	350 – 395	396 – 600
History–Social Science	8	150 – 270	271 – 299	300 – 349	350 – 395	396 – 600
	World History	150 – 274	275 – 299	300 – 349	350 – 399	400 – 600
	11	150 – 269	270 – 299	300 – 349	350 – 400	401 – 600
Mathematics	2	150 – 235	236 – 299	300 – 349	350 – 413	414 – 600
	3	150 – 235	236 – 299	300 – 349	350 – 413	414 – 600
	4	150 – 244	245 – 299	300 – 349	350 – 400	401 – 600
	5	150 – 247	248 – 299	300 – 349	350 – 429	430 – 600
	6	150 – 252	253 – 299	300 – 349	350 – 414	415 – 600
	7	150 – 256	257 – 299	300 – 349	350 – 413	414 – 600
	General Mathematics	150 – 256	257 – 299	300 – 349	350 – 413	414 – 600
	Algebra I	150 – 252	253 – 299	300 – 349	350 – 427	428 – 600
	Geometry	150 – 246	247 – 299	300 – 349	350 – 417	418 – 600
	Algebra II	150 – 256	257 – 299	300 – 349	350 – 415	416 – 600
	Summ. H.S. Mathematics	150 – 234	235 – 299	300 – 349	350 – 419	420 – 600
	Integrated Math 1	150 – 248	249 – 299	300 – 349	350 – 424	425 – 600
	Integrated Math 2	150 – 257	258 – 299	300 – 349	350 – 417	418 – 600
	Integrated Math 3	150 – 251	252 – 299	300 – 349	350 – 427	428 – 600
Science	5	150 – 267	268 – 299	300 – 349	350 – 409	410 – 600
	8	150 – 252	253 – 299	300 – 349	350 – 402	403 – 600
	10 Life Science	150 – 268	269 – 299	300 – 349	350 – 398	399 – 600
	Biology	150 – 275	276 – 299	300 – 349	350 – 393	394 – 600
	Chemistry	150 – 275	276 – 299	300 – 349	350 – 393	394 – 600
	Earth Sciences	150 – 276	277 – 299	300 – 349	350 – 392	393 – 600
	Physics	150 – 275	276 – 299	300 – 349	350 – 392	393 – 600

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced
Science (cont.)	Int/Coord Science 1	150 – 276	277 – 299	300 – 349	350 – 389	390 – 600
	Int/Coord Science 2	150 – 277	278 – 299	300 – 349	350 – 390	391 – 600
	Int/Coord Science 3	150 – 275	276 – 299	300 – 349	350 – 390	391 – 600
	Int/Coord Science 4	150 – 275	276 – 299	300 – 349	350 – 396	397 – 600

* Numbers indicate grade-level tests.

The next section describes characteristics of the samples used to establish the 2002 reference scales as well as the equating samples used to equate the CSTs in subsequent years.

Equating Samples

To establish the 2002 reference scales, ETS staff used data based on samples of students selected from the 2002 administration for each CST content area. In drawing these samples, it was necessary to account for the small portion of the complete testing data available at the time of equating. To simulate the situation in which only schools that test early are used in an equating, the complete CST data were sorted according to the test administration date shown in the student records. Only students who tested before a selected cutoff date were chosen.

For all CSTs except end-of-course mathematics, 10,000 test takers were randomly sampled from all available records. For the CSTs for end-of-course mathematics, samples were limited to students in particular grades as was done in past equatings prior to 2002 (see Table 2.2). Because fewer than 10,000 students were administered the CSTs assessing Integrated Mathematics, all available records from the grade associated with each of these tests were used.

Table 2.2 Sample Selected to Establish Reference Form

Content Area	Sample	Content Area	Sample
General Mathematics	Grades 8 and 9	Integrated Mathematics 2	Grade 9
Algebra I	Grade 8	Algebra II	Grade 10
Integrated Mathematics 1	Grade 8	Integrated Mathematics 3	Grade 10
Geometry	Grade 9	Summative High School Mathematics	Grade 11

As of 2003, equating samples were selected from available student records in a data file obtained near the end of May. As anticipated, these data consisted of only 5 to 10 percent of the total STAR testing data that were available once testing was completed. It was necessary to use these partial student samples for equating to meet score reporting deadlines. Only test-takers with valid results on the CSTs are included in the equating samples.

For the CSTs for Integrated Mathematics, it was necessary to use the data for all students with valid scores, regardless of their grade levels, in order to obtain sufficient sample sizes for equating.

For the other end-of-course mathematics tests, grade-specific equating samples were used from 2003 to 2007. The grade-specific equating samples were based on the population of test-takers in the target grade for which the course is recommended by the SBE. While end-of-course assessments address content standards for specific courses that are offered to students at a variety of grade levels, it is the SBE's recommendation that students begin Algebra I in grade eight, continue with Geometry in grade nine, Algebra II in grade ten, and complete the CST for Summative High School Mathematics in grade eleven. World History

is recommended for students in grade ten. Starting in 2008, each end-of-course mathematics test was equated using a sample drawn from the total population of students that took the test.

Equating the Braille Versions of the CSTs

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

In 2011, this process was applied to the CSTs for Science (Grade 8), Biology, Earth Science, Integrated/Coordinated Science 1, and Integrated/Coordinated Science 2. For each of those CSTs, one item could not be translated into braille.

Scaling the CSTs for Integrated/Coordinated Science

The CSTs for Integrated/Coordinated Science underwent major content revisions in 2003; it was not possible to equate them back to the 2002 CSTs. Therefore, the reference year for these tests is 2003.

Special procedures have been used to scale the Integrated/Coordinated Science tests in recent years. This is due, in part, to the small numbers of students available at the time of the scaling. The special procedures are also needed because these integrated tests are constructed by taking intact blocks of items from the four content-based “parent” science CSTs: Earth Science, Biology, Chemistry, and Physics; and it was determined that the performance necessary to reach each performance level category should be based on the cut scores of the four content-based science CSTs.

The following procedures are used for the Integrated/Coordinated Science tests to obtain composite performance level cut scores:

1. Each parent CST (Biology, Chemistry, Earth Science, and Physics) is equated to a reference form. Additional equatings are then carried out in which each subset of items in each integrated test is equated to the respective full-length test. This results in 16 additional equatings.
2. For each equating, the equated number-correct (unrounded) is recorded on the subset of items that corresponds to each of the four performance-level cut points on the full content-specific test.
3. For each integrated test, these number-correct equivalents are added together across the content areas and are truncated to determine the total number-correct scores that represent the “composite” cut scores between performance levels.

As an illustration, Table 2.3, on the next page, shows the number-correct scores defining each of the performance-level cut points on the 60-item, content-specific science CSTs. As shown in the table, the minimum number-correct score needed in Biology to achieve a below-basic classification is 20; the minimum number-correct score needed to achieve a basic classification is 27; and so forth.

Table 2.3 Performance-level Cut Points for Science End-of-Course CSTs

Performance Levels	Biology	Chemistry	Earth Science	Physics
Below Basic	20	21	21	19
Basic	27	28	27	25
Proficient	40	42	41	39
Advanced	49	51	50	49
Items in CST	60	60	60	60

Assume that subsets of the 60 items from the four science tests are used in the CST for Integrated/Coordinated Science 1. For each of these subsets of items, fractional equated number-correct scores are determined as shown in Table 2.4. For example, 12 Biology items are included on the CST for Integrated/Coordinated Science 1. On the basis of these items, the minimum number-correct score needed to achieve a below-basic classification is 4 (4.0443 rounded to an integer). In the last column of the table, the unrounded cut points for the four subsets of items are summed and truncated to an integer to identify the cut score for the test as a whole.

Table 2.4 Computation of Performance-level Cut Points on the CST for Integrated/Coordinated Science 1

Performance Level	Biology	Chemistry	Earth Science	Physics	Total Test Cut Score
Below Basic	4.0443	6.2287	6.9523	3.8332	21
Basic	5.5517	8.0547	8.8642	5.0792	27
Proficient	8.3036	11.5582	13.2503	8.0796	41
Advanced	10.086	13.7649	16.0136	10.3403	50
N items	12	16	19	13	60

For each CST for Integrated/Coordinated Science, the performance level cuts subsequently are translated to scale scores. For the basic and proficient performance levels, scale scores of 300 and 350 define these cuts. For the below basic and advanced performance levels, scale scores at levels similar to those used for the other science CSTs are assigned on the basis of scaling functions. Specifically, the thetas associated with the number correct on the four content-specific science tests are weighted by the proportional contribution of their respective subset of items to the total score to form a composite theta associated with each raw score on the integrated/coordinated science test. Scaling constants, which were determined through assigning scale scores of 300 and 350 to theta points associated with basic and proficient performance level raw scores cuts, were applied to all the thetas in the raw score to theta conversion table to obtain the scale score values. The source tables with thetas and unrounded scale scores are provided in Table 8.D.77 through Table 8.D.79. This information is available upon request.

References

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[illegible]

California Standards Tests	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11	
	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time
Science—Grade level																				
Part 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Part 2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Science—End-of-course⁵																				
Part 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Part 2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

¹ The writing tests in grades four and seven are given on a separate date from the multiple-choice tests. Writing test times are not included in the estimated time for English–Language Arts multiple-choice tests.

² The estimated time for part 2 of the CSTs for English–language arts and mathematics in grade eleven includes time for students to participate in the California State University (CSU) Early Assessment Program (EAP). To participate in the EAP for English, students must take the CST for English–Language Arts, the EAP multiple-choice questions for English, and the EAP writing test. The time shown in the chart does not include time for the EAP writing test, which will be administered on a separate date. To participate in the EAP for mathematics, students must take the CST for Algebra II or Summative High School Mathematics and the EAP multiple-choice questions for mathematics.

³ Students in grade seven will take either the CST for Mathematics (Grade 7) or the CST for Algebra I. Item numbers and times are for the CST for Mathematics (Grade 7). Follow the item and estimated time guidelines for the CST for Mathematics for grades eight through eleven to estimate test administration time for students in grade seven taking the CST for Algebra I.

⁴ World History is designated as an end-of-course test. This CST may be administered to eligible students in grades nine, ten, and eleven.

⁵ End-of-course science tests include Biology, Chemistry, Earth Science, Physics, and Integrated/Coordinated Science 1–4.

Appendix 2.B—Reporting Clusters

English–Language Arts

English–Language Arts Standards Test (Grade Two)

Reading

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

Writing

Written Conventions	14 items
Writing Strategies	8 items

English–Language Arts Standards Test (Grade Three)

Reading

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

Writing

Written Conventions	13 items
Writing Strategies	9 items

English–Language Arts Standards Test (Grade Four)

Reading

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

Writing

Written Conventions	18 items
Writing Strategies	15 items
Writing Applications	1 task (8 points)

English–Language Arts Standards Test (Grade Five)

Reading

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

Writing

Written Conventions	17 items
Writing Strategies	16 items

English–Language Arts Standards Test (Grade Six)

Reading

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

Writing

Written Conventions	16 items
Writing Strategies	17 items

English–Language Arts Standards Test (Grade Seven)*Reading*

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

Writing

Written Conventions	16 items
Writing Strategies	17 items
Writing Applications	1 task (8 points)

English–Language Arts Standards Test (Grade Eight)*Reading*

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

Writing

Written Conventions	16 items
Writing Strategies	17 items

English–Language Arts Standards Test (Grade Nine)*Reading*

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

Writing

Written Conventions	13 items
Writing Strategies	20 items

English–Language Arts Standards Test (Grade Ten)*Reading*

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

Writing

Written Conventions	13 items
Writing Strategies	20 items

English–Language Arts Standards Test (Grade Eleven)*Reading*

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

Writing

Written Conventions	9 items
Writing Strategies	22 items

History–Social Science

History–Social Science Standards Test for Grade Eight

<i>World History and Geography: Ancient Civilizations</i> (Grade Six Standards)	16 items
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<i>World History and Geography: Medieval and Early Modern Times</i> (Grade Seven Standards)	
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Late Antiquity and the Middle Ages	14 items
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Renaissance/Reformation	10 items
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<i>United States History and Geography: Growth and Conflict</i> (Grade Eight Standards)	
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U.S. Constitution and the Early Republic	22 items
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Civil War and Its Aftermath	13 items
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United States History–Social Science Standards Test

<i>Foundations of American Political and Social Thought</i>	
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Standards: 1 and 3	10 items
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<i>Industrialization and the U.S. Role as a World Power</i>	
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Standards: 2 and 4	13 items
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<i>United States Between the World Wars</i>	
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Standards: 5 and 6	12 items
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<i>World War II and Foreign Affairs</i>	
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Standards: 7 and 9	12 items
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<i>Post-World War II Domestic Issues</i>	
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Standards: 8, 10, and 11	13 items
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World History–Social Science Standards Test

<i>Development of Modern Political Thought</i>	
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Standards: 1 and 2	13 items
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<i>Industrial Expansion and Imperialism</i>	
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Standards: 3 and 4	10 items
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<i>Causes and Effects of the First World War</i>	
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Standards: 5 and 6	14 items
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<i>Causes and Effects of the Second World War</i>	
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Standards: 7 and 8	13 items
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<i>International Developments in the Post-World War II Era</i>	
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Standards: 9 and 10	10 items
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Mathematics

Mathematics Standards Test (Grade Two)

<i>Number Sense</i>	
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Place value, addition, and subtraction	15 items
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Multiplication, division, and fractions	23 items
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<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)

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

Mathematics Standards Test (Grade Four)

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

Mathematics Standards Test (Grade Five)

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

Mathematics Standards Test (Grade Six)

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

Mathematics Standards Test (Grade Seven)

<i>Number Sense</i>	
Rational numbers	14 items
Exponents, powers, and roots	8 items
Quantitative relationships and evaluating expressions	10 items
Multistep problems, graphing, and functions	15 items

<i>Measurement and Geometry</i>	13 items
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<i>Statistics, Data Analysis, and Probability</i>	5 items
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General Mathematics Standards Test

<i>Number Sense</i>	
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Rational numbers	14 items
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Exponents, powers, and roots	10 items
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<i>Algebra and Functions</i>	
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Quantitative relationships and evaluating expressions	11 items
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Multistep problems, graphing, and functions	10 items
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<i>Measurement and Geometry</i>	11 items
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<i>Statistics, Data Analysis, and Probability</i>	9 items
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Algebra I Standards Test

<i>Number Properties, Operations, and Linear Equations</i>	
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Standards: 1.0–5.0, 24.0–25.0	17 items
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<i>Graphing and Systems of Linear Equations</i>	
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Standards: 6.0–9.0	14 items
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<i>Quadratics and Polynomials</i>	
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Standards: 10.0, 11.0, 14.0, and 19.0–23.0	21 items
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<i>Functions and Rational Expressions</i>	
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Standards: 12.0, 13.0, and 15.0–18.0	13 items
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Geometry Standards Test

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

<i>Polynomials and Rational Expressions</i>	
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Standards: 1.0–4.0 and 7.0	19 items
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<i>Quadratics, Conics, and Complex Numbers</i>	
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Standards: 5.0, 6.0, 8.0–10.0, 16.0, and 17.0	16 items
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<i>Exponents and Logarithms</i>	
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Standards: 11.0–15.0	16 items
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<i>Series, Combinatorics, and Probability and Statistics</i>	
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Algebra II Standards: 18.0–25.0	14 items
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Probability and Statistics Standards: 1.0, 2.0, and 7.0

Summative High School Mathematics Standards Test

<i>Algebra I</i>	18 items
<i>Geometry</i>	19 items
<i>Algebra II</i>	23 items
<i>Probability and Statistics</i>	5 items

High School Mathematics Standards Test (Integrated Mathematics 1)

<i>Algebra I</i>	
Number properties, operations, and linear equations	15 items
Graphing	9 items
Quadratics and polynomials	14 items
Functions and rational expressions	7 items
<i>Geometry</i>	20 items

High School Mathematics Standards Test (Integrated Mathematics 2)

<i>Algebra I</i>	20 items
<i>Geometry</i>	
Logic and geometric proofs	22 items
Angle relationships, constructions, and lines	8 items
<i>Trigonometry</i>	10 items
<i>Algebra II/Probability and Statistics</i>	5 items

High School Mathematics Standards Test (Integrated Mathematics 3)

<i>Geometry</i>	5 items
<i>Algebra II</i>	
Polynomials and rational expressions	19 items
Quadratics, conics, and complex numbers	16 items
Exponents and logarithms	16 items
Series, combinatorics, and probability and statistics	9 items

Science**Science Standards Test (Grade Five)**

<i>Physical Science</i>	
Grade Five, Standards: 5PS1.a–i	11 items
Grade Four, Standards: 4PS1.a–g and 4IE6.a–f	8 items
<i>Life Science</i>	
Grade Five, Standards: 5LS2.a–g and 5IE6.a–i	13 items
Grade Four, Standards: 4LS2.a–c and 4LS3.a–d	9 items
<i>Earth Science</i>	
Grade Five, Standards: 5ES3.a–e, 5ES4.a–e, and 5ES5.a–c	11 items
Grade Four, Standards: 4ES4.a–b, 4ES5.a–c, and 4IE6.a–f	8 items

Science Standards Test (Grade Eight)

<i>Motion</i>	
Standards: 8PC1.a–f	8 items
<i>Forces, Density, and Buoyancy</i>	
Standards: 8PC2.a–g, 8PC8.a–d	13 items
<i>Structure of Matter and Periodic Table</i>	
Standards: 8PC3.a–f, 8PC7.a–c	16 items
<i>Earth in the Solar System</i>	
Standards: 8PC4.a–e	7 items
<i>Reactions and the Chemistry of Living Systems</i>	
Standards: 8PC5.a–e, 8PC6.a–c	10 items
<i>Investigation and Experimentation</i>	
Standards: 8PCIE9.a–g	6 items

Life Science Standards Test (Grade Ten)

<i>Cell Biology</i>	
Standards: 7SL1.c–e, 8PC6.b–c, and BI1.a.c.f	10 items
<i>Genetics</i>	
Standards: 7LS2.a, 7LS2.c–e, BI2.b, BI2.d–f, BI3.a, and BI5.a	12 items
<i>Physiology</i>	
Standards: 7LS5.a, 7LS5.c, 7LS6.j, BI9.a–b, and BI10.b–d	10 items
<i>Ecology</i>	
Standards: 6LS5.b–c, 6LS5.e, and BI6.a–f	11 items
<i>Evolution</i>	
Standards: 7LS3.a–c, BI7.a–d, BI8.a–b, and BI8.e	11 items
<i>Investigation and Experimentation</i>	
Standards: 6LSIE7.c, 6LSIE7.e, 7LSIE7.c, 8PCIE9.b–c, BIIE1.c, BIIE1.f, BIIE1.i–j	6 items

Biology Standards Test

<i>Cell Biology</i>	
Standards: BI1.a–h	9 items
<i>Genetics</i>	
Standards: BI2.a–g, BI3.a–b, BI4.a–e, BI5.a–c	18 items
<i>Ecology and Evolution</i>	
Ecology, Standards: BI6.a–f	16 items
Evolution, Standards: BI7.a–d and BI8.a–e	
<i>Physiology</i>	
Standards: BI9.a–e, BI10.a–e	11 items
<i>Investigation and Experimentation</i>	
Standards: BIIE1.a–n	6 items

Chemistry Standards Test

<i>Atomic and Molecular Structure</i>	
Atomic and Molecular Structure, Standards: CH1.a–e	8 items
Nuclear Processes, Standards: CH11.a–e	
<i>Chemical Bonds, Biochemistry</i>	
Chemical Bonds, Standards: CH2.a–e	9 items
Organic and Biochemistry, Standards: CH10.a–c	

Kinetics, Thermodynamics

Gases and Their Properties, Standards: CH4.a–f

Chemical Thermodynamics, Standards: CH7.a–d

Solutions, Standards: CH6.a–d

14 items

Chemical Reactions

Acids and Bases, Standards: CH5.a–d

Reaction Rates, Standards: CH8.a–c

Chemical Equilibrium, Standards: CH9.a–b

13 items

Conservation of Matter and Stoichiometry

Standards: CH3.a–e

10 items

Investigation and Experimentation

Standards: CHIE1.a–n

6 items

Earth Science Standards Test***Astronomy and Cosmology***

Earth's Place in the Universe, Standards: ES1.a–f, ES2.a–d

12 items

Solid Earth

Dynamic Earth Processes, Standards: ES3.a–e

California Geology, Standards: ES9.a–c

14 items

The Earth's Energy

Energy in the Earth System, Standards: ES4.a–c, ES5.a–e, ES6.a–c

Structure and Composition of the Atmosphere, Standards: ES8.a–c

Biogeochemical Cycles, Standards: ES7.a–c

28 items

Investigation and Experimentation

Standards: ESIE1.a–n

6 items

Physics Standards Test***Motion and Forces***

Standards: PH1.a–g

12 items

Conservation of Energy and Momentum

Standards: PH2.a–g

12 items

Heat and Thermodynamics

Standards: PH3.a–e

9 items

Waves

Standards: PH4.a–f

10 items

Electric and Magnetic Phenomena

Standards: PH5.a–i

11 items

Investigation and Experimentation

Standards: PHIE1.a–n

6 items

Science Standards Test (Integrated/Coordinated Science 1)***Biology/Life Sciences***

Ecology, Standards: BI6.a–f

Evolution, Standards: BI8.a–b and BI8.e

10 items

Chemistry

Atomic and Molecular Structure, Standards: CH1.a–e

Chemical Bonds, Standards: CH2.a–c

Acids and Bases, Standards: CH5.a, c

15 items

Chemical Thermodynamics, Standards: CH7.b–c

Earth Sciences

Dynamic Earth Processes, Standards: ES3.a–e

Biogeochemical Cycles, Standards: ES7.a–c 17 items

California Geology, Standards: ES9.b–c

Physics

Waves, Standards: PH4.a–b, PH4.d–f

Electric and Magnetic Phenomena, Standards: PH5.d–e, PH5.h–i 12 items

Investigation and Experimentation

Standards: PHIE1.a–n 6 items

Science Standards Test (Integrated/Coordinated Science 2)

Biology/Life Sciences

Cell Biology, Standards: BI1.a, BI1.c–e, BI1.h

Genetics Standards: BI2.a–c, BI2.e–g, BI3.a–b, BI4.a–b 15 items

Chemistry

Conservation of Matter and Stoichiometry, Standard: CH3.a

Solutions, Standards: CH6.a–c 6 items

Organic and Biochemistry, Standards: CH10.a–c

Earth Sciences

Earth's Place in the Universe, Standards: ES1.a.c.f

Energy in the Earth System, Standards: ES4.b, ES5.a–c, ES5.e, ES6.a–c 15 items

Physics

Motions and Forces, Standards: PH1.a–f

Conservation of Energy and Momentum, Standards: PH2.a–d 18 items

Investigation and Experimentation

Standards: IE1.a–n 6 items

Science Standards Test (Integrated/Coordinated Science 3)

Biology/Life Sciences

Cell Biology, Standards: BI1.b.f.g

Genetics, Standards: BI2.d, BI4.c–e, BI5.c 16 items

Evolution, Standards: BI7.a–d, BI8.c–d

Chemistry

Conservation of Matter and Stoichiometry, Standards: CH3.b–e

Gases and Their Properties, Standards: CH4.a–f

Solutions, Standard: CH6.d 23 items

Reaction Rates, Standards: CH8.a–c

Chemical Equilibrium, Standards: CH9.a–b

Earth Sciences

Energy in the Earth System, Standard: ES4.c

Structure and Composition of the Atmosphere, Standards: ES8.a–c 7 items

Physics

Motions and Forces, Standard: PH1.g

Conservation of Energy and Momentum, Standards: PH2.e–g

8 items

Electric and Magnetic Phenomena, Standards: PH5.f–g

Investigation and Experimentation

Standards: IE1.a–n

6 items

Science Standards Test (Integrated/Coordinated Science 4)**Biology/Life Sciences**

Genetics, Standards: BI5.a–b

13 items

Physiology, Standards: BI9.a–e, BI10.a–e

Chemistry

Chemical Bonds, Standards: CH2.d–e

Acids and Bases, Standards: CH5.b.d

10 items

Chemical Thermodynamics, Standards: CH7.a.d

Nuclear Processes, Standards: CH11.a–e

Earth Sciences

Earth's Place in the Universe, Standards: ES1.b, ES1.d–e, ES2.a–d

Energy in the Earth System, Standards: ES4.a, ES5.d

15 items

California Geology, Standard: ES9.a

Physics

Heat and Thermodynamics, Standards: PH3.a–e

Waves, Standard: PH4.c

16 items

Electric and Magnetic Phenomena, Standards: PH5.a–c

Investigation and Experimentation

Standards: IE1.a–n

6 items

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

Table 2.C.1 Matrix of Test Variations, Accommodations, and Modifications

1: Test Variation, 2: Accommodation, 3: Modification	
Test administration directions that are simplified or clarified (does not apply to test questions)	ALL
Student marks in test booklet (other than responses) including highlighting	ALL For grades 2 and 3 marks must be removed to avoid scanning interference or transcribe.
Test students in a small group setting	ALL
Extra time on a test within a testing day	ALL
Test individual student separately, provided that a test examiner directly supervises the student	1
Visual magnifying equipment	1
Audio amplification equipment	1
Noise buffers (e.g., individual carrel or study enclosure)	1
Special lighting or acoustics; special or adaptive furniture	1
Colored overlay, mask, or other means to maintain visual attention	1
Manually Coded English (MCE) or American Sign Language (ASL) to present directions for administration (does not apply to test questions)	1
Student marks responses in test booklet and responses are transferred to a scorable answer document by an employee of the school, district, or nonpublic school	2
Multiple-choice question responses dictated orally, or in MCE to a scribe, audio recorder, or speech-to-text converter for selected-response items	2
Word processing software with spell and grammar check tools turned off for the essay responses (writing portion of the test)	2
Essay responses dictated orally or in MCE to a scribe, audio recorder, or speech-to-text converter and the student provides all spelling and language conventions	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

1: Test Variation, 2: Accommodation, 3: Modification	
MCE or ASL to present tests	2 Math, Science, History–Social Science
	3 ELA
Test questions read aloud to student	2 Math, Science, History–Social Science
	3 ELA
Calculator on the mathematics tests	3
Calculator on the science tests	3
Arithmetic table or formulas (not provided) on the mathematics tests	3
Arithmetic table or formulas (not provided) on the science tests	3
Math manipulatives on the mathematics tests	3
Math manipulatives on the science tests	3
Word processing software with spell and grammar check tools enabled on the essay responses writing portion of test	3
Essay responses dictated orally, in MCE, or in ASL to a scribe audio recorder, or speech-to-text converter (scribe provides spelling, grammar, and language conventions)	3
Assistive device that interferes with the independent work of the student on the multiple-choice and/or essay responses	3
Unlisted Accommodation or Modification	Check with CDE prior to use

All = All students may be provided these test variations.

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

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

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

Table 2.C.2 Matrix of Test Variations for English Learners

Test Variations	
Hear the test directions printed in the test administration manual translated into the student's primary language. Ask clarifying questions about the test directions in the student's primary language.	Variation Allowed
Additional supervised breaks within a testing day <i>or</i> following each section (STAR) within a test part provided that the test section is completed within a testing day. A test section is identified by a "STOP" at the end of it.	Variation Allowed
English learners (ELs) may have the opportunity to be tested separately with other ELs provided that the student is directly supervised by an employee of the school who has signed the test security affidavit and the student has been provided such a flexible setting as part of his/her regular instruction or assessment.	Variation Allowed
Access to translation glossaries/word lists (English-to-primary language). Glossaries/Word lists shall not include definitions or formulas.	Variation Allowed Math, Science, History–Social Science
	Not Allowed ELA

Appendix 2.D—Special Services Summary Tables

Note:

1. To improve clarity of tables presented in this section, the columns with total number of students using each service are labeled with the particular grade or test name for which the services were utilized. For example, the column with a heading of “Grade 2” in Table 2.D.1 presents the number of students using various special services on the CST for ELA at grade 2. The column with the heading of “Pct. Of Total” in the same table represents the percentage of students using a service, out of the total number of test-takers.
2. The total number of test-takers is the total of students listed under “Any Accom., Mod., or EL Variation” and those listed under “No Accom., Mod., or EL Variation.”
3. The sum of the numbers of students across subgroups may not match exactly to the total testing population. For example, the total number of students listed as “in Special Education” who used a certain accommodation and those listed as “Not in Special Education” may not equal the number of all test-takers using the same accommodation. This occurred due to the fact that only valid primary disability codes were chosen to identify those subgroups.

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

Special Services Summary for ELA, Grades Two and Three				
All Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	291	0.06%	188	0.04%
C: Dictated responses to a scribe	87	0.02%	55	0.01%
F: Used noninterfering assistive device	83	0.02%	47	0.01%
G: Used braille version of test	19	0.00%	14	0.00%
H: Used large-print version of test	183	0.04%	175	0.04%
J: Tested during more than one day	1,122	0.24%	610	0.14%
K: Had supervised breaks	4,346	0.94%	2,429	0.56%
L: Most beneficial time of day	1,957	0.42%	934	0.21%
M: Administered at home or in a hospital	30	0.01%	39	0.01%
N: Used a dictionary	1	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	57	0.01%	11	0.00%
V: Used interfering assistive device	2	0.00%	0	0.00%
W: Used an unlisted modification	37	0.01%	18	0.00%
X: Used an unlisted accommodation	1,041	0.23%	672	0.15%
Y: Leave blank	215	0.05%	167	0.04%
Z: Examiner read test questions aloud	1,329	0.29%	578	0.13%
Accom. or Mod. is in Section 504 plan	196	0.04%	259	0.06%
Accom. or Mod. is in IEP	6,384	1.39%	3,521	0.81%
English Learner Test Variation A	554	0.12%	427	0.10%
English Learner Test Variation B	194	0.04%	83	0.02%
English Learner Test Variation C	318	0.07%	270	0.06%
Any Accom., Mod., or EL Variation	7,809	1.69%	4,646	1.07%
No Accom., Mod., or EL Variation	453,099	98.31%	431,248	98.93%
Students Not in Special Education	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	37	0.01%	30	0.01%
C: Dictated responses to a scribe	12	0.00%	18	0.00%
F: Used noninterfering assistive device	7	0.00%	8	0.00%
G: Used braille version of test	1	0.00%	2	0.00%
H: Used large-print version of test	22	0.01%	36	0.01%

Special Services Summary for ELA, Grades Two and Three				
J: Tested during more than one day	172	0.04%	77	0.02%
K: Had supervised breaks	703	0.17%	372	0.09%
L: Most beneficial time of day	271	0.06%	120	0.03%
M: Administered at home or in a hospital	15	0.00%	23	0.01%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	4	0.00%	0	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	7	0.00%	2	0.00%
X: Used an unlisted accommodation	203	0.05%	124	0.03%
Y: Leave blank	45	0.01%	36	0.01%
Z: Examiner read test questions aloud	225	0.05%	88	0.02%
Accom. or Mod. is in Section 504 plan	179	0.04%	234	0.06%
Accom. or Mod. is in IEP	906	0.21%	394	0.10%
English Learner Test Variation A	502	0.12%	403	0.10%
English Learner Test Variation B	140	0.03%	59	0.01%
English Learner Test Variation C	263	0.06%	232	0.06%
Any Accom., Mod., or EL Variation	1,931	0.45%	1,303	0.32%
No Accom., Mod., or EL Variation	422,845	99.55%	408,758	99.68%
Students in Special Education	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	250	0.69%	154	0.60%
C: Dictated responses to a scribe	75	0.21%	37	0.14%
F: Used noninterfering assistive device	75	0.21%	39	0.15%
G: Used braille version of test	17	0.05%	12	0.05%
H: Used large-print version of test	155	0.43%	135	0.53%
J: Tested during more than one day	946	2.62%	521	2.03%
K: Had supervised breaks	3,634	10.07%	2,034	7.92%
L: Most beneficial time of day	1,684	4.67%	800	3.11%
M: Administered at home or in a hospital	15	0.04%	16	0.06%
N: Used a dictionary	1	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	53	0.15%	11	0.04%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	30	0.08%	15	0.06%
X: Used an unlisted accommodation	837	2.32%	540	2.10%
Y: Leave blank	170	0.47%	130	0.51%
Z: Examiner read test questions aloud	1,099	3.05%	483	1.88%
Accom. or Mod. is in Section 504 plan	17	0.05%	25	0.10%
Accom. or Mod. is in IEP	5,458	15.12%	3,080	11.99%
English Learner Test Variation A	52	0.14%	24	0.09%
English Learner Test Variation B	54	0.15%	24	0.09%
English Learner Test Variation C	55	0.15%	38	0.15%
Any Accom., Mod., or EL Variation	5,858	16.23%	3,295	12.82%
No Accom., Mod., or EL Variation	30,228	83.77%	22,398	87.18%

Special Services Summary for ELA, Grades Two and Three				
English-Only Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	190	0.07%	128	0.05%
C: Dictated responses to a scribe	66	0.03%	44	0.02%
F: Used noninterfering assistive device	60	0.02%	30	0.01%
G: Used braille version of test	12	0.00%	5	0.00%
H: Used large-print version of test	119	0.05%	119	0.05%
J: Tested during more than one day	741	0.28%	424	0.17%
K: Had supervised breaks	2,702	1.03%	1,649	0.67%
L: Most beneficial time of day	1,234	0.47%	624	0.25%
M: Administered at home or in a hospital	16	0.01%	25	0.01%
N: Used a dictionary	1	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	27	0.01%	5	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	23	0.01%	14	0.01%
X: Used an unlisted accommodation	672	0.26%	453	0.18%
Y: Leave blank	152	0.06%	119	0.05%
Z: Examiner read test questions aloud	796	0.30%	358	0.15%
Accom. or Mod. is in Section 504 plan	162	0.06%	199	0.08%
Accom. or Mod. is in IEP	3,960	1.52%	2,363	0.96%
English Learner Test Variation A	12	0.00%	22	0.01%
English Learner Test Variation B	19	0.01%	10	0.00%
English Learner Test Variation C	31	0.01%	27	0.01%
Any Accom., Mod., or EL Variation	4,416	1.69%	2,736	1.12%
No Accom., Mod., or EL Variation	256,969	98.31%	242,290	98.88%
Initially Fluent English Proficient (I-FEP) Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	4	0.02%	3	0.02%
C: Dictated responses to a scribe	2	0.01%	1	0.01%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille version of test	0	0.00%	0	0.00%
H: Used large-print version of test	1	0.01%	7	0.04%
J: Tested during more than one day	11	0.06%	4	0.02%
K: Had supervised breaks	39	0.20%	24	0.13%
L: Most beneficial time of day	22	0.11%	12	0.06%
M: Administered at home or in a hospital	1	0.01%	3	0.02%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using 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	0.01%	1	0.01%
X: Used an unlisted accommodation	11	0.06%	6	0.03%
Y: Leave blank	1	0.01%	1	0.01%
Z: Examiner read test questions aloud	12	0.06%	3	0.02%
Accom. or Mod. is in Section 504 plan	0	0.00%	6	0.03%
Accom. or Mod. is in IEP	69	0.35%	35	0.19%

Special Services Summary for ELA, Grades Two and Three				
English Learner Test Variation A	3	0.02%	0	0.00%
English Learner Test Variation B	0	0.00%	0	0.00%
English Learner Test Variation C	0	0.00%	1	0.01%
<i>Any Accom., Mod., or EL Variation</i>	76	0.39%	46	0.25%
<i>No Accom., Mod., or EL Variation</i>	19,625	99.61%	18,528	99.75%
English Learner (EL) Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	86	0.05%	43	0.03%
C: Dictated responses to a scribe	17	0.01%	8	0.01%
F: Used noninterfering assistive device	20	0.01%	16	0.01%
G: Used braille version of test	6	0.00%	5	0.00%
H: Used large-print version of test	50	0.03%	30	0.02%
J: Tested during more than one day	359	0.21%	175	0.12%
K: Had supervised breaks	1,577	0.93%	727	0.51%
L: Most beneficial time of day	688	0.40%	285	0.20%
M: Administered at home or in a hospital	12	0.01%	9	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	29	0.02%	6	0.00%
V: Used interfering assistive device	2	0.00%	0	0.00%
W: Used an unlisted modification	12	0.01%	3	0.00%
X: Used an unlisted accommodation	353	0.21%	206	0.14%
Y: Leave blank	59	0.03%	43	0.03%
Z: Examiner read test questions aloud	508	0.30%	209	0.15%
Accom. or Mod. is in Section 504 plan	34	0.02%	46	0.03%
Accom. or Mod. is in IEP	2,298	1.35%	1,066	0.74%
English Learner Test Variation A	534	0.31%	400	0.28%
English Learner Test Variation B	175	0.10%	69	0.05%
English Learner Test Variation C	286	0.17%	242	0.17%
<i>Any Accom., Mod., or EL Variation</i>	3,249	1.91%	1,780	1.24%
<i>No Accom., Mod., or EL Variation</i>	166,755	98.09%	141,674	98.76%
Reclassified Fluent English Proficient (R-FEP) Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	2	0.02%	5	0.02%
C: Dictated responses to a scribe	0	0.00%	1	0.00%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille version of test	0	0.00%	3	0.01%
H: Used large-print version of test	4	0.04%	4	0.01%
J: Tested during more than one day	3	0.03%	3	0.01%
K: Had supervised breaks	12	0.13%	18	0.06%
L: Most beneficial time of day	4	0.04%	8	0.03%
M: Administered at home or in a hospital	0	0.00%	1	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	1	0.01%	0	0.00%

Special Services Summary for ELA, Grades Two and Three				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.01%	0	0.00%
X: Used an unlisted accommodation	5	0.06%	5	0.02%
Y: Leave blank	0	0.00%	3	0.01%
Z: Examiner read test questions aloud	8	0.09%	1	0.00%
Accom. or Mod. is in Section 504 plan	0	0.00%	4	0.01%
Accom. or Mod. is in IEP	23	0.26%	31	0.11%
English Learner Test Variation A	2	0.02%	4	0.01%
English Learner Test Variation B	0	0.00%	4	0.01%
English Learner Test Variation C	0	0.00%	0	0.00%
<i>Any</i> Accom., Mod., or EL Variation	27	0.30%	46	0.16%
<i>No</i> Accom., Mod., or EL Variation	8,954	99.70%	28,057	99.84%

Table 2.D.2 Special Services Summary for ELA, Grade Four

Special Services Summary for ELA, Grade Four		
All Tested	Grade 4	Pct. of Total
B: Marked responses in test booklet	385	0.09%
C: Dictated responses to a scribe	38	0.01%
D: Used word processing with tools off	176	0.04%
E: Dictated essay with conventions	63	0.01%
F: Used noninterfering assistive device	61	0.01%
G: Used braille version of test	16	0.00%
H: Used large-print version of test	157	0.04%
J: Tested during more than one day	614	0.14%
K: Had supervised breaks	2,812	0.65%
L: Most beneficial time of day	1,044	0.24%
M: Administered at home or in a hospital	39	0.01%
N: Used a dictionary	28	0.01%
O: Examiner presented using MCE or ASL	23	0.01%
T: Used word processing with tools on	12	0.00%
U: Dictated essay without conventions	27	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	21	0.00%
X: Used an unlisted accommodation	820	0.19%
Y: Leave blank	202	0.05%
Z: Examiner read test questions aloud	968	0.22%
Accom. or Mod. is in Section 504 plan	534	0.12%
Accom. or Mod. is in IEP	4,222	0.98%
English Learner Test Variation A	599	0.14%
English Learner Test Variation B	149	0.03%
English Learner Test Variation C	336	0.08%
<i>Any Accom., Mod., or EL Variation</i>	5,772	1.34%
<i>No Accom., Mod., or EL Variation</i>	424,759	98.66%
Students Not in Special Education	Grade 4	Pct. of Total
B: Marked responses in test booklet	86	0.02%
C: Dictated responses to a scribe	12	0.00%
D: Used word processing with tools off	62	0.02%
E: Dictated essay with conventions	20	0.00%
F: Used noninterfering assistive device	5	0.00%
G: Used braille version of test	2	0.00%
H: Used large-print version of test	43	0.01%
J: Tested during more than one day	95	0.02%
K: Had supervised breaks	506	0.12%
L: Most beneficial time of day	180	0.04%
M: Administered at home or in a hospital	28	0.01%
N: Used a dictionary	12	0.00%
O: Examiner presented using MCE or ASL	2	0.00%
T: Used word processing with tools on	3	0.00%

Special Services Summary for ELA, Grade Four		
U: Dictated essay without conventions	9	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	145	0.04%
Y: Leave blank	52	0.01%
Z: Examiner read test questions aloud	131	0.03%
Accom. or Mod. is in Section 504 plan	467	0.12%
Accom. or Mod. is in IEP	445	0.11%
English Learner Test Variation A	572	0.14%
English Learner Test Variation B	123	0.03%
English Learner Test Variation C	300	0.07%
<i>Any Accom., Mod., or EL Variation</i>	1,813	0.45%
<i>No Accom., Mod., or EL Variation</i>	404,235	99.55%
Students in Special Education	Grade 4	Pct. of Total
B: Marked responses in test booklet	298	1.31%
C: Dictated responses to a scribe	26	0.11%
D: Used word processing with tools off	114	0.50%
E: Dictated essay with conventions	43	0.19%
F: Used noninterfering assistive device	56	0.25%
G: Used braille version of test	14	0.06%
H: Used large-print version of test	114	0.50%
J: Tested during more than one day	510	2.24%
K: Had supervised breaks	2,268	9.96%
L: Most beneficial time of day	851	3.74%
M: Administered at home or in a hospital	11	0.05%
N: Used a dictionary	16	0.07%
O: Examiner presented using MCE or ASL	21	0.09%
T: Used word processing with tools on	9	0.04%
U: Dictated essay without conventions	18	0.08%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	20	0.09%
X: Used an unlisted accommodation	663	2.91%
Y: Leave blank	144	0.63%
Z: Examiner read test questions aloud	825	3.62%
Accom. or Mod. is in Section 504 plan	61	0.27%
Accom. or Mod. is in IEP	3,725	16.36%
English Learner Test Variation A	23	0.10%
English Learner Test Variation B	25	0.11%
English Learner Test Variation C	33	0.14%
<i>Any Accom., Mod., or EL Variation</i>	3,894	17.10%
<i>No Accom., Mod., or EL Variation</i>	18,880	82.90%

Special Services Summary for ELA, Grade Four		
English-Only Students	Grade 4	Pct. of Total
B: Marked responses in test booklet	305	0.13%
C: Dictated responses to a scribe	27	0.01%
D: Used word processing with tools off	151	0.06%
E: Dictated essay with conventions	53	0.02%
F: Used noninterfering assistive device	46	0.02%
G: Used braille version of test	10	0.00%
H: Used large-print version of test	109	0.05%
J: Tested during more than one day	435	0.18%
K: Had supervised breaks	1,950	0.81%
L: Most beneficial time of day	714	0.30%
M: Administered at home or in a hospital	31	0.01%
N: Used a dictionary	23	0.01%
O: Examiner presented using MCE or ASL	18	0.01%
T: Used word processing with tools on	11	0.00%
U: Dictated essay without conventions	25	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	15	0.01%
X: Used an unlisted accommodation	574	0.24%
Y: Leave blank	137	0.06%
Z: Examiner read test questions aloud	629	0.26%
Accom. or Mod. is in Section 504 plan	440	0.18%
Accom. or Mod. is in IEP	2,920	1.21%
English Learner Test Variation A	22	0.01%
English Learner Test Variation B	11	0.00%
English Learner Test Variation C	42	0.02%
<i>Any Accom., Mod., or EL Variation</i>	3,493	1.45%
<i>No Accom., Mod., or EL Variation</i>	237,446	98.55%
Initially Fluent English Proficient (I-FEP) Students	Grade 4	Pct. of Total
B: Marked responses in test booklet	7	0.04%
C: Dictated responses to a scribe	2	0.01%
D: Used word processing with tools off	6	0.03%
E: Dictated essay with conventions	2	0.01%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	1	0.01%
H: Used large-print version of test	0	0.00%
J: Tested during more than one day	5	0.03%
K: Had supervised breaks	46	0.24%
L: Most beneficial time of day	17	0.09%
M: Administered at home or in a hospital	1	0.01%
N: Used a dictionary	1	0.01%
O: Examiner presented using MCE or ASL	1	0.01%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	0	0.00%

Special Services Summary for ELA, Grade Four		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	14	0.07%
Y: Leave blank	2	0.01%
Z: Examiner read test questions aloud	15	0.08%
Accom. or Mod. is in Section 504 plan	18	0.10%
Accom. or Mod. is in IEP	64	0.34%
English Learner Test Variation A	1	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
Any Accom., Mod., or EL Variation	83	0.44%
No Accom., Mod., or EL Variation	18,794	99.56%
English Learner (EL) Students	Grade 4	Pct. of Total
B: Marked responses in test booklet	62	0.05%
C: Dictated responses to a scribe	9	0.01%
D: Used word processing with tools off	15	0.01%
E: Dictated essay with conventions	6	0.01%
F: Used noninterfering assistive device	11	0.01%
G: Used braille version of test	4	0.00%
H: Used large-print version of test	39	0.03%
J: Tested during more than one day	167	0.14%
K: Had supervised breaks	779	0.65%
L: Most beneficial time of day	295	0.25%
M: Administered at home or in a hospital	7	0.01%
N: Used a dictionary	4	0.00%
O: Examiner presented using MCE or ASL	3	0.00%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	6	0.01%
X: Used an unlisted accommodation	224	0.19%
Y: Leave blank	59	0.05%
Z: Examiner read test questions aloud	310	0.26%
Accom. or Mod. is in Section 504 plan	67	0.06%
Accom. or Mod. is in IEP	1,167	0.97%
English Learner Test Variation A	565	0.47%
English Learner Test Variation B	128	0.11%
English Learner Test Variation C	288	0.24%
Any Accom., Mod., or EL Variation	2,087	1.74%
No Accom., Mod., or EL Variation	117,853	98.26%

Special Services Summary for ELA, Grade Four		
Reclassified Fluent English Proficient (R-FEP) Students	Grade 4	Pct. of Total
B: Marked responses in test booklet	10	0.02%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	4	0.01%
E: Dictated essay with conventions	2	0.00%
F: Used noninterfering assistive device	4	0.01%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	9	0.02%
J: Tested during more than one day	6	0.01%
K: Had supervised breaks	32	0.06%
L: Most beneficial time of day	16	0.03%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
T: Used word processing with tools on	1	0.00%
U: Dictated essay without conventions	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	7	0.01%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	8	0.02%
Accom. or Mod. is in Section 504 plan	8	0.02%
Accom. or Mod. is in IEP	63	0.13%
English Learner Test Variation A	9	0.02%
English Learner Test Variation B	10	0.02%
English Learner Test Variation C	5	0.01%
<i>Any Accom., Mod., or EL Variation</i>	97	0.19%
<i>No Accom., Mod., or EL Variation</i>	50,110	99.81%

Table 2.D.3 Special Services Summary for ELA, Grades Five and Six

Special Services Summary for ELA, Grades Five and Six				
All Tested	Grade 5	Pct. of Total	Grade 6	Pct. of Total
B: Marked responses in test booklet	364	0.08%	337	0.08%
C: Dictated responses to a scribe	37	0.01%	22	0.01%
F: Used noninterfering assistive device	34	0.01%	21	0.00%
G: Used braille version of test	17	0.00%	18	0.00%
H: Used large-print version of test	133	0.03%	123	0.03%
J: Tested during more than one day	557	0.13%	411	0.10%
K: Had supervised breaks	2,254	0.52%	1,861	0.43%
L: Most beneficial time of day	830	0.19%	660	0.15%
M: Administered at home or in a hospital	35	0.01%	39	0.01%
N: Used a dictionary	10	0.00%	6	0.00%
O: Examiner presented using MCE or ASL	7	0.00%	7	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	8	0.00%	5	0.00%
X: Used an unlisted accommodation	692	0.16%	650	0.15%
Y: Leave blank	183	0.04%	165	0.04%
Z: Examiner read test questions aloud	300	0.07%	304	0.07%
Accom. or Mod. is in Section 504 plan	309	0.07%	223	0.05%
Accom. or Mod. is in IEP	3,314	0.76%	2,938	0.68%
English Learner Test Variation A	347	0.08%	456	0.11%
English Learner Test Variation B	59	0.01%	133	0.03%
English Learner Test Variation C	167	0.04%	360	0.08%
Any Accom., Mod., or EL Variation	4,251	0.98%	3,970	0.92%
No Accom., Mod., or EL Variation	430,446	99.02%	427,841	99.08%
Students Not in Special Education	Grade 5	Pct. of Total	Grade 6	Pct. of Total
B: Marked responses in test booklet	66	0.02%	64	0.02%
C: Dictated responses to a scribe	11	0.00%	4	0.00%
F: Used noninterfering assistive device	5	0.00%	2	0.00%
G: Used braille version of test	0	0.00%	2	0.00%
H: Used large-print version of test	34	0.01%	24	0.01%
J: Tested during more than one day	71	0.02%	49	0.01%
K: Had supervised breaks	349	0.09%	231	0.06%
L: Most beneficial time of day	141	0.03%	98	0.02%
M: Administered at home or in a hospital	21	0.01%	30	0.01%
N: Used a dictionary	1	0.00%	0	0.00%
O: Examiner presented using 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	3	0.00%	0	0.00%
X: Used an unlisted accommodation	136	0.03%	106	0.03%
Y: Leave blank	31	0.01%	23	0.01%
Z: Examiner read test questions aloud	36	0.01%	39	0.01%
Accom. or Mod. is in Section 504 plan	288	0.07%	208	0.05%
Accom. or Mod. is in IEP	334	0.08%	245	0.06%

Special Services Summary for ELA, Grades Five and Six				
English Learner Test Variation A	322	0.08%	406	0.10%
English Learner Test Variation B	36	0.01%	113	0.03%
English Learner Test Variation C	151	0.04%	328	0.08%
<i>Any Accom., Mod., or EL Variation</i>	1,105	0.27%	1,098	0.27%
<i>No Accom., Mod., or EL Variation</i>	409,143	99.73%	407,738	99.73%
Students in Special Education	Grade 5	Pct. of Total	Grade 6	Pct. of Total
B: Marked responses in test booklet	293	1.32%	271	1.26%
C: Dictated responses to a scribe	26	0.12%	18	0.08%
F: Used noninterfering assistive device	29	0.13%	19	0.09%
G: Used braille version of test	17	0.08%	16	0.07%
H: Used large-print version of test	99	0.45%	99	0.46%
J: Tested during more than one day	481	2.17%	356	1.65%
K: Had supervised breaks	1,888	8.54%	1,614	7.49%
L: Most beneficial time of day	680	3.07%	555	2.58%
M: Administered at home or in a hospital	14	0.06%	9	0.04%
N: Used a dictionary	9	0.04%	6	0.03%
O: Examiner presented using MCE or ASL	7	0.03%	7	0.03%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	5	0.02%	5	0.02%
X: Used an unlisted accommodation	552	2.50%	542	2.52%
Y: Leave blank	148	0.67%	138	0.64%
Z: Examiner read test questions aloud	262	1.18%	264	1.23%
Accom. or Mod. is in Section 504 plan	19	0.09%	14	0.07%
Accom. or Mod. is in IEP	2,947	13.32%	2,671	12.40%
English Learner Test Variation A	22	0.10%	44	0.20%
English Learner Test Variation B	23	0.10%	18	0.08%
English Learner Test Variation C	15	0.07%	23	0.11%
<i>Any Accom., Mod., or EL Variation</i>	3,107	14.05%	2,839	13.18%
<i>No Accom., Mod., or EL Variation</i>	19,010	85.95%	18,697	86.82%
English-Only Students	Grade 5	Pct. of Total	Grade 6	Pct. of Total
B: Marked responses in test booklet	290	0.12%	268	0.11%
C: Dictated responses to a scribe	26	0.01%	15	0.01%
F: Used noninterfering assistive device	28	0.01%	12	0.00%
G: Used braille version of test	8	0.00%	9	0.00%
H: Used large-print version of test	100	0.04%	88	0.04%
J: Tested during more than one day	396	0.16%	318	0.13%
K: Had supervised breaks	1,569	0.64%	1,286	0.53%
L: Most beneficial time of day	572	0.23%	492	0.20%
M: Administered at home or in a hospital	25	0.01%	31	0.01%
N: Used a dictionary	9	0.00%	4	0.00%
O: Examiner presented using MCE or ASL	6	0.00%	7	0.00%

Special Services Summary for ELA, Grades Five and Six				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	8	0.00%	4	0.00%
X: Used an unlisted accommodation	497	0.20%	452	0.18%
Y: Leave blank	130	0.05%	116	0.05%
Z: Examiner read test questions aloud	192	0.08%	200	0.08%
Accom. or Mod. is in Section 504 plan	257	0.11%	185	0.08%
Accom. or Mod. is in IEP	2,276	0.93%	2,041	0.84%
English Learner Test Variation A	3	0.00%	55	0.02%
English Learner Test Variation B	2	0.00%	10	0.00%
English Learner Test Variation C	13	0.01%	46	0.02%
Any Accom., Mod., or EL Variation	2,655	1.09%	2,415	0.99%
No Accom., Mod., or EL Variation	240,973	98.91%	241,995	99.01%
Initially Fluent English Proficient (I-FEP) Students	Grade 5	Pct. of Total	Grade 6	Pct. of Total
B: Marked responses in test booklet	13	0.04%	16	0.05%
C: Dictated responses to a scribe	4	0.01%	0	0.00%
F: Used noninterfering assistive device	1	0.00%	1	0.00%
G: Used braille version of test	3	0.01%	5	0.02%
H: Used large-print version of test	10	0.03%	11	0.03%
J: Tested during more than one day	17	0.06%	13	0.04%
K: Had supervised breaks	64	0.21%	48	0.14%
L: Most beneficial time of day	26	0.09%	16	0.05%
M: Administered at home or in a hospital	1	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%	0	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	23	0.08%	28	0.08%
Y: Leave blank	5	0.02%	4	0.01%
Z: Examiner read test questions aloud	6	0.02%	9	0.03%
Accom. or Mod. is in Section 504 plan	11	0.04%	4	0.01%
Accom. or Mod. is in IEP	110	0.36%	100	0.30%
English Learner Test Variation A	0	0.00%	4	0.01%
English Learner Test Variation B	0	0.00%	1	0.00%
English Learner Test Variation C	2	0.01%	1	0.00%
Any Accom., Mod., or EL Variation	128	0.42%	114	0.34%
No Accom., Mod., or EL Variation	30,129	99.58%	33,176	99.66%
English Learner (EL) Students	Grade 5	Pct. of Total	Grade 6	Pct. of Total
B: Marked responses in test booklet	51	0.05%	40	0.05%
C: Dictated responses to a scribe	5	0.01%	4	0.01%
F: Used noninterfering assistive device	4	0.00%	5	0.01%
G: Used braille version of test	5	0.01%	2	0.00%
H: Used large-print version of test	17	0.02%	14	0.02%
J: Tested during more than one day	132	0.14%	68	0.09%
K: Had supervised breaks	567	0.59%	440	0.58%

Special Services Summary for ELA, Grades Five and Six				
L: Most beneficial time of day	215	0.22%	128	0.17%
M: Administered at home or in a hospital	7	0.01%	5	0.01%
N: Used a dictionary	1	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.00%
X: Used an unlisted accommodation	154	0.16%	148	0.20%
Y: Leave blank	41	0.04%	39	0.05%
Z: Examiner read test questions aloud	95	0.10%	82	0.11%
Accom. or Mod. is in Section 504 plan	28	0.03%	22	0.03%
Accom. or Mod. is in IEP	843	0.88%	672	0.89%
English Learner Test Variation A	310	0.32%	385	0.51%
English Learner Test Variation B	57	0.06%	120	0.16%
English Learner Test Variation C	146	0.15%	308	0.41%
Any Accom., Mod., or EL Variation	1,324	1.38%	1,283	1.70%
No Accom., Mod., or EL Variation	94,805	98.62%	74,131	98.30%
Reclassified Fluent English Proficient (R-FEP) Students	Grade 5	Pct. of Total	Grade 6	Pct. of Total
B: Marked responses in test booklet	8	0.01%	12	0.02%
C: Dictated responses to a scribe	2	0.00%	3	0.00%
F: Used noninterfering assistive device	1	0.00%	3	0.00%
G: Used braille version of test	1	0.00%	2	0.00%
H: Used large-print version of test	6	0.01%	10	0.01%
J: Tested during more than one day	11	0.02%	11	0.01%
K: Had supervised breaks	41	0.06%	82	0.10%
L: Most beneficial time of day	15	0.02%	21	0.03%
M: Administered at home or in a hospital	2	0.00%	2	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using 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	16	0.02%	22	0.03%
Y: Leave blank	4	0.01%	4	0.01%
Z: Examiner read test questions aloud	5	0.01%	12	0.02%
Accom. or Mod. is in Section 504 plan	13	0.02%	11	0.01%
Accom. or Mod. is in IEP	67	0.10%	118	0.15%
English Learner Test Variation A	34	0.05%	12	0.02%
English Learner Test Variation B	0	0.00%	2	0.00%
English Learner Test Variation C	6	0.01%	3	0.00%
Any Accom., Mod., or EL Variation	124	0.19%	147	0.19%
No Accom., Mod., or EL Variation	64,051	99.81%	77,992	99.81%

Table 2.D.4 Special Services Summary for ELA, Grade Seven

Special Services Summary for ELA, Grade Seven		
All Tested	Grade 7	Pct. of Total
B: Marked responses in test booklet	265	0.06%
C: Dictated responses to a scribe	14	0.00%
D: Used word processing with tools off	379	0.09%
E: Dictated essay with conventions	53	0.01%
F: Used noninterfering assistive device	41	0.01%
G: Used braille version of test	24	0.01%
H: Used large-print version of test	121	0.03%
J: Tested during more than one day	339	0.08%
K: Had supervised breaks	1,795	0.41%
L: Most beneficial time of day	624	0.14%
M: Administered at home or in a hospital	75	0.02%
N: Used a dictionary	11	0.00%
O: Examiner presented using MCE or ASL	20	0.00%
T: Used word processing with tools on	18	0.00%
U: Dictated essay without conventions	12	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	36	0.01%
X: Used an unlisted accommodation	846	0.19%
Y: Leave blank	339	0.08%
Z: Examiner read test questions aloud	1,004	0.23%
Accom. or Mod. is in Section 504 plan	385	0.09%
Accom. or Mod. is in IEP	3,827	0.88%
English Learner Test Variation A	1,313	0.30%
English Learner Test Variation B	214	0.05%
English Learner Test Variation C	859	0.20%
<i>Any Accom., Mod., or EL Variation</i>	6,170	1.41%
<i>No Accom., Mod., or EL Variation</i>	430,131	98.59%
Students Not in Special Education	Grade 7	Pct. of Total
B: Marked responses in test booklet	58	0.01%
C: Dictated responses to a scribe	6	0.00%
D: Used word processing with tools off	114	0.03%
E: Dictated essay with conventions	21	0.01%
F: Used noninterfering assistive device	8	0.00%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	25	0.01%
J: Tested during more than one day	28	0.01%
K: Had supervised breaks	190	0.05%
L: Most beneficial time of day	79	0.02%
M: Administered at home or in a hospital	60	0.01%
N: Used a dictionary	5	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
T: Used word processing with tools on	3	0.00%

Special Services Summary for ELA, Grade Seven		
U: Dictated essay without conventions	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	7	0.00%
X: Used an unlisted accommodation	149	0.04%
Y: Leave blank	49	0.01%
Z: Examiner read test questions aloud	83	0.02%
Accom. or Mod. is in Section 504 plan	329	0.08%
Accom. or Mod. is in IEP	277	0.07%
English Learner Test Variation A	1,257	0.30%
English Learner Test Variation B	189	0.05%
English Learner Test Variation C	836	0.20%
<i>Any Accom., Mod., or EL Variation</i>	2,465	0.60%
<i>No Accom., Mod., or EL Variation</i>	411,299	99.40%
Students in Special Education	Grade 7	Pct. of Total
B: Marked responses in test booklet	206	0.97%
C: Dictated responses to a scribe	8	0.04%
D: Used word processing with tools off	263	1.23%
E: Dictated essay with conventions	32	0.15%
F: Used noninterfering assistive device	33	0.15%
G: Used braille version of test	21	0.10%
H: Used large-print version of test	96	0.45%
J: Tested during more than one day	308	1.44%
K: Had supervised breaks	1,584	7.43%
L: Most beneficial time of day	543	2.55%
M: Administered at home or in a hospital	13	0.06%
N: Used a dictionary	6	0.03%
O: Examiner presented using MCE or ASL	19	0.09%
T: Used word processing with tools on	14	0.07%
U: Dictated essay without conventions	12	0.06%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	29	0.14%
X: Used an unlisted accommodation	685	3.21%
Y: Leave blank	287	1.35%
Z: Examiner read test questions aloud	911	4.27%
Accom. or Mod. is in Section 504 plan	51	0.24%
Accom. or Mod. is in IEP	3,510	16.46%
English Learner Test Variation A	48	0.23%
English Learner Test Variation B	25	0.12%
English Learner Test Variation C	18	0.08%
<i>Any Accom., Mod., or EL Variation</i>	3,652	17.13%
<i>No Accom., Mod., or EL Variation</i>	17,666	82.87%

Special Services Summary for ELA, Grade Seven		
English-Only Students	Grade 7	Pct. of Total
B: Marked responses in test booklet	198	0.08%
C: Dictated responses to a scribe	11	0.00%
D: Used word processing with tools off	336	0.13%
E: Dictated essay with conventions	43	0.02%
F: Used noninterfering assistive device	32	0.01%
G: Used braille version of test	20	0.01%
H: Used large-print version of test	81	0.03%
J: Tested during more than one day	268	0.11%
K: Had supervised breaks	1,259	0.51%
L: Most beneficial time of day	437	0.18%
M: Administered at home or in a hospital	56	0.02%
N: Used a dictionary	4	0.00%
O: Examiner presented using MCE or ASL	17	0.01%
T: Used word processing with tools on	17	0.01%
U: Dictated essay without conventions	10	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	28	0.01%
X: Used an unlisted accommodation	548	0.22%
Y: Leave blank	234	0.09%
Z: Examiner read test questions aloud	617	0.25%
Accom. or Mod. is in Section 504 plan	329	0.13%
Accom. or Mod. is in IEP	2,612	1.05%
English Learner Test Variation A	103	0.04%
English Learner Test Variation B	118	0.05%
English Learner Test Variation C	79	0.03%
<i>Any Accom., Mod., or EL Variation</i>	3,264	1.31%
<i>No Accom., Mod., or EL Variation</i>	245,765	98.69%
Initially Fluent English Proficient (I-FEP) Students	Grade 7	Pct. of Total
B: Marked responses in test booklet	10	0.03%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	14	0.04%
E: Dictated essay with conventions	0	0.00%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	0	0.00%
H: Used large-print version of test	8	0.02%
J: Tested during more than one day	7	0.02%
K: Had supervised breaks	50	0.14%
L: Most beneficial time of day	18	0.05%
M: Administered at home or in a hospital	5	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	0	0.00%

Special Services Summary for ELA, Grade Seven		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	35	0.10%
Y: Leave blank	6	0.02%
Z: Examiner read test questions aloud	25	0.07%
Accom. or Mod. is in Section 504 plan	7	0.02%
Accom. or Mod. is in IEP	120	0.33%
English Learner Test Variation A	6	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	7	0.02%
Any Accom., Mod., or EL Variation	146	0.40%
No Accom., Mod., or EL Variation	36,495	99.60%
English Learner (EL) Students	Grade 7	Pct. of Total
B: Marked responses in test booklet	33	0.05%
C: Dictated responses to a scribe	3	0.00%
D: Used word processing with tools off	11	0.02%
E: Dictated essay with conventions	4	0.01%
F: Used noninterfering assistive device	7	0.01%
G: Used braille version of test	4	0.01%
H: Used large-print version of test	16	0.02%
J: Tested during more than one day	54	0.08%
K: Had supervised breaks	384	0.59%
L: Most beneficial time of day	139	0.21%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	7	0.01%
O: Examiner presented using MCE or ASL	0	0.00%
T: Used word processing with tools on	1	0.00%
U: Dictated essay without conventions	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	7	0.01%
X: Used an unlisted accommodation	206	0.31%
Y: Leave blank	78	0.12%
Z: Examiner read test questions aloud	328	0.50%
Accom. or Mod. is in Section 504 plan	28	0.04%
Accom. or Mod. is in IEP	872	1.33%
English Learner Test Variation A	1,191	1.82%
English Learner Test Variation B	96	0.15%
English Learner Test Variation C	764	1.17%
Any Accom., Mod., or EL Variation	2,481	3.79%
No Accom., Mod., or EL Variation	63,030	96.21%

Special Services Summary for ELA, Grade Seven		
Reclassified Fluent English Proficient (R-FEP) Students	Grade 7	Pct. of Total
B: Marked responses in test booklet	24	0.03%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	17	0.02%
E: Dictated essay with conventions	6	0.01%
F: Used noninterfering assistive device	2	0.00%
G: Used braille version of test	0	0.00%
H: Used large-print version of test	16	0.02%
J: Tested during more than one day	10	0.01%
K: Had supervised breaks	95	0.11%
L: Most beneficial time of day	28	0.03%
M: Administered at home or in a hospital	10	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	2	0.00%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	55	0.07%
Y: Leave blank	18	0.02%
Z: Examiner read test questions aloud	34	0.04%
Accom. or Mod. is in Section 504 plan	20	0.02%
Accom. or Mod. is in IEP	213	0.25%
English Learner Test Variation A	10	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	7	0.01%
<i>Any Accom., Mod., or EL Variation</i>	263	0.31%
<i>No Accom., Mod., or EL Variation</i>	84,223	99.69%

Table 2.D.5 Special Services Summary for ELA, Grades Eight and Nine

Special Services Summary for ELA, Grades Eight and Nine				
All Tested	Grade 8	Pct. of Total	Grade 9	Pct. of Total
B: Marked responses in test booklet	191	0.04%	141	0.03%
C: Dictated responses to a scribe	17	0.00%	24	0.01%
F: Used noninterfering assistive device	26	0.01%	10	0.00%
G: Used braille version of test	23	0.01%	19	0.00%
H: Used large-print version of test	108	0.02%	88	0.02%
J: Tested during more than one day	389	0.09%	395	0.08%
K: Had supervised breaks	1,364	0.31%	1,948	0.41%
L: Most beneficial time of day	534	0.12%	386	0.08%
M: Administered at home or in a hospital	75	0.02%	85	0.02%
N: Used a dictionary	3	0.00%	116	0.02%
O: Examiner presented using MCE or ASL	2	0.00%	9	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	21	0.00%	19	0.00%
X: Used an unlisted accommodation	695	0.16%	552	0.12%
Y: Leave blank	215	0.05%	257	0.05%
Z: Examiner read test questions aloud	212	0.05%	358	0.07%
Accom. or Mod. is in Section 504 plan	157	0.04%	79	0.02%
Accom. or Mod. is in IEP	2,570	0.58%	3,132	0.66%
English Learner Test Variation A	565	0.13%	692	0.14%
English Learner Test Variation B	28	0.01%	180	0.04%
English Learner Test Variation C	431	0.10%	1,151	0.24%
Any Accom., Mod., or EL Variation	3,717	0.84%	4,818	1.01%
No Accom., Mod., or EL Variation	437,338	99.16%	473,205	98.99%
Students Not in Special Education	Grade 8	Pct. of Total	Grade 9	Pct. of Total
B: Marked responses in test booklet	30	0.01%	21	0.00%
C: Dictated responses to a scribe	3	0.00%	3	0.00%
F: Used noninterfering assistive device	0	0.00%	1	0.00%
G: Used braille version of test	1	0.00%	2	0.00%
H: Used large-print version of test	24	0.01%	10	0.00%
J: Tested during more than one day	25	0.01%	44	0.01%
K: Had supervised breaks	112	0.03%	171	0.04%
L: Most beneficial time of day	43	0.01%	33	0.01%
M: Administered at home or in a hospital	55	0.01%	44	0.01%
N: Used a dictionary	1	0.00%	8	0.00%
O: Examiner presented using 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	2	0.00%	1	0.00%
X: Used an unlisted accommodation	81	0.02%	59	0.01%
Y: Leave blank	17	0.00%	78	0.02%
Z: Examiner read test questions aloud	15	0.00%	34	0.01%
Accom. or Mod. is in Section 504 plan	148	0.04%	70	0.02%
Accom. or Mod. is in IEP	134	0.03%	296	0.07%

Special Services Summary for ELA, Grades Eight and Nine				
English Learner Test Variation A	536	0.13%	640	0.14%
English Learner Test Variation B	24	0.01%	165	0.04%
English Learner Test Variation C	421	0.10%	1,137	0.25%
<i>Any Accom., Mod., or EL Variation</i>	1,108	0.26%	1,798	0.40%
<i>No Accom., Mod., or EL Variation</i>	418,016	99.74%	449,061	99.60%
Students in Special Education	Grade 8	Pct. of Total	Grade 9	Pct. of Total
B: Marked responses in test booklet	160	0.73%	119	0.44%
C: Dictated responses to a scribe	14	0.06%	21	0.08%
F: Used noninterfering assistive device	26	0.12%	9	0.03%
G: Used braille version of test	22	0.10%	17	0.06%
H: Used large-print version of test	83	0.38%	77	0.28%
J: Tested during more than one day	362	1.66%	350	1.29%
K: Had supervised breaks	1,242	5.68%	1,763	6.52%
L: Most beneficial time of day	486	2.22%	353	1.31%
M: Administered at home or in a hospital	18	0.08%	41	0.15%
N: Used a dictionary	2	0.01%	108	0.40%
O: Examiner presented using MCE or ASL	2	0.01%	9	0.03%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	19	0.09%	18	0.07%
X: Used an unlisted accommodation	610	2.79%	489	1.81%
Y: Leave blank	198	0.91%	173	0.64%
Z: Examiner read test questions aloud	193	0.88%	322	1.19%
Accom. or Mod. is in Section 504 plan	9	0.04%	9	0.03%
Accom. or Mod. is in IEP	2,416	11.06%	2,807	10.38%
English Learner Test Variation A	29	0.13%	52	0.19%
English Learner Test Variation B	4	0.02%	15	0.06%
English Learner Test Variation C	10	0.05%	14	0.05%
<i>Any Accom., Mod., or EL Variation</i>	2,587	11.84%	2,991	11.06%
<i>No Accom., Mod., or EL Variation</i>	19,263	88.16%	24,054	88.94%
English-Only Students	Grade 8	Pct. of Total	Grade 9	Pct. of Total
B: Marked responses in test booklet	150	0.06%	111	0.04%
C: Dictated responses to a scribe	11	0.00%	15	0.01%
F: Used noninterfering assistive device	19	0.01%	5	0.00%
G: Used braille version of test	8	0.00%	11	0.00%
H: Used large-print version of test	75	0.03%	55	0.02%
J: Tested during more than one day	293	0.12%	284	0.11%
K: Had supervised breaks	996	0.40%	1,353	0.50%
L: Most beneficial time of day	364	0.15%	309	0.11%
M: Administered at home or in a hospital	58	0.02%	66	0.02%
N: Used a dictionary	2	0.00%	66	0.02%
O: Examiner presented using MCE or ASL	2	0.00%	3	0.00%

Special Services Summary for ELA, Grades Eight and Nine				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	13	0.01%	14	0.01%
X: Used an unlisted accommodation	465	0.19%	382	0.14%
Y: Leave blank	147	0.06%	184	0.07%
Z: Examiner read test questions aloud	139	0.06%	203	0.08%
Accom. or Mod. is in Section 504 plan	139	0.06%	67	0.02%
Accom. or Mod. is in IEP	1,762	0.71%	2,120	0.79%
English Learner Test Variation A	41	0.02%	28	0.01%
English Learner Test Variation B	4	0.00%	5	0.00%
English Learner Test Variation C	73	0.03%	38	0.01%
Any Accom., Mod., or EL Variation	2,126	0.86%	2,353	0.87%
No Accom., Mod., or EL Variation	246,400	99.14%	267,588	99.13%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Pct. of Total	Grade 9	Pct. of Total
B: Marked responses in test booklet	4	0.01%	4	0.01%
C: Dictated responses to a scribe	2	0.01%	1	0.00%
F: Used noninterfering assistive device	2	0.01%	1	0.00%
G: Used braille version of test	2	0.01%	2	0.01%
H: Used large-print version of test	5	0.02%	4	0.01%
J: Tested during more than one day	5	0.02%	11	0.03%
K: Had supervised breaks	25	0.08%	52	0.16%
L: Most beneficial time of day	13	0.04%	6	0.02%
M: Administered at home or in a hospital	6	0.02%	0	0.00%
N: Used a dictionary	0	0.00%	4	0.01%
O: Examiner presented using MCE or ASL	0	0.00%	1	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.01%
X: Used an unlisted accommodation	19	0.06%	15	0.04%
Y: Leave blank	6	0.02%	9	0.03%
Z: Examiner read test questions aloud	3	0.01%	9	0.03%
Accom. or Mod. is in Section 504 plan	3	0.01%	2	0.01%
Accom. or Mod. is in IEP	62	0.19%	85	0.25%
English Learner Test Variation A	5	0.02%	6	0.02%
English Learner Test Variation B	0	0.00%	1	0.00%
English Learner Test Variation C	2	0.01%	7	0.02%
Any Accom., Mod., or EL Variation	77	0.23%	98	0.29%
No Accom., Mod., or EL Variation	32,809	99.77%	33,299	99.71%
English Learner (EL) Students	Grade 8	Pct. of Total	Grade 9	Pct. of Total
B: Marked responses in test booklet	18	0.03%	9	0.01%
C: Dictated responses to a scribe	2	0.00%	6	0.01%
F: Used noninterfering assistive device	0	0.00%	1	0.00%
G: Used braille version of test	6	0.01%	2	0.00%
H: Used large-print version of test	10	0.02%	9	0.01%
J: Tested during more than one day	76	0.12%	88	0.12%
K: Had supervised breaks	270	0.43%	453	0.64%

Special Services Summary for ELA, Grades Eight and Nine				
L: Most beneficial time of day	131	0.21%	62	0.09%
M: Administered at home or in a hospital	6	0.01%	8	0.01%
N: Used a dictionary	1	0.00%	41	0.06%
O: Examiner presented using MCE or ASL	0	0.00%	5	0.01%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	2	0.00%	1	0.00%
X: Used an unlisted accommodation	144	0.23%	129	0.18%
Y: Leave blank	43	0.07%	55	0.08%
Z: Examiner read test questions aloud	62	0.10%	131	0.19%
Accom. or Mod. is in Section 504 plan	7	0.01%	5	0.01%
Accom. or Mod. is in IEP	547	0.87%	767	1.08%
English Learner Test Variation A	507	0.80%	634	0.90%
English Learner Test Variation B	23	0.04%	171	0.24%
English Learner Test Variation C	351	0.56%	1,076	1.52%
Any Accom., Mod., or EL Variation	1,283	2.04%	2,154	3.04%
No Accom., Mod., or EL Variation	61,740	97.96%	68,605	96.96%
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Pct. of Total	Grade 9	Pct. of Total
B: Marked responses in test booklet	18	0.02%	15	0.01%
C: Dictated responses to a scribe	2	0.00%	2	0.00%
F: Used noninterfering assistive device	5	0.01%	2	0.00%
G: Used braille version of test	7	0.01%	4	0.00%
H: Used large-print version of test	17	0.02%	19	0.02%
J: Tested during more than one day	14	0.01%	10	0.01%
K: Had supervised breaks	69	0.07%	77	0.07%
L: Most beneficial time of day	25	0.03%	8	0.01%
M: Administered at home or in a hospital	5	0.01%	11	0.01%
N: Used a dictionary	0	0.00%	5	0.00%
O: Examiner presented using 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	6	0.01%	2	0.00%
X: Used an unlisted accommodation	63	0.07%	21	0.02%
Y: Leave blank	17	0.02%	9	0.01%
Z: Examiner read test questions aloud	6	0.01%	11	0.01%
Accom. or Mod. is in Section 504 plan	8	0.01%	5	0.00%
Accom. or Mod. is in IEP	189	0.20%	140	0.14%
English Learner Test Variation A	10	0.01%	23	0.02%
English Learner Test Variation B	0	0.00%	2	0.00%
English Learner Test Variation C	4	0.00%	27	0.03%
Any Accom., Mod., or EL Variation	217	0.23%	190	0.18%
No Accom., Mod., or EL Variation	95,666	99.77%	102,944	99.82%

Table 2.D.6 Special Services Summary for ELA, Grades Ten and Eleven

Special Services Summary for ELA, Grades Ten and Eleven				
All Tested	Grade 10	Pct. of Total	Grade 11	Pct. of Total
B: Marked responses in test booklet	127	0.03%	134	0.03%
C: Dictated responses to a scribe	28	0.01%	24	0.01%
F: Used noninterfering assistive device	8	0.00%	15	0.00%
G: Used braille version of test	23	0.00%	29	0.01%
H: Used large-print version of test	83	0.02%	87	0.02%
J: Tested during more than one day	336	0.07%	290	0.06%
K: Had supervised breaks	2,028	0.43%	1,930	0.43%
L: Most beneficial time of day	460	0.10%	415	0.09%
M: Administered at home or in a hospital	103	0.02%	101	0.02%
N: Used a dictionary	101	0.02%	158	0.04%
O: Examiner presented using MCE or ASL	9	0.00%	14	0.00%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	19	0.00%	33	0.01%
X: Used an unlisted accommodation	522	0.11%	480	0.11%
Y: Leave blank	210	0.04%	200	0.04%
Z: Examiner read test questions aloud	309	0.07%	381	0.09%
Accom. or Mod. is in Section 504 plan	64	0.01%	75	0.02%
Accom. or Mod. is in IEP	3,181	0.68%	3,062	0.69%
English Learner Test Variation A	583	0.12%	428	0.10%
English Learner Test Variation B	213	0.05%	85	0.02%
English Learner Test Variation C	987	0.21%	769	0.17%
Any Accom., Mod., or EL Variation	4,700	1.01%	4,260	0.95%
No Accom., Mod., or EL Variation	462,229	98.99%	442,592	99.05%
Students Not in Special Education	Grade 10	Pct. of Total	Grade 11	Pct. of Total
B: Marked responses in test booklet	17	0.00%	12	0.00%
C: Dictated responses to a scribe	4	0.00%	1	0.00%
F: Used noninterfering assistive device	1	0.00%	0	0.00%
G: Used braille version of test	4	0.00%	1	0.00%
H: Used large-print version of test	10	0.00%	9	0.00%
J: Tested during more than one day	17	0.00%	12	0.00%
K: Had supervised breaks	127	0.03%	118	0.03%
L: Most beneficial time of day	45	0.01%	35	0.01%
M: Administered at home or in a hospital	49	0.01%	51	0.01%
N: Used a dictionary	5	0.00%	16	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	3	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.00%	3	0.00%
X: Used an unlisted accommodation	40	0.01%	43	0.01%
Y: Leave blank	20	0.00%	15	0.00%
Z: Examiner read test questions aloud	16	0.00%	25	0.01%
Accom. or Mod. is in Section 504 plan	59	0.01%	66	0.02%
Accom. or Mod. is in IEP	174	0.04%	158	0.04%

Special Services Summary for ELA, Grades Ten and Eleven				
English Learner Test Variation A	529	0.12%	369	0.09%
English Learner Test Variation B	197	0.04%	77	0.02%
English Learner Test Variation C	973	0.22%	758	0.18%
<i>Any Accom., Mod., or EL Variation</i>	1,499	0.34%	1,126	0.27%
<i>No Accom., Mod., or EL Variation</i>	437,163	99.66%	417,841	99.73%
Students in Special Education	Grade 10	Pct. of Total	Grade 11	Pct. of Total
B: Marked responses in test booklet	109	0.39%	121	0.44%
C: Dictated responses to a scribe	24	0.09%	23	0.08%
F: Used noninterfering assistive device	7	0.02%	15	0.05%
G: Used braille version of test	19	0.07%	28	0.10%
H: Used large-print version of test	73	0.26%	78	0.28%
J: Tested during more than one day	317	1.13%	274	0.99%
K: Had supervised breaks	1,889	6.71%	1,801	6.48%
L: Most beneficial time of day	412	1.46%	376	1.35%
M: Administered at home or in a hospital	54	0.19%	48	0.17%
N: Used a dictionary	96	0.34%	142	0.51%
O: Examiner presented using MCE or ASL	9	0.03%	11	0.04%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	18	0.06%	30	0.11%
X: Used an unlisted accommodation	478	1.70%	430	1.55%
Y: Leave blank	190	0.67%	184	0.66%
Z: Examiner read test questions aloud	293	1.04%	354	1.27%
Accom. or Mod. is in Section 504 plan	5	0.02%	9	0.03%
Accom. or Mod. is in IEP	2,990	10.61%	2,883	10.37%
English Learner Test Variation A	54	0.19%	59	0.21%
English Learner Test Variation B	16	0.06%	8	0.03%
English Learner Test Variation C	14	0.05%	11	0.04%
<i>Any Accom., Mod., or EL Variation</i>	3,184	11.30%	3,112	11.19%
<i>No Accom., Mod., or EL Variation</i>	24,984	88.70%	24,700	88.81%
English-Only Students	Grade 10	Pct. of Total	Grade 11	Pct. of Total
B: Marked responses in test booklet	95	0.04%	106	0.04%
C: Dictated responses to a scribe	20	0.01%	18	0.01%
F: Used noninterfering assistive device	3	0.00%	7	0.00%
G: Used braille version of test	10	0.00%	19	0.01%
H: Used large-print version of test	61	0.02%	65	0.03%
J: Tested during more than one day	250	0.09%	215	0.08%
K: Had supervised breaks	1,376	0.52%	1,325	0.52%
L: Most beneficial time of day	366	0.14%	326	0.13%
M: Administered at home or in a hospital	76	0.03%	67	0.03%
N: Used a dictionary	62	0.02%	89	0.03%
O: Examiner presented using MCE or ASL	5	0.00%	8	0.00%

Special Services Summary for ELA, Grades Ten and Eleven				
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	16	0.01%	19	0.01%
X: Used an unlisted accommodation	352	0.13%	331	0.13%
Y: Leave blank	141	0.05%	148	0.06%
Z: Examiner read test questions aloud	177	0.07%	242	0.09%
Accom. or Mod. is in Section 504 plan	60	0.02%	63	0.02%
Accom. or Mod. is in IEP	2,136	0.80%	2,102	0.82%
English Learner Test Variation A	10	0.00%	6	0.00%
English Learner Test Variation B	1	0.00%	3	0.00%
English Learner Test Variation C	18	0.01%	20	0.01%
Any Accom., Mod., or EL Variation	2,355	0.88%	2,337	0.91%
No Accom., Mod., or EL Variation	264,244	99.12%	254,414	99.09%
Initially Fluent English Proficient (I-FEP) Students	Grade 10	Pct. of Total	Grade 11	Pct. of Total
B: Marked responses in test booklet	5	0.01%	3	0.01%
C: Dictated responses to a scribe	0	0.00%	2	0.01%
F: Used noninterfering assistive device	0	0.00%	2	0.01%
G: Used braille version of test	2	0.01%	4	0.01%
H: Used large-print version of test	4	0.01%	3	0.01%
J: Tested during more than one day	6	0.02%	8	0.02%
K: Had supervised breaks	57	0.14%	63	0.17%
L: Most beneficial time of day	10	0.03%	10	0.03%
M: Administered at home or in a hospital	1	0.00%	4	0.01%
N: Used a dictionary	0	0.00%	5	0.01%
O: Examiner presented using MCE or ASL	1	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.00%	1	0.00%
X: Used an unlisted accommodation	9	0.02%	10	0.03%
Y: Leave blank	11	0.03%	6	0.02%
Z: Examiner read test questions aloud	2	0.01%	10	0.03%
Accom. or Mod. is in Section 504 plan	0	0.00%	4	0.01%
Accom. or Mod. is in IEP	84	0.21%	86	0.23%
English Learner Test Variation A	4	0.01%	6	0.02%
English Learner Test Variation B	1	0.00%	0	0.00%
English Learner Test Variation C	3	0.01%	4	0.01%
Any Accom., Mod., or EL Variation	96	0.24%	111	0.29%
No Accom., Mod., or EL Variation	39,378	99.76%	37,701	99.71%
English Learner (EL) Students	Grade 10	Pct. of Total	Grade 11	Pct. of Total
B: Marked responses in test booklet	11	0.02%	10	0.02%
C: Dictated responses to a scribe	7	0.01%	1	0.00%
F: Used noninterfering assistive device	3	0.00%	2	0.00%
G: Used braille version of test	5	0.01%	2	0.00%
H: Used large-print version of test	7	0.01%	9	0.02%
J: Tested during more than one day	67	0.11%	60	0.11%
K: Had supervised breaks	487	0.78%	447	0.81%

Special Services Summary for ELA, Grades Ten and Eleven				
L: Most beneficial time of day	65	0.10%	68	0.12%
M: Administered at home or in a hospital	9	0.01%	19	0.03%
N: Used a dictionary	35	0.06%	60	0.11%
O: Examiner presented using MCE or ASL	3	0.00%	6	0.01%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	2	0.00%	11	0.02%
X: Used an unlisted accommodation	136	0.22%	113	0.21%
Y: Leave blank	49	0.08%	35	0.06%
Z: Examiner read test questions aloud	116	0.19%	110	0.20%
Accom. or Mod. is in Section 504 plan	1	0.00%	5	0.01%
Accom. or Mod. is in IEP	789	1.26%	714	1.30%
English Learner Test Variation A	556	0.89%	412	0.75%
English Learner Test Variation B	206	0.33%	82	0.15%
English Learner Test Variation C	948	1.52%	735	1.34%
Any Accom., Mod., or EL Variation	2,029	3.25%	1,621	2.96%
No Accom., Mod., or EL Variation	60,406	96.75%	53,229	97.04%
Reclassified Fluent English Proficient (R-FEP) Students	Grade 10	Pct. of Total	Grade 11	Pct. of Total
B: Marked responses in test booklet	15	0.02%	14	0.01%
C: Dictated responses to a scribe	1	0.00%	3	0.00%
F: Used noninterfering assistive device	2	0.00%	4	0.00%
G: Used braille version of test	6	0.01%	4	0.00%
H: Used large-print version of test	11	0.01%	10	0.01%
J: Tested during more than one day	9	0.01%	5	0.01%
K: Had supervised breaks	94	0.10%	84	0.09%
L: Most beneficial time of day	15	0.02%	7	0.01%
M: Administered at home or in a hospital	15	0.02%	10	0.01%
N: Used a dictionary	4	0.00%	4	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.00%
X: Used an unlisted accommodation	23	0.02%	24	0.02%
Y: Leave blank	7	0.01%	10	0.01%
Z: Examiner read test questions aloud	14	0.01%	18	0.02%
Accom. or Mod. is in Section 504 plan	3	0.00%	2	0.00%
Accom. or Mod. is in IEP	151	0.15%	147	0.15%
English Learner Test Variation A	12	0.01%	4	0.00%
English Learner Test Variation B	4	0.00%	0	0.00%
English Learner Test Variation C	17	0.02%	9	0.01%
Any Accom., Mod., or EL Variation	194	0.20%	174	0.18%
No Accom., Mod., or EL Variation	97,465	99.80%	96,653	99.82%

Table 2.D.7 Special Services Summary for History–Social Science, Grade Eight

Special Services Summary for History–Social Science, Grade Eight		
All Tested	Grade 8	Pct. of Total
B: Marked responses in test booklet	401	0.09%
C: Dictated responses to a scribe	33	0.01%
F: Used noninterfering assistive device	39	0.01%
G: Used braille version of test	30	0.01%
H: Used large-print version of test	164	0.04%
J: Tested during more than one day	670	0.14%
K: Had supervised breaks	2,958	0.64%
L: Most beneficial time of day	1,185	0.26%
M: Administered at home or in a hospital	87	0.02%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	48	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	17	0.00%
X: Used an unlisted accommodation	1,160	0.25%
Y: Leave blank	524	0.11%
Z: Examiner read test questions aloud	3,423	0.74%
Accom. or Mod. is in Section 504 plan	152	0.03%
Accom. or Mod. is in IEP	7,443	1.61%
English Learner Test Variation A	465	0.10%
English Learner Test Variation B	19	0.00%
English Learner Test Variation C	345	0.07%
English Learner Test Variation D	383	0.08%
Any Accom., Mod., or EL Variation	9,046	1.96%
No Accom., Mod., or EL Variation	453,262	98.04%
Students Not in Special Education	Grade 8	Pct. of Total
B: Marked responses in test booklet	30	0.01%
C: Dictated responses to a scribe	4	0.00%
F: Used noninterfering assistive device	3	0.00%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	22	0.01%
J: Tested during more than one day	20	0.00%
K: Had supervised breaks	94	0.02%
L: Most beneficial time of day	39	0.01%
M: Administered at home or in a hospital	50	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	71	0.02%
Y: Leave blank	16	0.00%
Z: Examiner read test questions aloud	74	0.02%

Special Services Summary for History–Social Science, Grade Eight		
Accom. or Mod. is in Section 504 plan	135	0.03%
Accom. or Mod. is in IEP	152	0.04%
English Learner Test Variation A	424	0.10%
English Learner Test Variation B	9	0.00%
English Learner Test Variation C	324	0.08%
English Learner Test Variation D	318	0.08%
<i>Any Accom., Mod., or EL Variation</i>	1,210	0.29%
<i>No Accom., Mod., or EL Variation</i>	416,945	99.71%
Students in Special Education	Grade 8	Pct. of Total
B: Marked responses in test booklet	366	0.85%
C: Dictated responses to a scribe	29	0.07%
F: Used noninterfering assistive device	36	0.08%
G: Used braille version of test	29	0.07%
H: Used large-print version of test	139	0.32%
J: Tested during more than one day	629	1.46%
K: Had supervised breaks	2,766	6.41%
L: Most beneficial time of day	1,106	2.56%
M: Administered at home or in a hospital	35	0.08%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	48	0.11%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	15	0.03%
X: Used an unlisted accommodation	1,066	2.47%
Y: Leave blank	500	1.16%
Z: Examiner read test questions aloud	3,251	7.53%
Accom. or Mod. is in Section 504 plan	16	0.04%
Accom. or Mod. is in IEP	7,087	16.41%
English Learner Test Variation A	40	0.09%
English Learner Test Variation B	10	0.02%
English Learner Test Variation C	20	0.05%
English Learner Test Variation D	65	0.15%
<i>Any Accom., Mod., or EL Variation</i>	7,617	17.64%
<i>No Accom., Mod., or EL Variation</i>	35,564	82.36%
English-Only Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	280	0.11%
C: Dictated responses to a scribe	21	0.01%
F: Used noninterfering assistive device	27	0.01%
G: Used braille version of test	13	0.01%
H: Used large-print version of test	109	0.04%
J: Tested during more than one day	451	0.17%
K: Had supervised breaks	1,836	0.71%
L: Most beneficial time of day	704	0.27%
M: Administered at home or in a hospital	62	0.02%
N: Used a dictionary	0	0.00%

Special Services Summary for History–Social Science, Grade Eight		
O: Examiner presented using MCE or ASL	26	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	9	0.00%
X: Used an unlisted accommodation	711	0.27%
Y: Leave blank	285	0.11%
Z: Examiner read test questions aloud	1,834	0.71%
Accom. or Mod. is in Section 504 plan	129	0.05%
Accom. or Mod. is in IEP	4,281	1.65%
English Learner Test Variation A	40	0.02%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	59	0.02%
English Learner Test Variation D	256	0.10%
Any Accom., Mod., or EL Variation	5,023	1.94%
No Accom., Mod., or EL Variation	254,553	98.06%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	7	0.02%
C: Dictated responses to a scribe	3	0.01%
F: Used noninterfering assistive device	2	0.01%
G: Used braille version of test	2	0.01%
H: Used large-print version of test	7	0.02%
J: Tested during more than one day	9	0.03%
K: Had supervised breaks	43	0.13%
L: Most beneficial time of day	25	0.08%
M: Administered at home or in a hospital	8	0.02%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	26	0.08%
Y: Leave blank	14	0.04%
Z: Examiner read test questions aloud	51	0.15%
Accom. or Mod. is in Section 504 plan	3	0.01%
Accom. or Mod. is in IEP	143	0.43%
English Learner Test Variation A	5	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	2	0.01%
English Learner Test Variation D	6	0.02%
Any Accom., Mod., or EL Variation	166	0.50%
No Accom., Mod., or EL Variation	33,068	99.50%
English Learner (EL) Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	77	0.11%
C: Dictated responses to a scribe	8	0.01%
F: Used noninterfering assistive device	4	0.01%
G: Used braille version of test	9	0.01%

Special Services Summary for History–Social Science, Grade Eight		
H: Used large-print version of test	28	0.04%
J: Tested during more than one day	192	0.27%
K: Had supervised breaks	967	1.34%
L: Most beneficial time of day	404	0.56%
M: Administered at home or in a hospital	11	0.02%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	22	0.03%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	316	0.44%
Y: Leave blank	198	0.28%
Z: Examiner read test questions aloud	1,408	1.96%
Accom. or Mod. is in Section 504 plan	12	0.02%
Accom. or Mod. is in IEP	2,629	3.65%
English Learner Test Variation A	408	0.57%
English Learner Test Variation B	17	0.02%
English Learner Test Variation C	280	0.39%
English Learner Test Variation D	121	0.17%
Any Accom., Mod., or EL Variation	3,427	4.76%
No Accom., Mod., or EL Variation	68,561	95.24%
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	31	0.03%
C: Dictated responses to a scribe	1	0.00%
F: Used noninterfering assistive device	6	0.01%
G: Used braille version of test	6	0.01%
H: Used large-print version of test	18	0.02%
J: Tested during more than one day	17	0.02%
K: Had supervised breaks	92	0.10%
L: Most beneficial time of day	47	0.05%
M: Administered at home or in a hospital	6	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	5	0.01%
X: Used an unlisted accommodation	93	0.10%
Y: Leave blank	23	0.02%
Z: Examiner read test questions aloud	112	0.12%
Accom. or Mod. is in Section 504 plan	8	0.01%
Accom. or Mod. is in IEP	345	0.36%

Special Services Summary for History–Social Science, Grade Eight		
English Learner Test Variation A	10	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	4	0.00%
English Learner Test Variation D	0	0.00%
<i>Any Accom., Mod., or EL Variation</i>	381	0.39%
<i>No Accom., Mod., or EL Variation</i>	96,200	99.61%

Table 2.D.8 Special Services Summary for World History

Special Services Summary for World History					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	12	130	8	150	0.03%
C: Dictated responses to a scribe	1	24	1	26	0.01%
F: Used noninterfering assistive device	1	9	0	10	0.00%
G: Used braille version of test	3	20	0	23	0.00%
H: Used large-print version of test	8	76	2	86	0.02%
J: Tested during more than one day	57	323	46	426	0.09%
K: Had supervised breaks	232	2,304	149	2,685	0.56%
L: Most beneficial time of day	69	453	58	580	0.12%
M: Administered at home or in a hospital	6	105	8	119	0.02%
N: Used a dictionary	0	22	0	22	0.00%
O: Examiner presented using MCE or ASL	0	35	3	38	0.01%
V: Used interfering assistive device	0	2	0	2	0.00%
W: Used an unlisted modification	2	20	2	24	0.00%
X: Used an unlisted accommodation	53	598	19	670	0.14%
Y: Leave blank	16	328	15	359	0.07%
Z: Examiner read test questions aloud	53	791	44	888	0.18%
Accom. or Mod. is in Section 504 plan	2	51	2	55	0.01%
Accom. or Mod. is in IEP	358	3,913	227	4,498	0.94%
English Learner Test Variation A	31	392	52	475	0.10%
English Learner Test Variation B	2	70	8	80	0.02%
English Learner Test Variation C	75	677	58	810	0.17%
English Learner Test Variation D	52	942	36	1,030	0.21%
Any Accom., Mod., or EL Variation	493	5,528	334	6,355	1.32%
No Accom., Mod., or EL Variation	34,648	422,331	17,405	474,384	98.68%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	1	13	0	14	0.00%
C: Dictated responses to a scribe	0	4	0	4	0.00%
F: Used noninterfering assistive device	0	1	0	1	0.00%
G: Used braille version of test	1	5	0	6	0.00%
H: Used large-print version of test	1	8	0	9	0.00%
J: Tested during more than one day	1	9	1	11	0.00%
K: Had supervised breaks	10	99	6	115	0.03%
L: Most beneficial time of day	2	37	2	41	0.01%
M: Administered at home or in a hospital	3	42	5	50	0.01%
N: Used a dictionary	0	3	0	3	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	0	1	0.00%
X: Used an unlisted accommodation	6	23	0	29	0.01%
Y: Leave blank	2	18	1	21	0.00%
Z: Examiner read test questions aloud	1	17	2	20	0.00%

Special Services Summary for World History					
Accom. or Mod. is in Section 504 plan	1	46	2	49	0.01%
Accom. or Mod. is in IEP	18	127	5	150	0.03%
English Learner Test Variation A	31	338	48	417	0.09%
English Learner Test Variation B	2	55	8	65	0.01%
English Learner Test Variation C	75	664	58	797	0.18%
English Learner Test Variation D	51	889	34	974	0.22%
Any Accom., Mod., or EL Variation	144	1,502	96	1,742	0.40%
No Accom., Mod., or EL Variation	31,964	391,802	15,351	439,117	99.60%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	11	115	8	134	0.34%
C: Dictated responses to a scribe	1	20	1	22	0.06%
F: Used noninterfering assistive device	1	8	0	9	0.02%
G: Used braille version of test	2	15	0	17	0.04%
H: Used large-print version of test	7	67	2	76	0.19%
J: Tested during more than one day	56	310	42	408	1.04%
K: Had supervised breaks	218	2,165	138	2,521	6.42%
L: Most beneficial time of day	67	413	53	533	1.36%
M: Administered at home or in a hospital	3	63	3	69	0.18%
N: Used a dictionary	0	19	0	19	0.05%
O: Examiner presented using MCE or ASL	0	35	2	37	0.09%
V: Used interfering assistive device	0	2	0	2	0.01%
W: Used an unlisted modification	1	20	2	23	0.06%
X: Used an unlisted accommodation	46	562	19	627	1.60%
Y: Leave blank	14	308	14	336	0.86%
Z: Examiner read test questions aloud	51	741	42	834	2.13%
Accom. or Mod. is in Section 504 plan	1	4	0	5	0.01%
Accom. or Mod. is in IEP	334	3,702	217	4,253	10.84%
English Learner Test Variation A	0	54	4	58	0.15%
English Learner Test Variation B	0	15	0	15	0.04%
English Learner Test Variation C	0	13	0	13	0.03%
English Learner Test Variation D	1	51	2	54	0.14%
Any Accom., Mod., or EL Variation	343	3,938	233	4,514	11.50%
No Accom., Mod., or EL Variation	2,654	30,041	2,032	34,727	88.50%
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	6	96	6	108	0.04%
C: Dictated responses to a scribe	1	19	1	21	0.01%
F: Used noninterfering assistive device	0	4	0	4	0.00%
G: Used braille version of test	3	11	0	14	0.01%
H: Used large-print version of test	1	55	2	58	0.02%
J: Tested during more than one day	39	209	34	282	0.10%
K: Had supervised breaks	146	1,402	105	1,653	0.61%
L: Most beneficial time of day	51	332	44	427	0.16%
M: Administered at home or in a hospital	3	75	4	82	0.03%
N: Used a dictionary	0	11	0	11	0.00%

Special Services Summary for World History					
O: Examiner presented using MCE or ASL	0	17	1	18	0.01%
V: Used interfering assistive device	0	2	0	2	0.00%
W: Used an unlisted modification	1	14	0	15	0.01%
X: Used an unlisted accommodation	43	347	9	399	0.15%
Y: Leave blank	10	212	13	235	0.09%
Z: Examiner read test questions aloud	27	412	23	462	0.17%
Accom. or Mod. is in Section 504 plan	1	46	1	48	0.02%
Accom. or Mod. is in IEP	229	2,355	158	2,742	1.01%
English Learner Test Variation A	4	7	3	14	0.01%
English Learner Test Variation B	0	1	1	2	0.00%
English Learner Test Variation C	1	64	1	66	0.02%
English Learner Test Variation D	1	9	3	13	0.00%
Any Accom., Mod., or EL Variation	242	2,616	174	3,032	1.11%
No Accom., Mod., or EL Variation	18,272	241,450	9,672	269,394	98.89%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	2	1	3	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	2	0	2	0.00%
H: Used large-print version of test	1	4	0	5	0.01%
J: Tested during more than one day	0	6	0	6	0.01%
K: Had supervised breaks	3	66	2	71	0.18%
L: Most beneficial time of day	2	12	1	15	0.04%
M: Administered at home or in a hospital	0	3	0	3	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	2	0	2	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	1	0	2	0.00%
X: Used an unlisted accommodation	3	9	1	13	0.03%
Y: Leave blank	0	13	0	13	0.03%
Z: Examiner read test questions aloud	1	15	0	16	0.04%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	8	108	5	121	0.30%
English Learner Test Variation A	0	4	0	4	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	1	2	0	3	0.01%
English Learner Test Variation D	0	6	0	6	0.01%
Any Accom., Mod., or EL Variation	9	122	5	136	0.34%
No Accom., Mod., or EL Variation	3,387	35,876	993	40,256	99.66%

Special Services Summary for World History					
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	3	21	0	24	0.04%
C: Dictated responses to a scribe	0	3	0	3	0.00%
F: Used noninterfering assistive device	0	2	0	2	0.00%
G: Used braille version of test	0	2	0	2	0.00%
H: Used large-print version of test	4	8	0	12	0.02%
J: Tested during more than one day	17	96	11	124	0.19%
K: Had supervised breaks	69	730	41	840	1.27%
L: Most beneficial time of day	15	93	12	120	0.18%
M: Administered at home or in a hospital	2	12	2	16	0.02%
N: Used a dictionary	0	11	0	11	0.02%
O: Examiner presented using MCE or ASL	0	15	2	17	0.03%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	5	2	7	0.01%
X: Used an unlisted accommodation	7	221	8	236	0.36%
Y: Leave blank	5	90	2	97	0.15%
Z: Examiner read test questions aloud	21	325	21	367	0.55%
Accom. or Mod. is in Section 504 plan	1	1	1	3	0.00%
Accom. or Mod. is in IEP	102	1,269	61	1,432	2.16%
English Learner Test Variation A	27	372	49	448	0.68%
English Learner Test Variation B	2	67	7	76	0.11%
English Learner Test Variation C	73	597	57	727	1.10%
English Learner Test Variation D	51	906	32	989	1.49%
Any Accom., Mod., or EL Variation	221	2,559	149	2,929	4.42%
No Accom., Mod., or EL Variation	5,008	54,476	3,926	63,410	95.58%
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	3	10	1	14	0.01%
C: Dictated responses to a scribe	0	2	0	2	0.00%
F: Used noninterfering assistive device	1	3	0	4	0.00%
G: Used braille version of test	0	5	0	5	0.00%
H: Used large-print version of test	2	9	0	11	0.01%
J: Tested during more than one day	0	8	1	9	0.01%
K: Had supervised breaks	11	93	1	105	0.10%
L: Most beneficial time of day	0	14	1	15	0.01%
M: Administered at home or in a hospital	1	13	2	16	0.02%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	18	1	19	0.02%
Y: Leave blank	1	12	0	13	0.01%
Z: Examiner read test questions aloud	4	37	0	41	0.04%

Special Services Summary for World History					
Accom. or Mod. is in Section 504 plan	0	2	0	2	0.00%
Accom. or Mod. is in IEP	16	161	3	180	0.18%
English Learner Test Variation A	0	9	0	9	0.01%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	0	14	0	14	0.01%
English Learner Test Variation D	0	21	1	22	0.02%
<i>Any Accom., Mod., or EL Variation</i>	18	207	6	231	0.23%
<i>No Accom., Mod., or EL Variation</i>	7,925	89,884	2,765	100,574	99.77%

Table 2.D.9 Special Services Summary for History–Social Science, Grade Eleven

Special Services Summary for History–Social Science, Grade Eleven		
All Tested	Grade 11	Pct. of Total
B: Marked responses in test booklet	139	0.03%
C: Dictated responses to a scribe	29	0.01%
F: Used noninterfering assistive device	17	0.00%
G: Used braille version of test	23	0.01%
H: Used large-print version of test	84	0.02%
J: Tested during more than one day	267	0.06%
K: Had supervised breaks	2,187	0.49%
L: Most beneficial time of day	470	0.10%
M: Administered at home or in a hospital	88	0.02%
N: Used a dictionary	52	0.01%
O: Examiner presented using MCE or ASL	57	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	38	0.01%
X: Used an unlisted accommodation	568	0.13%
Y: Leave blank	279	0.06%
Z: Examiner read test questions aloud	754	0.17%
Accom. or Mod. is in Section 504 plan	73	0.02%
Accom. or Mod. is in IEP	3,703	0.83%
English Learner Test Variation A	372	0.08%
English Learner Test Variation B	73	0.02%
English Learner Test Variation C	644	0.14%
English Learner Test Variation D	846	0.19%
Any Accom., Mod., or EL Variation	5,226	1.17%
No Accom., Mod., or EL Variation	442,667	98.83%
Students Not in Special Education	Grade 11	Pct. of Total
B: Marked responses in test booklet	12	0.00%
C: Dictated responses to a scribe	0	0.00%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	6	0.00%
J: Tested during more than one day	4	0.00%
K: Had supervised breaks	97	0.02%
L: Most beneficial time of day	31	0.01%
M: Administered at home or in a hospital	41	0.01%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	3	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	36	0.01%
Y: Leave blank	16	0.00%
Z: Examiner read test questions aloud	29	0.01%

Special Services Summary for History–Social Science, Grade Eleven		
Accom. or Mod. is in Section 504 plan	61	0.01%
Accom. or Mod. is in IEP	125	0.03%
English Learner Test Variation A	313	0.08%
English Learner Test Variation B	61	0.01%
English Learner Test Variation C	623	0.15%
English Learner Test Variation D	777	0.19%
<i>Any</i> Accom., Mod., or EL Variation	1,385	0.34%
<i>No</i> Accom., Mod., or EL Variation	411,256	99.66%
Students in Special Education	Grade 11	Pct. of Total
B: Marked responses in test booklet	127	0.36%
C: Dictated responses to a scribe	29	0.08%
F: Used noninterfering assistive device	17	0.05%
G: Used braille version of test	22	0.06%
H: Used large-print version of test	77	0.22%
J: Tested during more than one day	259	0.74%
K: Had supervised breaks	2,069	5.91%
L: Most beneficial time of day	433	1.24%
M: Administered at home or in a hospital	45	0.13%
N: Used a dictionary	49	0.14%
O: Examiner presented using MCE or ASL	54	0.15%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	36	0.10%
X: Used an unlisted accommodation	522	1.49%
Y: Leave blank	258	0.74%
Z: Examiner read test questions aloud	715	2.04%
Accom. or Mod. is in Section 504 plan	12	0.03%
Accom. or Mod. is in IEP	3,536	10.10%
English Learner Test Variation A	59	0.17%
English Learner Test Variation B	12	0.03%
English Learner Test Variation C	21	0.06%
English Learner Test Variation D	69	0.20%
<i>Any</i> Accom., Mod., or EL Variation	3,799	10.85%
<i>No</i> Accom., Mod., or EL Variation	31,228	89.15%
English-Only Students	Grade 11	Pct. of Total
B: Marked responses in test booklet	109	0.04%
C: Dictated responses to a scribe	21	0.01%
F: Used noninterfering assistive device	11	0.00%
G: Used braille version of test	16	0.01%
H: Used large-print version of test	63	0.02%
J: Tested during more than one day	178	0.07%
K: Had supervised breaks	1,382	0.54%
L: Most beneficial time of day	344	0.13%
M: Administered at home or in a hospital	61	0.02%
N: Used a dictionary	32	0.01%

Special Services Summary for History–Social Science, Grade Eleven		
O: Examiner presented using MCE or ASL	21	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	17	0.01%
X: Used an unlisted accommodation	370	0.14%
Y: Leave blank	202	0.08%
Z: Examiner read test questions aloud	409	0.16%
Accom. or Mod. is in Section 504 plan	59	0.02%
Accom. or Mod. is in IEP	2,362	0.92%
English Learner Test Variation A	5	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	18	0.01%
English Learner Test Variation D	13	0.01%
Any Accom., Mod., or EL Variation	2,581	1.00%
No Accom., Mod., or EL Variation	254,599	99.00%
Initially Fluent English Proficient (I-FEP) Students	Grade 11	Pct. of Total
B: Marked responses in test booklet	4	0.01%
C: Dictated responses to a scribe	2	0.01%
F: Used noninterfering assistive device	1	0.00%
G: Used braille version of test	2	0.01%
H: Used large-print version of test	3	0.01%
J: Tested during more than one day	11	0.03%
K: Had supervised breaks	68	0.18%
L: Most beneficial time of day	8	0.02%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	5	0.01%
X: Used an unlisted accommodation	19	0.05%
Y: Leave blank	9	0.02%
Z: Examiner read test questions aloud	17	0.05%
Accom. or Mod. is in Section 504 plan	3	0.01%
Accom. or Mod. is in IEP	103	0.27%
English Learner Test Variation A	6	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	7	0.02%
English Learner Test Variation D	11	0.03%
Any Accom., Mod., or EL Variation	133	0.35%
No Accom., Mod., or EL Variation	37,564	99.65%
English Learner (EL) Students	Grade 11	Pct. of Total
B: Marked responses in test booklet	12	0.02%
C: Dictated responses to a scribe	4	0.01%
F: Used noninterfering assistive device	2	0.00%
G: Used braille version of test	1	0.00%

Special Services Summary for History–Social Science, Grade Eleven		
H: Used large-print version of test	8	0.01%
J: Tested during more than one day	72	0.13%
K: Had supervised breaks	642	1.14%
L: Most beneficial time of day	102	0.18%
M: Administered at home or in a hospital	16	0.03%
N: Used a dictionary	20	0.04%
O: Examiner presented using MCE or ASL	34	0.06%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	15	0.03%
X: Used an unlisted accommodation	155	0.28%
Y: Leave blank	57	0.10%
Z: Examiner read test questions aloud	279	0.50%
Accom. or Mod. is in Section 504 plan	8	0.01%
Accom. or Mod. is in IEP	1,063	1.89%
English Learner Test Variation A	357	0.64%
English Learner Test Variation B	72	0.13%
English Learner Test Variation C	610	1.09%
English Learner Test Variation D	811	1.44%
<i>Any</i> Accom., Mod., or EL Variation	2,305	4.10%
<i>No</i> Accom., Mod., or EL Variation	53,895	95.90%
Reclassified Fluent English Proficient (R-FEP) Students	Grade 11	Pct. of Total
B: Marked responses in test booklet	14	0.01%
C: Dictated responses to a scribe	2	0.00%
F: Used noninterfering assistive device	3	0.00%
G: Used braille version of test	4	0.00%
H: Used large-print version of test	10	0.01%
J: Tested during more than one day	5	0.01%
K: Had supervised breaks	84	0.09%
L: Most beneficial time of day	13	0.01%
M: Administered at home or in a hospital	7	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	23	0.02%
Y: Leave blank	10	0.01%
Z: Examiner read test questions aloud	44	0.05%
Accom. or Mod. is in Section 504 plan	2	0.00%
Accom. or Mod. is in IEP	160	0.17%

Special Services Summary for History–Social Science, Grade Eleven		
English Learner Test Variation A	4	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	8	0.01%
English Learner Test Variation D	10	0.01%
<i>Any Accom., Mod., or EL Variation</i>	187	0.19%
<i>No Accom., Mod., or EL Variation</i>	96,018	99.81%

Table 2.D.10 Special Services Summary for Mathematics, Grades Two and Three

Special Services Summary for Mathematics, Grades Two and Three				
All Tested	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	294	0.06%	215	0.05%
C: Dictated responses to a scribe	82	0.02%	51	0.01%
F: Used noninterfering assistive device	79	0.02%	42	0.01%
G: Used braille version of test	17	0.00%	16	0.00%
H: Used large-print version of test	182	0.04%	181	0.04%
J: Tested during more than one day	1,013	0.22%	612	0.14%
K: Had supervised breaks	4,034	0.88%	2,508	0.57%
L: Most beneficial time of day	1,796	0.39%	1,013	0.23%
M: Administered at home or in a hospital	36	0.01%	43	0.01%
N: Used a dictionary	0	0.00%	3	0.00%
O: Examiner presented using MCE or ASL	92	0.02%	34	0.01%
Q: Used a calculator	5	0.00%	12	0.00%
R: Used an arithmetic table	16	0.00%	20	0.00%
S: Used math manipulatives	104	0.02%	26	0.01%
V: Used interfering assistive device	1	0.00%	2	0.00%
W: Used an unlisted modification	31	0.01%	13	0.00%
X: Used an unlisted accommodation	1,028	0.22%	795	0.18%
Y: Leave blank	171	0.04%	126	0.03%
Z: Examiner read test questions aloud	2,970	0.64%	3,406	0.78%
Accom. or Mod. is in Section 504 plan	213	0.05%	293	0.07%
Accom. or Mod. is in IEP	6,773	1.47%	5,386	1.23%
English Learner Test Variation A	551	0.12%	390	0.09%
English Learner Test Variation B	193	0.04%	72	0.02%
English Learner Test Variation C	307	0.07%	254	0.06%
English Learner Test Variation D	67	0.01%	104	0.02%
Any Accom., Mod., or EL Variation	8,236	1.79%	6,647	1.52%
No Accom., Mod., or EL Variation	452,351	98.21%	431,313	98.48%
Students Not in Special Education	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	44	0.01%	35	0.01%
C: Dictated responses to a scribe	13	0.00%	20	0.00%
F: Used noninterfering assistive device	12	0.00%	10	0.00%
G: Used braille version of test	0	0.00%	5	0.00%
H: Used large-print version of test	24	0.01%	38	0.01%
J: Tested during more than one day	150	0.04%	78	0.02%
K: Had supervised breaks	639	0.15%	349	0.09%
L: Most beneficial time of day	248	0.06%	120	0.03%
M: Administered at home or in a hospital	22	0.01%	28	0.01%
N: Used a dictionary	0	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	5	0.00%	2	0.00%
Q: Used a calculator	0	0.00%	3	0.00%
R: Used an arithmetic table	1	0.00%	4	0.00%
S: Used math manipulatives	17	0.00%	6	0.00%

Special Services Summary for Mathematics, Grades Two and Three				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	5	0.00%	1	0.00%
X: Used an unlisted accommodation	205	0.05%	134	0.03%
Y: Leave blank	40	0.01%	23	0.01%
Z: Examiner read test questions aloud	473	0.11%	398	0.10%
Accom. or Mod. is in Section 504 plan	197	0.05%	259	0.06%
Accom. or Mod. is in IEP	961	0.23%	549	0.13%
English Learner Test Variation A	501	0.12%	368	0.09%
English Learner Test Variation B	143	0.03%	42	0.01%
English Learner Test Variation C	256	0.06%	216	0.05%
English Learner Test Variation D	62	0.01%	100	0.02%
Any Accom., Mod., or EL Variation	2,022	0.48%	1,497	0.37%
No Accom., Mod., or EL Variation	422,460	99.52%	408,341	99.63%
Students in Special Education	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	246	0.68%	176	0.64%
C: Dictated responses to a scribe	69	0.19%	31	0.11%
F: Used noninterfering assistive device	66	0.18%	31	0.11%
G: Used braille version of test	16	0.04%	11	0.04%
H: Used large-print version of test	152	0.42%	140	0.51%
J: Tested during more than one day	860	2.38%	513	1.86%
K: Had supervised breaks	3,387	9.39%	2,088	7.56%
L: Most beneficial time of day	1,546	4.29%	853	3.09%
M: Administered at home or in a hospital	14	0.04%	15	0.05%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	87	0.24%	32	0.12%
Q: Used a calculator	5	0.01%	9	0.03%
R: Used an arithmetic table	15	0.04%	15	0.05%
S: Used math manipulatives	87	0.24%	19	0.07%
V: Used interfering assistive device	1	0.00%	2	0.01%
W: Used an unlisted modification	26	0.07%	12	0.04%
X: Used an unlisted accommodation	822	2.28%	631	2.28%
Y: Leave blank	131	0.36%	101	0.37%
Z: Examiner read test questions aloud	2,490	6.91%	2,889	10.46%
Accom. or Mod. is in Section 504 plan	16	0.04%	33	0.12%
Accom. or Mod. is in IEP	5,791	16.06%	4,662	16.88%
English Learner Test Variation A	50	0.14%	22	0.08%
English Learner Test Variation B	50	0.14%	28	0.10%
English Learner Test Variation C	51	0.14%	37	0.13%
English Learner Test Variation D	5	0.01%	4	0.01%
Any Accom., Mod., or EL Variation	6,193	17.17%	4,967	17.98%
No Accom., Mod., or EL Variation	29,866	82.83%	22,655	82.02%

Special Services Summary for Mathematics, Grades Two and Three				
English-Only Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	197	0.08%	147	0.06%
C: Dictated responses to a scribe	61	0.02%	38	0.02%
F: Used noninterfering assistive device	56	0.02%	25	0.01%
G: Used braille version of test	11	0.00%	5	0.00%
H: Used large-print version of test	118	0.05%	126	0.05%
J: Tested during more than one day	662	0.25%	396	0.16%
K: Had supervised breaks	2,486	0.95%	1,674	0.68%
L: Most beneficial time of day	1,127	0.43%	673	0.27%
M: Administered at home or in a hospital	21	0.01%	27	0.01%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	50	0.02%	15	0.01%
Q: Used a calculator	3	0.00%	9	0.00%
R: Used an arithmetic table	12	0.00%	17	0.01%
S: Used math manipulatives	50	0.02%	17	0.01%
V: Used interfering assistive device	0	0.00%	2	0.00%
W: Used an unlisted modification	18	0.01%	10	0.00%
X: Used an unlisted accommodation	650	0.25%	533	0.22%
Y: Leave blank	120	0.05%	91	0.04%
Z: Examiner read test questions aloud	1,770	0.68%	2,134	0.87%
Accom. or Mod. is in Section 504 plan	172	0.07%	222	0.09%
Accom. or Mod. is in IEP	4,153	1.59%	3,510	1.43%
English Learner Test Variation A	15	0.01%	18	0.01%
English Learner Test Variation B	15	0.01%	15	0.01%
English Learner Test Variation C	24	0.01%	21	0.01%
English Learner Test Variation D	3	0.00%	2	0.00%
Any Accom., Mod., or EL Variation	4,615	1.77%	3,962	1.61%
No Accom., Mod., or EL Variation	256,570	98.23%	242,205	98.39%
Initially Fluent English Proficient (I-FEP) Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	3	0.02%	3	0.02%
C: Dictated responses to a scribe	1	0.01%	1	0.01%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille version of test	0	0.00%	0	0.00%
H: Used large-print version of test	1	0.01%	7	0.04%
J: Tested during more than one day	10	0.05%	5	0.03%
K: Had supervised breaks	36	0.18%	27	0.15%
L: Most beneficial time of day	20	0.10%	16	0.09%
M: Administered at home or in a hospital	1	0.01%	3	0.02%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	3	0.02%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	1	0.01%
S: Used math manipulatives	0	0.00%	0	0.00%

Special Services Summary for Mathematics, Grades Two and Three				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.01%	1	0.01%
X: Used an unlisted accommodation	13	0.07%	9	0.05%
Y: Leave blank	1	0.01%	1	0.01%
Z: Examiner read test questions aloud	21	0.11%	32	0.17%
Accom. or Mod. is in Section 504 plan	0	0.00%	6	0.03%
Accom. or Mod. is in IEP	75	0.38%	58	0.31%
English Learner Test Variation A	3	0.02%	1	0.01%
English Learner Test Variation B	0	0.00%	0	0.00%
English Learner Test Variation C	0	0.00%	1	0.01%
English Learner Test Variation D	1	0.01%	0	0.00%
Any Accom., Mod., or EL Variation	82	0.42%	72	0.39%
No Accom., Mod., or EL Variation	19,605	99.58%	18,533	99.61%
English Learner (EL) Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	84	0.05%	50	0.03%
C: Dictated responses to a scribe	17	0.01%	8	0.01%
F: Used noninterfering assistive device	20	0.01%	15	0.01%
G: Used braille version of test	5	0.00%	6	0.00%
H: Used large-print version of test	50	0.03%	28	0.02%
J: Tested during more than one day	332	0.20%	201	0.14%
K: Had supervised breaks	1,485	0.87%	773	0.54%
L: Most beneficial time of day	637	0.37%	307	0.21%
M: Administered at home or in a hospital	14	0.01%	9	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	38	0.02%	17	0.01%
Q: Used a calculator	2	0.00%	2	0.00%
R: Used an arithmetic table	4	0.00%	2	0.00%
S: Used math manipulatives	53	0.03%	9	0.01%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	11	0.01%	2	0.00%
X: Used an unlisted accommodation	360	0.21%	244	0.17%
Y: Leave blank	47	0.03%	29	0.02%
Z: Examiner read test questions aloud	1,160	0.68%	1,203	0.83%
Accom. or Mod. is in Section 504 plan	39	0.02%	58	0.04%
Accom. or Mod. is in IEP	2,488	1.46%	1,735	1.20%
English Learner Test Variation A	528	0.31%	366	0.25%
English Learner Test Variation B	178	0.10%	57	0.04%
English Learner Test Variation C	282	0.17%	232	0.16%
English Learner Test Variation D	63	0.04%	99	0.07%
Any Accom., Mod., or EL Variation	3,472	2.04%	2,502	1.73%
No Accom., Mod., or EL Variation	166,434	97.96%	141,817	98.27%

Special Services Summary for Mathematics, Grades Two and Three				
Reclassified Fluent English Proficient (R-FEP) Students	Grade 2	Pct. of Total	Grade 3	Pct. of Total
B: Marked responses in test booklet	2	0.02%	6	0.02%
C: Dictated responses to a scribe	1	0.01%	1	0.00%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille version of test	0	0.00%	2	0.01%
H: Used large-print version of test	4	0.04%	5	0.02%
J: Tested during more than one day	2	0.02%	3	0.01%
K: Had supervised breaks	12	0.13%	17	0.06%
L: Most beneficial time of day	4	0.04%	8	0.03%
M: Administered at home or in a hospital	0	0.00%	1	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	1	0.01%	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	0.01%	0	0.00%
X: Used an unlisted accommodation	5	0.06%	7	0.02%
Y: Leave blank	0	0.00%	3	0.01%
Z: Examiner read test questions aloud	10	0.11%	6	0.02%
Accom. or Mod. is in Section 504 plan	1	0.01%	3	0.01%
Accom. or Mod. is in IEP	25	0.28%	35	0.12%
English Learner Test Variation A	2	0.02%	4	0.01%
English Learner Test Variation B	0	0.00%	0	0.00%
English Learner Test Variation C	0	0.00%	0	0.00%
English Learner Test Variation D	0	0.00%	3	0.01%
Any Accom., Mod., or EL Variation	29	0.32%	49	0.17%
No Accom., Mod., or EL Variation	8,948	99.68%	28,047	99.83%

Table 2.D.11 Special Services Summary for Mathematics, Grades Four and Five

Special Services Summary for Mathematics, Grades Four and Five				
All Tested	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked responses in test booklet	493	0.11%	432	0.10%
C: Dictated responses to a scribe	45	0.01%	35	0.01%
F: Used noninterfering assistive device	45	0.01%	34	0.01%
G: Used braille version of test	13	0.00%	16	0.00%
H: Used large-print version of test	145	0.03%	144	0.03%
J: Tested during more than one day	673	0.15%	640	0.15%
K: Had supervised breaks	2,869	0.66%	2,664	0.61%
L: Most beneficial time of day	1,059	0.24%	1,030	0.24%
M: Administered at home or in a hospital	35	0.01%	40	0.01%
N: Used a dictionary	4	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	32	0.01%	28	0.01%
Q: Used a calculator	25	0.01%	76	0.02%
R: Used an arithmetic table	29	0.01%	35	0.01%
S: Used math manipulatives	17	0.00%	22	0.01%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	10	0.00%	8	0.00%
X: Used an unlisted accommodation	812	0.19%	885	0.20%
Y: Leave blank	139	0.03%	183	0.04%
Z: Examiner read test questions aloud	3,197	0.74%	3,067	0.70%
Accom. or Mod. is in Section 504 plan	376	0.09%	327	0.07%
Accom. or Mod. is in IEP	5,606	1.29%	5,634	1.29%
English Learner Test Variation A	303	0.07%	325	0.07%
English Learner Test Variation B	102	0.02%	54	0.01%
English Learner Test Variation C	215	0.05%	159	0.04%
English Learner Test Variation D	63	0.01%	90	0.02%
<i>Any Accom., Mod., or EL Variation</i>	6,764	1.56%	6,683	1.53%
<i>No Accom., Mod., or EL Variation</i>	427,476	98.44%	431,309	98.47%
Students Not in Special Education	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked responses in test booklet	86	0.02%	69	0.02%
C: Dictated responses to a scribe	15	0.00%	12	0.00%
F: Used noninterfering assistive device	2	0.00%	2	0.00%
G: Used braille version of test	2	0.00%	0	0.00%
H: Used large-print version of test	35	0.01%	34	0.01%
J: Tested during more than one day	72	0.02%	63	0.02%
K: Had supervised breaks	426	0.10%	337	0.08%
L: Most beneficial time of day	144	0.04%	140	0.03%
M: Administered at home or in a hospital	25	0.01%	23	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	5	0.00%	8	0.00%
R: Used an arithmetic table	8	0.00%	5	0.00%
S: Used math manipulatives	1	0.00%	2	0.00%

Special Services Summary for Mathematics, Grades Four and Five				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.00%	2	0.00%
X: Used an unlisted accommodation	130	0.03%	146	0.04%
Y: Leave blank	33	0.01%	28	0.01%
Z: Examiner read test questions aloud	319	0.08%	241	0.06%
Accom. or Mod. is in Section 504 plan	345	0.09%	306	0.07%
Accom. or Mod. is in IEP	481	0.12%	419	0.10%
English Learner Test Variation A	280	0.07%	299	0.07%
English Learner Test Variation B	72	0.02%	29	0.01%
English Learner Test Variation C	184	0.05%	138	0.03%
English Learner Test Variation D	63	0.02%	88	0.02%
Any Accom., Mod., or EL Variation	1,367	0.34%	1,234	0.30%
No Accom., Mod., or EL Variation	404,464	99.66%	408,847	99.70%
Students in Special Education	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked responses in test booklet	397	1.50%	357	1.40%
C: Dictated responses to a scribe	30	0.11%	23	0.09%
F: Used noninterfering assistive device	43	0.16%	31	0.12%
G: Used braille version of test	11	0.04%	16	0.06%
H: Used large-print version of test	110	0.42%	109	0.43%
J: Tested during more than one day	584	2.21%	561	2.21%
K: Had supervised breaks	2,377	9.00%	2,270	8.93%
L: Most beneficial time of day	893	3.38%	869	3.42%
M: Administered at home or in a hospital	10	0.04%	17	0.07%
N: Used a dictionary	4	0.02%	1	0.00%
O: Examiner presented using MCE or ASL	32	0.12%	28	0.11%
Q: Used a calculator	20	0.08%	65	0.26%
R: Used an arithmetic table	21	0.08%	30	0.12%
S: Used math manipulatives	15	0.06%	20	0.08%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	9	0.03%	6	0.02%
X: Used an unlisted accommodation	670	2.54%	721	2.84%
Y: Leave blank	104	0.39%	152	0.60%
Z: Examiner read test questions aloud	2,783	10.54%	2,745	10.79%
Accom. or Mod. is in Section 504 plan	28	0.11%	19	0.07%
Accom. or Mod. is in IEP	4,982	18.86%	5,098	20.05%
English Learner Test Variation A	21	0.08%	23	0.09%
English Learner Test Variation B	29	0.11%	23	0.09%
English Learner Test Variation C	28	0.11%	18	0.07%
English Learner Test Variation D	0	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	5,240	19.84%	5,318	20.91%
No Accom., Mod., or EL Variation	21,174	80.16%	20,113	79.09%

Special Services Summary for Mathematics, Grades Four and Five				
English-Only Students	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked responses in test booklet	378	0.16%	321	0.13%
C: Dictated responses to a scribe	32	0.01%	24	0.01%
F: Used noninterfering assistive device	28	0.01%	23	0.01%
G: Used braille version of test	8	0.00%	8	0.00%
H: Used large-print version of test	95	0.04%	103	0.04%
J: Tested during more than one day	445	0.18%	428	0.17%
K: Had supervised breaks	1,880	0.77%	1,705	0.70%
L: Most beneficial time of day	695	0.29%	654	0.27%
M: Administered at home or in a hospital	27	0.01%	29	0.01%
N: Used a dictionary	4	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	19	0.01%	9	0.00%
Q: Used a calculator	22	0.01%	63	0.03%
R: Used an arithmetic table	25	0.01%	28	0.01%
S: Used math manipulatives	10	0.00%	14	0.01%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	9	0.00%	7	0.00%
X: Used an unlisted accommodation	544	0.22%	586	0.24%
Y: Leave blank	100	0.04%	124	0.05%
Z: Examiner read test questions aloud	1,913	0.79%	1,743	0.71%
Accom. or Mod. is in Section 504 plan	314	0.13%	278	0.11%
Accom. or Mod. is in IEP	3,577	1.47%	3,466	1.41%
English Learner Test Variation A	10	0.00%	3	0.00%
English Learner Test Variation B	6	0.00%	2	0.00%
English Learner Test Variation C	24	0.01%	10	0.00%
English Learner Test Variation D	6	0.00%	5	0.00%
Any Accom., Mod., or EL Variation	4,085	1.68%	3,915	1.60%
No Accom., Mod., or EL Variation	238,745	98.32%	241,176	98.40%
Initially Fluent English Proficient (I-FEP) Students	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked responses in test booklet	11	0.06%	18	0.06%
C: Dictated responses to a scribe	2	0.01%	3	0.01%
F: Used noninterfering assistive device	1	0.01%	1	0.00%
G: Used braille version of test	0	0.00%	2	0.01%
H: Used large-print version of test	1	0.01%	10	0.03%
J: Tested during more than one day	8	0.04%	19	0.06%
K: Had supervised breaks	40	0.21%	69	0.23%
L: Most beneficial time of day	10	0.05%	30	0.10%
M: Administered at home or in a hospital	2	0.01%	2	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	1	0.00%
Q: Used a calculator	0	0.00%	1	0.00%
R: Used an arithmetic table	0	0.00%	1	0.00%
S: Used math manipulatives	0	0.00%	1	0.00%

Special Services Summary for Mathematics, Grades Four and Five				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	9	0.05%	30	0.10%
Y: Leave blank	2	0.01%	7	0.02%
Z: Examiner read test questions aloud	47	0.25%	89	0.29%
Accom. or Mod. is in Section 504 plan	11	0.06%	12	0.04%
Accom. or Mod. is in IEP	78	0.41%	179	0.59%
English Learner Test Variation A	0	0.00%	0	0.00%
English Learner Test Variation B	1	0.01%	0	0.00%
English Learner Test Variation C	1	0.01%	2	0.01%
English Learner Test Variation D	0	0.00%	0	0.00%
Any Accom., Mod., or EL Variation	95	0.50%	203	0.67%
No Accom., Mod., or EL Variation	18,843	99.50%	30,143	99.33%
English Learner (EL) Students	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked responses in test booklet	94	0.08%	82	0.08%
C: Dictated responses to a scribe	11	0.01%	6	0.01%
F: Used noninterfering assistive device	13	0.01%	9	0.01%
G: Used braille version of test	4	0.00%	5	0.01%
H: Used large-print version of test	41	0.03%	25	0.03%
J: Tested during more than one day	215	0.18%	183	0.19%
K: Had supervised breaks	922	0.76%	842	0.86%
L: Most beneficial time of day	340	0.28%	328	0.34%
M: Administered at home or in a hospital	6	0.00%	8	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	13	0.01%	18	0.02%
Q: Used a calculator	3	0.00%	11	0.01%
R: Used an arithmetic table	3	0.00%	5	0.01%
S: Used math manipulatives	7	0.01%	7	0.01%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.00%	1	0.00%
X: Used an unlisted accommodation	251	0.21%	249	0.25%
Y: Leave blank	36	0.03%	45	0.05%
Z: Examiner read test questions aloud	1,215	1.00%	1,193	1.22%
Accom. or Mod. is in Section 504 plan	46	0.04%	26	0.03%
Accom. or Mod. is in IEP	1,889	1.55%	1,887	1.93%
English Learner Test Variation A	291	0.24%	288	0.29%
English Learner Test Variation B	94	0.08%	52	0.05%
English Learner Test Variation C	188	0.15%	147	0.15%
English Learner Test Variation D	57	0.05%	84	0.09%
Any Accom., Mod., or EL Variation	2,509	2.06%	2,409	2.46%
No Accom., Mod., or EL Variation	119,170	97.94%	95,425	97.54%

Special Services Summary for Mathematics, Grades Four and Five				
Reclassified Fluent English Proficient (R-FEP) Students	Grade 4	Pct. of Total	Grade 5	Pct. of Total
B: Marked responses in test booklet	9	0.02%	9	0.01%
C: Dictated responses to a scribe	0	0.00%	2	0.00%
F: Used noninterfering assistive device	3	0.01%	1	0.00%
G: Used braille version of test	1	0.00%	1	0.00%
H: Used large-print version of test	8	0.02%	6	0.01%
J: Tested during more than one day	5	0.01%	9	0.01%
K: Had supervised breaks	24	0.05%	38	0.06%
L: Most beneficial time of day	14	0.03%	13	0.02%
M: Administered at home or in a hospital	0	0.00%	1	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	1	0.00%
R: Used an arithmetic table	1	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	0.01%	18	0.03%
Y: Leave blank	1	0.00%	5	0.01%
Z: Examiner read test questions aloud	18	0.04%	33	0.05%
Accom. or Mod. is in Section 504 plan	5	0.01%	11	0.02%
Accom. or Mod. is in IEP	56	0.11%	82	0.13%
English Learner Test Variation A	2	0.00%	34	0.05%
English Learner Test Variation B	1	0.00%	0	0.00%
English Learner Test Variation C	1	0.00%	0	0.00%
English Learner Test Variation D	0	0.00%	1	0.00%
<i>Any Accom., Mod., or EL Variation</i>	68	0.14%	134	0.21%
<i>No Accom., Mod., or EL Variation</i>	50,153	99.86%	64,073	99.79%

Table 2.D.12 Special Services Summary for Mathematics, Grades Six and Seven

Special Services Summary for Mathematics, Grades Six and Seven				
All Tested	Grade 6	Pct. of Total	Grade 7	Pct. of Total
B: Marked responses in test booklet	331	0.08%	246	0.06%
C: Dictated responses to a scribe	23	0.01%	16	0.00%
F: Used noninterfering assistive device	29	0.01%	25	0.01%
G: Used braille version of test	16	0.00%	20	0.00%
H: Used large-print version of test	122	0.03%	100	0.02%
J: Tested during more than one day	411	0.09%	279	0.07%
K: Had supervised breaks	1,924	0.44%	1,401	0.35%
L: Most beneficial time of day	699	0.16%	472	0.12%
M: Administered at home or in a hospital	42	0.01%	56	0.01%
N: Used a dictionary	0	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	20	0.00%	18	0.00%
Q: Used a calculator	63	0.01%	110	0.03%
R: Used an arithmetic table	26	0.01%	16	0.00%
S: Used math manipulatives	9	0.00%	3	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	11	0.00%	11	0.00%
X: Used an unlisted accommodation	675	0.16%	650	0.16%
Y: Leave blank	164	0.04%	189	0.05%
Z: Examiner read test questions aloud	1,867	0.43%	1,049	0.26%
Accom. or Mod. is in Section 504 plan	243	0.06%	164	0.04%
Accom. or Mod. is in IEP	4,024	0.93%	3,106	0.78%
English Learner Test Variation A	407	0.09%	633	0.16%
English Learner Test Variation B	115	0.03%	47	0.01%
English Learner Test Variation C	340	0.08%	370	0.09%
English Learner Test Variation D	130	0.03%	386	0.10%
Any Accom., Mod., or EL Variation	5,154	1.19%	4,564	1.14%
No Accom., Mod., or EL Variation	428,031	98.81%	395,942	98.86%
Students Not in Special Education	Grade 6	Pct. of Total	Grade 7	Pct. of Total
B: Marked responses in test booklet	66	0.02%	55	0.01%
C: Dictated responses to a scribe	7	0.00%	8	0.00%
F: Used noninterfering assistive device	2	0.00%	5	0.00%
G: Used braille version of test	2	0.00%	3	0.00%
H: Used large-print version of test	25	0.01%	24	0.01%
J: Tested during more than one day	44	0.01%	25	0.01%
K: Had supervised breaks	216	0.05%	139	0.04%
L: Most beneficial time of day	96	0.02%	63	0.02%
M: Administered at home or in a hospital	30	0.01%	43	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	2	0.00%	2	0.00%
Q: Used a calculator	13	0.00%	7	0.00%
R: Used an arithmetic table	5	0.00%	2	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%

Special Services Summary for Mathematics, Grades Six and Seven				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	8	0.00%	0	0.00%
X: Used an unlisted accommodation	103	0.03%	84	0.02%
Y: Leave blank	20	0.00%	23	0.01%
Z: Examiner read test questions aloud	143	0.03%	85	0.02%
Accom. or Mod. is in Section 504 plan	228	0.06%	157	0.04%
Accom. or Mod. is in IEP	280	0.07%	224	0.06%
English Learner Test Variation A	358	0.09%	592	0.16%
English Learner Test Variation B	95	0.02%	42	0.01%
English Learner Test Variation C	307	0.08%	362	0.10%
English Learner Test Variation D	125	0.03%	349	0.09%
Any Accom., Mod., or EL Variation	1,178	0.29%	1,465	0.39%
No Accom., Mod., or EL Variation	407,448	99.71%	376,527	99.61%
Students in Special Education	Grade 6	Pct. of Total	Grade 7	Pct. of Total
B: Marked responses in test booklet	264	1.14%	190	0.89%
C: Dictated responses to a scribe	16	0.07%	8	0.04%
F: Used noninterfering assistive device	27	0.12%	20	0.09%
G: Used braille version of test	14	0.06%	17	0.08%
H: Used large-print version of test	97	0.42%	76	0.36%
J: Tested during more than one day	362	1.57%	250	1.17%
K: Had supervised breaks	1,688	7.30%	1,256	5.87%
L: Most beneficial time of day	593	2.57%	409	1.91%
M: Administered at home or in a hospital	12	0.05%	12	0.06%
N: Used a dictionary	0	0.00%	2	0.01%
O: Examiner presented using MCE or ASL	18	0.08%	16	0.07%
Q: Used a calculator	50	0.22%	101	0.47%
R: Used an arithmetic table	21	0.09%	14	0.07%
S: Used math manipulatives	9	0.04%	3	0.01%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	3	0.01%	11	0.05%
X: Used an unlisted accommodation	568	2.46%	562	2.63%
Y: Leave blank	143	0.62%	162	0.76%
Z: Examiner read test questions aloud	1,699	7.35%	951	4.45%
Accom. or Mod. is in Section 504 plan	14	0.06%	7	0.03%
Accom. or Mod. is in IEP	3,706	16.03%	2,858	13.36%
English Learner Test Variation A	43	0.19%	39	0.18%
English Learner Test Variation B	18	0.08%	5	0.02%
English Learner Test Variation C	24	0.10%	6	0.03%
English Learner Test Variation D	4	0.02%	36	0.17%
Any Accom., Mod., or EL Variation	3,926	16.99%	3,069	14.35%
No Accom., Mod., or EL Variation	19,187	83.01%	18,324	85.65%

Special Services Summary for Mathematics, Grades Six and Seven				
English-Only Students	Grade 6	Pct. of Total	Grade 7	Pct. of Total
B: Marked responses in test booklet	259	0.11%	178	0.08%
C: Dictated responses to a scribe	15	0.01%	11	0.00%
F: Used noninterfering assistive device	13	0.01%	20	0.01%
G: Used braille version of test	8	0.00%	16	0.01%
H: Used large-print version of test	88	0.04%	65	0.03%
J: Tested during more than one day	280	0.11%	214	0.09%
K: Had supervised breaks	1,239	0.51%	911	0.40%
L: Most beneficial time of day	475	0.19%	332	0.15%
M: Administered at home or in a hospital	33	0.01%	42	0.02%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	15	0.01%	16	0.01%
Q: Used a calculator	54	0.02%	84	0.04%
R: Used an arithmetic table	22	0.01%	10	0.00%
S: Used math manipulatives	4	0.00%	3	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	8	0.00%	8	0.00%
X: Used an unlisted accommodation	460	0.19%	434	0.19%
Y: Leave blank	110	0.04%	128	0.06%
Z: Examiner read test questions aloud	1,036	0.42%	576	0.25%
Accom. or Mod. is in Section 504 plan	201	0.08%	144	0.06%
Accom. or Mod. is in IEP	2,534	1.04%	1,957	0.86%
English Learner Test Variation A	49	0.02%	50	0.02%
English Learner Test Variation B	8	0.00%	5	0.00%
English Learner Test Variation C	45	0.02%	53	0.02%
English Learner Test Variation D	0	0.00%	197	0.09%
Any Accom., Mod., or EL Variation	2,936	1.20%	2,470	1.09%
No Accom., Mod., or EL Variation	241,744	98.80%	224,516	98.91%
Initially Fluent English Proficient (I-FEP) Students	Grade 6	Pct. of Total	Grade 7	Pct. of Total
B: Marked responses in test booklet	17	0.05%	11	0.04%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.00%	0	0.00%
G: Used braille version of test	4	0.01%	0	0.00%
H: Used large-print version of test	9	0.03%	8	0.03%
J: Tested during more than one day	10	0.03%	9	0.03%
K: Had supervised breaks	58	0.17%	39	0.13%
L: Most beneficial time of day	17	0.05%	13	0.04%
M: Administered at home or in a hospital	0	0.00%	4	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	1	0.00%
Q: Used a calculator	0	0.00%	3	0.01%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	1	0.00%	0	0.00%

Special Services Summary for Mathematics, Grades Six and Seven				
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	24	0.07%	19	0.06%
Y: Leave blank	6	0.02%	2	0.01%
Z: Examiner read test questions aloud	53	0.16%	34	0.11%
Accom. or Mod. is in Section 504 plan	5	0.02%	3	0.01%
Accom. or Mod. is in IEP	126	0.38%	99	0.32%
English Learner Test Variation A	2	0.01%	4	0.01%
English Learner Test Variation B	1	0.00%	0	0.00%
English Learner Test Variation C	1	0.00%	3	0.01%
English Learner Test Variation D	0	0.00%	0	0.00%
Any Accom., Mod., or EL Variation	142	0.43%	120	0.38%
No Accom., Mod., or EL Variation	33,191	99.57%	31,067	99.62%
English Learner (EL) Students	Grade 6	Pct. of Total	Grade 7	Pct. of Total
B: Marked responses in test booklet	40	0.05%	32	0.05%
C: Dictated responses to a scribe	5	0.01%	4	0.01%
F: Used noninterfering assistive device	10	0.01%	4	0.01%
G: Used braille version of test	2	0.00%	4	0.01%
H: Used large-print version of test	16	0.02%	15	0.02%
J: Tested during more than one day	108	0.14%	47	0.07%
K: Had supervised breaks	545	0.71%	366	0.56%
L: Most beneficial time of day	182	0.24%	98	0.15%
M: Administered at home or in a hospital	6	0.01%	5	0.01%
N: Used a dictionary	0	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	5	0.01%	0	0.00%
Q: Used a calculator	9	0.01%	19	0.03%
R: Used an arithmetic table	3	0.00%	5	0.01%
S: Used math manipulatives	4	0.01%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	3	0.00%	2	0.00%
X: Used an unlisted accommodation	167	0.22%	155	0.24%
Y: Leave blank	42	0.05%	43	0.07%
Z: Examiner read test questions aloud	718	0.94%	386	0.59%
Accom. or Mod. is in Section 504 plan	23	0.03%	8	0.01%
Accom. or Mod. is in IEP	1,215	1.59%	856	1.31%
English Learner Test Variation A	352	0.46%	569	0.87%
English Learner Test Variation B	104	0.14%	41	0.06%
English Learner Test Variation C	290	0.38%	311	0.48%
English Learner Test Variation D	130	0.17%	189	0.29%
Any Accom., Mod., or EL Variation	1,896	2.48%	1,746	2.67%
No Accom., Mod., or EL Variation	74,559	97.52%	63,575	97.33%

Special Services Summary for Mathematics, Grades Six and Seven				
Reclassified Fluent English Proficient (R-FEP) Students	Grade 6	Pct. of Total	Grade 7	Pct. of Total
B: Marked responses in test booklet	14	0.02%	25	0.03%
C: Dictated responses to a scribe	3	0.00%	1	0.00%
F: Used noninterfering assistive device	5	0.01%	1	0.00%
G: Used braille version of test	2	0.00%	0	0.00%
H: Used large-print version of test	9	0.01%	12	0.02%
J: Tested during more than one day	12	0.02%	9	0.01%
K: Had supervised breaks	78	0.10%	79	0.10%
L: Most beneficial time of day	23	0.03%	28	0.04%
M: Administered at home or in a hospital	2	0.00%	5	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	1	0.00%
Q: Used a calculator	0	0.00%	4	0.01%
R: Used an arithmetic table	1	0.00%	1	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.00%
X: Used an unlisted accommodation	24	0.03%	42	0.05%
Y: Leave blank	4	0.01%	15	0.02%
Z: Examiner read test questions aloud	57	0.07%	50	0.07%
Accom. or Mod. is in Section 504 plan	13	0.02%	9	0.01%
Accom. or Mod. is in IEP	142	0.18%	188	0.25%
English Learner Test Variation A	4	0.01%	8	0.01%
English Learner Test Variation B	2	0.00%	0	0.00%
English Learner Test Variation C	2	0.00%	1	0.00%
English Learner Test Variation D	0	0.00%	0	0.00%
Any Accom., Mod., or EL Variation	169	0.22%	217	0.28%
No Accom., Mod., or EL Variation	77,990	99.78%	76,183	99.72%

Table 2.D.13 Special Services Summary for General Mathematics

Special Services Summary for General Mathematics				
All Tested	Grade 8	Grade 9	Total	Pct. of Total
B: Marked responses in test booklet	336	106	442	0.22%
C: Dictated responses to a scribe	20	10	30	0.01%
F: Used noninterfering assistive device	19	12	31	0.02%
G: Used braille version of test	20	5	25	0.01%
H: Used large-print version of test	77	24	101	0.05%
J: Tested during more than one day	564	179	743	0.37%
K: Had supervised breaks	2,154	1,274	3,428	1.71%
L: Most beneficial time of day	825	311	1,136	0.57%
M: Administered at home or in a hospital	53	37	90	0.04%
N: Used a dictionary	0	3	3	0.00%
O: Examiner presented using MCE or ASL	41	5	46	0.02%
Q: Used a calculator	238	551	789	0.39%
R: Used an arithmetic table	36	41	77	0.04%
S: Used math manipulatives	43	8	51	0.03%
V: Used interfering assistive device	1	0	1	0.00%
W: Used an unlisted modification	19	31	50	0.02%
X: Used an unlisted accommodation	820	414	1,234	0.61%
Y: Leave blank	365	170	535	0.27%
Z: Examiner read test questions aloud	2,436	293	2,729	1.36%
Accom. or Mod. is in Section 504 plan	91	21	112	0.06%
Accom. or Mod. is in IEP	5,482	2,404	7,886	3.92%
English Learner Test Variation A	332	128	460	0.23%
English Learner Test Variation B	19	17	36	0.02%
English Learner Test Variation C	222	161	383	0.19%
English Learner Test Variation D	84	154	238	0.12%
Any Accom., Mod., or EL Variation	6,438	2,851	9,289	4.62%
No Accom., Mod., or EL Variation	143,673	47,961	191,634	95.38%
Students Not in Special Education	Grade 8	Grade 9	Total	Pct. of Total
B: Marked responses in test booklet	12	8	20	0.01%
C: Dictated responses to a scribe	2	0	2	0.00%
F: Used noninterfering assistive device	0	0	0	0.00%
G: Used braille version of test	0	0	0	0.00%
H: Used large-print version of test	7	1	8	0.01%
J: Tested during more than one day	12	12	24	0.02%
K: Had supervised breaks	60	62	122	0.08%
L: Most beneficial time of day	22	8	30	0.02%
M: Administered at home or in a hospital	22	7	29	0.02%
N: Used a dictionary	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0.00%
Q: Used a calculator	12	33	45	0.03%
R: Used an arithmetic table	1	1	2	0.00%
S: Used math manipulatives	0	0	0	0.00%

Special Services Summary for General Mathematics				
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	2	0	2	0.00%
X: Used an unlisted accommodation	55	21	76	0.05%
Y: Leave blank	11	23	34	0.02%
Z: Examiner read test questions aloud	53	21	74	0.05%
Accom. or Mod. is in Section 504 plan	82	15	97	0.06%
Accom. or Mod. is in IEP	123	135	258	0.16%
English Learner Test Variation A	299	100	399	0.25%
English Learner Test Variation B	8	15	23	0.01%
English Learner Test Variation C	211	150	361	0.23%
English Learner Test Variation D	80	137	217	0.14%
<i>Any Accom., Mod., or EL Variation</i>	688	413	1,101	0.70%
<i>No Accom., Mod., or EL Variation</i>	120,262	35,798	156,060	99.30%
Students in Special Education	Grade 8	Grade 9	Total	Pct. of Total
B: Marked responses in test booklet	320	96	416	0.97%
C: Dictated responses to a scribe	18	10	28	0.07%
F: Used noninterfering assistive device	19	12	31	0.07%
G: Used braille version of test	20	5	25	0.06%
H: Used large-print version of test	68	23	91	0.21%
J: Tested during more than one day	544	166	710	1.66%
K: Had supervised breaks	2,049	1,182	3,231	7.56%
L: Most beneficial time of day	784	302	1,086	2.54%
M: Administered at home or in a hospital	29	30	59	0.14%
N: Used a dictionary	0	3	3	0.01%
O: Examiner presented using MCE or ASL	41	5	46	0.11%
Q: Used a calculator	220	504	724	1.69%
R: Used an arithmetic table	34	39	73	0.17%
S: Used math manipulatives	38	8	46	0.11%
V: Used interfering assistive device	1	0	1	0.00%
W: Used an unlisted modification	17	31	48	0.11%
X: Used an unlisted accommodation	751	379	1,130	2.65%
Y: Leave blank	345	128	473	1.11%
Z: Examiner read test questions aloud	2,308	262	2,570	6.02%
Accom. or Mod. is in Section 504 plan	7	6	13	0.03%
Accom. or Mod. is in IEP	5,219	2,198	7,417	17.36%
English Learner Test Variation A	32	28	60	0.14%
English Learner Test Variation B	11	2	13	0.03%
English Learner Test Variation C	10	11	21	0.05%
English Learner Test Variation D	4	17	21	0.05%
<i>Any Accom., Mod., or EL Variation</i>	5,599	2,363	7,962	18.64%
<i>No Accom., Mod., or EL Variation</i>	22,920	11,839	34,759	81.36%

Special Services Summary for General Mathematics				
English-Only Students	Grade 8	Grade 9	Total	Pct. of Total
B: Marked responses in test booklet	235	78	313	0.27%
C: Dictated responses to a scribe	11	6	17	0.01%
F: Used noninterfering assistive device	13	5	18	0.02%
G: Used braille version of test	8	2	10	0.01%
H: Used large-print version of test	50	18	68	0.06%
J: Tested during more than one day	378	135	513	0.45%
K: Had supervised breaks	1,351	858	2,209	1.93%
L: Most beneficial time of day	523	231	754	0.66%
M: Administered at home or in a hospital	39	30	69	0.06%
N: Used a dictionary	0	1	1	0.00%
O: Examiner presented using MCE or ASL	25	3	28	0.02%
Q: Used a calculator	187	402	589	0.52%
R: Used an arithmetic table	19	29	48	0.04%
S: Used math manipulatives	23	7	30	0.03%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	11	12	23	0.02%
X: Used an unlisted accommodation	527	265	792	0.69%
Y: Leave blank	198	120	318	0.28%
Z: Examiner read test questions aloud	1,277	196	1,473	1.29%
Accom. or Mod. is in Section 504 plan	75	19	94	0.08%
Accom. or Mod. is in IEP	3,247	1,649	4,896	4.28%
English Learner Test Variation A	23	2	25	0.02%
English Learner Test Variation B	3	3	6	0.01%
English Learner Test Variation C	38	6	44	0.04%
English Learner Test Variation D	5	2	7	0.01%
Any Accom., Mod., or EL Variation	3,573	1,769	5,342	4.67%
No Accom., Mod., or EL Variation	80,205	28,786	108,991	95.33%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Grade 9	Total	Pct. of Total
B: Marked responses in test booklet	6	1	7	0.08%
C: Dictated responses to a scribe	2	0	2	0.02%
F: Used noninterfering assistive device	2	1	3	0.04%
G: Used braille version of test	2	1	3	0.04%
H: Used large-print version of test	3	0	3	0.04%
J: Tested during more than one day	6	4	10	0.12%
K: Had supervised breaks	23	32	55	0.65%
L: Most beneficial time of day	16	4	20	0.24%
M: Administered at home or in a hospital	4	0	4	0.05%
N: Used a dictionary	0	1	1	0.01%
O: Examiner presented using MCE or ASL	0	0	0	0.00%
Q: Used a calculator	0	12	12	0.14%
R: Used an arithmetic table	0	4	4	0.05%
S: Used math manipulatives	2	0	2	0.02%

Special Services Summary for General Mathematics				
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	0	2	2	0.02%
X: Used an unlisted accommodation	13	8	21	0.25%
Y: Leave blank	6	4	10	0.12%
Z: Examiner read test questions aloud	36	2	38	0.45%
Accom. or Mod. is in Section 504 plan	2	0	2	0.02%
Accom. or Mod. is in IEP	89	51	140	1.66%
English Learner Test Variation A	1	0	1	0.01%
English Learner Test Variation B	0	0	0	0.00%
English Learner Test Variation C	2	2	4	0.05%
English Learner Test Variation D	3	2	5	0.06%
<i>Any Accom., Mod., or EL Variation</i>	98	58	156	1.85%
<i>No Accom., Mod., or EL Variation</i>	6,449	1,845	8,294	98.15%
English Learner (EL) Students	Grade 8	Grade 9	Total	Pct. of Total
B: Marked responses in test booklet	75	26	101	0.20%
C: Dictated responses to a scribe	6	4	10	0.02%
F: Used noninterfering assistive device	1	3	4	0.01%
G: Used braille version of test	6	1	7	0.01%
H: Used large-print version of test	19	6	25	0.05%
J: Tested during more than one day	163	38	201	0.39%
K: Had supervised breaks	696	327	1,023	1.99%
L: Most beneficial time of day	259	66	325	0.63%
M: Administered at home or in a hospital	9	5	14	0.03%
N: Used a dictionary	0	1	1	0.00%
O: Examiner presented using MCE or ASL	15	2	17	0.03%
Q: Used a calculator	45	112	157	0.30%
R: Used an arithmetic table	15	8	23	0.04%
S: Used math manipulatives	14	0	14	0.03%
V: Used interfering assistive device	1	0	1	0.00%
W: Used an unlisted modification	3	13	16	0.03%
X: Used an unlisted accommodation	225	129	354	0.69%
Y: Leave blank	146	44	190	0.37%
Z: Examiner read test questions aloud	1,027	81	1,108	2.15%
Accom. or Mod. is in Section 504 plan	10	2	12	0.02%
Accom. or Mod. is in IEP	1,910	616	2,526	4.90%
English Learner Test Variation A	307	125	432	0.84%
English Learner Test Variation B	16	13	29	0.06%
English Learner Test Variation C	180	152	332	0.64%
English Learner Test Variation D	76	149	225	0.44%
<i>Any Accom., Mod., or EL Variation</i>	2,506	932	3,438	6.67%
<i>No Accom., Mod., or EL Variation</i>	35,950	12,127	48,077	93.33%

Special Services Summary for General Mathematics				
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Grade 9	Total	Pct. of Total
B: Marked responses in test booklet	15	0	15	0.06%
C: Dictated responses to a scribe	1	0	1	0.00%
F: Used noninterfering assistive device	3	2	5	0.02%
G: Used braille version of test	4	1	5	0.02%
H: Used large-print version of test	3	0	3	0.01%
J: Tested during more than one day	16	1	17	0.07%
K: Had supervised breaks	71	40	111	0.43%
L: Most beneficial time of day	25	9	34	0.13%
M: Administered at home or in a hospital	1	2	3	0.01%
N: Used a dictionary	0	0	0	0.00%
O: Examiner presented using MCE or ASL	1	0	1	0.00%
Q: Used a calculator	4	11	15	0.06%
R: Used an arithmetic table	2	0	2	0.01%
S: Used math manipulatives	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	4	4	8	0.03%
X: Used an unlisted accommodation	45	9	54	0.21%
Y: Leave blank	14	2	16	0.06%
Z: Examiner read test questions aloud	82	9	91	0.35%
Accom. or Mod. is in Section 504 plan	4	0	4	0.02%
Accom. or Mod. is in IEP	204	63	267	1.03%
English Learner Test Variation A	0	1	1	0.00%
English Learner Test Variation B	0	1	1	0.00%
English Learner Test Variation C	1	1	2	0.01%
English Learner Test Variation D	0	1	1	0.00%
Any Accom., Mod., or EL Variation	221	67	288	1.11%
No Accom., Mod., or EL Variation	20,579	5,025	25,604	98.89%

Table 2.D.14 Special Services Summary for Algebra I

Special Services Summary for Algebra I							
All Tested	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	4	77	73	40	31	225	0.03%
C: Dictated responses to a scribe	0	8	12	9	3	32	0.00%
F: Used noninterfering assistive device	0	17	11	3	3	34	0.00%
G: Used braille version of test	0	8	10	4	1	23	0.00%
H: Used large-print version of test	7	63	44	25	8	147	0.02%
J: Tested during more than one day	1	101	191	136	71	500	0.07%
K: Had supervised breaks	7	503	1,070	948	543	3,071	0.42%
L: Most beneficial time of day	3	160	184	228	135	710	0.10%
M: Administered at home or in a hospital	6	33	44	41	17	141	0.02%
N: Used a dictionary	0	0	21	13	8	42	0.01%
O: Examiner presented using MCE or ASL	0	0	11	5	7	23	0.00%
Q: Used a calculator	0	50	551	531	359	1,491	0.20%
R: Used an arithmetic table	0	3	26	21	19	69	0.01%
S: Used math manipulatives	0	0	8	9	7	24	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	5	6	4	16	0.00%
X: Used an unlisted accommodation	4	247	306	221	118	896	0.12%
Y: Leave blank	0	67	183	106	73	429	0.06%
Z: Examiner read test questions aloud	3	328	335	193	108	967	0.13%
Accom. or Mod. is in Section 504 plan	4	83	45	24	17	173	0.02%
Accom. or Mod. is in IEP	19	1,101	2,202	1,832	1,083	6,237	0.84%
English Learner Test Variation A	0	211	461	299	150	1,121	0.15%
English Learner Test Variation B	0	11	129	105	16	261	0.04%
English Learner Test Variation C	2	177	751	437	196	1,563	0.21%
English Learner Test Variation D	1	312	757	519	209	1,798	0.24%
Any Accom., Mod., or EL Variation	31	1,887	3,743	2,799	1,552	10,012	1.35%
No Accom., Mod., or EL Variation	35,943	276,886	254,869	110,503	51,553	729,754	98.65%
Students Not in Special Education	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	20	11	5	1	37	0.01%
C: Dictated responses to a scribe	0	0	2	3	0	5	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	1	0	0	1	0.00%
H: Used large-print version of test	1	14	4	1	0	20	0.00%
J: Tested during more than one day	0	13	25	4	1	43	0.01%
K: Had supervised breaks	0	50	93	58	25	226	0.03%
L: Most beneficial time of day	0	20	22	19	5	66	0.01%
M: Administered at home or in a hospital	6	27	17	14	10	74	0.01%
N: Used a dictionary	0	0	5	3	1	9	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	1	1	0.00%
Q: Used a calculator	0	26	35	40	30	131	0.02%

Special Services Summary for Algebra I							
R: Used an arithmetic table	0	0	1	1	2	4	0.00%
S: Used math manipulatives	0	0	0	1	1	2	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	1	0	1	0.00%
X: Used an unlisted accommodation	3	29	35	15	12	94	0.01%
Y: Leave blank	0	3	48	9	5	65	0.01%
Z: Examiner read test questions aloud	0	24	27	14	5	70	0.01%
Accom. or Mod. is in Section 504 plan	4	78	39	22	12	155	0.02%
Accom. or Mod. is in IEP	2	51	179	106	56	394	0.06%
English Learner Test Variation A	0	201	441	284	129	1,055	0.15%
English Learner Test Variation B	0	10	121	100	13	244	0.04%
English Learner Test Variation C	2	173	743	433	195	1,546	0.22%
English Learner Test Variation D	1	259	737	509	200	1,706	0.25%
Any Accom., Mod., or EL Variation	13	714	1,575	971	431	3,704	0.53%
No Accom., Mod., or EL Variation	35,465	268,974	240,092	99,698	45,199	689,428	99.47%
Students in Special Education	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	4	57	61	34	30	186	0.40%
C: Dictated responses to a scribe	0	8	10	6	3	27	0.06%
F: Used noninterfering assistive device	0	17	11	3	3	34	0.07%
G: Used braille version of test	0	8	9	4	1	22	0.05%
H: Used large-print version of test	6	49	39	24	8	126	0.27%
J: Tested during more than one day	1	88	162	131	69	451	0.97%
K: Had supervised breaks	7	446	958	883	516	2,810	6.07%
L: Most beneficial time of day	3	136	161	206	128	634	1.37%
M: Administered at home or in a hospital	0	5	27	27	7	66	0.14%
N: Used a dictionary	0	0	16	10	6	32	0.07%
O: Examiner presented using MCE or ASL	0	0	11	5	6	22	0.05%
Q: Used a calculator	0	24	500	490	326	1,340	2.89%
R: Used an arithmetic table	0	3	25	20	17	65	0.14%
S: Used math manipulatives	0	0	8	8	6	22	0.05%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	5	5	4	15	0.03%
X: Used an unlisted accommodation	1	218	268	203	103	793	1.71%
Y: Leave blank	0	64	114	97	68	343	0.74%
Z: Examiner read test questions aloud	3	299	293	178	102	875	1.89%
Accom. or Mod. is in Section 504 plan	0	5	6	2	5	18	0.04%
Accom. or Mod. is in IEP	17	1,040	1,961	1,713	1,020	5,751	12.42%
English Learner Test Variation A	0	10	20	15	21	66	0.14%
English Learner Test Variation B	0	1	6	5	3	15	0.03%
English Learner Test Variation C	0	4	8	4	1	17	0.04%
English Learner Test Variation D	0	53	20	10	9	92	0.20%
Any Accom., Mod., or EL Variation	18	1,161	2,106	1,815	1,114	6,214	13.42%
No Accom., Mod., or EL Variation	430	7,874	14,677	10,756	6,342	40,079	86.58%

Special Services Summary for Algebra I							
English-Only Students	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	4	57	54	31	22	168	0.04%
C: Dictated responses to a scribe	0	6	7	4	3	20	0.00%
F: Used noninterfering assistive device	0	12	4	1	3	20	0.00%
G: Used braille version of test	0	5	6	2	1	14	0.00%
H: Used large-print version of test	5	42	25	18	6	96	0.02%
J: Tested during more than one day	1	73	124	103	54	355	0.09%
K: Had supervised breaks	4	315	665	657	399	2,040	0.50%
L: Most beneficial time of day	3	89	135	190	111	528	0.13%
M: Administered at home or in a hospital	4	26	32	30	12	104	0.03%
N: Used a dictionary	0	0	12	8	3	23	0.01%
O: Examiner presented using MCE or ASL	0	0	1	4	3	8	0.00%
Q: Used a calculator	0	37	328	365	236	966	0.23%
R: Used an arithmetic table	0	0	13	8	13	34	0.01%
S: Used math manipulatives	0	0	3	7	5	15	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	4	3	2	10	0.00%
X: Used an unlisted accommodation	4	143	198	148	89	582	0.14%
Y: Leave blank	0	40	110	66	54	270	0.07%
Z: Examiner read test questions aloud	1	160	180	99	76	516	0.13%
Accom. or Mod. is in Section 504 plan	4	76	41	23	15	159	0.04%
Accom. or Mod. is in IEP	12	615	1,345	1,234	774	3,980	0.97%
English Learner Test Variation A	0	16	19	6	1	42	0.01%
English Learner Test Variation B	0	0	1	0	0	1	0.00%
English Learner Test Variation C	1	29	22	6	7	65	0.02%
English Learner Test Variation D	0	261	12	8	3	284	0.07%
Any Accom., Mod., or EL Variation	20	1,077	1,504	1,352	860	4,813	1.17%
No Accom., Mod., or EL Variation	21,633	155,116	140,222	61,823	28,465	407,259	98.83%
Initially Fluent English Proficient (I-FEP) Students	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	1	4	1	2	8	0.02%
C: Dictated responses to a scribe	0	1	1	0	0	2	0.00%
F: Used noninterfering assistive device	0	0	2	0	0	2	0.00%
G: Used braille version of test	0	0	0	1	0	1	0.00%
H: Used large-print version of test	0	2	4	1	1	8	0.02%
J: Tested during more than one day	0	3	4	1	0	8	0.02%
K: Had supervised breaks	0	14	28	25	14	81	0.16%
L: Most beneficial time of day	0	4	4	1	1	10	0.02%
M: Administered at home or in a hospital	0	4	1	0	0	5	0.01%
N: Used a dictionary	0	0	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	3	18	16	13	50	0.10%
R: Used an arithmetic table	0	0	1	0	0	1	0.00%
S: Used math manipulatives	0	0	1	0	0	1	0.00%

Special Services Summary for Algebra I							
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	0	0	1	0.00%
X: Used an unlisted accommodation	0	10	10	5	2	27	0.05%
Y: Leave blank	0	3	8	4	2	17	0.03%
Z: Examiner read test questions aloud	0	10	11	4	3	28	0.05%
Accom. or Mod. is in Section 504 plan	0	1	1	0	0	2	0.00%
Accom. or Mod. is in IEP	0	37	67	49	27	180	0.35%
English Learner Test Variation A	0	5	1	2	1	9	0.02%
English Learner Test Variation B	0	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	2	1	2	5	0.01%
English Learner Test Variation D	0	1	5	2	3	11	0.02%
Any Accom., Mod., or EL Variation	0	51	76	55	35	217	0.42%
No Accom., Mod., or EL Variation	5,470	22,350	14,211	6,781	3,105	51,917	99.58%
English Learner (EL) Students	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	9	6	6	4	25	0.02%
C: Dictated responses to a scribe	0	1	4	5	0	10	0.01%
F: Used noninterfering assistive device	0	2	5	1	0	8	0.01%
G: Used braille version of test	0	1	2	1	0	4	0.00%
H: Used large-print version of test	0	5	8	5	0	18	0.01%
J: Tested during more than one day	0	22	55	27	13	117	0.10%
K: Had supervised breaks	2	144	327	228	113	814	0.67%
L: Most beneficial time of day	0	56	41	31	22	150	0.12%
M: Administered at home or in a hospital	0	0	7	6	4	17	0.01%
N: Used a dictionary	0	0	9	5	4	18	0.01%
O: Examiner presented using MCE or ASL	0	0	9	0	3	12	0.01%
Q: Used a calculator	0	6	167	131	88	392	0.32%
R: Used an arithmetic table	0	1	11	12	6	30	0.02%
S: Used math manipulatives	0	0	3	1	1	5	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	3	1	4	0.00%
X: Used an unlisted accommodation	0	59	83	63	25	230	0.19%
Y: Leave blank	0	11	49	29	14	103	0.08%
Z: Examiner read test questions aloud	1	141	125	79	27	373	0.31%
Accom. or Mod. is in Section 504 plan	0	3	2	1	2	8	0.01%
Accom. or Mod. is in IEP	3	333	657	475	240	1,708	1.41%
English Learner Test Variation A	0	188	433	287	148	1,056	0.87%
English Learner Test Variation B	0	10	127	104	16	257	0.21%
English Learner Test Variation C	1	145	714	427	186	1,473	1.22%
English Learner Test Variation D	1	50	728	508	203	1,490	1.23%
Any Accom., Mod., or EL Variation	5	632	2,004	1,308	607	4,556	3.76%
No Accom., Mod., or EL Variation	745	30,156	48,231	24,930	12,586	116,648	96.24%

Special Services Summary for Algebra I							
Reclassified Fluent English Proficient (R-FEP) Students	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	10	7	2	3	22	0.01%
C: Dictated responses to a scribe	0	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	3	0	1	0	4	0.00%
G: Used braille version of test	0	2	2	0	0	4	0.00%
H: Used large-print version of test	2	14	6	1	1	24	0.02%
J: Tested during more than one day	0	3	8	2	3	16	0.01%
K: Had supervised breaks	1	30	43	32	13	119	0.08%
L: Most beneficial time of day	0	11	4	4	0	19	0.01%
M: Administered at home or in a hospital	2	3	4	4	1	14	0.01%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	1	3	0.00%
Q: Used a calculator	0	4	35	17	21	77	0.05%
R: Used an arithmetic table	0	2	0	1	0	3	0.00%
S: Used math manipulatives	0	0	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	1	1	0.00%
X: Used an unlisted accommodation	0	34	14	5	2	55	0.04%
Y: Leave blank	0	11	16	6	3	36	0.02%
Z: Examiner read test questions aloud	1	17	19	11	2	50	0.03%
Accom. or Mod. is in Section 504 plan	0	3	1	0	0	4	0.00%
Accom. or Mod. is in IEP	4	113	122	64	37	340	0.22%
English Learner Test Variation A	0	1	7	3	0	11	0.01%
English Learner Test Variation B	0	0	0	0	0	0	0.00%
English Learner Test Variation C	0	3	10	3	1	17	0.01%
English Learner Test Variation D	0	0	10	1	0	11	0.01%
Any Accom., Mod., or EL Variation	6	123	144	72	44	389	0.25%
No Accom., Mod., or EL Variation	8,078	68,957	51,741	16,695	7,273	152,744	99.75%

Table 2.D.15 Special Services Summary for Geometry

Special Services Summary for Geometry						
All Tested	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	2	19	38	22	81	0.02%
C: Dictated responses to a scribe	0	2	8	8	18	0.00%
F: Used noninterfering assistive device	0	1	1	2	4	0.00%
G: Used braille version of test	1	5	23	6	35	0.01%
H: Used large-print version of test	2	17	26	24	69	0.02%
J: Tested during more than one day	0	9	69	35	113	0.03%
K: Had supervised breaks	3	100	432	305	840	0.21%
L: Most beneficial time of day	1	10	91	68	170	0.04%
M: Administered at home or in a hospital	1	13	23	29	66	0.02%
N: Used a dictionary	0	0	9	10	19	0.00%
O: Examiner presented using MCE or ASL	0	0	11	4	15	0.00%
Q: Used a calculator	0	56	270	304	630	0.15%
R: Used an arithmetic table	0	3	10	17	30	0.01%
S: Used math manipulatives	0	1	2	1	4	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	2	0	16	18	0.00%
X: Used an unlisted accommodation	4	25	102	104	235	0.06%
Y: Leave blank	1	6	52	36	95	0.02%
Z: Examiner read test questions aloud	2	21	96	90	209	0.05%
Accom. or Mod. is in Section 504 plan	4	15	22	13	54	0.01%
Accom. or Mod. is in IEP	8	202	940	788	1,938	0.47%
English Learner Test Variation A	0	54	164	115	333	0.08%
English Learner Test Variation B	0	4	27	20	51	0.01%
English Learner Test Variation C	0	131	391	186	708	0.17%
English Learner Test Variation D	1	144	449	215	809	0.20%
Any Accom., Mod., or EL Variation	17	448	1,652	1,197	3,314	0.81%
No Accom., Mod., or EL Variation	25,242	139,716	160,901	79,083	404,942	99.19%
Students Not in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	2	5	5	1	13	0.00%
C: Dictated responses to a scribe	0	1	2	2	5	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	1	1	4	1	7	0.00%
H: Used large-print version of test	0	3	5	1	9	0.00%
J: Tested during more than one day	0	0	2	0	2	0.00%
K: Had supervised breaks	1	6	33	21	61	0.02%
L: Most beneficial time of day	0	1	14	4	19	0.00%
M: Administered at home or in a hospital	1	11	13	14	39	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	2	2	0.00%
Q: Used a calculator	0	2	12	18	32	0.01%
R: Used an arithmetic table	0	0	0	1	1	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Geometry						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	1	1	0.00%
X: Used an unlisted accommodation	1	1	5	7	14	0.00%
Y: Leave blank	1	3	2	3	9	0.00%
Z: Examiner read test questions aloud	0	2	1	4	7	0.00%
Accom. or Mod. is in Section 504 plan	4	12	19	9	44	0.01%
Accom. or Mod. is in IEP	1	10	44	41	96	0.02%
English Learner Test Variation A	0	49	155	103	307	0.08%
English Learner Test Variation B	0	3	25	19	47	0.01%
English Learner Test Variation C	0	131	386	183	700	0.18%
English Learner Test Variation D	1	144	445	211	801	0.20%
Any Accom., Mod., or EL Variation	8	239	706	398	1,351	0.34%
No Accom., Mod., or EL Variation	24,998	137,546	154,055	74,088	390,687	99.66%
Students in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	14	33	21	68	0.42%
C: Dictated responses to a scribe	0	1	6	6	13	0.08%
F: Used noninterfering assistive device	0	1	1	2	4	0.02%
G: Used braille version of test	0	4	19	5	28	0.17%
H: Used large-print version of test	2	14	21	23	60	0.37%
J: Tested during more than one day	0	9	65	35	109	0.67%
K: Had supervised breaks	2	93	395	284	774	4.79%
L: Most beneficial time of day	1	9	75	64	149	0.92%
M: Administered at home or in a hospital	0	2	10	14	26	0.16%
N: Used a dictionary	0	0	8	10	18	0.11%
O: Examiner presented using MCE or ASL	0	0	11	2	13	0.08%
Q: Used a calculator	0	54	256	286	596	3.68%
R: Used an arithmetic table	0	3	10	16	29	0.18%
S: Used math manipulatives	0	1	2	1	4	0.02%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	2	0	15	17	0.11%
X: Used an unlisted accommodation	3	24	97	96	220	1.36%
Y: Leave blank	0	2	50	32	84	0.52%
Z: Examiner read test questions aloud	2	19	94	86	201	1.24%
Accom. or Mod. is in Section 504 plan	0	3	3	4	10	0.06%
Accom. or Mod. is in IEP	7	190	892	744	1,833	11.33%
English Learner Test Variation A	0	5	9	12	26	0.16%
English Learner Test Variation B	0	1	2	1	4	0.02%
English Learner Test Variation C	0	0	5	3	8	0.05%
English Learner Test Variation D	0	0	4	4	8	0.05%
Any Accom., Mod., or EL Variation	9	207	942	796	1,954	12.08%
No Accom., Mod., or EL Variation	242	2,163	6,831	4,984	14,220	87.92%

Special Services Summary for Geometry						
English-Only Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	2	13	27	16	58	0.03%
C: Dictated responses to a scribe	0	1	6	7	14	0.01%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	3	14	4	21	0.01%
H: Used large-print version of test	0	9	20	18	47	0.02%
J: Tested during more than one day	0	4	39	24	67	0.03%
K: Had supervised breaks	2	58	243	191	494	0.22%
L: Most beneficial time of day	1	8	58	52	119	0.05%
M: Administered at home or in a hospital	0	10	15	18	43	0.02%
N: Used a dictionary	0	0	4	7	11	0.00%
O: Examiner presented using MCE or ASL	0	0	4	2	6	0.00%
Q: Used a calculator	0	26	145	190	361	0.16%
R: Used an arithmetic table	0	0	5	6	11	0.00%
S: Used math manipulatives	0	1	0	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	10	10	0.00%
X: Used an unlisted accommodation	2	10	76	76	164	0.07%
Y: Leave blank	1	2	29	30	62	0.03%
Z: Examiner read test questions aloud	0	12	52	39	103	0.04%
Accom. or Mod. is in Section 504 plan	3	10	20	11	44	0.02%
Accom. or Mod. is in IEP	3	105	554	507	1,169	0.51%
English Learner Test Variation A	0	3	0	0	3	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	4	5	2	11	0.00%
English Learner Test Variation D	0	9	2	3	14	0.01%
Any Accom., Mod., or EL Variation	8	140	611	555	1,314	0.57%
No Accom., Mod., or EL Variation	15,089	81,084	89,267	42,712	228,152	99.43%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	1	1	1	3	0.01%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	1	2	0	3	0.01%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	2	2	1	5	0.01%
K: Had supervised breaks	1	3	15	7	26	0.07%
L: Most beneficial time of day	0	0	3	0	3	0.01%
M: Administered at home or in a hospital	0	0	0	1	1	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	11	10	21	0.06%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Geometry						
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	3	0	3	6	0.02%
Y: Leave blank	0	0	2	2	4	0.01%
Z: Examiner read test questions aloud	1	0	1	1	3	0.01%
Accom. or Mod. is in Section 504 plan	0	1	0	0	1	0.00%
Accom. or Mod. is in IEP	1	6	30	20	57	0.16%
English Learner Test Variation A	0	5	1	1	7	0.02%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	4	1	1	6	0.02%
English Learner Test Variation D	1	3	1	3	8	0.02%
Any Accom., Mod., or EL Variation	2	12	32	27	73	0.21%
No Accom., Mod., or EL Variation	3,959	12,812	12,631	5,519	34,921	99.79%
English Learner (EL) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	6	1	7	0.02%
C: Dictated responses to a scribe	0	0	1	1	2	0.00%
F: Used noninterfering assistive device	0	0	1	1	2	0.00%
G: Used braille version of test	0	0	2	0	2	0.00%
H: Used large-print version of test	0	0	2	2	4	0.01%
J: Tested during more than one day	0	1	23	9	33	0.07%
K: Had supervised breaks	0	31	144	94	269	0.59%
L: Most beneficial time of day	0	2	24	13	39	0.09%
M: Administered at home or in a hospital	0	0	1	6	7	0.02%
N: Used a dictionary	0	0	4	3	7	0.02%
O: Examiner presented using MCE or ASL	0	0	7	2	9	0.02%
Q: Used a calculator	0	25	93	82	200	0.44%
R: Used an arithmetic table	0	3	5	10	18	0.04%
S: Used math manipulatives	0	0	2	1	3	0.01%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	2	0	6	8	0.02%
X: Used an unlisted accommodation	1	7	22	19	49	0.11%
Y: Leave blank	0	3	19	1	23	0.05%
Z: Examiner read test questions aloud	0	5	42	46	93	0.20%
Accom. or Mod. is in Section 504 plan	0	1	0	1	2	0.00%
Accom. or Mod. is in IEP	1	64	296	213	574	1.26%
English Learner Test Variation A	0	31	156	112	299	0.66%
English Learner Test Variation B	0	3	26	20	49	0.11%
English Learner Test Variation C	0	108	378	180	666	1.47%
English Learner Test Variation D	0	114	438	206	758	1.67%
Any Accom., Mod., or EL Variation	1	243	918	556	1,718	3.78%
No Accom., Mod., or EL Variation	231	8,043	21,306	14,126	43,706	96.22%

Special Services Summary for Geometry						
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	5	4	4	13	0.01%
C: Dictated responses to a scribe	0	1	1	0	2	0.00%
F: Used noninterfering assistive device	0	1	0	1	2	0.00%
G: Used braille version of test	1	1	5	2	9	0.01%
H: Used large-print version of test	2	8	4	4	18	0.02%
J: Tested during more than one day	0	2	4	1	7	0.01%
K: Had supervised breaks	0	7	27	12	46	0.05%
L: Most beneficial time of day	0	0	6	3	9	0.01%
M: Administered at home or in a hospital	1	3	6	4	14	0.01%
N: Used a dictionary	0	0	1	0	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	5	20	22	47	0.05%
R: Used an arithmetic table	0	0	0	1	1	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	5	4	6	15	0.02%
Y: Leave blank	0	1	2	3	6	0.01%
Z: Examiner read test questions aloud	1	4	1	4	10	0.01%
Accom. or Mod. is in Section 504 plan	1	3	2	1	7	0.01%
Accom. or Mod. is in IEP	2	26	57	47	132	0.13%
English Learner Test Variation A	0	15	7	2	24	0.02%
English Learner Test Variation B	0	1	1	0	2	0.00%
English Learner Test Variation C	0	15	6	3	24	0.02%
English Learner Test Variation D	0	18	8	3	29	0.03%
Any Accom., Mod., or EL Variation	5	52	86	58	201	0.21%
No Accom., Mod., or EL Variation	5,939	37,677	37,481	16,618	97,715	99.79%

Table 2.D.16 Special Services Summary for Algebra II

Special Services Summary for Algebra II						
All Tested	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	5	21	19	45	0.02%
C: Dictated responses to a scribe	0	0	2	13	15	0.01%
F: Used noninterfering assistive device	0	0	3	12	15	0.01%
G: Used braille version of test	0	0	2	4	6	0.00%
H: Used large-print version of test	0	5	19	13	37	0.01%
J: Tested during more than one day	0	0	9	30	39	0.01%
K: Had supervised breaks	1	23	92	214	330	0.12%
L: Most beneficial time of day	0	7	13	42	62	0.02%
M: Administered at home or in a hospital	0	2	9	14	25	0.01%
N: Used a dictionary	0	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	1	16	17	0.01%
Q: Used a calculator	0	2	36	157	195	0.07%
R: Used an arithmetic table	0	1	1	4	6	0.00%
S: Used math manipulatives	0	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	8	7	15	0.01%
X: Used an unlisted accommodation	0	7	35	63	105	0.04%
Y: Leave blank	0	0	17	27	44	0.02%
Z: Examiner read test questions aloud	0	5	16	43	64	0.02%
Accom. or Mod. is in Section 504 plan	0	4	11	23	38	0.01%
Accom. or Mod. is in IEP	1	37	195	466	699	0.25%
English Learner Test Variation A	0	1	21	76	98	0.04%
English Learner Test Variation B	0	18	38	25	81	0.03%
English Learner Test Variation C	0	27	116	150	293	0.11%
English Learner Test Variation D	0	23	129	171	323	0.12%
Any Accom., Mod., or EL Variation	1	89	412	804	1,306	0.47%
No Accom., Mod., or EL Variation	780	28,474	125,001	122,189	276,444	99.53%
Students Not in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	1	4	5	10	0.00%
C: Dictated responses to a scribe	0	0	1	1	2	0.00%
F: Used noninterfering assistive device	0	0	1	0	1	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	3	3	6	0.00%
J: Tested during more than one day	0	0	3	2	5	0.00%
K: Had supervised breaks	0	2	6	30	38	0.01%
L: Most beneficial time of day	0	1	2	17	20	0.01%
M: Administered at home or in a hospital	0	1	7	9	17	0.01%
N: Used a dictionary	0	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	1	1	0.00%
Q: Used a calculator	0	0	3	25	28	0.01%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Algebra II						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	2	2	0.00%
X: Used an unlisted accommodation	0	2	3	7	12	0.00%
Y: Leave blank	0	0	0	6	6	0.00%
Z: Examiner read test questions aloud	0	1	1	1	3	0.00%
Accom. or Mod. is in Section 504 plan	0	4	11	21	36	0.01%
Accom. or Mod. is in IEP	0	2	9	37	48	0.02%
English Learner Test Variation A	0	1	15	66	82	0.03%
English Learner Test Variation B	0	18	38	25	81	0.03%
English Learner Test Variation C	0	27	116	149	292	0.11%
English Learner Test Variation D	0	23	129	170	322	0.12%
Any Accom., Mod., or EL Variation	0	54	212	342	608	0.22%
No Accom., Mod., or EL Variation	770	28,237	123,338	118,206	270,551	99.78%
Students in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	4	17	14	35	0.53%
C: Dictated responses to a scribe	0	0	1	12	13	0.20%
F: Used noninterfering assistive device	0	0	2	12	14	0.21%
G: Used braille version of test	0	0	2	4	6	0.09%
H: Used large-print version of test	0	5	16	10	31	0.47%
J: Tested during more than one day	0	0	6	28	34	0.52%
K: Had supervised breaks	1	21	86	184	292	4.44%
L: Most beneficial time of day	0	6	11	25	42	0.64%
M: Administered at home or in a hospital	0	1	2	5	8	0.12%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	15	16	0.24%
Q: Used a calculator	0	2	33	132	167	2.54%
R: Used an arithmetic table	0	1	1	4	6	0.09%
S: Used math manipulatives	0	0	0	1	1	0.02%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	8	5	13	0.20%
X: Used an unlisted accommodation	0	5	32	56	93	1.41%
Y: Leave blank	0	0	17	21	38	0.58%
Z: Examiner read test questions aloud	0	4	15	42	61	0.93%
Accom. or Mod. is in Section 504 plan	0	0	0	2	2	0.03%
Accom. or Mod. is in IEP	1	35	186	429	651	9.90%
English Learner Test Variation A	0	0	6	10	16	0.24%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	1	1	0.02%
English Learner Test Variation D	0	0	0	1	1	0.02%
Any Accom., Mod., or EL Variation	1	35	200	462	698	10.61%
No Accom., Mod., or EL Variation	10	236	1,656	3,978	5,880	89.39%

Special Services Summary for Algebra II						
English-Only Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	3	16	14	33	0.02%
C: Dictated responses to a scribe	0	0	2	10	12	0.01%
F: Used noninterfering assistive device	0	0	2	8	10	0.01%
G: Used braille version of test	0	0	1	0	1	0.00%
H: Used large-print version of test	0	2	13	8	23	0.01%
J: Tested during more than one day	0	0	7	19	26	0.02%
K: Had supervised breaks	1	12	50	126	189	0.12%
L: Most beneficial time of day	0	5	11	31	47	0.03%
M: Administered at home or in a hospital	0	2	7	11	20	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	4	5	0.00%
Q: Used a calculator	0	2	25	99	126	0.08%
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	8	4	12	0.01%
X: Used an unlisted accommodation	0	5	16	37	58	0.04%
Y: Leave blank	0	0	14	20	34	0.02%
Z: Examiner read test questions aloud	0	1	5	22	28	0.02%
Accom. or Mod. is in Section 504 plan	0	4	10	18	32	0.02%
Accom. or Mod. is in IEP	1	20	119	287	427	0.27%
English Learner Test Variation A	0	0	2	2	4	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	5	6	0.00%
English Learner Test Variation D	0	0	1	4	5	0.00%
Any Accom., Mod., or EL Variation	1	25	142	340	508	0.32%
No Accom., Mod., or EL Variation	416	15,995	73,648	68,432	158,491	99.68%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	2	2	0.01%
H: Used large-print version of test	0	0	2	1	3	0.01%
J: Tested during more than one day	0	0	1	2	3	0.01%
K: Had supervised breaks	0	3	5	7	15	0.05%
L: Most beneficial time of day	0	2	1	3	6	0.02%
M: Administered at home or in a hospital	0	0	1	1	2	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	5	5	0.02%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Algebra II						
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	3	3	6	0.02%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	2	0.01%
Accom. or Mod. is in Section 504 plan	0	0	0	2	2	0.01%
Accom. or Mod. is in IEP	0	3	8	15	26	0.09%
English Learner Test Variation A	0	0	1	2	3	0.01%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	2	3	0.01%
English Learner Test Variation D	0	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	0	3	11	23	37	0.13%
No Accom., Mod., or EL Variation	147	4,017	13,840	10,003	28,007	99.87%
English Learner (EL) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	1	1	2	0.01%
C: Dictated responses to a scribe	0	0	0	2	2	0.01%
F: Used noninterfering assistive device	0	0	0	3	3	0.02%
G: Used braille version of test	0	0	1	1	2	0.01%
H: Used large-print version of test	0	0	0	2	2	0.01%
J: Tested during more than one day	0	0	0	8	8	0.04%
K: Had supervised breaks	0	7	29	67	103	0.57%
L: Most beneficial time of day	0	0	0	7	7	0.04%
M: Administered at home or in a hospital	0	0	0	1	1	0.01%
N: Used a dictionary	0	0	0	1	1	0.01%
O: Examiner presented using MCE or ASL	0	0	0	12	12	0.07%
Q: Used a calculator	0	0	7	28	35	0.19%
R: Used an arithmetic table	0	1	1	3	5	0.03%
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	1	1	0.01%
X: Used an unlisted accommodation	0	0	12	19	31	0.17%
Y: Leave blank	0	0	1	5	6	0.03%
Z: Examiner read test questions aloud	0	4	8	17	29	0.16%
Accom. or Mod. is in Section 504 plan	0	0	0	2	2	0.01%
Accom. or Mod. is in IEP	0	8	46	124	178	0.98%
English Learner Test Variation A	0	1	18	70	89	0.49%
English Learner Test Variation B	0	18	38	25	81	0.44%
English Learner Test Variation C	0	26	106	139	271	1.49%
English Learner Test Variation D	0	23	120	163	306	1.68%
Any Accom., Mod., or EL Variation	0	54	224	382	660	3.62%
No Accom., Mod., or EL Variation	7	836	5,282	11,445	17,570	96.38%

Special Services Summary for Algebra II						
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	2	4	4	10	0.01%
C: Dictated responses to a scribe	0	0	0	1	1	0.00%
F: Used noninterfering assistive device	0	0	1	1	2	0.00%
G: Used braille version of test	0	0	0	1	1	0.00%
H: Used large-print version of test	0	3	4	2	9	0.01%
J: Tested during more than one day	0	0	1	1	2	0.00%
K: Had supervised breaks	0	1	8	14	23	0.03%
L: Most beneficial time of day	0	0	1	1	2	0.00%
M: Administered at home or in a hospital	0	0	1	1	2	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	4	25	29	0.04%
R: Used an arithmetic table	0	0	0	1	1	0.00%
S: Used math manipulatives	0	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	2	2	0.00%
X: Used an unlisted accommodation	0	2	4	3	9	0.01%
Y: Leave blank	0	0	2	2	4	0.01%
Z: Examiner read test questions aloud	0	0	2	3	5	0.01%
Accom. or Mod. is in Section 504 plan	0	0	1	1	2	0.00%
Accom. or Mod. is in IEP	0	6	22	39	67	0.09%
English Learner Test Variation A	0	0	0	2	2	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	1	8	3	12	0.02%
English Learner Test Variation D	0	0	8	3	11	0.02%
Any Accom., Mod., or EL Variation	0	7	35	57	99	0.14%
No Accom., Mod., or EL Variation	209	7,610	32,152	32,187	72,158	99.86%

Table 2.D.17 Special Services Summary for Summative High School Mathematics

Special Services Summary for Summative High School Mathematics					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	4	16	20	0.01%
C: Dictated responses to a scribe	0	0	2	2	0.00%
F: Used noninterfering assistive device	0	0	4	4	0.00%
G: Used braille version of test	0	0	2	2	0.00%
H: Used large-print version of test	0	1	13	14	0.01%
J: Tested during more than one day	0	1	1	2	0.00%
K: Had supervised breaks	0	1	30	31	0.02%
L: Most beneficial time of day	0	0	4	4	0.00%
M: Administered at home or in a hospital	1	1	4	6	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	2	2	0.00%
Q: Used a calculator	0	1	27	28	0.02%
R: Used an arithmetic table	0	0	1	1	0.00%
S: Used math manipulatives	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	18	18	0.01%
Y: Leave blank	0	1	1	2	0.00%
Z: Examiner read test questions aloud	0	0	9	9	0.01%
Accom. or Mod. is in Section 504 plan	1	1	14	16	0.01%
Accom. or Mod. is in IEP	0	7	74	81	0.06%
English Learner Test Variation A	0	0	13	13	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	1	15	57	73	0.05%
English Learner Test Variation D	1	10	39	50	0.04%
Any Accom., Mod., or EL Variation	2	26	181	209	0.15%
No Accom., Mod., or EL Variation	790	22,342	116,737	139,869	99.85%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	1	5	6	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	1	1	2	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	4	4	0.00%
L: Most beneficial time of day	0	0	1	1	0.00%
M: Administered at home or in a hospital	1	1	3	5	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	1	9	10	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	1	1	0.00%

Special Services Summary for Summative High School Mathematics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	4	4	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	1	1	13	15	0.01%
Accom. or Mod. is in IEP	0	1	2	3	0.00%
English Learner Test Variation A	0	0	5	5	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	1	15	57	73	0.05%
English Learner Test Variation D	1	10	39	50	0.04%
Any Accom., Mod., or EL Variation	2	20	95	117	0.08%
No Accom., Mod., or EL Variation	780	22,211	115,810	138,801	99.92%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	3	11	14	1.21%
C: Dictated responses to a scribe	0	0	2	2	0.17%
F: Used noninterfering assistive device	0	0	4	4	0.35%
G: Used braille version of test	0	0	2	2	0.17%
H: Used large-print version of test	0	0	12	12	1.04%
J: Tested during more than one day	0	1	1	2	0.17%
K: Had supervised breaks	0	0	26	26	2.25%
L: Most beneficial time of day	0	0	3	3	0.26%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	2	2	0.17%
Q: Used a calculator	0	0	18	18	1.56%
R: Used an arithmetic table	0	0	1	1	0.09%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	14	14	1.21%
Y: Leave blank	0	1	1	2	0.17%
Z: Examiner read test questions aloud	0	0	9	9	0.78%
Accom. or Mod. is in Section 504 plan	0	0	1	1	0.09%
Accom. or Mod. is in IEP	0	5	71	76	6.58%
English Learner Test Variation A	0	0	8	8	0.69%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	5	85	90	7.79%
No Accom., Mod., or EL Variation	10	131	924	1,065	92.21%

Special Services Summary for Summative High School Mathematics					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	3	14	17	0.02%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used noninterfering assistive device	0	0	2	2	0.00%
G: Used braille version of test	0	0	2	2	0.00%
H: Used large-print version of test	0	1	11	12	0.01%
J: Tested during more than one day	0	1	0	1	0.00%
K: Had supervised breaks	0	0	18	18	0.02%
L: Most beneficial time of day	0	0	3	3	0.00%
M: Administered at home or in a hospital	1	1	1	3	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	2	2	0.00%
Q: Used a calculator	0	0	16	16	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	13	13	0.02%
Y: Leave blank	0	1	0	1	0.00%
Z: Examiner read test questions aloud	0	0	3	3	0.00%
Accom. or Mod. is in Section 504 plan	1	1	13	15	0.02%
Accom. or Mod. is in IEP	0	5	50	55	0.07%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	7	72	80	0.10%
No Accom., Mod., or EL Variation	360	12,590	69,266	82,216	99.90%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	1	1	0.01%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	1	0.01%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	2	2	0.01%
L: Most beneficial time of day	0	0	1	1	0.01%
M: Administered at home or in a hospital	0	0	1	1	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Summative High School Mathematics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.01%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	1	0.01%
English Learner Test Variation A	0	0	2	2	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.01%
English Learner Test Variation D	0	1	0	1	0.01%
Any Accom., Mod., or EL Variation	0	1	8	9	0.05%
No Accom., Mod., or EL Variation	208	3,975	14,791	18,974	99.95%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	1	1	0.03%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	1	1	0.03%
K: Had supervised breaks	0	0	8	8	0.26%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	1	7	8	0.26%
R: Used an arithmetic table	0	0	1	1	0.03%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	4	4	0.13%
Y: Leave blank	0	0	1	1	0.03%
Z: Examiner read test questions aloud	0	0	4	4	0.13%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	1	17	18	0.58%
English Learner Test Variation A	0	0	10	10	0.32%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	1	15	55	71	2.27%
English Learner Test Variation D	1	9	38	48	1.54%
Any Accom., Mod., or EL Variation	1	16	89	106	3.39%
No Accom., Mod., or EL Variation	29	348	2,642	3,019	96.61%

Special Services Summary for Summative High School Mathematics					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	1	2	3	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	1	1	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	1	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	1	2	3	0.01%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	2	2	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	4	4	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	1	1	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 plan	0	0	1	1	0.00%
Accom. or Mod. is in IEP	0	1	6	7	0.02%
English Learner Test Variation A	0	0	1	1	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.00%
English Learner Test Variation D	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	0	2	12	14	0.04%
No Accom., Mod., or EL Variation	192	5,425	29,984	35,601	99.96%

Table 2.D.18 Special Services Summary for Integrated Mathematics 1

Special Services Summary for Integrated Mathematics 1						
All Tested	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	3	0	3	0.02%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	1	1	0.01%
H: Used large-print version of test	0	0	2	2	4	0.03%
J: Tested during more than one day	0	4	12	11	27	0.22%
K: Had supervised breaks	0	8	33	56	97	0.81%
L: Most beneficial time of day	0	1	33	21	55	0.46%
M: Administered at home or in a hospital	0	0	14	6	20	0.17%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	11	33	44	0.37%
R: Used an arithmetic table	0	0	0	1	1	0.01%
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	28	12	40	0.33%
Y: Leave blank	0	0	4	2	6	0.05%
Z: Examiner read test questions aloud	0	2	22	9	33	0.27%
Accom. or Mod. is in Section 504 plan	0	0	1	2	3	0.02%
Accom. or Mod. is in IEP	0	10	115	118	243	2.02%
English Learner Test Variation A	0	1	4	5	10	0.08%
English Learner Test Variation B	0	0	1	2	3	0.02%
English Learner Test Variation C	0	1	5	6	12	0.10%
English Learner Test Variation D	0	1	9	28	38	0.32%
Any Accom., Mod., or EL Variation	0	12	134	156	302	2.51%
No Accom., Mod., or EL Variation	54	1,097	4,792	5,773	11,716	97.49%
Students Not in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	1	0	1	0.01%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	1	1	0.01%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	1	1	2	0.02%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	1	1	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	4	0.04%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 1						
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	1	1	0.01%
Y: Leave blank	0	0	1	0	1	0.01%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	1	2	3	0.03%
Accom. or Mod. is in IEP	0	0	2	4	6	0.06%
English Learner Test Variation A	0	1	4	4	9	0.08%
English Learner Test Variation B	0	0	1	2	3	0.03%
English Learner Test Variation C	0	1	5	5	11	0.10%
English Learner Test Variation D	0	1	9	26	36	0.34%
Any Accom., Mod., or EL Variation	0	2	16	36	54	0.51%
No Accom., Mod., or EL Variation	53	1,038	4,425	5,096	10,612	99.49%
Students in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	2	0	2	0.15%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	1	1	0.08%
H: Used large-print version of test	0	0	2	1	3	0.23%
J: Tested during more than one day	0	4	12	11	27	2.03%
K: Had supervised breaks	0	8	32	55	95	7.13%
L: Most beneficial time of day	0	1	33	21	55	4.13%
M: Administered at home or in a hospital	0	0	14	5	19	1.43%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	9	31	40	3.00%
R: Used an arithmetic table	0	0	0	1	1	0.08%
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	28	11	39	2.93%
Y: Leave blank	0	0	3	2	5	0.38%
Z: Examiner read test questions aloud	0	2	21	9	32	2.40%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	10	112	114	236	17.70%
English Learner Test Variation A	0	0	0	1	1	0.08%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	1	1	0.08%
English Learner Test Variation D	0	0	0	2	2	0.15%
Any Accom., Mod., or EL Variation	0	10	117	120	247	18.53%
No Accom., Mod., or EL Variation	1	59	353	673	1,086	81.47%

Special Services Summary for Integrated Mathematics 1						
English-Only Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	1	1	0.01%
H: Used large-print version of test	0	0	0	1	1	0.01%
J: Tested during more than one day	0	4	8	9	21	0.29%
K: Had supervised breaks	0	4	21	36	61	0.83%
L: Most beneficial time of day	0	1	27	14	42	0.57%
M: Administered at home or in a hospital	0	0	13	4	17	0.23%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	9	18	27	0.37%
R: Used an arithmetic table	0	0	0	1	1	0.01%
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	12	7	19	0.26%
Y: Leave blank	0	0	1	2	3	0.04%
Z: Examiner read test questions aloud	0	0	12	6	18	0.25%
Accom. or Mod. is in Section 504 plan	0	0	1	1	2	0.03%
Accom. or Mod. is in IEP	0	4	69	74	147	2.01%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	4	74	78	156	2.13%
No Accom., Mod., or EL Variation	42	677	2,922	3,511	7,152	97.87%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	1	0	1	0.12%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	1	1	0.12%
K: Had supervised breaks	0	0	0	2	2	0.24%
L: 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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	1	1	0.12%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 1						
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	1	1	0.12%
Y: Leave blank	0	0	2	0	2	0.24%
Z: Examiner read test questions aloud	0	0	2	1	3	0.36%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	4	5	9	1.09%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	5	5	10	1.21%
No Accom., Mod., or EL Variation	2	82	311	422	817	98.79%
English Learner (EL) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	2	0	2	0.11%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	2	1	3	0.16%
J: Tested during more than one day	0	0	4	1	5	0.26%
K: Had supervised breaks	0	3	10	16	29	1.54%
L: Most beneficial time of day	0	0	4	6	10	0.53%
M: Administered at home or in a hospital	0	0	1	2	3	0.16%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	12	14	0.74%
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	14	2	16	0.85%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	2	6	2	10	0.53%
Accom. or Mod. is in Section 504 plan	0	0	0	1	1	0.05%
Accom. or Mod. is in IEP	0	5	35	33	73	3.87%
English Learner Test Variation A	0	1	4	5	10	0.53%
English Learner Test Variation B	0	0	1	2	3	0.16%
English Learner Test Variation C	0	1	5	6	12	0.64%
English Learner Test Variation D	0	1	9	27	37	1.96%
Any Accom., Mod., or EL Variation	0	7	48	66	121	6.41%
No Accom., Mod., or EL Variation	3	123	697	944	1,767	93.59%

Special Services Summary for Integrated Mathematics 1						
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	1	2	2	5	0.25%
L: Most beneficial time of day	0	0	2	1	3	0.15%
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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	2	2	0.10%
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	2	2	4	0.20%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	2	0	2	0.10%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	1	6	6	13	0.66%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	1	1	0.05%
<i>Any</i> Accom., Mod., or EL Variation	0	1	6	7	14	0.71%
<i>No</i> Accom., Mod., or EL Variation	7	214	857	889	1,967	99.29%

Table 2.D.19 Special Services Summary for Integrated Mathematics 2

Special Services Summary for Integrated Mathematics 2						
All Tested	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	1	1	2	0.04%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	0	1	0.02%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	14	8	22	0.49%
L: Most beneficial time of day	0	0	1	2	3	0.07%
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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	8	9	0.20%
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	1	1	0.02%
Z: Examiner read test questions aloud	0	0	0	8	8	0.18%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	15	24	39	0.87%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	8	9	0.20%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	16	32	48	1.07%
No Accom., Mod., or EL Variation	11	321	1,143	2,984	4,459	98.93%
Students Not in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	1	0	1	0.02%
L: 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 using 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%

Special Services Summary for Integrated Mathematics 2						
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%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	0	1	0.02%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	8	9	0.21%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	2	8	10	0.24%
No Accom., Mod., or EL Variation	10	310	1,101	2,766	4,187	99.76%
Students in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	1	1	2	0.65%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	0	1	0.32%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	13	8	21	6.82%
L: Most beneficial time of day	0	0	1	2	3	0.97%
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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	8	9	2.92%
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	1	1	0.32%
Z: Examiner read test questions aloud	0	0	0	8	8	2.60%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	14	24	38	12.34%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	14	24	38	12.34%
No Accom., Mod., or EL Variation	1	11	42	216	270	87.66%

Special Services Summary for Integrated Mathematics 2						
English-Only Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	1	1	2	0.07%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	0	1	0.04%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	5	6	11	0.39%
L: Most beneficial time of day	0	0	1	1	2	0.07%
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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	6	7	0.25%
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	1	1	0.04%
Z: Examiner read test questions aloud	0	0	0	5	5	0.18%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	6	18	24	0.85%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	6	18	24	0.85%
No Accom., Mod., or EL Variation	10	201	680	1,925	2,816	99.15%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: 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 using 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%

Special Services Summary for Integrated Mathematics 2						
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%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	0	22	141	205	368	100.00%
English Learner (EL) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	9	2	11	2.23%
L: Most beneficial time of day	0	0	0	1	1	0.20%
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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	2	2	0.41%
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	2	2	0.41%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	9	5	14	2.84%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	8	9	1.83%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	10	13	23	4.67%
No Accom., Mod., or EL Variation	0	18	90	362	470	95.33%

Special Services Summary for Integrated Mathematics 2						
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: 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 using 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	1	1	0.12%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	1	1	0.12%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	1	1	0.12%
No Accom., Mod., or EL Variation	1	79	232	489	801	99.88%

Table 2.D.20 Special Services Summary for Integrated Mathematics 3

Special Services Summary for Integrated Mathematics 3						
All Tested	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	1	1	0.14%
L: 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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	1	2	0.27%
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	1	1	0.14%
Y: Leave blank	0	0	0	1	1	0.14%
Z: Examiner read test questions aloud	0	0	0	1	1	0.14%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	2	3	0.41%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
<i>Any</i> Accom., Mod., or EL Variation	0	0	1	3	4	0.54%
<i>No</i> Accom., Mod., or EL Variation	5	16	289	420	730	99.46%
Students Not in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: 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 using 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%

Special Services Summary for Integrated Mathematics 3						
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%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	5	16	276	409	706	100.00%
Students in Special Education	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	1	1	3.57%
L: 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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	1	2	7.14%
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	1	1	3.57%
Y: Leave blank	0	0	0	1	1	3.57%
Z: Examiner read test questions aloud	0	0	0	1	1	3.57%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	2	3	10.71%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	1	3	4	14.29%
No Accom., Mod., or EL Variation	0	0	13	11	24	85.71%

Special Services Summary for Integrated Mathematics 3						
English-Only Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: 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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	0	1	0.20%
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	1	1	0.20%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	1	2	0.39%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	1	1	2	0.39%
No Accom., Mod., or EL Variation	2	8	195	305	510	99.61%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	1	1	2.56%
L: 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 using 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%

Special Services Summary for Integrated Mathematics 3						
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%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	1	1	2.56%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	1	1	2.56%
No Accom., Mod., or EL Variation	2	5	17	14	38	97.44%
English Learner (EL) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: 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 using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	1	1	2.17%
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	1	1	2.17%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	1	1	2.17%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	1	1	2.17%
No Accom., Mod., or EL Variation	0	0	22	23	45	97.83%

Special Services Summary for Integrated Mathematics 3						
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: 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 using 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%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	1	3	54	77	135	100.00%

Table 2.D.21 Special Services Summary for Science, Grade Five

Special Services Summary for Science, Grade Five		
All Tested	Grade 5	Pct. of Total
B: Marked responses in test booklet	366	0.08%
C: Dictated responses to a scribe	37	0.01%
F: Used noninterfering assistive device	24	0.01%
G: Used braille version of test	16	0.00%
H: Used large-print version of test	131	0.03%
J: Tested during more than one day	475	0.11%
K: Had supervised breaks	2,064	0.47%
L: Most beneficial time of day	774	0.18%
M: Administered at home or in a hospital	33	0.01%
N: Used a dictionary	4	0.00%
O: Examiner presented using MCE or ASL	22	0.01%
Q: Used a calculator	14	0.00%
R: Used an arithmetic table	11	0.00%
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	7	0.00%
X: Used an unlisted accommodation	750	0.17%
Y: Leave blank	175	0.04%
Z: Examiner read test questions aloud	2,312	0.53%
Accom. or Mod. is in Section 504 plan	298	0.07%
Accom. or Mod. is in IEP	4,483	1.03%
English Learner Test Variation A	254	0.06%
English Learner Test Variation B	50	0.01%
English Learner Test Variation C	117	0.03%
English Learner Test Variation D	54	0.01%
<i>Any Accom., Mod., or EL Variation</i>	5,332	1.22%
<i>No Accom., Mod., or EL Variation</i>	431,063	98.78%
Students Not in Special Education	Grade 5	Pct. of Total
B: Marked responses in test booklet	60	0.01%
C: Dictated responses to a scribe	10	0.00%
F: Used noninterfering assistive device	2	0.00%
G: Used braille version of test	0	0.00%
H: Used large-print version of test	32	0.01%
J: Tested during more than one day	53	0.01%
K: Had supervised breaks	287	0.07%
L: Most beneficial time of day	127	0.03%
M: Administered at home or in a hospital	18	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	2	0.00%
R: Used an arithmetic table	3	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Science, Grade Five		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.00%
X: Used an unlisted accommodation	134	0.03%
Y: Leave blank	28	0.01%
Z: Examiner read test questions aloud	200	0.05%
Accom. or Mod. is in Section 504 plan	276	0.07%
Accom. or Mod. is in IEP	372	0.09%
English Learner Test Variation A	232	0.06%
English Learner Test Variation B	23	0.01%
English Learner Test Variation C	107	0.03%
English Learner Test Variation D	53	0.01%
Any Accom., Mod., or EL Variation	1,038	0.25%
No Accom., Mod., or EL Variation	408,794	99.75%
Students in Special Education	Grade 5	Pct. of Total
B: Marked responses in test booklet	297	1.23%
C: Dictated responses to a scribe	27	0.11%
F: Used noninterfering assistive device	22	0.09%
G: Used braille version of test	16	0.07%
H: Used large-print version of test	98	0.41%
J: Tested during more than one day	413	1.71%
K: Had supervised breaks	1,754	7.26%
L: Most beneficial time of day	636	2.63%
M: Administered at home or in a hospital	15	0.06%
N: Used a dictionary	3	0.01%
O: Examiner presented using MCE or ASL	22	0.09%
Q: Used a calculator	12	0.05%
R: Used an arithmetic table	8	0.03%
S: Used math manipulatives	2	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.02%
X: Used an unlisted accommodation	610	2.53%
Y: Leave blank	142	0.59%
Z: Examiner read test questions aloud	2,071	8.58%
Accom. or Mod. is in Section 504 plan	20	0.08%
Accom. or Mod. is in IEP	4,042	16.74%
English Learner Test Variation A	20	0.08%
English Learner Test Variation B	26	0.11%
English Learner Test Variation C	8	0.03%
English Learner Test Variation D	1	0.00%
Any Accom., Mod., or EL Variation	4,219	17.47%
No Accom., Mod., or EL Variation	19,926	82.53%

Special Services Summary for Science, Grade Five		
English-Only Students	Grade 5	Pct. of Total
B: Marked responses in test booklet	287	0.12%
C: Dictated responses to a scribe	26	0.01%
F: Used noninterfering assistive device	20	0.01%
G: Used braille version of test	8	0.00%
H: Used large-print version of test	96	0.04%
J: Tested during more than one day	333	0.14%
K: Had supervised breaks	1,375	0.56%
L: Most beneficial time of day	522	0.21%
M: Administered at home or in a hospital	23	0.01%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	4	0.00%
Q: Used a calculator	13	0.01%
R: Used an arithmetic table	9	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	7	0.00%
X: Used an unlisted accommodation	507	0.21%
Y: Leave blank	121	0.05%
Z: Examiner read test questions aloud	1,360	0.56%
Accom. or Mod. is in Section 504 plan	254	0.10%
Accom. or Mod. is in IEP	2,861	1.17%
English Learner Test Variation A	3	0.00%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	8	0.00%
English Learner Test Variation D	2	0.00%
Any Accom., Mod., or EL Variation	3,252	1.33%
No Accom., Mod., or EL Variation	241,118	98.67%
Initially Fluent English Proficient (I-FEP) Students	Grade 5	Pct. of Total
B: Marked responses in test booklet	13	0.04%
C: Dictated responses to a scribe	4	0.01%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	3	0.01%
H: Used large-print version of test	8	0.03%
J: Tested during more than one day	20	0.07%
K: Had supervised breaks	62	0.20%
L: Most beneficial time of day	24	0.08%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Science, Grade Five		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	28	0.09%
Y: Leave blank	5	0.02%
Z: Examiner read test questions aloud	82	0.27%
Accom. or Mod. is in Section 504 plan	10	0.03%
Accom. or Mod. is in IEP	160	0.53%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	2	0.01%
English Learner Test Variation C	2	0.01%
English Learner Test Variation D	0	0.00%
<i>Any Accom., Mod., or EL Variation</i>	182	0.60%
<i>No Accom., Mod., or EL Variation</i>	30,113	99.40%
English Learner (EL) Students	Grade 5	Pct. of Total
B: Marked responses in test booklet	56	0.06%
C: Dictated responses to a scribe	5	0.01%
F: Used noninterfering assistive device	4	0.00%
G: Used braille version of test	4	0.00%
H: Used large-print version of test	21	0.02%
J: Tested during more than one day	115	0.12%
K: Had supervised breaks	587	0.60%
L: Most beneficial time of day	212	0.22%
M: Administered at home or in a hospital	8	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	17	0.02%
Q: Used a calculator	1	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	197	0.20%
Y: Leave blank	42	0.04%
Z: Examiner read test questions aloud	831	0.86%
Accom. or Mod. is in Section 504 plan	24	0.02%
Accom. or Mod. is in IEP	1,371	1.41%
English Learner Test Variation A	218	0.22%
English Learner Test Variation B	46	0.05%
English Learner Test Variation C	107	0.11%
English Learner Test Variation D	51	0.05%
<i>Any Accom., Mod., or EL Variation</i>	1,756	1.81%
<i>No Accom., Mod., or EL Variation</i>	95,304	98.19%

Special Services Summary for Science, Grade Five		
Reclassified Fluent English Proficient (R-FEP) Students	Grade 5	Pct. of Total
B: Marked responses in test booklet	8	0.01%
C: Dictated responses to a scribe	2	0.00%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	6	0.01%
J: Tested during more than one day	6	0.01%
K: Had supervised breaks	31	0.05%
L: Most beneficial time of day	14	0.02%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	16	0.02%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	31	0.05%
Accom. or Mod. is in Section 504 plan	10	0.02%
Accom. or Mod. is in IEP	73	0.11%
English Learner Test Variation A	33	0.05%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	1	0.00%
<i>Any Accom., Mod., or EL Variation</i>	122	0.19%
<i>No Accom., Mod., or EL Variation</i>	64,040	99.81%

Table 2.D.22 Special Services Summary for Science, Grade Eight

Special Services Summary for Science, Grade Eight		
All Tested	Grade 8	Pct. of Total
B: Marked responses in test booklet	207	0.05%
C: Dictated responses to a scribe	19	0.00%
F: Used noninterfering assistive device	26	0.01%
G: Used braille version of test	23	0.01%
H: Used large-print version of test	109	0.02%
J: Tested during more than one day	274	0.06%
K: Had supervised breaks	1,153	0.26%
L: Most beneficial time of day	468	0.11%
M: Administered at home or in a hospital	67	0.02%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
Q: Used a calculator	32	0.01%
R: Used an arithmetic table	2	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	14	0.00%
X: Used an unlisted accommodation	667	0.15%
Y: Leave blank	221	0.05%
Z: Examiner read test questions aloud	1,030	0.23%
Accom. or Mod. is in Section 504 plan	146	0.03%
Accom. or Mod. is in IEP	2,959	0.67%
English Learner Test Variation A	435	0.10%
English Learner Test Variation B	12	0.00%
English Learner Test Variation C	318	0.07%
English Learner Test Variation D	382	0.09%
Any Accom., Mod., or EL Variation	4,293	0.97%
No Accom., Mod., or EL Variation	437,084	99.03%
Students Not in Special Education	Grade 8	Pct. of Total
B: Marked responses in test booklet	32	0.01%
C: Dictated responses to a scribe	5	0.00%
F: Used noninterfering assistive device	1	0.00%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	23	0.01%
J: Tested during more than one day	20	0.00%
K: Had supervised breaks	85	0.02%
L: Most beneficial time of day	36	0.01%
M: Administered at home or in a hospital	48	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	2	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Science, Grade Eight		
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	67	0.02%
Y: Leave blank	15	0.00%
Z: Examiner read test questions aloud	64	0.02%
Accom. or Mod. is in Section 504 plan	138	0.03%
Accom. or Mod. is in IEP	131	0.03%
English Learner Test Variation A	405	0.10%
English Learner Test Variation B	8	0.00%
English Learner Test Variation C	308	0.07%
English Learner Test Variation D	329	0.08%
Any Accom., Mod., or EL Variation	1,189	0.28%
No Accom., Mod., or EL Variation	416,740	99.72%
Students in Special Education	Grade 8	Pct. of Total
B: Marked responses in test booklet	175	0.75%
C: Dictated responses to a scribe	14	0.06%
F: Used noninterfering assistive device	25	0.11%
G: Used braille version of test	22	0.09%
H: Used large-print version of test	85	0.36%
J: Tested during more than one day	251	1.08%
K: Had supervised breaks	1,053	4.52%
L: Most beneficial time of day	425	1.82%
M: Administered at home or in a hospital	17	0.07%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
Q: Used a calculator	29	0.12%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	12	0.05%
X: Used an unlisted accommodation	593	2.55%
Y: Leave blank	203	0.87%
Z: Examiner read test questions aloud	959	4.12%
Accom. or Mod. is in Section 504 plan	8	0.03%
Accom. or Mod. is in IEP	2,796	12.00%
English Learner Test Variation A	30	0.13%
English Learner Test Variation B	4	0.02%
English Learner Test Variation C	10	0.04%
English Learner Test Variation D	53	0.23%
Any Accom., Mod., or EL Variation	3,069	13.18%
No Accom., Mod., or EL Variation	20,225	86.82%

Special Services Summary for Science, Grade Eight		
English-Only Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	150	0.06%
C: Dictated responses to a scribe	11	0.00%
F: Used noninterfering assistive device	17	0.01%
G: Used braille version of test	9	0.00%
H: Used large-print version of test	74	0.03%
J: Tested during more than one day	215	0.09%
K: Had supervised breaks	836	0.34%
L: Most beneficial time of day	311	0.13%
M: Administered at home or in a hospital	51	0.02%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
Q: Used a calculator	26	0.01%
R: Used an arithmetic table	2	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	7	0.00%
X: Used an unlisted accommodation	438	0.18%
Y: Leave blank	141	0.06%
Z: Examiner read test questions aloud	589	0.24%
Accom. or Mod. is in Section 504 plan	129	0.05%
Accom. or Mod. is in IEP	1,906	0.77%
English Learner Test Variation A	39	0.02%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	56	0.02%
English Learner Test Variation D	264	0.11%
Any Accom., Mod., or EL Variation	2,514	1.01%
No Accom., Mod., or EL Variation	245,923	98.99%
Initially Fluent English Proficient (I-FEP) Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	6	0.02%
C: Dictated responses to a scribe	3	0.01%
F: Used noninterfering assistive device	2	0.01%
G: Used braille version of test	2	0.01%
H: Used large-print version of test	6	0.02%
J: Tested during more than one day	3	0.01%
K: Had supervised breaks	21	0.06%
L: Most beneficial time of day	12	0.04%
M: Administered at home or in a hospital	6	0.02%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Science, Grade Eight		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	17	0.05%
Y: Leave blank	7	0.02%
Z: Examiner read test questions aloud	19	0.06%
Accom. or Mod. is in Section 504 plan	3	0.01%
Accom. or Mod. is in IEP	68	0.21%
English Learner Test Variation A	5	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	2	0.01%
English Learner Test Variation D	5	0.02%
Any Accom., Mod., or EL Variation	89	0.27%
No Accom., Mod., or EL Variation	32,771	99.73%
English Learner (EL) Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	34	0.05%
C: Dictated responses to a scribe	4	0.01%
F: Used noninterfering assistive device	2	0.00%
G: Used braille version of test	6	0.01%
H: Used large-print version of test	13	0.02%
J: Tested during more than one day	48	0.08%
K: Had supervised breaks	237	0.37%
L: Most beneficial time of day	123	0.19%
M: Administered at home or in a hospital	5	0.01%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	5	0.01%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	152	0.24%
Y: Leave blank	53	0.08%
Z: Examiner read test questions aloud	375	0.59%
Accom. or Mod. is in Section 504 plan	8	0.01%
Accom. or Mod. is in IEP	782	1.23%
English Learner Test Variation A	379	0.60%
English Learner Test Variation B	10	0.02%
English Learner Test Variation C	256	0.40%
English Learner Test Variation D	113	0.18%
Any Accom., Mod., or EL Variation	1,454	2.29%
No Accom., Mod., or EL Variation	62,063	97.71%

Special Services Summary for Science, Grade Eight		
Reclassified Fluent English Proficient (R-FEP) Students	Grade 8	Pct. of Total
B: Marked responses in test booklet	16	0.02%
C: Dictated responses to a scribe	1	0.00%
F: Used noninterfering assistive device	5	0.01%
G: Used braille version of test	6	0.01%
H: Used large-print version of test	15	0.02%
J: Tested during more than one day	8	0.01%
K: Had supervised breaks	55	0.06%
L: Most beneficial time of day	22	0.02%
M: Administered at home or in a hospital	5	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	1	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	5	0.01%
X: Used an unlisted accommodation	55	0.06%
Y: Leave blank	17	0.02%
Z: Examiner read test questions aloud	43	0.04%
Accom. or Mod. is in Section 504 plan	6	0.01%
Accom. or Mod. is in IEP	189	0.20%
English Learner Test Variation A	10	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	4	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	219	0.23%
No Accom., Mod., or EL Variation	95,606	99.77%

Table 2.D.23 Special Services Summary for Grade Ten Life Science

Special Services Summary for Grade Ten Life Science		
All Tested	Grade 10	Pct. of Total
B: Marked responses in test booklet	124	0.03%
C: Dictated responses to a scribe	16	0.00%
F: Used noninterfering assistive device	7	0.00%
G: Used braille version of test	19	0.00%
H: Used large-print version of test	72	0.02%
J: Tested during more than one day	179	0.04%
K: Had supervised breaks	1,477	0.32%
L: Most beneficial time of day	301	0.07%
M: Administered at home or in a hospital	80	0.02%
N: Used a dictionary	21	0.00%
O: Examiner presented using MCE or ASL	4	0.00%
Q: Used a calculator	48	0.01%
R: Used an arithmetic table	4	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	16	0.00%
X: Used an unlisted accommodation	421	0.09%
Y: Leave blank	204	0.04%
Z: Examiner read test questions aloud	394	0.09%
Accom. or Mod. is in Section 504 plan	50	0.01%
Accom. or Mod. is in IEP	2,528	0.55%
English Learner Test Variation A	517	0.11%
English Learner Test Variation B	196	0.04%
English Learner Test Variation C	859	0.19%
English Learner Test Variation D	905	0.20%
<i>Any Accom., Mod., or EL Variation</i>	4,332	0.94%
<i>No Accom., Mod., or EL Variation</i>	456,559	99.06%
Students Not in Special Education	Grade 10	Pct. of Total
B: Marked responses in test booklet	15	0.00%
C: Dictated responses to a scribe	4	0.00%
F: Used noninterfering assistive device	2	0.00%
G: Used braille version of test	4	0.00%
H: Used large-print version of test	10	0.00%
J: Tested during more than one day	9	0.00%
K: Had supervised breaks	91	0.02%
L: Most beneficial time of day	30	0.01%
M: Administered at home or in a hospital	38	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	5	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Grade Ten Life Science		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	31	0.01%
Y: Leave blank	19	0.00%
Z: Examiner read test questions aloud	22	0.01%
Accom. or Mod. is in Section 504 plan	48	0.01%
Accom. or Mod. is in IEP	135	0.03%
English Learner Test Variation A	466	0.11%
English Learner Test Variation B	178	0.04%
English Learner Test Variation C	849	0.20%
English Learner Test Variation D	882	0.20%
<i>Any Accom., Mod., or EL Variation</i>	1,780	0.41%
<i>No Accom., Mod., or EL Variation</i>	430,399	99.59%
Students in Special Education	Grade 10	Pct. of Total
B: Marked responses in test booklet	109	0.38%
C: Dictated responses to a scribe	12	0.04%
F: Used noninterfering assistive device	5	0.02%
G: Used braille version of test	15	0.05%
H: Used large-print version of test	62	0.22%
J: Tested during more than one day	169	0.59%
K: Had supervised breaks	1,379	4.83%
L: Most beneficial time of day	271	0.95%
M: Administered at home or in a hospital	42	0.15%
N: Used a dictionary	21	0.07%
O: Examiner presented using MCE or ASL	4	0.01%
Q: Used a calculator	43	0.15%
R: Used an arithmetic table	4	0.01%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	15	0.05%
X: Used an unlisted accommodation	386	1.35%
Y: Leave blank	183	0.64%
Z: Examiner read test questions aloud	370	1.30%
Accom. or Mod. is in Section 504 plan	2	0.01%
Accom. or Mod. is in IEP	2,378	8.32%
English Learner Test Variation A	51	0.18%
English Learner Test Variation B	18	0.06%
English Learner Test Variation C	10	0.04%
English Learner Test Variation D	23	0.08%
<i>Any Accom., Mod., or EL Variation</i>	2,537	8.88%
<i>No Accom., Mod., or EL Variation</i>	26,033	91.12%

Special Services Summary for Grade Ten Life Science		
English-Only Students	Grade 10	Pct. of Total
B: Marked responses in test booklet	90	0.03%
C: Dictated responses to a scribe	10	0.00%
F: Used noninterfering assistive device	3	0.00%
G: Used braille version of test	7	0.00%
H: Used large-print version of test	53	0.02%
J: Tested during more than one day	132	0.05%
K: Had supervised breaks	974	0.37%
L: Most beneficial time of day	237	0.09%
M: Administered at home or in a hospital	58	0.02%
N: Used a dictionary	13	0.00%
O: Examiner presented using MCE or ASL	4	0.00%
Q: Used a calculator	32	0.01%
R: Used an arithmetic table	3	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	13	0.00%
X: Used an unlisted accommodation	278	0.11%
Y: Leave blank	138	0.05%
Z: Examiner read test questions aloud	215	0.08%
Accom. or Mod. is in Section 504 plan	45	0.02%
Accom. or Mod. is in IEP	1,653	0.63%
English Learner Test Variation A	8	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	67	0.03%
English Learner Test Variation D	9	0.00%
<i>Any Accom., Mod., or EL Variation</i>	1,876	0.71%
<i>No Accom., Mod., or EL Variation</i>	260,917	99.29%
Initially Fluent English Proficient (I-FEP) Students	Grade 10	Pct. of Total
B: Marked responses in test booklet	3	0.01%
C: Dictated responses to a scribe	0	0.00%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	2	0.01%
H: Used large-print version of test	3	0.01%
J: Tested during more than one day	4	0.01%
K: Had supervised breaks	46	0.12%
L: Most beneficial time of day	5	0.01%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	2	0.01%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Grade Ten Life Science		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	7	0.02%
Y: Leave blank	9	0.02%
Z: Examiner read test questions aloud	6	0.02%
Accom. or Mod. is in Section 504 plan	0	0.00%
Accom. or Mod. is in IEP	69	0.18%
English Learner Test Variation A	4	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	3	0.01%
English Learner Test Variation D	5	0.01%
Any Accom., Mod., or EL Variation	83	0.21%
No Accom., Mod., or EL Variation	39,055	99.79%
English Learner (EL) Students	Grade 10	Pct. of Total
B: Marked responses in test booklet	18	0.03%
C: Dictated responses to a scribe	5	0.01%
F: Used noninterfering assistive device	3	0.00%
G: Used braille version of test	5	0.01%
H: Used large-print version of test	8	0.01%
J: Tested during more than one day	35	0.06%
K: Had supervised breaks	382	0.62%
L: Most beneficial time of day	45	0.07%
M: Administered at home or in a hospital	6	0.01%
N: Used a dictionary	7	0.01%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	10	0.02%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	117	0.19%
Y: Leave blank	48	0.08%
Z: Examiner read test questions aloud	158	0.26%
Accom. or Mod. is in Section 504 plan	1	0.00%
Accom. or Mod. is in IEP	674	1.10%
English Learner Test Variation A	494	0.80%
English Learner Test Variation B	190	0.31%
English Learner Test Variation C	773	1.26%
English Learner Test Variation D	871	1.42%
Any Accom., Mod., or EL Variation	2,192	3.57%
No Accom., Mod., or EL Variation	59,294	96.43%

Special Services Summary for Grade Ten Life Science		
Reclassified Fluent English Proficient (R-FEP) Students	Grade 10	Pct. of Total
B: Marked responses in test booklet	11	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used noninterfering assistive device	1	0.00%
G: Used braille version of test	5	0.01%
H: Used large-print version of test	8	0.01%
J: Tested during more than one day	7	0.01%
K: Had supervised breaks	64	0.07%
L: Most beneficial time of day	13	0.01%
M: Administered at home or in a hospital	14	0.01%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	4	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	18	0.02%
Y: Leave blank	8	0.01%
Z: Examiner read test questions aloud	14	0.01%
Accom. or Mod. is in Section 504 plan	3	0.00%
Accom. or Mod. is in IEP	118	0.12%
English Learner Test Variation A	10	0.01%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	15	0.02%
English Learner Test Variation D	20	0.02%
<i>Any Accom., Mod., or EL Variation</i>	162	0.17%
<i>No Accom., Mod., or EL Variation</i>	96,603	99.83%

Table 2.D.24 Special Services Summary for Biology

Special Services Summary for Biology					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	35	79	23	137	0.02%
C: Dictated responses to a scribe	5	12	6	23	0.00%
F: Used noninterfering assistive device	1	7	2	10	0.00%
G: Used braille version of test	7	9	4	20	0.00%
H: Used large-print version of test	28	57	10	95	0.02%
J: Tested during more than one day	83	170	82	335	0.06%
K: Had supervised breaks	761	1,326	565	2,652	0.48%
L: Most beneficial time of day	142	272	112	526	0.10%
M: Administered at home or in a hospital	22	58	19	99	0.02%
N: Used a dictionary	7	13	5	25	0.00%
O: Examiner presented using MCE or ASL	0	22	7	29	0.01%
Q: Used a calculator	48	95	32	175	0.03%
R: Used an arithmetic table	0	8	2	10	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	1	0	1	0.00%
W: Used an unlisted modification	10	13	5	28	0.01%
X: Used an unlisted accommodation	219	401	130	750	0.14%
Y: Leave blank	79	139	69	287	0.05%
Z: Examiner read test questions aloud	276	413	136	825	0.15%
Accom. or Mod. is in Section 504 plan	23	30	15	68	0.01%
Accom. or Mod. is in IEP	1,258	2,336	876	4,470	0.81%
English Learner Test Variation A	85	303	115	503	0.09%
English Learner Test Variation B	20	45	33	98	0.02%
English Learner Test Variation C	256	431	187	874	0.16%
English Learner Test Variation D	261	609	224	1,094	0.20%
<i>Any Accom., Mod., or EL Variation</i>	1,728	3,377	1,277	6,382	1.15%
<i>No Accom., Mod., or EL Variation</i>	214,845	233,060	98,519	546,424	98.85%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	5	10	4	19	0.00%
C: Dictated responses to a scribe	1	1	0	2	0.00%
F: Used noninterfering assistive device	0	1	0	1	0.00%
G: Used braille version of test	1	2	0	3	0.00%
H: Used large-print version of test	3	3	0	6	0.00%
J: Tested during more than one day	4	6	3	13	0.00%
K: Had supervised breaks	29	64	14	107	0.02%
L: Most beneficial time of day	9	25	5	39	0.01%
M: Administered at home or in a hospital	15	19	10	44	0.01%
N: Used a dictionary	2	1	0	3	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	0.00%
Q: Used a calculator	5	5	2	12	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Biology					
V: Used interfering assistive device	0	1	0	1	0.00%
W: Used an unlisted modification	0	1	0	1	0.00%
X: Used an unlisted accommodation	17	22	16	55	0.01%
Y: Leave blank	18	10	3	31	0.01%
Z: Examiner read test questions aloud	12	8	1	21	0.00%
Accom. or Mod. is in Section 504 plan	23	30	13	66	0.01%
Accom. or Mod. is in IEP	60	87	24	171	0.03%
English Learner Test Variation A	85	253	99	437	0.08%
English Learner Test Variation B	20	31	27	78	0.02%
English Learner Test Variation C	255	422	182	859	0.17%
English Learner Test Variation D	257	577	205	1,039	0.20%
Any Accom., Mod., or EL Variation	501	962	368	1,831	0.36%
No Accom., Mod., or EL Variation	205,886	215,104	91,758	512,748	99.64%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	30	68	19	117	0.31%
C: Dictated responses to a scribe	4	11	6	21	0.06%
F: Used noninterfering assistive device	1	6	2	9	0.02%
G: Used braille version of test	6	7	4	17	0.05%
H: Used large-print version of test	25	54	10	89	0.24%
J: Tested during more than one day	78	161	74	313	0.83%
K: Had supervised breaks	704	1,242	546	2,492	6.63%
L: Most beneficial time of day	133	245	105	483	1.28%
M: Administered at home or in a hospital	6	39	9	54	0.14%
N: Used a dictionary	5	12	5	22	0.06%
O: Examiner presented using MCE or ASL	0	22	6	28	0.07%
Q: Used a calculator	37	88	30	155	0.41%
R: Used an arithmetic table	0	8	2	10	0.03%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	10	12	5	27	0.07%
X: Used an unlisted accommodation	191	372	112	675	1.80%
Y: Leave blank	40	128	64	232	0.62%
Z: Examiner read test questions aloud	240	395	134	769	2.05%
Accom. or Mod. is in Section 504 plan	0	0	2	2	0.01%
Accom. or Mod. is in IEP	1,126	2,212	842	4,180	11.12%
English Learner Test Variation A	0	50	16	66	0.18%
English Learner Test Variation B	0	14	6	20	0.05%
English Learner Test Variation C	1	9	5	15	0.04%
English Learner Test Variation D	4	32	19	55	0.15%
Any Accom., Mod., or EL Variation	1,151	2,378	898	4,427	11.77%
No Accom., Mod., or EL Variation	8,757	17,706	6,709	33,172	88.23%

Special Services Summary for Biology					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	22	62	17	101	0.03%
C: Dictated responses to a scribe	3	10	6	19	0.01%
F: Used noninterfering assistive device	0	4	1	5	0.00%
G: Used braille version of test	4	4	3	11	0.00%
H: Used large-print version of test	14	42	7	63	0.02%
J: Tested during more than one day	46	111	61	218	0.07%
K: Had supervised breaks	423	798	359	1,580	0.51%
L: Most beneficial time of day	96	208	82	386	0.12%
M: Administered at home or in a hospital	15	42	10	67	0.02%
N: Used a dictionary	1	8	3	12	0.00%
O: Examiner presented using MCE or ASL	0	9	1	10	0.00%
Q: Used a calculator	23	60	22	105	0.03%
R: Used an arithmetic table	0	5	1	6	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	7	12	4	23	0.01%
X: Used an unlisted accommodation	138	255	87	480	0.15%
Y: Leave blank	45	85	36	166	0.05%
Z: Examiner read test questions aloud	110	208	73	391	0.13%
Accom. or Mod. is in Section 504 plan	18	28	11	57	0.02%
Accom. or Mod. is in IEP	664	1,423	550	2,637	0.85%
English Learner Test Variation A	6	6	2	14	0.00%
English Learner Test Variation B	0	1	1	2	0.00%
English Learner Test Variation C	8	8	5	21	0.01%
English Learner Test Variation D	11	13	7	31	0.01%
Any Accom., Mod., or EL Variation	720	1,559	597	2,876	0.92%
No Accom., Mod., or EL Variation	122,284	130,013	56,383	308,680	99.08%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	4	1	1	6	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	1	0	1	2	0.00%
H: Used large-print version of test	3	2	1	6	0.01%
J: Tested during more than one day	2	5	2	9	0.02%
K: Had supervised breaks	16	39	17	72	0.16%
L: Most beneficial time of day	1	5	2	8	0.02%
M: Administered at home or in a hospital	0	1	1	2	0.00%
N: Used a dictionary	1	0	0	1	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	0.00%
Q: Used a calculator	2	1	1	4	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Biology					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	1	0	2	0.00%
X: Used an unlisted accommodation	4	8	3	15	0.03%
Y: Leave blank	4	9	4	17	0.04%
Z: Examiner read test questions aloud	3	6	2	11	0.02%
Accom. or Mod. is in Section 504 plan	1	0	2	3	0.01%
Accom. or Mod. is in IEP	29	66	28	123	0.27%
English Learner Test Variation A	3	3	1	7	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	5	2	1	8	0.02%
English Learner Test Variation D	5	3	5	13	0.03%
Any Accom., Mod., or EL Variation	36	74	39	149	0.33%
No Accom., Mod., or EL Variation	18,204	18,225	9,132	45,561	99.67%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	3	10	3	16	0.02%
C: Dictated responses to a scribe	1	1	0	2	0.00%
F: Used noninterfering assistive device	0	1	1	2	0.00%
G: Used braille version of test	1	2	0	3	0.00%
H: Used large-print version of test	2	6	0	8	0.01%
J: Tested during more than one day	32	45	17	94	0.13%
K: Had supervised breaks	280	421	169	870	1.20%
L: Most beneficial time of day	42	47	24	113	0.16%
M: Administered at home or in a hospital	2	7	6	15	0.02%
N: Used a dictionary	5	4	2	11	0.02%
O: Examiner presented using MCE or ASL	0	13	5	18	0.02%
Q: Used a calculator	21	27	7	55	0.08%
R: Used an arithmetic table	0	3	1	4	0.01%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	1	0	1	0.00%
W: Used an unlisted modification	1	0	1	2	0.00%
X: Used an unlisted accommodation	68	124	32	224	0.31%
Y: Leave blank	26	40	25	91	0.13%
Z: Examiner read test questions aloud	144	177	56	377	0.52%
Accom. or Mod. is in Section 504 plan	2	0	2	4	0.01%
Accom. or Mod. is in IEP	488	728	260	1,476	2.04%
English Learner Test Variation A	65	285	111	461	0.64%
English Learner Test Variation B	19	41	32	92	0.13%
English Learner Test Variation C	228	412	176	816	1.13%
English Learner Test Variation D	233	580	206	1,019	1.41%
Any Accom., Mod., or EL Variation	873	1,595	591	3,059	4.23%
No Accom., Mod., or EL Variation	20,850	35,469	12,987	69,306	95.77%

Special Services Summary for Biology					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	5	6	2	13	0.01%
C: Dictated responses to a scribe	1	1	0	2	0.00%
F: Used noninterfering assistive device	1	2	0	3	0.00%
G: Used braille version of test	1	3	0	4	0.00%
H: Used large-print version of test	9	7	2	18	0.01%
J: Tested during more than one day	3	5	2	10	0.01%
K: Had supervised breaks	39	60	19	118	0.10%
L: Most beneficial time of day	3	11	4	18	0.01%
M: Administered at home or in a hospital	5	7	2	14	0.01%
N: Used a dictionary	0	1	0	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	2	7	2	11	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	0	1	0.00%
X: Used an unlisted accommodation	7	13	7	27	0.02%
Y: Leave blank	4	4	4	12	0.01%
Z: Examiner read test questions aloud	17	21	5	43	0.04%
Accom. or Mod. is in Section 504 plan	2	2	0	4	0.00%
Accom. or Mod. is in IEP	71	106	36	213	0.17%
English Learner Test Variation A	11	9	1	21	0.02%
English Learner Test Variation B	1	2	0	3	0.00%
English Learner Test Variation C	15	9	4	28	0.02%
English Learner Test Variation D	12	13	6	31	0.03%
Any Accom., Mod., or EL Variation	93	135	47	275	0.22%
No Accom., Mod., or EL Variation	53,269	48,991	19,890	122,150	99.78%

Table 2.D.25 Special Services Summary for Chemistry

Special Services Summary for Chemistry					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	2	17	18	37	0.01%
C: Dictated responses to a scribe	0	2	5	7	0.00%
F: Used noninterfering assistive device	0	2	5	7	0.00%
G: Used braille version of test	0	0	5	5	0.00%
H: Used large-print version of test	0	17	15	32	0.01%
J: Tested during more than one day	0	9	19	28	0.01%
K: Had supervised breaks	26	111	197	334	0.13%
L: Most beneficial time of day	7	15	19	41	0.02%
M: Administered at home or in a hospital	1	8	4	13	0.00%
N: Used a dictionary	0	0	7	7	0.00%
O: Examiner presented using MCE or ASL	0	0	16	16	0.01%
Q: Used a calculator	3	14	53	70	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	6	7	0.00%
X: Used an unlisted accommodation	0	40	56	96	0.04%
Y: Leave blank	0	10	11	21	0.01%
Z: Examiner read test questions aloud	6	10	51	67	0.03%
Accom. or Mod. is in Section 504 plan	1	5	10	16	0.01%
Accom. or Mod. is in IEP	32	186	364	582	0.22%
English Learner Test Variation A	4	26	59	89	0.03%
English Learner Test Variation B	6	9	10	25	0.01%
English Learner Test Variation C	9	49	103	161	0.06%
English Learner Test Variation D	6	56	124	186	0.07%
Any Accom., Mod., or EL Variation	47	293	585	925	0.35%
No Accom., Mod., or EL Variation	5,520	126,210	132,702	264,432	99.65%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	2	2	4	0.00%
C: Dictated responses to a scribe	0	2	0	2	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	0	5	1	6	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	2	4	11	17	0.01%
L: Most beneficial time of day	1	0	4	5	0.00%
M: Administered at home or in a hospital	0	7	4	11	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	1	0	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Chemistry					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	2	2	0.00%
X: Used an unlisted accommodation	0	0	6	6	0.00%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	5	5	0.00%
Accom. or Mod. is in Section 504 plan	1	5	8	14	0.01%
Accom. or Mod. is in IEP	1	6	17	24	0.01%
English Learner Test Variation A	4	25	39	68	0.03%
English Learner Test Variation B	6	8	10	24	0.01%
English Learner Test Variation C	9	49	99	157	0.06%
English Learner Test Variation D	6	56	113	175	0.07%
Any Accom., Mod., or EL Variation	16	107	202	325	0.13%
No Accom., Mod., or EL Variation	5,341	124,187	128,806	258,334	99.87%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	2	14	16	32	0.48%
C: Dictated responses to a scribe	0	0	5	5	0.07%
F: Used noninterfering assistive device	0	2	5	7	0.10%
G: Used braille version of test	0	0	4	4	0.06%
H: Used large-print version of test	0	12	14	26	0.39%
J: Tested during more than one day	0	9	19	28	0.42%
K: Had supervised breaks	24	106	186	316	4.73%
L: Most beneficial time of day	6	15	15	36	0.54%
M: Administered at home or in a hospital	1	1	0	2	0.03%
N: Used a dictionary	0	0	7	7	0.10%
O: Examiner presented using MCE or ASL	0	0	16	16	0.24%
Q: Used a calculator	3	13	53	69	1.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	4	5	0.07%
X: Used an unlisted accommodation	0	40	50	90	1.35%
Y: Leave blank	0	9	10	19	0.28%
Z: Examiner read test questions aloud	6	10	46	62	0.93%
Accom. or Mod. is in Section 504 plan	0	0	2	2	0.03%
Accom. or Mod. is in IEP	31	177	347	555	8.31%
English Learner Test Variation A	0	1	20	21	0.31%
English Learner Test Variation B	0	1	0	1	0.01%
English Learner Test Variation C	0	0	4	4	0.06%
English Learner Test Variation D	0	0	11	11	0.16%
Any Accom., Mod., or EL Variation	31	183	383	597	8.94%
No Accom., Mod., or EL Variation	177	2,015	3,887	6,079	91.06%

Special Services Summary for Chemistry					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	13	11	24	0.02%
C: Dictated responses to a scribe	0	1	1	2	0.00%
F: Used noninterfering assistive device	0	1	1	2	0.00%
G: Used braille version of test	0	0	2	2	0.00%
H: Used large-print version of test	0	13	11	24	0.02%
J: Tested during more than one day	0	8	7	15	0.01%
K: Had supervised breaks	10	63	100	173	0.12%
L: Most beneficial time of day	5	11	12	28	0.02%
M: Administered at home or in a hospital	0	6	2	8	0.01%
N: Used a dictionary	0	0	5	5	0.00%
O: Examiner presented using MCE or ASL	0	0	3	3	0.00%
Q: Used a calculator	2	12	36	50	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	3	4	0.00%
X: Used an unlisted accommodation	0	29	31	60	0.04%
Y: Leave blank	0	7	8	15	0.01%
Z: Examiner read test questions aloud	1	4	18	23	0.02%
Accom. or Mod. is in Section 504 plan	1	4	10	15	0.01%
Accom. or Mod. is in IEP	12	122	193	327	0.22%
English Learner Test Variation A	0	1	0	1	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	1	2	3	0.00%
English Learner Test Variation D	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	13	135	215	363	0.24%
No Accom., Mod., or EL Variation	2,757	74,015	72,349	149,121	99.76%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	2	2	0.01%
K: Had supervised breaks	4	4	8	16	0.06%
L: Most beneficial time of day	2	2	1	5	0.02%
M: Administered at home or in a hospital	0	1	0	1	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Chemistry					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	3	3	0.01%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	3	3	0.01%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	4	5	13	22	0.08%
English Learner Test Variation A	0	0	3	3	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	2	2	0.01%
English Learner Test Variation D	0	0	2	2	0.01%
Any Accom., Mod., or EL Variation	4	6	18	28	0.10%
No Accom., Mod., or EL Variation	703	14,755	12,599	28,057	99.90%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	1	1	2	4	0.02%
C: Dictated responses to a scribe	0	1	2	3	0.02%
F: Used noninterfering assistive device	0	1	2	3	0.02%
G: Used braille version of test	0	0	1	1	0.01%
H: Used large-print version of test	0	1	1	2	0.01%
J: Tested during more than one day	0	1	10	11	0.06%
K: Had supervised breaks	11	32	72	115	0.64%
L: Most beneficial time of day	0	2	5	7	0.04%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	2	2	0.01%
O: Examiner presented using MCE or ASL	0	0	13	13	0.07%
Q: Used a calculator	1	2	13	16	0.09%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	1	0.01%
X: Used an unlisted accommodation	0	10	16	26	0.15%
Y: Leave blank	0	2	2	4	0.02%
Z: Examiner read test questions aloud	5	6	26	37	0.21%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	13	45	123	181	1.01%
English Learner Test Variation A	4	24	54	82	0.46%
English Learner Test Variation B	6	9	10	25	0.14%
English Learner Test Variation C	9	43	97	149	0.83%
English Learner Test Variation D	5	50	117	172	0.96%
Any Accom., Mod., or EL Variation	26	125	310	461	2.57%
No Accom., Mod., or EL Variation	648	5,719	11,081	17,448	97.43%

Special Services Summary for Chemistry					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	1	3	5	9	0.01%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used noninterfering assistive device	0	0	2	2	0.00%
G: Used braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	0	3	3	6	0.01%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	1	12	16	29	0.04%
L: Most beneficial time of day	0	0	1	1	0.00%
M: Administered at home or in a hospital	1	1	2	4	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	2	2	0.00%
X: Used an unlisted accommodation	0	1	6	7	0.01%
Y: Leave blank	0	1	1	2	0.00%
Z: Examiner read test questions aloud	0	0	4	4	0.01%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	3	14	34	51	0.07%
English Learner Test Variation A	0	1	2	3	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	5	2	7	0.01%
English Learner Test Variation D	1	6	4	11	0.02%
Any Accom., Mod., or EL Variation	4	27	41	72	0.10%
No Accom., Mod., or EL Variation	1,410	31,632	36,567	69,609	99.90%

Table 2.D.26 Special Services Summary for Earth Science

Special Services Summary for Earth Science					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	91	28	15	134	0.06%
C: Dictated responses to a scribe	10	1	1	12	0.01%
F: Used noninterfering assistive device	2	1	1	4	0.00%
G: Used braille version of test	6	2	2	10	0.00%
H: Used large-print version of test	39	9	8	56	0.03%
J: Tested during more than one day	149	29	35	213	0.10%
K: Had supervised breaks	1,307	347	261	1,915	0.89%
L: Most beneficial time of day	198	76	92	366	0.17%
M: Administered at home or in a hospital	31	17	37	85	0.04%
N: Used a dictionary	10	4	0	14	0.01%
O: Examiner presented using MCE or ASL	11	4	10	25	0.01%
Q: Used a calculator	28	20	20	68	0.03%
R: Used an arithmetic table	1	3	0	4	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	4	0	1	5	0.00%
X: Used an unlisted accommodation	248	73	106	427	0.20%
Y: Leave blank	147	56	42	245	0.11%
Z: Examiner read test questions aloud	386	105	143	634	0.29%
Accom. or Mod. is in Section 504 plan	33	4	7	44	0.02%
Accom. or Mod. is in IEP	2,001	560	575	3,136	1.45%
English Learner Test Variation A	239	42	42	323	0.15%
English Learner Test Variation B	31	3	2	36	0.02%
English Learner Test Variation C	260	97	80	437	0.20%
English Learner Test Variation D	381	81	95	557	0.26%
Any Accom., Mod., or EL Variation	2,627	740	743	4,110	1.90%
No Accom., Mod., or EL Variation	140,408	30,818	40,520	211,746	98.10%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	11	0	1	12	0.01%
C: Dictated responses to a scribe	2	0	1	3	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	1	0	0	1	0.00%
H: Used large-print version of test	4	1	0	5	0.00%
J: Tested during more than one day	11	0	1	12	0.01%
K: Had supervised breaks	58	15	11	84	0.04%
L: Most beneficial time of day	11	2	2	15	0.01%
M: Administered at home or in a hospital	11	9	10	30	0.02%
N: Used a dictionary	1	0	0	1	0.00%
O: Examiner presented using MCE or ASL	0	0	2	2	0.00%
Q: Used a calculator	1	1	0	2	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Earth Science					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	16	3	6	25	0.01%
Y: Leave blank	32	1	2	35	0.02%
Z: Examiner read test questions aloud	17	3	5	25	0.01%
Accom. or Mod. is in Section 504 plan	27	3	7	37	0.02%
Accom. or Mod. is in IEP	100	20	20	140	0.07%
English Learner Test Variation A	229	41	35	305	0.16%
English Learner Test Variation B	21	3	1	25	0.01%
English Learner Test Variation C	248	90	72	410	0.22%
English Learner Test Variation D	327	67	86	480	0.25%
Any Accom., Mod., or EL Variation	617	162	156	935	0.49%
No Accom., Mod., or EL Variation	126,934	26,383	35,752	189,069	99.51%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	76	27	14	117	0.46%
C: Dictated responses to a scribe	8	1	0	9	0.04%
F: Used noninterfering assistive device	1	1	1	3	0.01%
G: Used braille version of test	5	2	2	9	0.04%
H: Used large-print version of test	35	8	8	51	0.20%
J: Tested during more than one day	136	28	33	197	0.78%
K: Had supervised breaks	1,200	328	245	1,773	7.00%
L: Most beneficial time of day	184	72	88	344	1.36%
M: Administered at home or in a hospital	20	8	27	55	0.22%
N: Used a dictionary	9	4	0	13	0.05%
O: Examiner presented using MCE or ASL	10	4	8	22	0.09%
Q: Used a calculator	27	18	19	64	0.25%
R: Used an arithmetic table	1	2	0	3	0.01%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	4	0	1	5	0.02%
X: Used an unlisted accommodation	226	68	97	391	1.54%
Y: Leave blank	80	55	40	175	0.69%
Z: Examiner read test questions aloud	354	96	135	585	2.31%
Accom. or Mod. is in Section 504 plan	5	1	0	6	0.02%
Accom. or Mod. is in IEP	1,797	529	545	2,871	11.34%
English Learner Test Variation A	8	1	7	16	0.06%
English Learner Test Variation B	10	0	1	11	0.04%
English Learner Test Variation C	12	7	8	27	0.11%
English Learner Test Variation D	52	14	9	75	0.30%
Any Accom., Mod., or EL Variation	1,901	567	577	3,045	12.03%
No Accom., Mod., or EL Variation	13,171	4,361	4,735	22,267	87.97%

Special Services Summary for Earth Science					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	69	17	13	99	0.08%
C: Dictated responses to a scribe	7	1	1	9	0.01%
F: Used noninterfering assistive device	1	0	1	2	0.00%
G: Used braille version of test	1	1	2	4	0.00%
H: Used large-print version of test	29	3	5	37	0.03%
J: Tested during more than one day	109	22	25	156	0.12%
K: Had supervised breaks	890	221	175	1,286	1.00%
L: Most beneficial time of day	138	55	67	260	0.20%
M: Administered at home or in a hospital	24	10	28	62	0.05%
N: Used a dictionary	8	3	0	11	0.01%
O: Examiner presented using MCE or ASL	7	3	4	14	0.01%
Q: Used a calculator	24	10	13	47	0.04%
R: Used an arithmetic table	1	2	0	3	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	4	0	0	4	0.00%
X: Used an unlisted accommodation	164	42	69	275	0.21%
Y: Leave blank	98	31	33	162	0.13%
Z: Examiner read test questions aloud	215	70	72	357	0.28%
Accom. or Mod. is in Section 504 plan	32	3	7	42	0.03%
Accom. or Mod. is in IEP	1,332	345	368	2,045	1.59%
English Learner Test Variation A	3	0	0	3	0.00%
English Learner Test Variation B	3	0	0	3	0.00%
English Learner Test Variation C	7	0	1	8	0.01%
English Learner Test Variation D	11	1	1	13	0.01%
Any Accom., Mod., or EL Variation	1,425	367	395	2,187	1.70%
No Accom., Mod., or EL Variation	84,467	18,726	23,293	126,486	98.30%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	1	0	2	3	0.02%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	1	0	0	1	0.01%
G: Used braille version of test	1	1	0	2	0.02%
H: Used large-print version of test	0	2	1	3	0.02%
J: Tested during more than one day	4	1	1	6	0.05%
K: Had supervised breaks	30	13	8	51	0.42%
L: Most beneficial time of day	4	3	3	10	0.08%
M: Administered at home or in a hospital	1	1	1	3	0.02%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	2	0	0	2	0.02%
Q: Used a calculator	0	1	0	1	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Earth Science					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	1	0.01%
X: Used an unlisted accommodation	10	2	3	15	0.12%
Y: Leave blank	6	4	1	11	0.09%
Z: Examiner read test questions aloud	9	3	2	14	0.12%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.01%
Accom. or Mod. is in IEP	51	23	18	92	0.76%
English Learner Test Variation A	2	0	0	2	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	2	0	1	3	0.02%
English Learner Test Variation D	4	0	1	5	0.04%
Any Accom., Mod., or EL Variation	59	25	20	104	0.86%
No Accom., Mod., or EL Variation	7,315	1,969	2,703	11,987	99.14%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	11	10	0	21	0.05%
C: Dictated responses to a scribe	3	0	0	3	0.01%
F: Used noninterfering assistive device	0	1	0	1	0.00%
G: Used braille version of test	2	0	0	2	0.01%
H: Used large-print version of test	4	3	1	8	0.02%
J: Tested during more than one day	31	6	9	46	0.12%
K: Had supervised breaks	329	94	67	490	1.25%
L: Most beneficial time of day	51	15	20	86	0.22%
M: Administered at home or in a hospital	4	1	6	11	0.03%
N: Used a dictionary	2	1	0	3	0.01%
O: Examiner presented using MCE or ASL	2	0	6	8	0.02%
Q: Used a calculator	4	9	3	16	0.04%
R: Used an arithmetic table	0	1	0	1	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	68	27	27	122	0.31%
Y: Leave blank	41	18	7	66	0.17%
Z: Examiner read test questions aloud	135	22	64	221	0.56%
Accom. or Mod. is in Section 504 plan	1	0	0	1	0.00%
Accom. or Mod. is in IEP	519	161	165	845	2.15%
English Learner Test Variation A	223	42	42	307	0.78%
English Learner Test Variation B	27	3	2	32	0.08%
English Learner Test Variation C	240	97	78	415	1.06%
English Learner Test Variation D	351	80	93	524	1.33%
Any Accom., Mod., or EL Variation	1,026	311	300	1,637	4.16%
No Accom., Mod., or EL Variation	24,086	5,963	7,631	37,680	95.84%

Special Services Summary for Earth Science					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	8	1	0	9	0.03%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	2	0	0	2	0.01%
H: Used large-print version of test	6	1	1	8	0.02%
J: Tested during more than one day	4	0	0	4	0.01%
K: Had supervised breaks	49	18	10	77	0.22%
L: Most beneficial time of day	3	1	2	6	0.02%
M: Administered at home or in a hospital	2	5	2	9	0.03%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	1	0	1	0.00%
Q: Used a calculator	0	0	4	4	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	5	1	7	13	0.04%
Y: Leave blank	2	3	1	6	0.02%
Z: Examiner read test questions aloud	24	9	4	37	0.10%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	86	29	23	138	0.39%
English Learner Test Variation A	11	0	0	11	0.03%
English Learner Test Variation B	1	0	0	1	0.00%
English Learner Test Variation C	11	0	0	11	0.03%
English Learner Test Variation D	15	0	0	15	0.04%
Any Accom., Mod., or EL Variation	104	34	26	164	0.46%
No Accom., Mod., or EL Variation	24,226	4,080	6,813	35,119	99.54%

Table 2.D.27 Special Services Summary for Physics

Special Services Summary for Physics					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	3	2	9	14	0.02%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used noninterfering assistive device	0	0	2	2	0.00%
G: Used braille version of test	0	1	0	1	0.00%
H: Used large-print version of test	4	1	6	11	0.01%
J: Tested during more than one day	5	10	9	24	0.03%
K: Had supervised breaks	30	41	69	140	0.18%
L: Most beneficial time of day	1	15	21	37	0.05%
M: Administered at home or in a hospital	0	0	4	4	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	1	0	1	2	0.00%
Q: Used a calculator	4	2	17	23	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	3	4	0.01%
X: Used an unlisted accommodation	6	1	17	24	0.03%
Y: Leave blank	12	10	20	42	0.06%
Z: Examiner read test questions aloud	20	14	15	49	0.06%
Accom. or Mod. is in Section 504 plan	7	1	10	18	0.02%
Accom. or Mod. is in IEP	57	56	120	233	0.31%
English Learner Test Variation A	0	2	16	18	0.02%
English Learner Test Variation B	0	0	1	1	0.00%
English Learner Test Variation C	13	23	28	64	0.08%
English Learner Test Variation D	14	32	39	85	0.11%
<i>Any Accom., Mod., or EL Variation</i>	79	96	200	375	0.49%
<i>No Accom., Mod., or EL Variation</i>	14,279	9,027	52,463	75,769	99.51%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	2	0	5	7	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	2	0	2	4	0.01%
J: Tested during more than one day	1	0	0	1	0.00%
K: Had supervised breaks	4	1	8	13	0.02%
L: Most beneficial time of day	0	0	3	3	0.00%
M: Administered at home or in a hospital	0	0	3	3	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	1	0	2	3	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Physics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	1	0.00%
X: Used an unlisted accommodation	2	0	1	3	0.00%
Y: Leave blank	1	0	1	2	0.00%
Z: Examiner read test questions aloud	2	0	1	3	0.00%
Accom. or Mod. is in Section 504 plan	6	1	9	16	0.02%
Accom. or Mod. is in IEP	5	0	7	12	0.02%
English Learner Test Variation A	0	1	5	6	0.01%
English Learner Test Variation B	0	0	1	1	0.00%
English Learner Test Variation C	13	23	28	64	0.09%
English Learner Test Variation D	14	32	38	84	0.11%
Any Accom., Mod., or EL Variation	26	36	68	130	0.18%
No Accom., Mod., or EL Variation	13,769	8,716	51,254	73,739	99.82%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	1	2	4	7	0.31%
C: Dictated responses to a scribe	0	0	1	1	0.04%
F: Used noninterfering assistive device	0	0	2	2	0.09%
G: Used braille version of test	0	1	0	1	0.04%
H: Used large-print version of test	2	1	4	7	0.31%
J: Tested during more than one day	4	10	8	22	0.97%
K: Had supervised breaks	25	40	60	125	5.53%
L: Most beneficial time of day	1	15	17	33	1.46%
M: Administered at home or in a hospital	0	0	1	1	0.04%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	1	0	1	2	0.09%
Q: Used a calculator	2	2	15	19	0.84%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	2	3	0.13%
X: Used an unlisted accommodation	4	1	16	21	0.93%
Y: Leave blank	11	10	19	40	1.77%
Z: Examiner read test questions aloud	18	14	14	46	2.03%
Accom. or Mod. is in Section 504 plan	1	0	1	2	0.09%
Accom. or Mod. is in IEP	51	56	112	219	9.69%
English Learner Test Variation A	0	1	11	12	0.53%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	1	1	0.04%
Any Accom., Mod., or EL Variation	52	60	131	243	10.75%
No Accom., Mod., or EL Variation	506	311	1,201	2,018	89.25%

Special Services Summary for Physics					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	3	1	8	12	0.03%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	2	2	0.00%
G: Used braille version of test	0	1	0	1	0.00%
H: Used large-print version of test	4	0	5	9	0.02%
J: Tested during more than one day	3	7	8	18	0.04%
K: Had supervised breaks	17	26	46	89	0.20%
L: Most beneficial time of day	1	11	20	32	0.07%
M: Administered at home or in a hospital	0	0	2	2	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	2	11	13	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	2	3	0.01%
X: Used an unlisted accommodation	3	0	12	15	0.03%
Y: Leave blank	7	7	16	30	0.07%
Z: Examiner read test questions aloud	10	8	7	25	0.06%
Accom. or Mod. is in Section 504 plan	6	1	9	16	0.04%
Accom. or Mod. is in IEP	32	35	84	151	0.34%
English Learner Test Variation A	0	0	1	1	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	38	39	103	180	0.41%
No Accom., Mod., or EL Variation	8,112	5,393	30,126	43,631	99.59%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	1	1	0.01%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	2	1	3	0.04%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	1	0	0	1	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Physics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.01%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	2	1	3	0.04%
English Learner Test Variation A	0	1	1	2	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	3	3	7	0.09%
No Accom., Mod., or EL Variation	1,260	918	5,835	8,013	99.91%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	1	1	0.02%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	1	0.02%
J: Tested during more than one day	2	2	1	5	0.11%
K: Had supervised breaks	10	9	21	40	0.84%
L: Most beneficial time of day	0	2	1	3	0.06%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	1	0	1	2	0.04%
Q: Used a calculator	3	0	4	7	0.15%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	1	0.02%
X: Used an unlisted accommodation	1	1	5	7	0.15%
Y: Leave blank	3	2	3	8	0.17%
Z: Examiner read test questions aloud	9	6	7	22	0.46%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	19	13	32	64	1.35%
English Learner Test Variation A	0	1	13	14	0.30%
English Learner Test Variation B	0	0	1	1	0.02%
English Learner Test Variation C	13	23	28	64	1.35%
English Learner Test Variation D	14	32	38	84	1.77%
Any Accom., Mod., or EL Variation	33	48	88	169	3.56%
No Accom., Mod., or EL Variation	1,218	757	2,601	4,576	96.44%

Special Services Summary for Physics					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	1	0	1	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	1	0	1	0.01%
J: Tested during more than one day	0	1	0	1	0.01%
K: Had supervised breaks	3	3	1	7	0.04%
L: Most beneficial time of day	0	2	0	2	0.01%
M: Administered at home or in a hospital	0	0	2	2	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	2	0	0	2	0.01%
Y: Leave blank	2	1	1	4	0.02%
Z: Examiner read test questions aloud	1	0	0	1	0.01%
Accom. or Mod. is in Section 504 plan	1	0	1	2	0.01%
Accom. or Mod. is in IEP	6	5	3	14	0.07%
English Learner Test Variation A	0	0	1	1	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	7	5	6	18	0.09%
No Accom., Mod., or EL Variation	3,675	1,950	13,875	19,500	99.91%

Table 2.D.28 Special Services Summary for Integrated/Coordinated Science 1

Special Services Summary for Integrated/Coordinated Science 1					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	7	4	1	12	0.02%
C: Dictated responses to a scribe	3	0	2	5	0.01%
F: Used noninterfering assistive device	6	0	0	6	0.01%
G: Used braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	7	1	1	9	0.02%
J: Tested during more than one day	35	15	10	60	0.11%
K: Had supervised breaks	231	51	78	360	0.66%
L: Most beneficial time of day	34	8	22	64	0.12%
M: Administered at home or in a hospital	8	4	3	15	0.03%
N: Used a dictionary	12	1	5	18	0.03%
O: Examiner presented using MCE or ASL	25	0	0	25	0.05%
Q: Used a calculator	37	6	7	50	0.09%
R: Used an arithmetic table	0	0	5	5	0.01%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	0	1	0.00%
X: Used an unlisted accommodation	56	21	48	125	0.23%
Y: Leave blank	41	13	2	56	0.10%
Z: Examiner read test questions aloud	118	24	38	180	0.33%
Accom. or Mod. is in Section 504 plan	2	0	5	7	0.01%
Accom. or Mod. is in IEP	439	111	151	701	1.28%
English Learner Test Variation A	30	16	16	62	0.11%
English Learner Test Variation B	3	0	1	4	0.01%
English Learner Test Variation C	63	34	27	124	0.23%
English Learner Test Variation D	128	42	34	204	0.37%
<i>Any Accom., Mod., or EL Variation</i>	657	184	221	1,062	1.94%
<i>No Accom., Mod., or EL Variation</i>	40,343	5,074	8,398	53,815	98.06%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	1	0	0	1	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	1	0	0	1	0.00%
K: Had supervised breaks	8	2	11	21	0.04%
L: Most beneficial time of day	5	0	10	15	0.03%
M: Administered at home or in a hospital	1	0	1	2	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	2	0	0	2	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 1					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	3	0	1	4	0.01%
Y: Leave blank	1	0	1	2	0.00%
Z: Examiner read test questions aloud	7	0	1	8	0.02%
Accom. or Mod. is in Section 504 plan	0	0	3	3	0.01%
Accom. or Mod. is in IEP	17	2	11	30	0.06%
English Learner Test Variation A	30	16	16	62	0.13%
English Learner Test Variation B	2	0	1	3	0.01%
English Learner Test Variation C	63	34	27	124	0.26%
English Learner Test Variation D	125	39	33	197	0.41%
<i>Any Accom., Mod., or EL Variation</i>	201	68	71	340	0.70%
<i>No Accom., Mod., or EL Variation</i>	36,499	4,252	7,264	48,015	99.30%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	6	4	1	11	0.17%
C: Dictated responses to a scribe	3	0	1	4	0.06%
F: Used noninterfering assistive device	6	0	0	6	0.09%
G: Used braille version of test	0	0	1	1	0.02%
H: Used large-print version of test	7	1	1	9	0.14%
J: Tested during more than one day	34	15	10	59	0.92%
K: Had supervised breaks	221	49	65	335	5.25%
L: Most beneficial time of day	29	8	12	49	0.77%
M: Administered at home or in a hospital	7	4	2	13	0.20%
N: Used a dictionary	12	1	5	18	0.28%
O: Examiner presented using MCE or ASL	25	0	0	25	0.39%
Q: Used a calculator	35	6	7	48	0.75%
R: Used an arithmetic table	0	0	5	5	0.08%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	0	1	0.02%
X: Used an unlisted accommodation	53	21	47	121	1.90%
Y: Leave blank	40	13	1	54	0.85%
Z: Examiner read test questions aloud	110	24	36	170	2.66%
Accom. or Mod. is in Section 504 plan	2	0	2	4	0.06%
Accom. or Mod. is in IEP	419	109	137	665	10.42%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	1	0	0	1	0.02%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	3	3	1	7	0.11%
<i>Any Accom., Mod., or EL Variation</i>	453	116	147	716	11.22%
<i>No Accom., Mod., or EL Variation</i>	3,727	809	1,129	5,665	88.78%

Special Services Summary for Integrated/Coordinated Science 1					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	6	4	1	11	0.04%
C: Dictated responses to a scribe	1	0	1	2	0.01%
F: Used noninterfering assistive device	1	0	0	1	0.00%
G: Used braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	2	1	1	4	0.02%
J: Tested during more than one day	17	13	9	39	0.15%
K: Had supervised breaks	117	28	53	198	0.76%
L: Most beneficial time of day	21	5	16	42	0.16%
M: Administered at home or in a hospital	6	4	2	12	0.05%
N: Used a dictionary	9	1	5	15	0.06%
O: Examiner presented using MCE or ASL	6	0	0	6	0.02%
Q: Used a calculator	20	5	7	32	0.12%
R: Used an arithmetic table	0	0	5	5	0.02%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	28	13	27	68	0.26%
Y: Leave blank	31	8	2	41	0.16%
Z: Examiner read test questions aloud	50	14	27	91	0.35%
Accom. or Mod. is in Section 504 plan	1	0	3	4	0.02%
Accom. or Mod. is in IEP	214	72	100	386	1.48%
English Learner Test Variation A	2	0	0	2	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	6	0	2	8	0.03%
English Learner Test Variation D	2	0	3	5	0.02%
Any Accom., Mod., or EL Variation	248	74	113	435	1.67%
No Accom., Mod., or EL Variation	17,915	2,603	5,168	25,686	98.33%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	1	0	0	1	0.03%
F: Used noninterfering assistive device	1	0	0	1	0.03%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	2	0	0	2	0.06%
K: Had supervised breaks	5	0	0	5	0.14%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	2	0	0	2	0.06%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 1					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	0	1	0.03%
X: Used an unlisted accommodation	2	0	2	4	0.12%
Y: Leave blank	1	0	0	1	0.03%
Z: Examiner read test questions aloud	3	0	2	5	0.14%
Accom. or Mod. is in Section 504 plan	0	0	1	1	0.03%
Accom. or Mod. is in IEP	11	0	2	13	0.38%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	1	0	0	1	0.03%
English Learner Test Variation C	1	1	0	2	0.06%
English Learner Test Variation D	2	0	0	2	0.06%
Any Accom., Mod., or EL Variation	14	1	3	18	0.52%
No Accom., Mod., or EL Variation	2,797	237	399	3,433	99.48%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	1	0	0	1	0.01%
C: Dictated responses to a scribe	1	0	0	1	0.01%
F: Used noninterfering assistive device	4	0	0	4	0.03%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	4	0	0	4	0.03%
J: Tested during more than one day	15	2	1	18	0.16%
K: Had supervised breaks	102	21	22	145	1.25%
L: Most beneficial time of day	12	3	6	21	0.18%
M: Administered at home or in a hospital	2	0	1	3	0.03%
N: Used a dictionary	3	0	0	3	0.03%
O: Examiner presented using MCE or ASL	19	0	0	19	0.16%
Q: Used a calculator	13	1	0	14	0.12%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	23	7	18	48	0.41%
Y: Leave blank	8	5	0	13	0.11%
Z: Examiner read test questions aloud	60	10	8	78	0.67%
Accom. or Mod. is in Section 504 plan	1	0	1	2	0.02%
Accom. or Mod. is in IEP	196	37	44	277	2.39%
English Learner Test Variation A	28	16	16	60	0.52%
English Learner Test Variation B	2	0	1	3	0.03%
English Learner Test Variation C	56	33	24	113	0.98%
English Learner Test Variation D	124	42	31	197	1.70%
Any Accom., Mod., or EL Variation	376	106	99	581	5.02%
No Accom., Mod., or EL Variation	8,140	1,298	1,562	11,000	94.98%

Special Services Summary for Integrated/Coordinated Science 1					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	1	0	0	1	0.01%
J: Tested during more than one day	1	0	0	1	0.01%
K: Had supervised breaks	6	2	3	11	0.08%
L: Most beneficial time of day	1	0	0	1	0.01%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	2	0	0	2	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	2	0	1	3	0.02%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	5	0	0	5	0.04%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	16	2	4	22	0.16%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.01%
English Learner Test Variation D	0	0	0	0	0.00%
<i>Any Accom., Mod., or EL Variation</i>	17	2	5	24	0.18%
<i>No Accom., Mod., or EL Variation</i>	11,450	924	1,246	13,620	99.82%

Table 2.D.29 Special Services Summary for Integrated/Coordinated Science 2

Special Services Summary for Integrated/Coordinated Science 2					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	2	1	3	0.07%
K: Had supervised breaks	0	6	3	9	0.22%
L: Most beneficial time of day	0	2	4	6	0.15%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	6	0	6	0.15%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	6	0	6	0.15%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	4	0	4	0.10%
Y: Leave blank	1	2	1	4	0.10%
Z: Examiner read test questions aloud	0	5	0	5	0.12%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	20	7	28	0.68%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	1	1	3	5	0.12%
Any Accom., Mod., or EL Variation	2	24	10	36	0.87%
No Accom., Mod., or EL Variation	845	1,921	1,317	4,083	99.13%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 2					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	1	1	3	5	0.14%
Any Accom., Mod., or EL Variation	1	1	3	5	0.14%
No Accom., Mod., or EL Variation	780	1,704	1,139	3,623	99.86%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	2	1	3	0.63%
K: Had supervised breaks	0	6	3	9	1.90%
L: Most beneficial time of day	0	2	4	6	1.27%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	6	0	6	1.27%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	6	0	6	1.27%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	4	0	4	0.85%
Y: Leave blank	1	2	1	4	0.85%
Z: Examiner read test questions aloud	0	5	0	5	1.06%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	20	7	28	5.92%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	23	7	31	6.55%
No Accom., Mod., or EL Variation	63	202	177	442	93.45%

Special Services Summary for Integrated/Coordinated Science 2					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	2	1	3	0.14%
K: Had supervised breaks	0	5	2	7	0.33%
L: Most beneficial time of day	0	2	4	6	0.28%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	3	0	3	0.14%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	3	0	3	0.14%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	3	0	3	0.14%
Y: Leave blank	1	2	1	4	0.19%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	11	6	18	0.85%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	13	6	20	0.94%
No Accom., Mod., or EL Variation	512	764	826	2,102	99.06%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 2					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	95	183	79	357	100.00%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	1	1	2	0.30%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	3	0	3	0.45%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	3	0	3	0.45%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	1	0.15%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	5	0	5	0.75%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	9	1	10	1.49%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	1	1	3	5	0.75%
Any Accom., Mod., or EL Variation	1	11	4	16	2.38%
No Accom., Mod., or EL Variation	85	350	220	655	97.62%

Special Services Summary for Integrated/Coordinated Science 2					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	150	619	190	959	100.00%

Table 2.D.30 Special Services Summary for Integrated/Coordinated Science 3

Special Services Summary for Integrated/Coordinated Science 3					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. Of Total
B: Marked responses in test booklet	0	0	2	2	0.16%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	2	2	0.16%
J: Tested during more than one day	0	0	1	1	0.08%
K: Had supervised breaks	0	0	1	1	0.08%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	3	3	0.23%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	3	3	0.23%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	1	1	0.08%
Z: Examiner read test questions aloud	0	0	7	7	0.54%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	13	13	1.01%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	7	7	0.54%
English Learner Test Variation D	0	0	17	17	1.32%
<i>Any Accom., Mod., or EL Variation</i>	0	0	30	30	2.33%
<i>No Accom., Mod., or EL Variation</i>	35	103	1,118	1,256	97.67%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. Of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 3					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	7	7	0.63%
English Learner Test Variation D	0	0	17	17	1.54%
Any Accom., Mod., or EL Variation	0	0	17	17	1.54%
No Accom., Mod., or EL Variation	34	84	968	1,086	98.46%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. Of Total
B: Marked responses in test booklet	0	0	2	2	1.09%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	2	2	1.09%
J: Tested during more than one day	0	0	1	1	0.55%
K: Had supervised breaks	0	0	1	1	0.55%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	3	3	1.64%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	3	3	1.64%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	1	1	0.55%
Z: Examiner read test questions aloud	0	0	7	7	3.83%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	13	13	7.10%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	13	13	7.10%
No Accom., Mod., or EL Variation	1	19	150	170	92.90%

Special Services Summary for Integrated/Coordinated Science 3					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. Of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	2	2	0.28%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	0.28%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	1	1	0.14%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	3	3	0.42%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	3	3	0.42%
No Accom., Mod., or EL Variation	22	44	648	714	99.58%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. Of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 3					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.99%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	1	0.99%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	1	1	0.99%
No Accom., Mod., or EL Variation	2	12	86	100	99.01%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. Of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	1	1	0.48%
K: Had supervised breaks	0	0	1	1	0.48%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	1	1	0.48%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	1	0.48%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	6	6	2.88%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	7	7	3.37%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	7	7	3.37%
English Learner Test Variation D	0	0	17	17	8.17%
Any Accom., Mod., or EL Variation	0	0	24	24	11.54%
No Accom., Mod., or EL Variation	7	21	156	184	88.46%

Special Services Summary for Integrated/Coordinated Science 3					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. Of Total
B: Marked responses in test booklet	0	0	2	2	0.77%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	2	2	0.77%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	2	2	0.77%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	2	2	0.77%
No Accom., Mod., or EL Variation	4	26	228	258	99.23%

Table 2.D.31 Special Services Summary for Integrated/Coordinated Science 4

Special Services Summary for Integrated/Coordinated Science 4					
All Tested	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	3	0	3	1.91%
English Learner Test Variation D	0	0	0	0	0.00%
<i>Any Accom., Mod., or EL Variation</i>	0	3	0	3	1.91%
<i>No Accom., Mod., or EL Variation</i>	66	50	38	154	98.09%
Students Not in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 4					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	2	0	2	2.06%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	2	0	2	2.06%
No Accom., Mod., or EL Variation	28	37	30	95	97.94%
Students in Special Education	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	1	0	1	1.69%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	1	0	1	1.69%
No Accom., Mod., or EL Variation	38	12	8	58	98.31%

Special Services Summary for Integrated/Coordinated Science 4					
English-Only Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	32	40	32	104	100.00%
Initially Fluent English Proficient (I-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

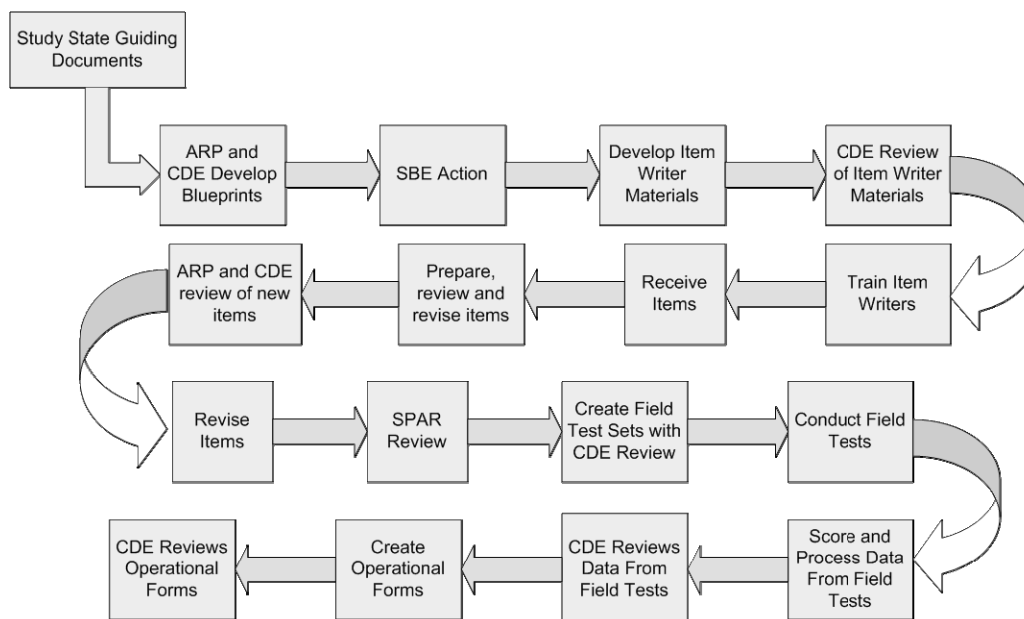
Special Services Summary for Integrated/Coordinated Science 4					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	0	5	1	6	100.00%
English Learner (EL) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	3	0	3	8.11%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	3	0	3	8.11%
No Accom., Mod., or EL Variation	26	3	5	34	91.89%

Special Services Summary for Integrated/Coordinated Science 4					
Reclassified Fluent English Proficient (R-FEP) Students	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
<i>Any Accom., Mod., or EL Variation</i>	0	0	0	0	0.00%
<i>No Accom., Mod., or EL Variation</i>	7	2	0	9	100.00%

Chapter 3: Item Development

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

Figure 3.1 The ETS Item Development Process for the STAR Program



Rules for Item Development

ETS maintains and updates item development specifications for each CST 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 CSTs measure the content standards. To achieve this, the item specifications provide detailed information to item writers that are developing items for the CSTs. 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, 3, or 4; items assigned a DOK of 1 are the least cognitively complex, items assigned a DOK of 3 are the most cognitively complex, and the code of 4 only applies to some writing tasks)
- The homogeneity of the construct measured by each standard
- A description of the kinds of item stems appropriate for multiple-choice items used to assess each standard
- A description of the kinds of distractors that are appropriate for multiple-choice items assessing each standard

- A description of appropriate data representations (such as charts, tables, graphs, or other illustrations) for mathematics, science, and history–social science items
- The content limits for the standard (such as one or two variables, maximum place values of numbers) for mathematics, science, and history–social science items
- A description of appropriate reading passages, if applicable, for ELA items
- A description of specific kinds of items to be avoided, if any (for example, items with any negative expressions in the stem, e.g. “Which of the following is NOT...”)

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

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

Expected Item Ratio

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

The item utilization plan assumes that each year, 35 percent of items on an operational form would be refreshed (replaced); these items remain in the item bank for future use. The item utilization plan also declares that an additional five percent of the operational items are likely to become unusable because of normal attrition and notes that there is a need to focus development on “critical” standards, which are standards that are difficult to measure well or for which there are few usable items.

For all content areas except science, 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. For science, it is expected that 60 percent of the items will achieve this status.

ETS has developed field-test percentages and item counts that are shown in Table 3.1, on the next page. The number of items to be field-tested for a given CST reflects the demand for new items and is determined as a percent of the number of operational items. For example, there are 65 operational items on the ELA CST in grade two; the number of items to be field-tested is 92% of 65, which is 60 items.

Table 3.1 Field-test Percentages for the CSTs

Content Area	Grade or Course	Number of Operational Items per Grade or Course	Percentage of Operational Form to Be Field Tested	Number of Items to Be Field-tested per Grade or Course
English–Language Arts	Gr 2–3	65	92%	60
	Gr 4–11	75	80%	60
History–Social Science	Gr 8	75	40%	30
	Gr 11	60	50%	30
	EOC	60	50%	30
Mathematics	Gr 2–7	65	92%	60
	EOC	65	46%	30
Science	Gr 5, 8, 10	60	173%	104
	EOC	60	173%	104

The plan calls for larger numbers of items to be field-tested for ELA than for mathematics because most ELA items are based on passages. An entire set of items associated with a passage may be eliminated if a few items in the set perform poorly, so the rate of item loss is greater in ELA than in mathematics. The plan also requires the largest number of items to be field-tested for science. As noted above, larger percentages of science items usually fail to have adequate field test statistics. In addition, science has a relatively large number of critical standards that are difficult to measure well.

Selection of Item Writers

Criteria for Selecting Item Writers

The items for each CST are written by individual item writers who have a thorough understanding of the California content standards. Applicants for item writing are screened by senior ETS content staff. Only those with strong content and teaching backgrounds are approved for inclusion in the training program for item writers. Because most of the participants are current or former California educators, they are particularly knowledgeable about the standards assessed by the CSTs. 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 CST grades and/or courses
- Familiarity, understanding, and support of the California content standards
- Current or previous teaching experience in California, when possible

Item Review Process

The items selected for each CST 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 CST 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 CSTs includes the following:

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

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

1. Internal Content Review

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

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

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

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

2. Internal Editorial Review

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

3. Internal Sensitivity Review

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

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

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

Content Expert Reviews

Assessment Review Panels

ETS is responsible for working with ARPs as items are developed for the CSTs. The ARPs are advisory panels to the CDE and ETS and provide guidance on matters related to item development for the CSTs. 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/or socioeconomic bias.

Composition of ARPs

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

- Three or more years of general teaching experience in grades kindergarten through twelve and in the relevant content areas (ELA, history–social science, mathematics, or science);
- Bachelor’s or higher degree in a grade or content area related to ELA, history–social science, mathematics, or science; and
- Knowledge and experience with the California content standards in ELA, history–social science, mathematics, or science.

School administrators, district/county content/program specialists, or university educators serving on the CST 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 ELA, history–social science, mathematics, or science;

- Bachelor's or higher degree in a grade-specific or subject area related to ELA, history–social science, mathematics, or science; and
- Knowledge of and experience with the California content standards in ELA, history–social science, mathematics, or science.

Every effort is made to ensure that ARP committees include representation of gender and of the geographic regions and ethnic groups in California. Efforts are also made to ensure representation by members with experience serving California's diverse special education population.

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

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

Table 3.2 CST ARP Member Qualifications, by Content Area and Total

CST	ELA	Math	Science	HSS	Total
Total	10	14	21	13	58
Occupation (Members may teach multiple levels.)					
Teacher or Program Specialist, Elementary/ Middle School	5	5	9	3	22
Teacher or Program Specialist, High School	1	4	8	5	18
Teacher or Program Specialist, K–12	4	2	0	0	6
University Personnel	0	3	5	2	10
Other District Personnel (e.g., Director of Special Services, etc.)	1	1	3	4	9
Highest Degree Earned					
Bachelor's Degree	5	2	4	6	17
Master's Degree	5	8	8	6	27
Doctorate	0	4	9	1	14
K–12 Teaching Credentials and Experience (Members may hold multiple credentials.)					
Elementary Teaching (multiple subjects)	7	2	5	2	16
Secondary Teaching (single subject)	3	7	19	9	38
Special Education	1	1	0	1	3
Reading Specialist	1	0	0	0	1
English Learner (CLAD, BCLAD)	1	1	2	0	4
Administrative	1	2	5	1	9
Other	1	4	0	2	7
None (teaching at the university level)	0	2	0	2	4

ARP Meetings for Review of CST Items

ETS content-area assessment specialists facilitate the CST 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 CSTs
- Overview of the CSTs' test design specifications and blueprints
- Analysis of the CSTs' item specifications
- Overview of criteria for evaluating multiple-choice test items and for reviewing constructed-response writing tasks
- Review and evaluation of items for bias and sensitivity issues

The criteria for evaluating multiple-choice items and constructed-response writing tasks include the following:

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

Criteria also include more global factors, including—for ELA—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 divided further into smaller groups. The science ARP, for example, divides into content area and grade-level groups. These smaller groups are also facilitated by the content-area assessment specialists.

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

Statewide Pupil Assessment Review Panel

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

Field Testing

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

Stand-alone Field Testing

For each new CST launched, a pool of items is 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).

In the case of writing prompts administered as part of the grades four and seven CSTs for ELA, due to time constraints, field-testing is conducted only as stand-alone event.

The writing prompts for the 2011 administration of grades four and seven CSTs for ELA were selected from the writing prompts field-tested by ETS in 2005. Before the field test, a task force was convened to provide an opportunity for representatives from the field and

other specialists to recommend possible changes to the writing test that could be incorporated into the field tests. Twenty prompts were field-tested for each of the two grades to determine which of the modifications in format and directions recommended by the Writing Test Task Force were most helpful to students. These new writing prompts with modified formats and directions were field-tested with thousands of California students. Following reviews of field-test results by the CDE, ETS, and the ELA ARP, two grade-four and two grade-seven prompts were selected for the subsequent administrations. Because the writing genres eligible for testing were the same as in previous years, the new writing tasks were very similar to those administered previously.

The most recent field test of new writing prompts took place in the fall of 2011. Ten and twelve prompts were field-tested for grades four and seven, respectively.

Embedded Field-test Items

Although a stand-alone field test is useful for developing a new test because it can produce a large pool of quality items, embedded field testing is generally preferred because the items being field-tested are seeded throughout the operational test. Variables such as test-taker motivation and test security are the same in embedded field testing as they will be when the field-tested items are later administered operationally. Such field testing involves distributing the items being field-tested within an operational test form. Different forms contain the same operational items and different field-test items. The numbers of embedded field-test items for the CSTs are shown in Table 3.3, below.

Allocation of Students to Field-test Items

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

Number of Forms and Sample Sizes

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

Table 3.3 also shows the number of forms administered for each CST in 2011 and the numbers of examinees included in samples used for the field test or “final” item analyses (FIA) of these forms. The field-test samples for the majority of CSTs constitute approximately 80 to 90 percent of the entire population tested.

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

Content Area	CST*	Operational			Field Test			
		No. Items	No. Examinees FIA Sample	No. Examinees Total	No. Forms	No. Items	No. Examinees FIA Sample	No. Examinees Total
English– Language Arts	2	65	409,143	458,752	10	60	40,163–41,583	45,565–46,321
	3	65	387,419	434,795	10	60	38,058–39,658	42,709–44,501
	4**	76	380,540	429,809	10	60	34,312–39,491	38,542–44,319
	5	75	385,106	434,092	10	60	27,313–137,430	30,654–154,345
	6	75	388,049	431,155	10	60	35,458–40,079	39,325–44,381
	7**	76	390,597	435,408	10	59	36,495–39,870	40,595–44,316

Content Area	CST*	Operational			Field Test			
		No. Items	No. Examinees FIA Sample	No. Examinees Total	No. Forms	No. Items	No. Examinees FIA Sample	No. Examinees Total
English– Language Arts (cont.)	8	75	394,719	440,118	10	59	27,935–140,860	31,116–156,584
	9	75	430,090	476,121	10	60	40,588–44,709	44,796–49,366
	10	75	424,972	465,026	10	59	29,865–150,031	32,509–163,752
	11	75	409,112	444,788	10	60	38,599–42,136	41,712–45,731
History– Social Science	Grade 8	75	412,942	461,566	5	30	29,317–295,187	32,568–327,952
	World History	60	431,307	473,651	5	30	84,424–87,812	92,014–95,682
	Grade 11	60	409,544	446,459	5	30	41,226–243,149	44,678–263,198
Mathematics	2	65	409,777	459,483	10	60	40,276–41,627	45,619–46,403
	3	65	389,630	437,217	10	60	38,264–39,972	42,936–44,860
	4	65	383,754	433,835	10	60	34,666–39,711	38,951–44,585
	5	65	387,833	437,504	10	60	27,469–138,437	30,849–155,483
	6	65	389,330	432,693	10	60	35,670–40,188	39,546–44,498
	7	65	358,467	399,818	10	60	33,372–36,651	37,093–40,635
	General Math	65	182,409	199,316	1	6	182,409	199,316
	Algebra I	65	665,347	736,345	5	30	129,636–136,370	142,958–150,472
	Geometry	65	369,608	407,012	5	30	72,256–75,018	79,432–82,445
	Algebra II	65	253,181	277,282	5	30	49,731–51,410	54,356–56,251
	Summ. H.S. Math	65	129,438	139,940	5	30	25,261–26,481	27,235–28,598
	Integrated Math 1	65	11,780	11,943	1	6	11,780	11,943
	Integrated Math 2	65	4,251	4,483	1	6	4,251	4,483
	Integrated Math 3	65	676	730	1	6	676	730
Science	5	60	386,351	435,933	14	84	27,376–28,029	30,754–31,484
	8	60	395,124	440,698	14	84	27,937–28,970	31,119–32,219
	Life Science	60	418,820	458,763	14	84	28,894–33,686	31,505–36,760
	Biology	60	502,406	551,808	14	84	34,926–37,034	38,103–40,633
	Chemistry	60	239,130	265,079	14	84	16,915–17,283	18,719–19,133
	Earth Science	60	206,813	215,259	14	84	14,321–15,555	14,777–16,170
	Physics	60	70,042	76,065	14	84	4,943–5,103	5,340–5,546
	Int/Coord Science 1	60	42,235	54,656	1	6	42,235	54,656
	Int/Coord Science 2	60	2,945	4,111	1	6	2,945	4,111
	Int/Coord Science 3	60	1,211	1,283	1	6	1,211	1,283
	Int/Coord Science 4	60	141	157	1	6	141	157

* Numbers indicate grade-level tests.

** MC items

CDE Data Review

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

Item Banking

Once the ARP new item review is complete, the items are placed in the item bank along with their corresponding review information. Items that are accepted by the ARP and CDE are updated to a “field-test ready” status; items that are rejected are updated to a “rejected

before use” status. ETS then delivers the items to the CDE by means of a delivery of the California electronic item bank. Subsequent updates to items are based on field-test and operational use of the items. However, only the latest content of the item is in the bank at any given time, along with the administration data from every administration that has included the item.

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

Items that are released are marked “released.” They are not available for further use 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.

ETS currently provides and maintains the electronic item banks for several of the California assessments including the California High School Exit Examination (CAHSEE) and STAR (CSTs, CMA, CAPA, and STS). CAHSEE and STAR are currently consolidated in the California Item Banking system. ETS works with the CDE to obtain the data for assessments under contract with other vendors for inclusion into the item bank. ETS provides the item banking application using the LAN architecture and the relational database management system, SQL 2000, already deployed. ETS provides updated versions of the item bank to the CDE on an ongoing basis, and works with the CDE to determine the optimum process if a change in databases is desired.

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Chapter 4: Test Assembly

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

Test Length

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

The total number of items on each CST varies across grades and content areas. The CSTs for ELA are comprised of 71 total items in grades two and three and 81 total items in grades four through eleven. In addition, a writing test (essay) is administered as part of the CST for ELA in grades four and seven. There are 71 total items on all mathematics CSTs, and 66 total items on all science CSTs. In history–social science, there are 81 total items on the grade eight history–social science CST, and 66 total items on both the grade eleven U.S. History CST and the EOC CST for World History. Among the items on each CST, 6 items are field-test items and the rest are operational items. For more details on the distribution of items, see Appendix 2.A starting on page 21.

Rules for Item Selection

Test Blueprint

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

Although the test blueprints call for the number of items at the individual standard level, scores for the CST items are grouped into subcontent areas (reporting clusters). For each CST reporting cluster, the percentage of questions correctly answered is reported on a student's score report. A list of the CST reporting clusters by test and the number of items in the cluster that appear in each test are provided in Appendix 2.B—Reporting Clusters, which starts on page 23.

Content Rules and Item Selection

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

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

Another consideration is the difficulty of each item. Test developers strive to ensure that there are some easy and some hard items and that there are a number of items in the middle range of difficulty. If items do not meet all content and psychometric criteria, staff reviews the other available items to determine if there are other selections that could improve the match of the test to all of the requirements. If such a match is not attainable, the content team works in conjunction with psychometricians and the CDE to determine which combination of items will best serve the needs of the students taking the test. Chapter 3, starting on page 188, contains further information about this process.

Psychometric Criteria

For the CSTs, 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 that outlines the desired psychometric properties of each CST has been developed. These rules are referred to as statistical targets.

Three types of assembly targets are developed for each CST: 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 total test targets, or primary statistical targets, used for assembling the CST forms for the 2011 administration were the test information function (TIF) and an average point-biserial correlation.

The TIF is the sum of the item information function based on the item response theory (IRT) item parameters. When using an IRT model, the target TIF makes it possible to choose items to produce a test that has the desired precision of measurement at all ability levels. Due to the unique characteristics of Rasch IRT model, the information curve conditional on each ability level is determined by item difficulty (b -values) alone. In this case, the TIF would, therefore, suffice as the target for conditional test difficulty. Although additional item difficulty targets are not imperative when the target TIF is used for form construction, the target mean and standard deviation of item difficulty (b -values) consistent with the TIF were still provided to test development staff to help with the test construction process. The target b -value range approximates a minimum proportion-correct value (p -value) of 0.20 and a maximum p -value of 0.95 for each test.

The point-biserial correlation describes the relationship between student performance on a dichotomously-scored item and student performance on the test as a whole. It is used as a

measure of how well an item discriminates among test takers that differ in their ability and it is related to the overall reliability of the test.

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

The target values for all CSTs are presented in Table 4.1. These specifications were developed from the analyses of test forms administered in the years 2001 through 2007. Because the items included in the CSTs for Integrated Mathematics and Integrated/Coordinated Science were drawn from other tests, targets for their *b*-value range and mean point-biserial were not defined.

The linking block target for each test consists of a proportionally adjusted (for numbers of items) total test target. To aid comparisons, the information curves based on the linking blocks were proportionally adjusted to match the full test length and were presented with the information curves for the total test. The graphs for the total test and linking blocks are presented in Figure 4.A.1 through Figure 4.A.4, starting on page 208, for the ELA, history–social science, mathematics, and science 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 information curves constructed for the new form clusters than there is for the total test.

Figure 4.B.1 through Figure 4.B.31, starting on page 215, present the target and projected information curves for the clusters in the ELA, history–social science, mathematics, and science tests, respectively.

Table 4.1 Target Statistical Specifications for the CSTs

Content Area	CST*	Target Mean <i>b</i>	Target SD <i>b</i>	Min <i>p</i> -value	Max <i>p</i> -value	Mean Point Biserial	Min Point Biserial
English–Language Arts	2	–0.15	0.69	0.20	0.95	> 0.37	0.14
	3	–0.34	0.75	0.20	0.95	> 0.37	0.14
	4**	–0.01	0.69	0.20	0.95	> 0.37	0.14
	5	–0.16	0.82	0.20	0.95	> 0.37	0.14
	6	–0.05	0.77	0.20	0.95	> 0.37	0.14
	7**	0.16	0.64	0.20	0.95	> 0.37	0.14
	8	–0.14	0.71	0.20	0.95	> 0.37	0.14
	9	–0.04	0.69	0.20	0.95	> 0.37	0.14
	10	–0.21	0.64	0.20	0.95	> 0.37	0.14
	11	–0.23	0.67	0.20	0.95	> 0.37	0.14
History–Social Science	8	–0.17	0.53	0.20	0.95	0.33 – 0.37	0.14
	World History	–0.20	0.52	0.20	0.95	0.33 – 0.37	0.14
	11	–0.25	0.60	0.20	0.95	0.33 – 0.37	0.14
Mathematics	2	–0.87	0.93	0.20	0.95	0.39 – 0.45	0.14
	3	–0.75	0.98	0.20	0.95	0.39 – 0.45	0.14
	4	–0.66	0.83	0.20	0.95	0.39 – 0.45	0.14
	5	–0.17	0.95	0.20	0.95	0.39 – 0.45	0.14
	6	–0.25	0.78	0.20	0.95	0.39 – 0.45	0.14
	7	–0.07	0.58	0.20	0.95	0.39 – 0.45	0.14
	General Mathematics	0.10	0.79	0.20	0.95	0.33 – 0.37	0.14
	Algebra I	–0.07	0.72	0.20	0.95	0.33 – 0.37	0.14

Content Area	CST*	Target Mean b	Target SD b	Min p-value	Max p-value	Mean Point Biserial	Min Point Biserial
Mathematics (cont.)	Geometry	-0.77	0.72	0.20	0.95	0.33 – 0.37	0.14
	Algebra II	-0.41	0.90	0.20	0.95	0.33 – 0.37	0.14
	Summative High School Mathematics	-0.83	0.64	0.20	0.95	0.33 – 0.37	0.14
	Integrated Mathematics 1	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated Mathematics 2	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated Mathematics 3	N/A	N/A	0.20	0.95	N/A	0.14
Science	5	-0.67	0.57	0.20	0.95	> 0.34	0.14
	8	-0.40	0.74	0.20	0.95	> 0.34	0.14
	10 Life Science	-0.29	0.72	0.20	0.95	> 0.34	0.14
	Biology	-0.41	0.61	0.20	0.95	> 0.34	0.14
	Chemistry	-0.42	0.53	0.20	0.95	> 0.34	0.14
	Earth Science	-0.10	0.47	0.20	0.95	> 0.34	0.14
	Physics	-0.18	0.51	0.20	0.95	> 0.34	0.14
	Integrated/Coordinated Science 1	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated/Coordinated Science 2	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated/Coordinated Science 3	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated/Coordinated Science 4	N/A	N/A	0.20	0.95	N/A	0.14

* Numbers indicate grade-level tests.

** MC items

Note: The 2011 CSTs for Integrated Mathematics, and Integrated/Coordinated Science were assembled using the items from other operational CSTs which have different testing populations and *b*-values on different scales. Therefore, statistical targets for these tests include minimum and maximum *p*-values and minimum point biserial values only.

Projected Psychometric Properties of the Assembled Tests

Prior to the 2011 administration, ETS psychometricians performed a preliminary review of the technical characteristics of the assembled tests. The expected or projected performance of examinees and the overall score reliability were estimated using the item level statistics available in the California item bank for the selected items. The test reliability was based on Gulliksen's formula (Gulliksen, 1987) for estimating test reliability (r_{xx}) from item *p*-values and item point-biserial correlations:

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

where,

K is the number of items in the test,

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

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

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

In addition, estimated test raw score means were calculated by summing the item *p*-values, and estimated test raw score standard deviations were calculated by summing the item reliability indices. Table 4.A.1 on page 206 presents these summary values by content area

and grade. Since Integrated Mathematics and Integrated/Coordinated Science tests are built from other test components, these analyses are not applicable for those tests.

It should be noted that the projected reliabilities in Table 4.A.1 on page 206 were based on item p -values and point-biserial correlations that, for some of the items, were based on external field-testing using samples of students that were not fully representative of the state. Chapter 8 presents item p -values, point-biserial correlations, and test reliability estimates based on the data from the 2011 CST administration.

Table 4.A.2 on page 207 shows the mean observed statistics of the items for each CST based on the item-level statistics available in the item bank for the most recent administration of those items. These values can be compared to the target values in Table 4.1.

The graphs in Figure 4.A.1 through Figure 4.A.4 starting on page 208 show, for each CST, the TIF and the projected TIF for the total test and the linking set. Since the Integrated Mathematics and Integrated/Coordinated Science tests are built from other test components, such analyses are not applicable for those tests. The information curves for the linking sets were adjusted for test length, so they could be directly compared to the information curves for the longer total tests. Figure 4.B.1 through Figure 4.B.31 starting on page 215 present the target and projected information curves for the clusters in each CST.

Rules for Item Sequence and Layout

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

- **ELA**—Because the ELA 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.
- **History–Social Science**—The items in the history–social science test are sequenced chronologically.
- **Mathematics**—The mathematics test forms are sequenced mostly according to reporting cluster; that is, all items from a single reporting cluster are presented together and then all of the items from the next reporting cluster are presented. The exceptions are reporting clusters 1 and 2 for grades two through seven and General Mathematics, and reporting clusters 3 and 4 for grade seven and General Mathematics. The reporting clusters 1 and 2 for grades two through seven and General Mathematics both test Number Sense; items for these clusters are intertwined and administered together at the beginning of the test, followed by reporting clusters 3, 4, and 5. Reporting clusters 3 and 4 for grade seven and General Mathematics both test Algebra and Functions; items for these clusters may be intertwined as well.
- **Science**—The science 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. Items from the Investigation and Experimentation reporting cluster are the exception to this rule: these items assess aspects of practical knowledge in various clusters; they are presented with their associated clusters and then aggregated for reporting purposes as an Investigation and Experimentation cluster.

Reference

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

Appendix 4.A—Technical Characteristics

Table 4.A.1 Summary of 2011 CST Projected Raw Score Statistics

Content Area	CST*	Number of Items	Mean Raw Score	Std. Dev. of Raw Scores	Reliability
English–Language Arts	2	65	43.97	13.68	0.94
	3	65	42.96	12.12	0.92
	4**	75	48.77	14.99	0.94
	5	75	50.03	14.12	0.94
	6	75	47.77	13.96	0.93
	7**	75	47.79	14.31	0.93
	8	75	48.13	13.98	0.93
	9	75	45.97	14.55	0.93
	10	75	47.05	15.20	0.94
	11	75	46.43	14.90	0.94
	8	75	46.25	14.64	0.93
History–Social Science	World History	60	35.93	11.99	0.92
	11	60	35.99	12.30	0.93
Mathematics	2	65	49.30	11.31	0.93
	3	65	50.93	11.45	0.94
	4	65	50.70	11.74	0.94
	5	65	43.09	12.86	0.94
	6	65	41.42	13.41	0.94
	7	65	39.17	12.85	0.93
	General Mathematics	65	33.20	12.28	0.91
	Algebra I	65	31.92	12.56	0.92
	Geometry	65	36.02	12.83	0.92
	Algebra II	65	35.12	12.13	0.91
	Summative H.S. Math	65	47.30	11.77	0.93
	Integrated Mathematics 1***	65	N/A	N/A	N/A
	Integrated Mathematics 2***	65	N/A	N/A	N/A
	Integrated Mathematics 3***	65	N/A	N/A	N/A
Science	5	60	40.99	11.23	0.92
	8	60	39.24	11.27	0.92
	10 Life Science	60	38.02	12.08	0.93
	Biology	60	36.96	12.08	0.92
	Chemistry	60	36.54	11.28	0.91
	Earth Science	60	34.35	11.82	0.91
	Physics	60	36.51	11.63	0.91
	Int/Coord Science 1**	60	N/A	N/A	N/A
	Int/Coord Science 2**	60	N/A	N/A	N/A
	Int/Coord Science 3**	60	N/A	N/A	N/A
	Int/Coord Science 4**	60	N/A	N/A	N/A

* Numbers indicate grade-level tests.

** MC items

***These tests were constructed using items from other operational CSTs; therefore, the projected mean and standard deviation of raw scores and the projected reliability are not provided for these tests.

Table 4.A.2 Summary of 2011 CST Projected Item Statistics

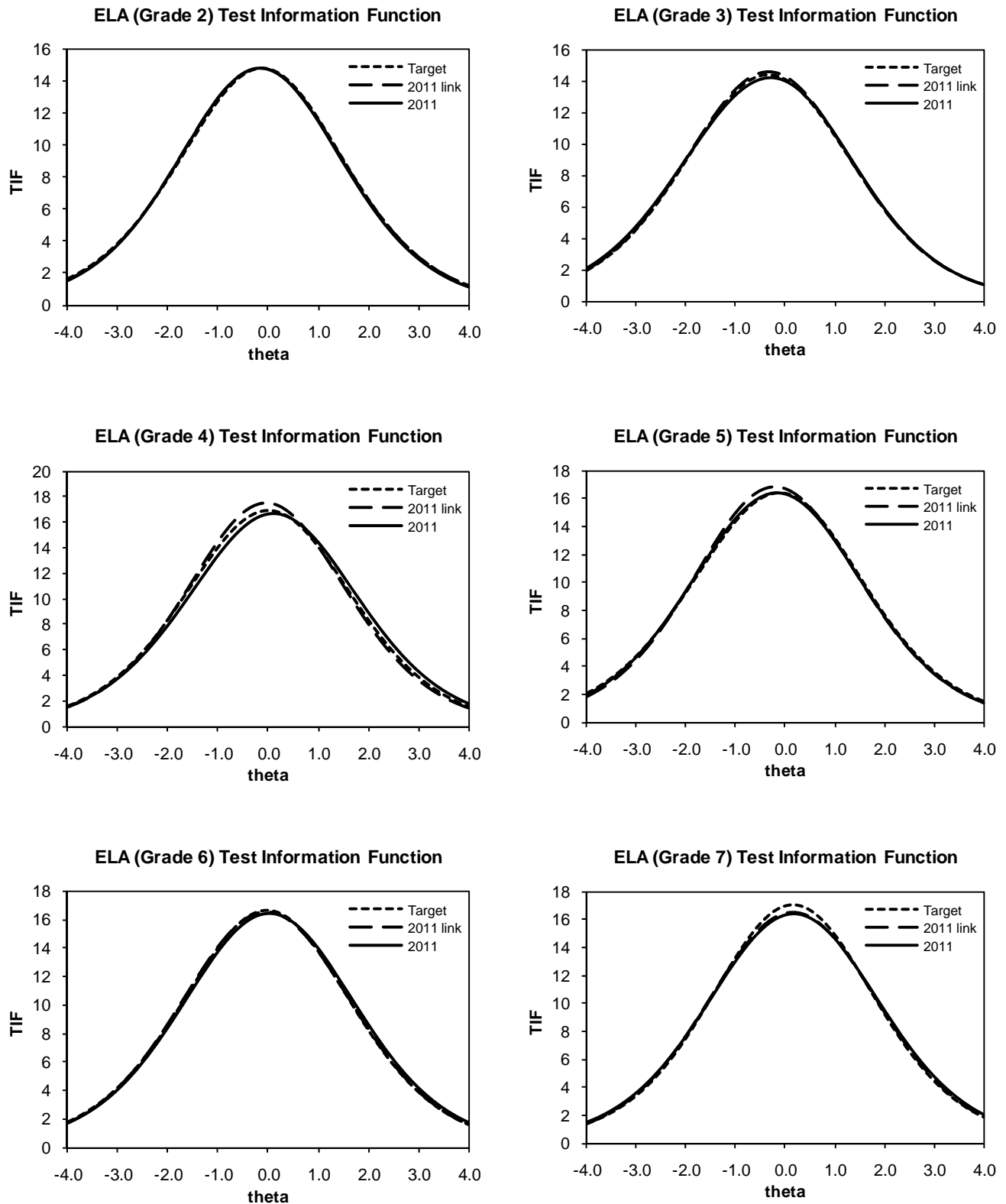
Content Area	CST*	Mean b	SD b	Mean <i>p</i> -value	Min <i>p</i> -value	Max <i>p</i> -value	Mean Point Biserial	Min Point Biserial
English– Language Arts	2	–0.16	0.63	0.68	0.42	0.88	0.47	0.30
	3	–0.36	0.79	0.66	0.39	0.89	0.42	0.26
	4**	0.09	0.74	0.65	0.36	0.93	0.44	0.21
	5	–0.17	0.78	0.67	0.36	0.90	0.42	0.26
	6	0.01	0.78	0.64	0.30	0.88	0.41	0.26
	7**	0.17	0.79	0.64	0.34	0.89	0.42	0.23
	8	–0.10	0.72	0.64	0.30	0.89	0.41	0.09
	9	0.03	0.64	0.61	0.25	0.87	0.42	0.19
	10	–0.25	0.64	0.63	0.35	0.86	0.44	0.17
	11	–0.26	0.66	0.62	0.27	0.87	0.43	0.23
History– Social Science	8	–0.14	0.62	0.62	0.22	0.88	0.42	0.22
	World History	–0.19	0.55	0.60	0.33	0.83	0.42	0.20
	11	–0.25	0.60	0.60	0.34	0.88	0.43	0.22
Mathematics	2	–0.88	0.96	0.76	0.39	0.93	0.43	0.22
	3	–0.75	0.85	0.78	0.50	0.95	0.44	0.25
	4	–0.65	0.85	0.78	0.35	0.93	0.46	0.28
	5	–0.17	0.90	0.66	0.25	0.90	0.44	0.28
	6	–0.25	0.79	0.64	0.29	0.90	0.45	0.28
	7	–0.06	0.61	0.60	0.35	0.83	0.42	0.26
	General Mathematics	0.12	0.61	0.51	0.29	0.80	0.39	0.23
	Algebra I	–0.06	0.65	0.49	0.21	0.90	0.40	0.21
	Geometry	–0.77	0.70	0.55	0.27	0.80	0.41	0.23
	Algebra II	–0.41	0.74	0.54	0.26	0.84	0.39	0.21
	Summative H.S. Math	–0.84	0.66	0.73	0.37	0.88	0.42	0.20
	Integrated Mathematics 1***	N/A	N/A	N/A	0.21	0.90	N/A	0.21
	Integrated Mathematics 2***	N/A	N/A	N/A	0.26	0.77	N/A	0.22
	Integrated Mathematics 3***	N/A	N/A	N/A	0.26	0.84	N/A	0.21
Science	5	–0.63	0.59	0.68	0.41	0.86	0.42	0.27
	8	–0.36	0.70	0.65	0.32	0.91	0.42	0.25
	10 Life Science	–0.29	0.67	0.63	0.22	0.84	0.44	0.29
	Biology	–0.40	0.65	0.62	0.35	0.87	0.43	0.22
	Chemistry	–0.38	0.58	0.61	0.31	0.90	0.40	0.21
	Earth Science	–0.09	0.44	0.57	0.34	0.73	0.41	0.24
	Physics	–0.19	0.51	0.61	0.40	0.82	0.41	0.21
	Int/Coord Science 1***	N/A	N/A	N/A	0.40	0.90	N/A	0.24
	Int/Coord Science 2***	N/A	N/A	N/A	0.34	0.87	N/A	0.21
	Int/Coord Science 3***	N/A	N/A	N/A	0.31	0.79	N/A	0.22
	Int/Coord Science 4***	N/A	N/A	N/A	0.35	0.81	N/A	0.21

* Numbers indicate grade-level tests.

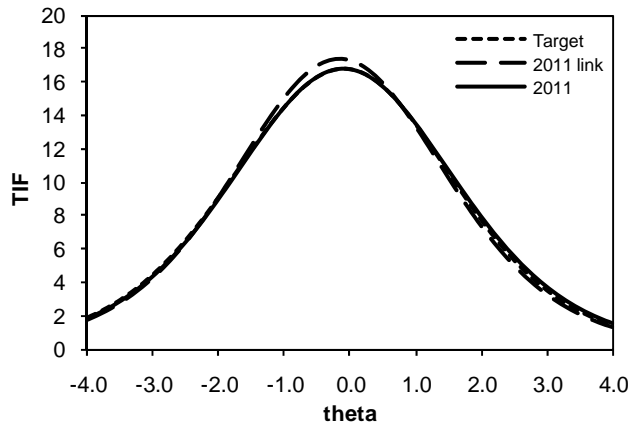
** MC items

*** These tests were constructed using items from other operational CSTs; therefore, only the minimum and maximum *p*-value and the minimum point biserial value are provided for these tests.

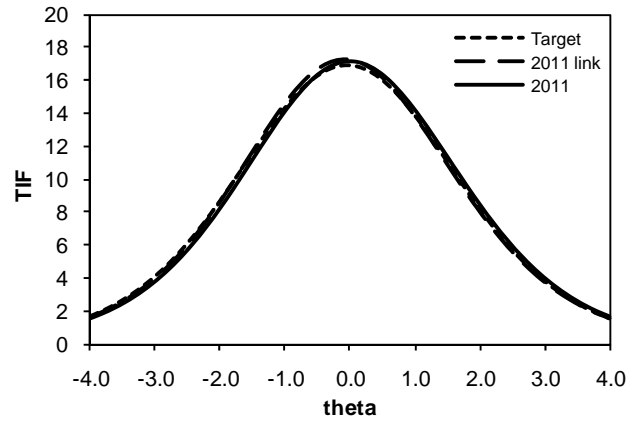
Figure 4.A.1 Plots for Target Information Function and Projected Information for Total Test and Linking Set for English–Language Arts



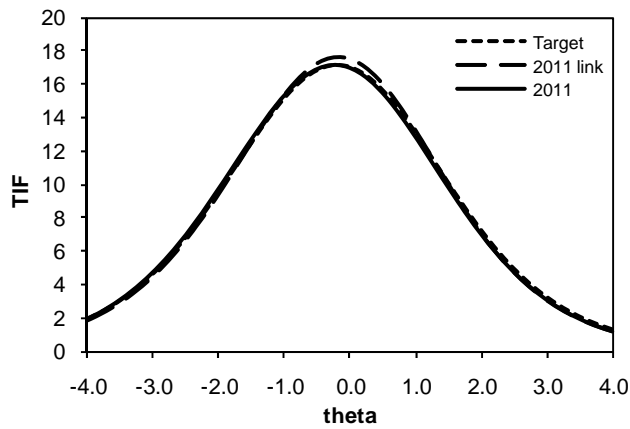
ELA (Grade 8) Test Information Function



ELA (Grade 9) Test Information Function



ELA (Grade 10) Test Information Function



ELA (Grade 11) Test Information Function

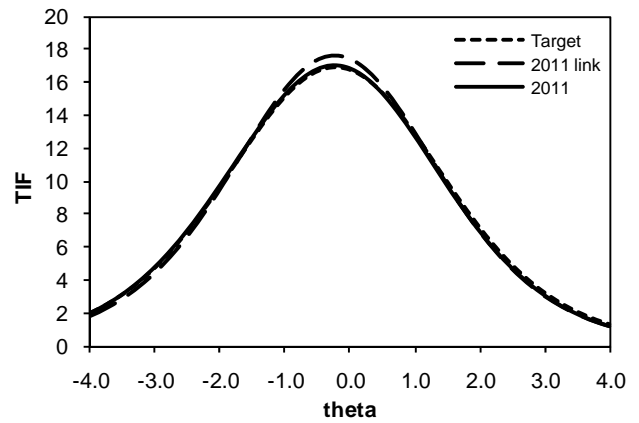


Figure 4.A.2 Plots for Target Information Function and Projected Information for Total Test and Linking Set for History–Social Science

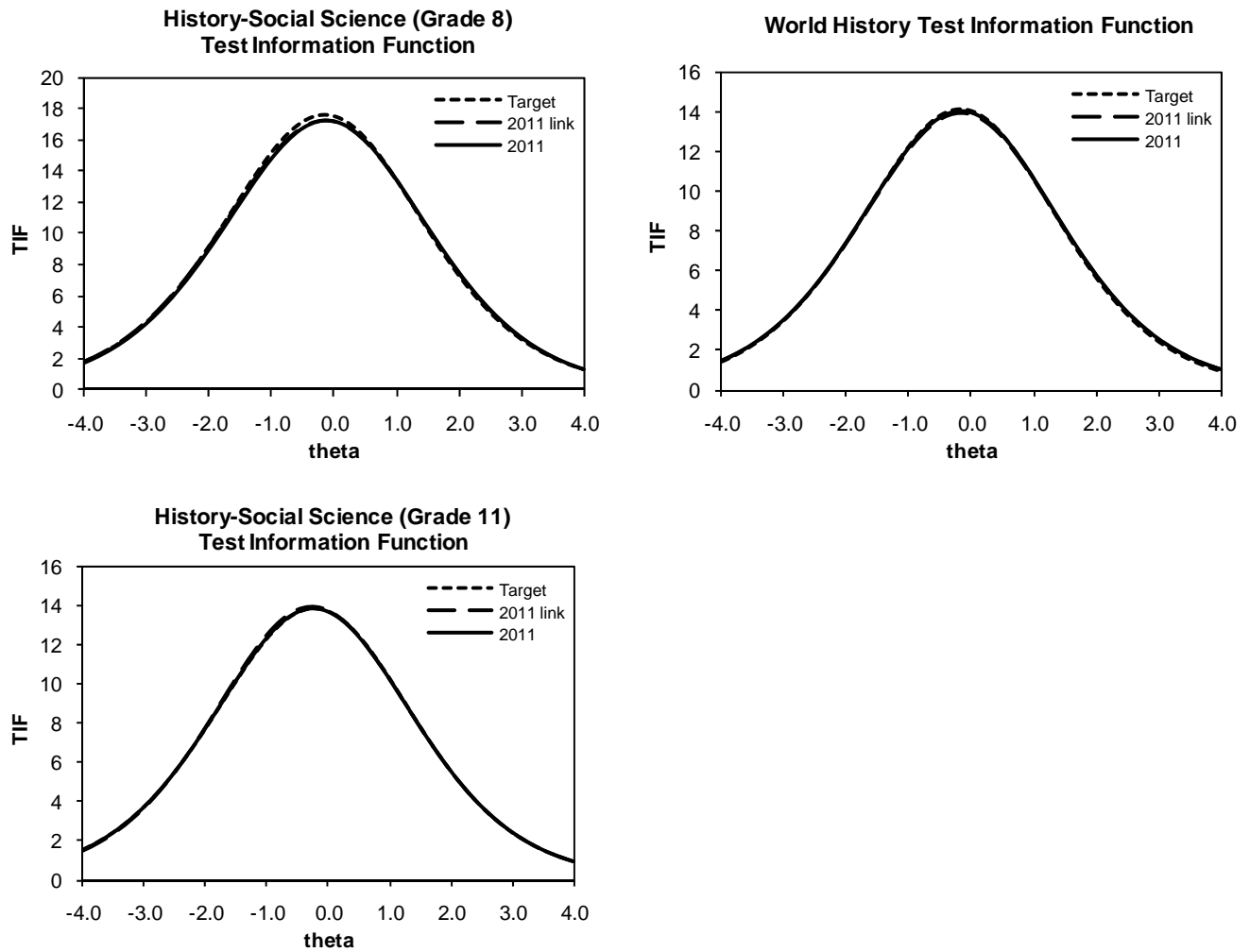
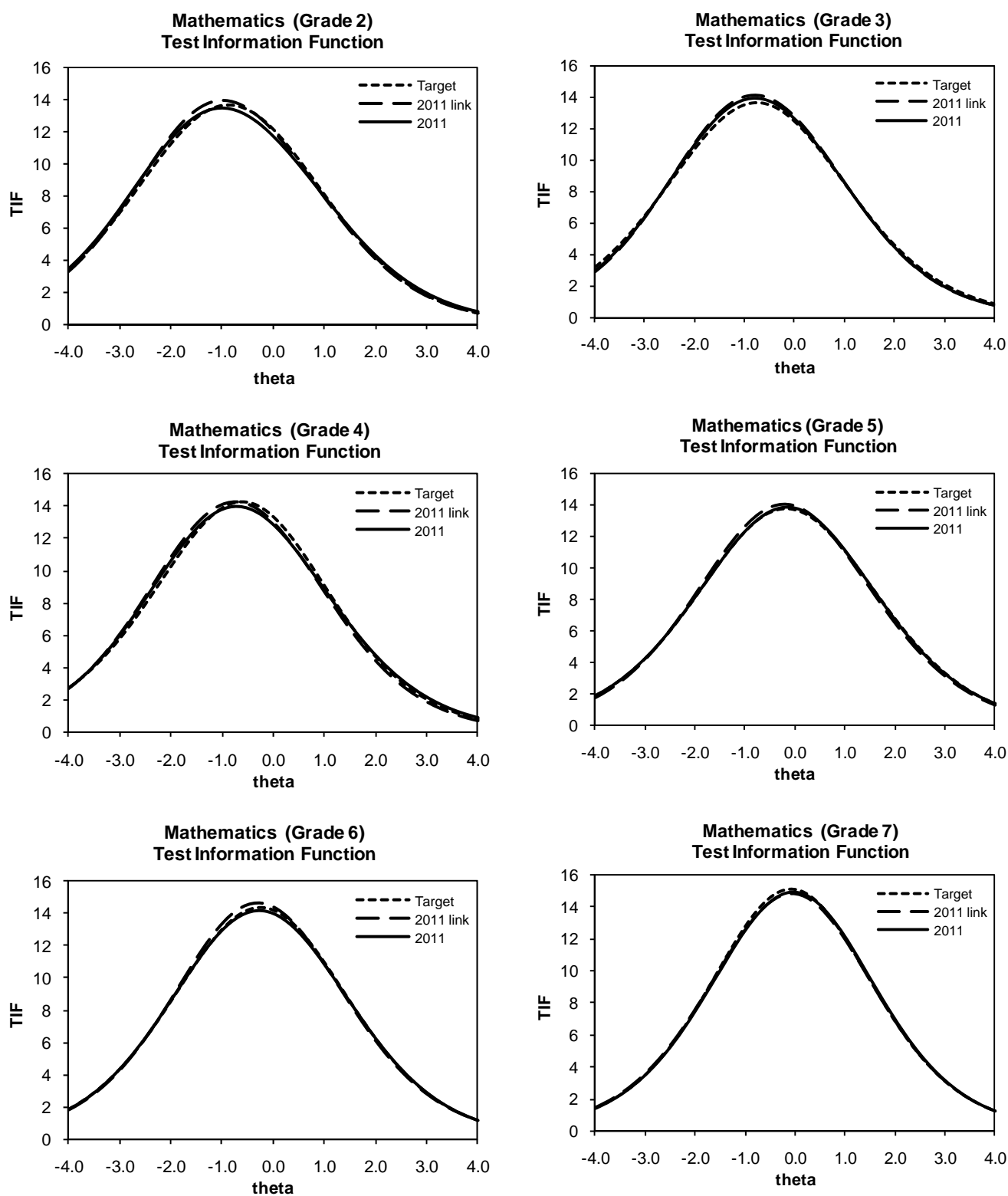


Figure 4.A.3 Plots for Target Information Function and Projected Information for Total Test and Linking Set for Mathematics

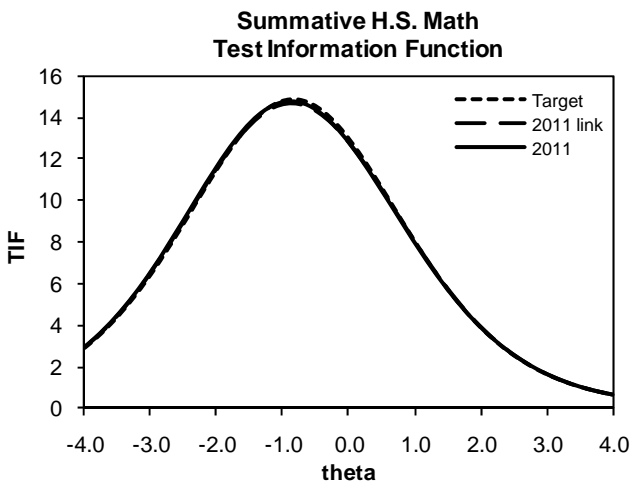
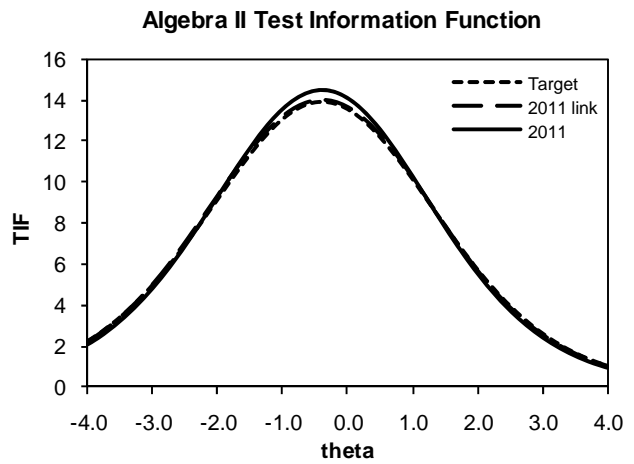
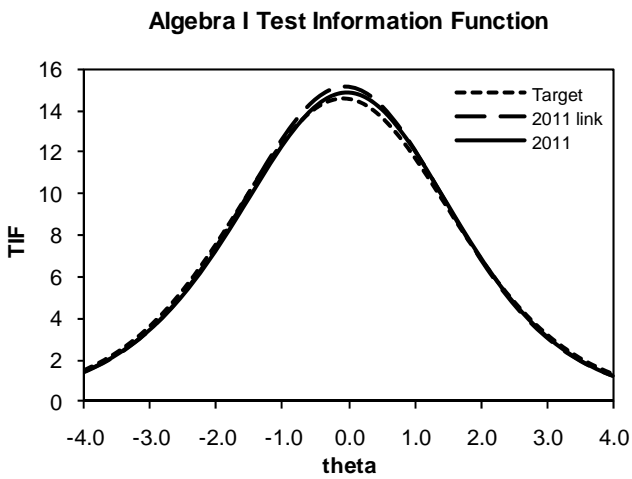
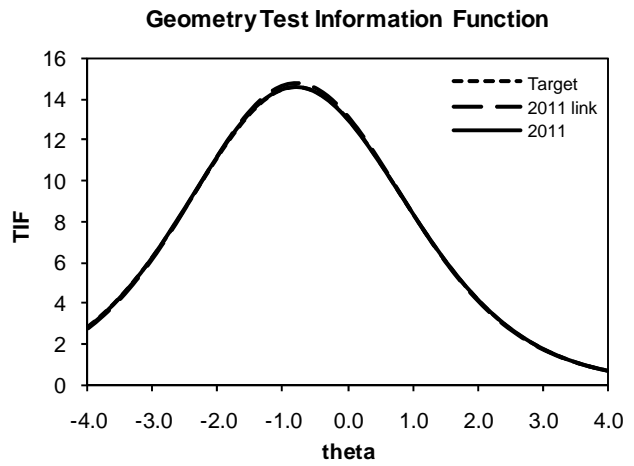
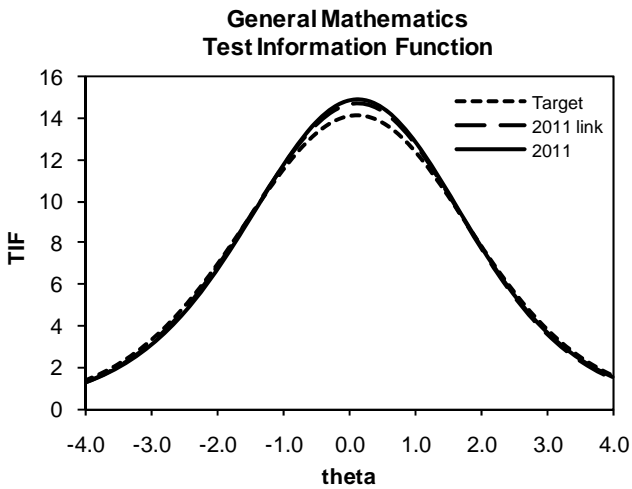
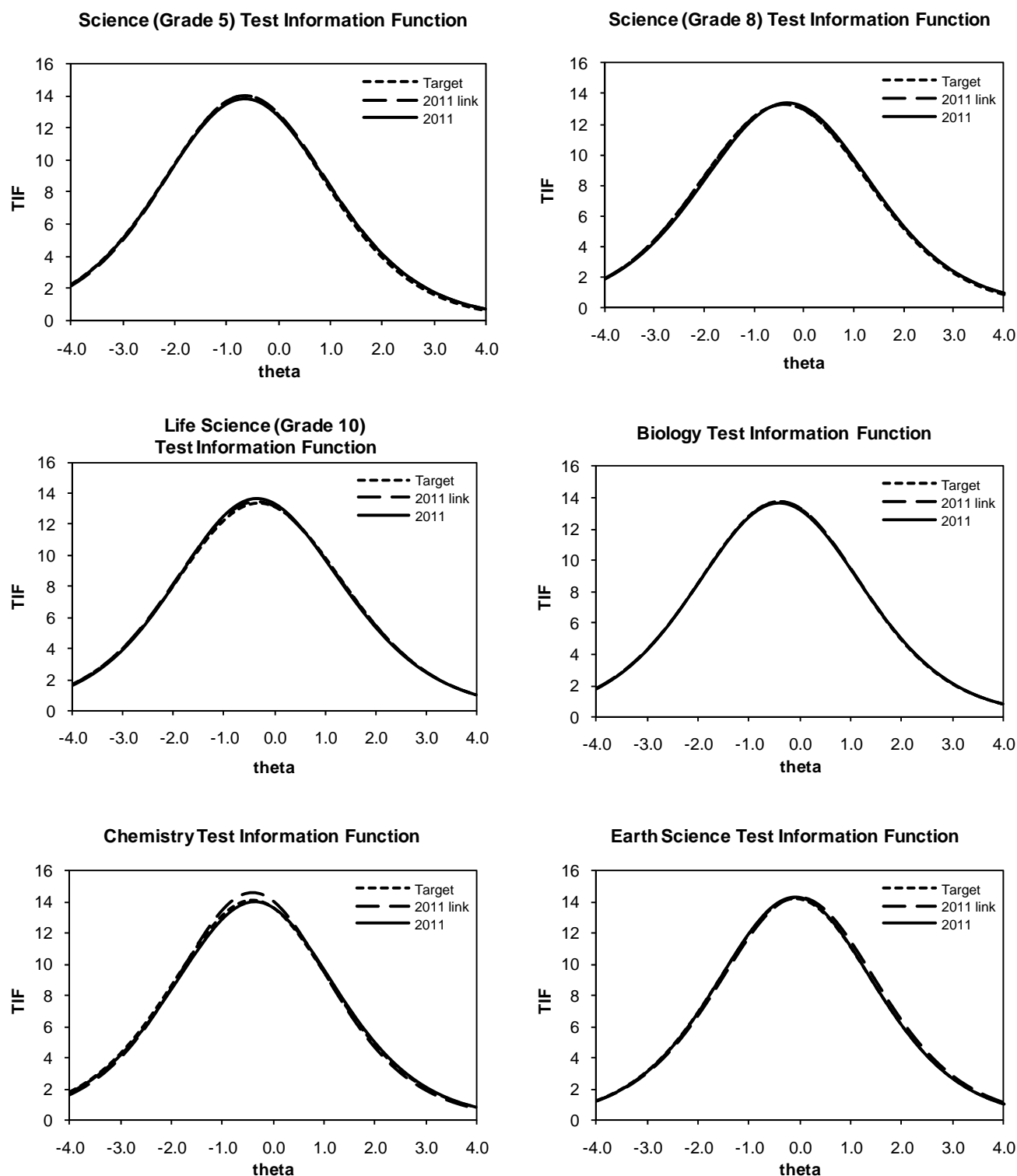
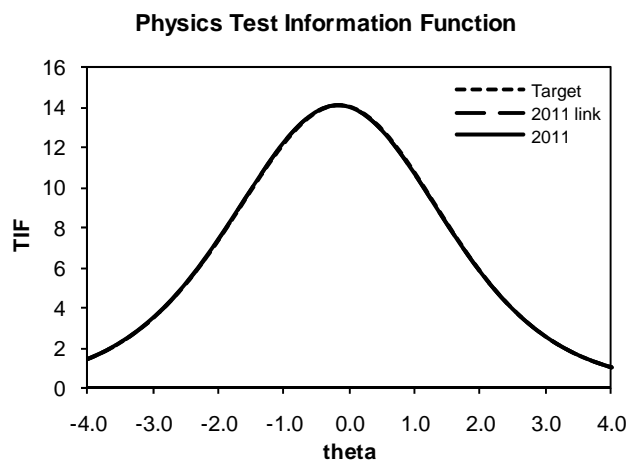


Figure 4.A.4 Plots for Target Information Function and Projected Information for Total Test and Linking Set for Science



Appendix 4.B—Cluster Targets

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

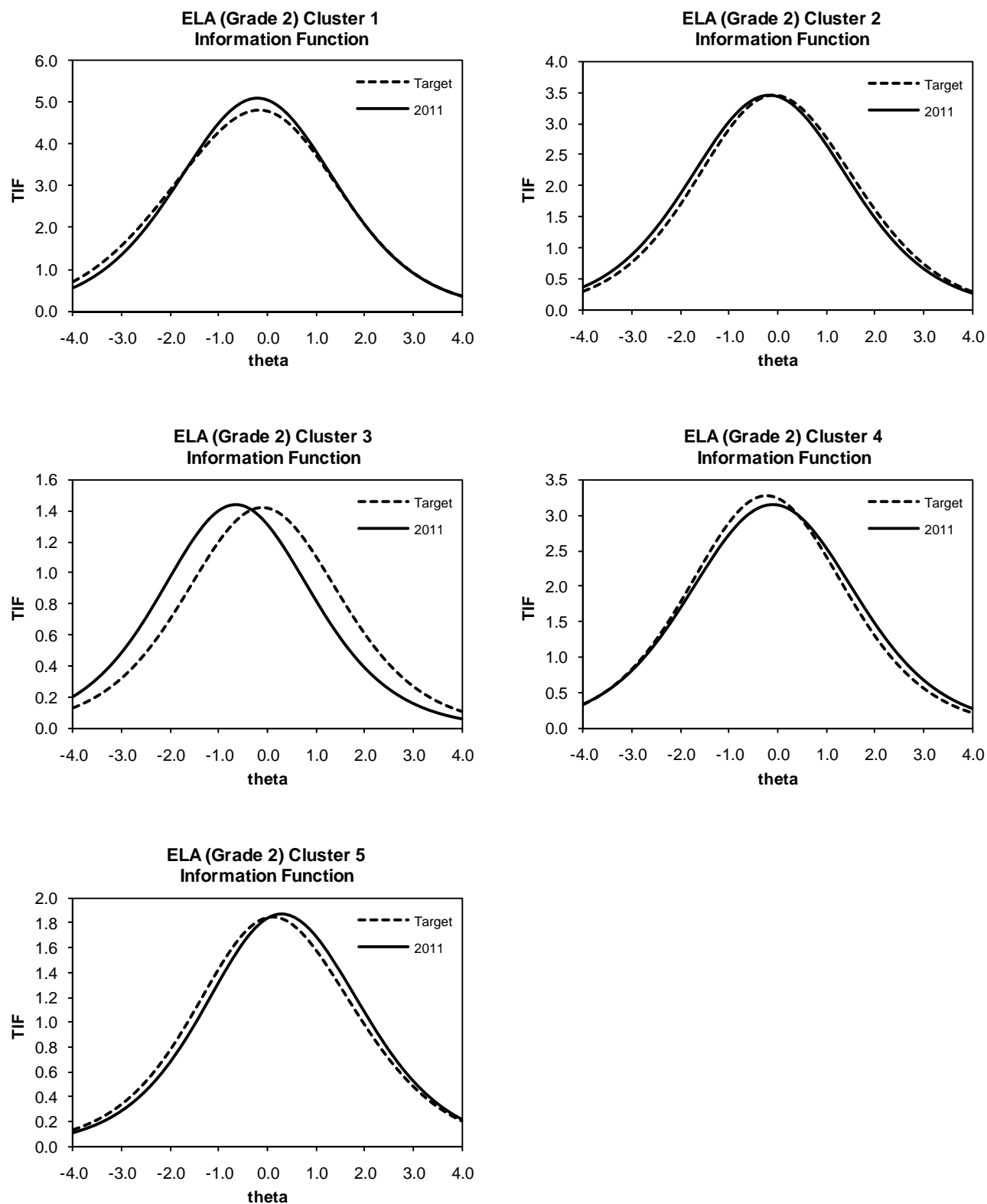


Figure 4.B.2 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Three

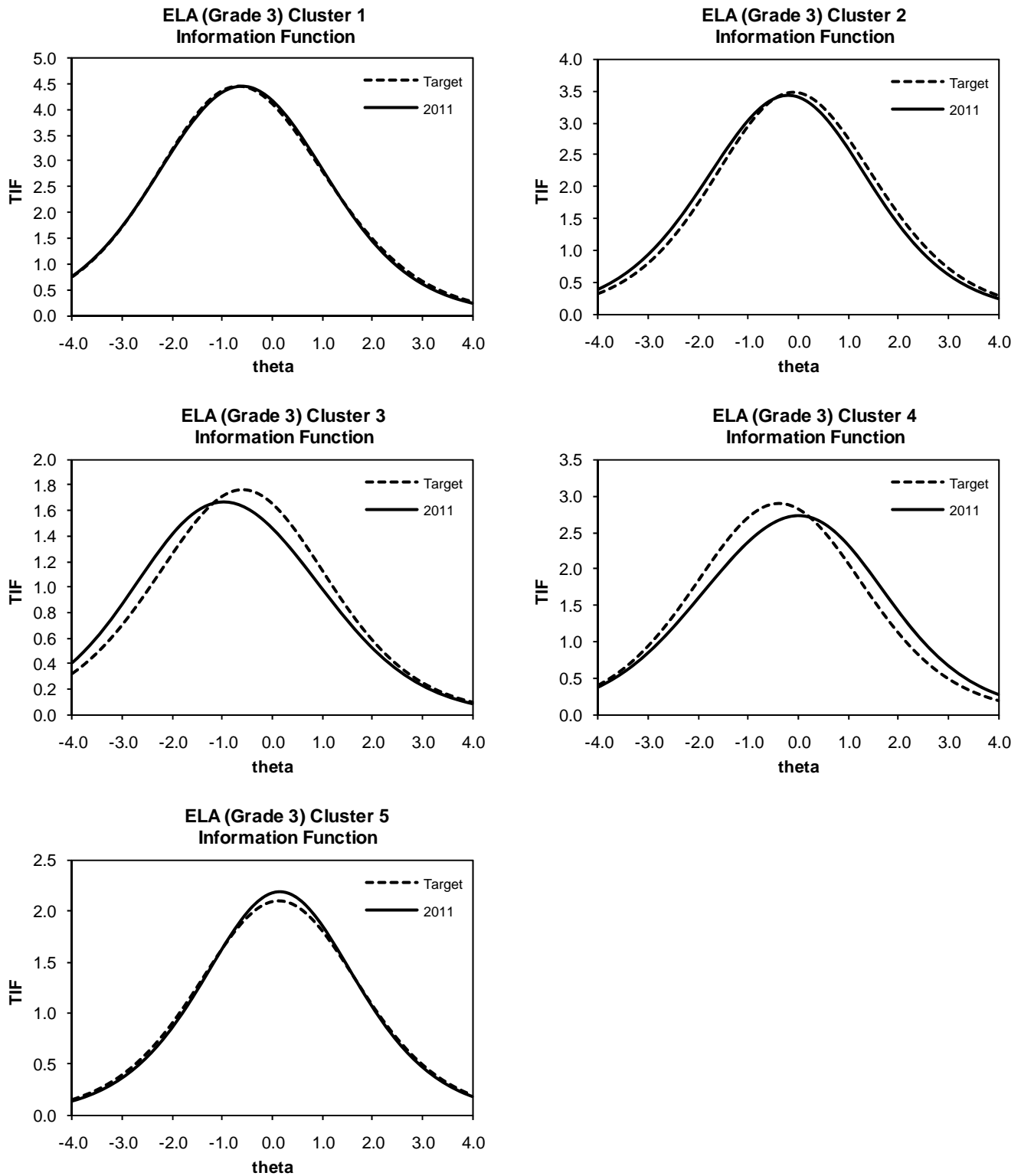


Figure 4.B.3 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Four (multiple choice only)

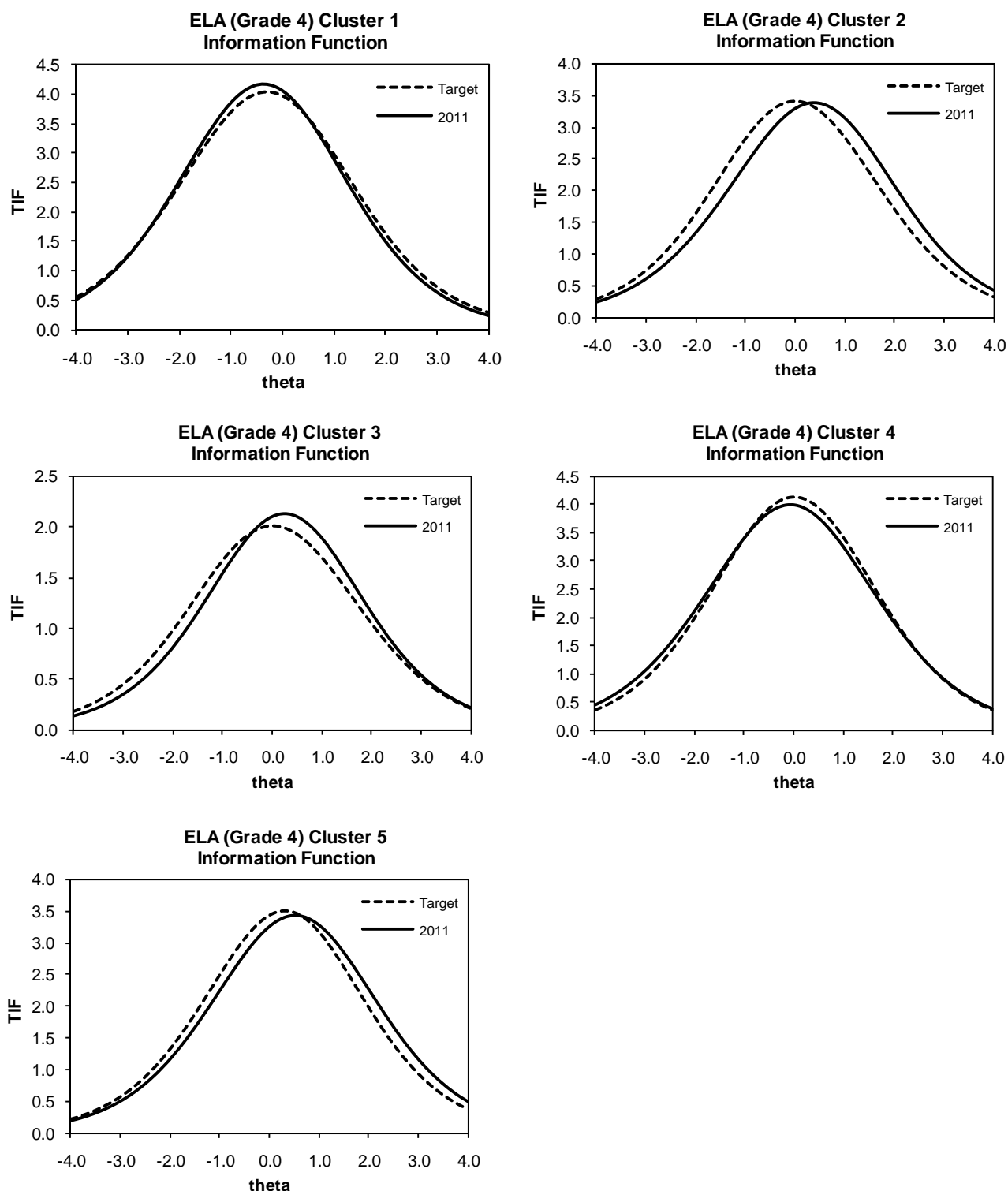


Figure 4.B.4 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Five

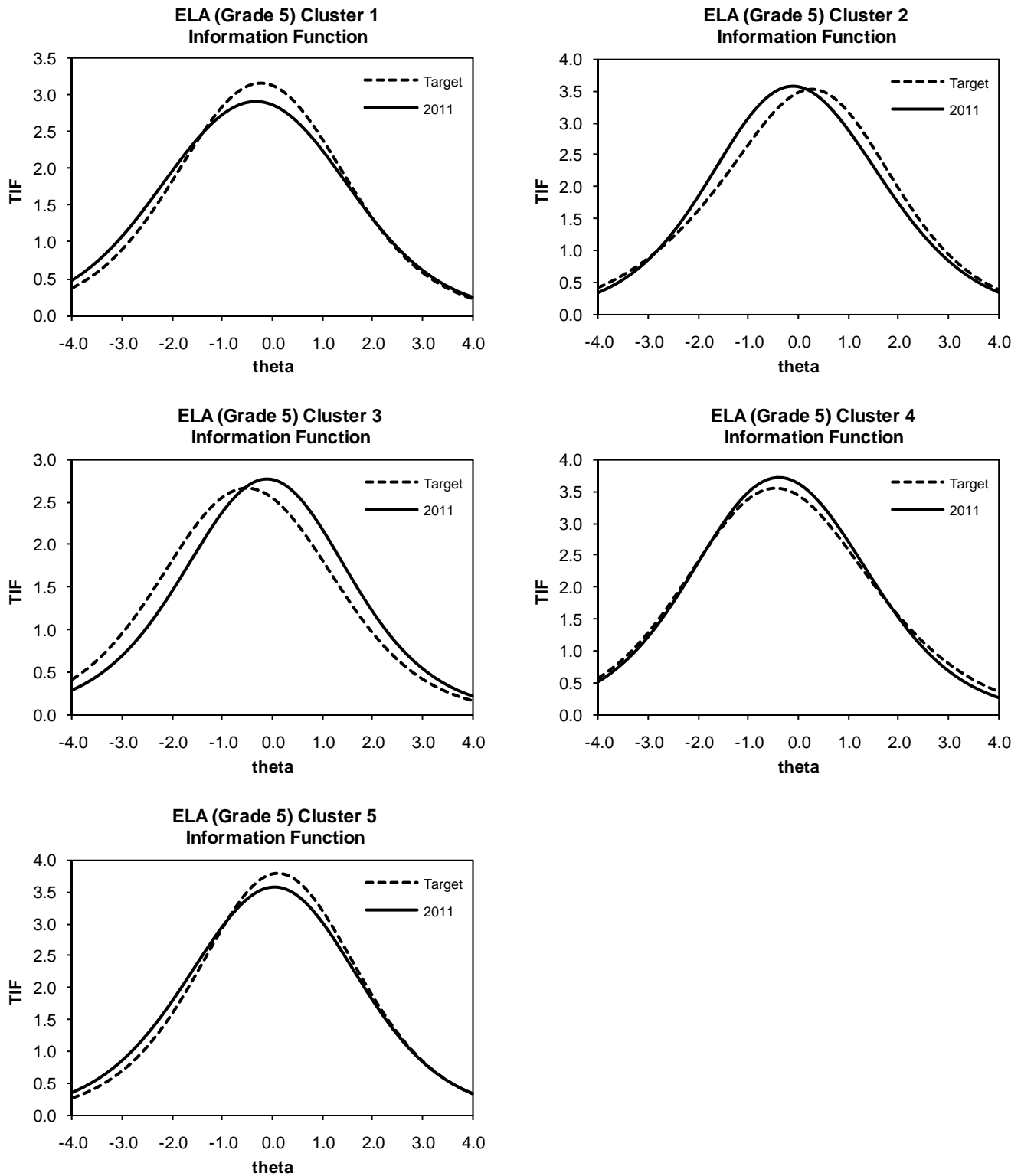


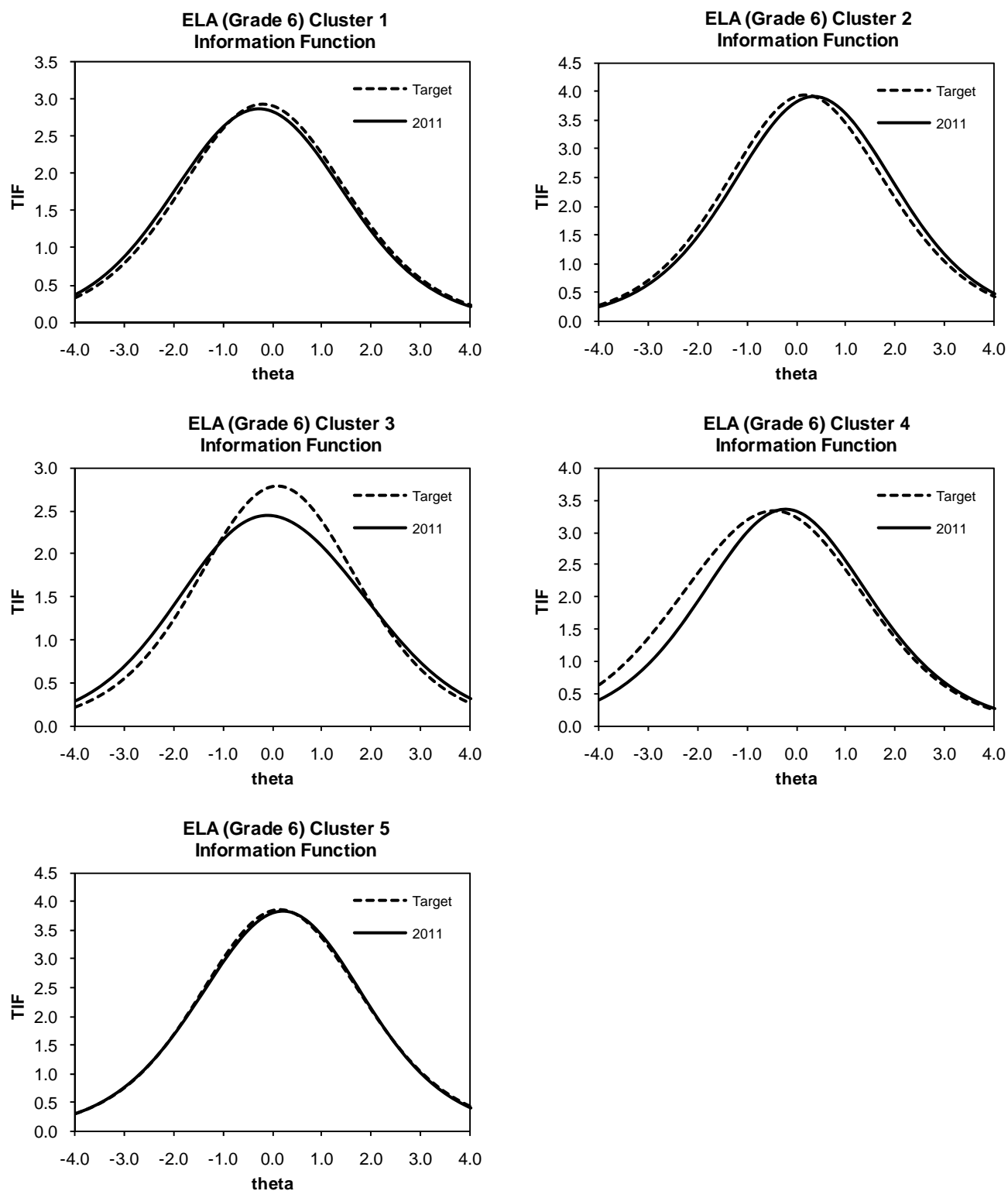
Figure 4.B.5 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Six

Figure 4.B.6 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Seven (multiple choice only)

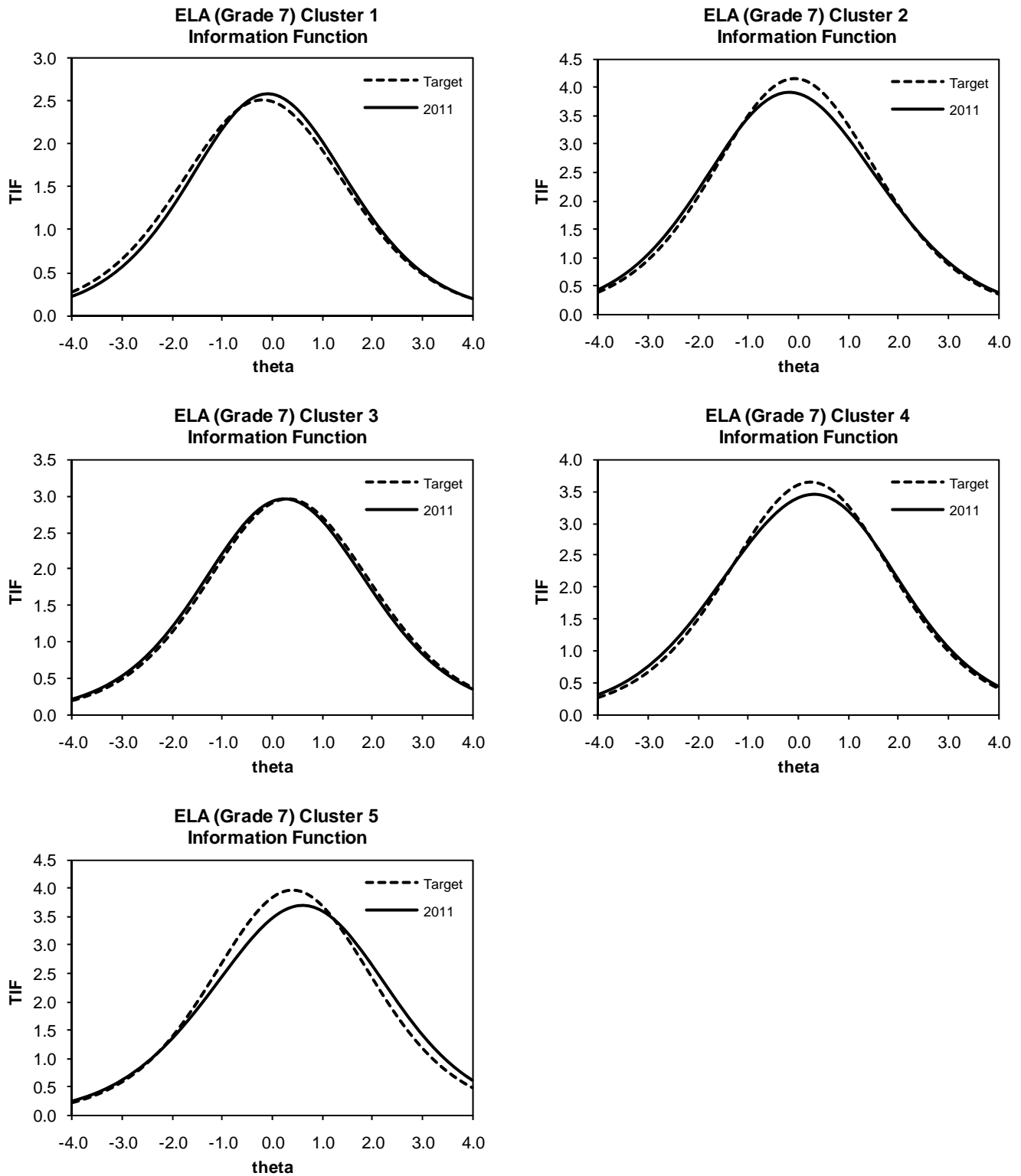


Figure 4.B.7 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Eight

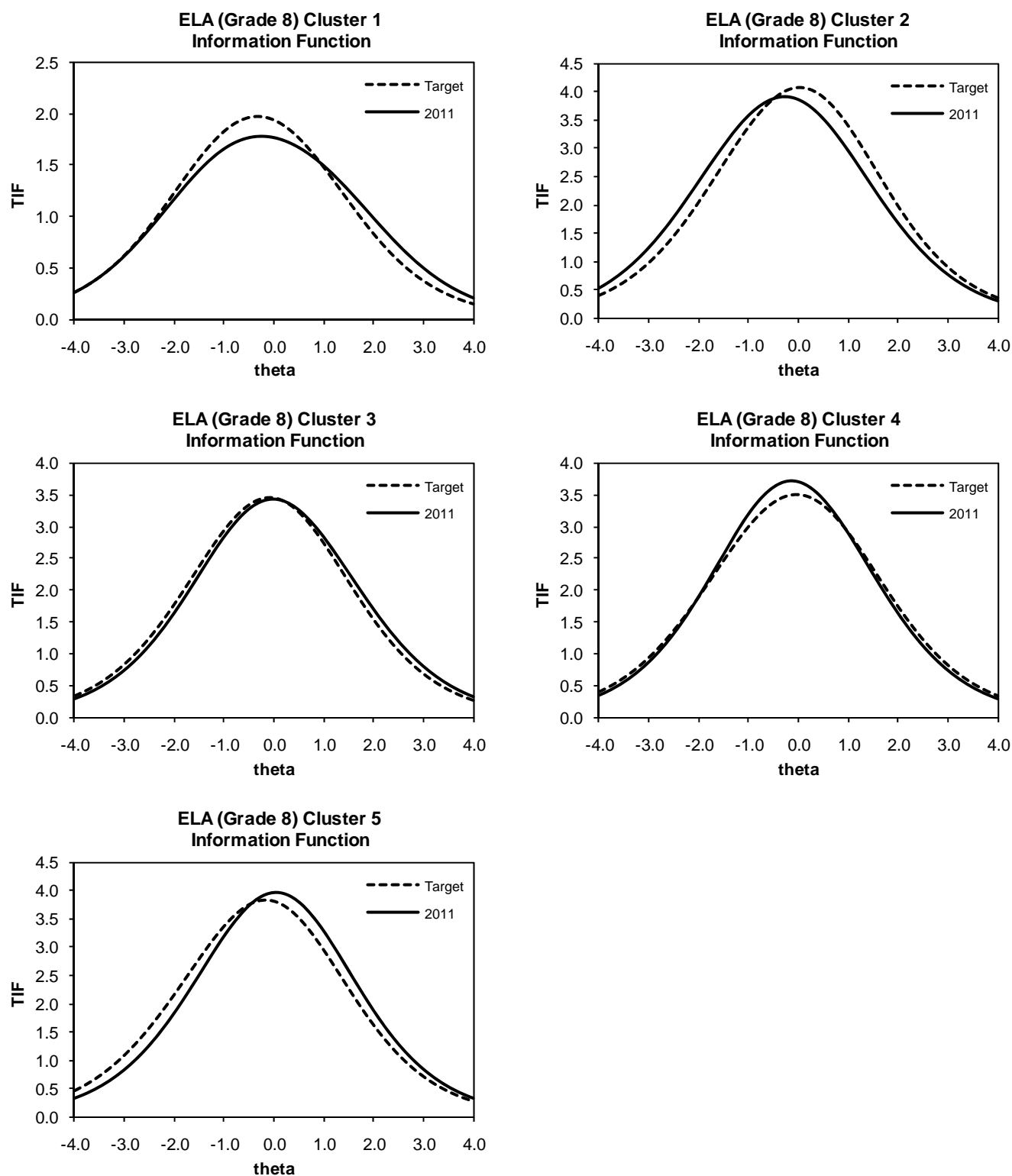


Figure 4.B.8 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Nine

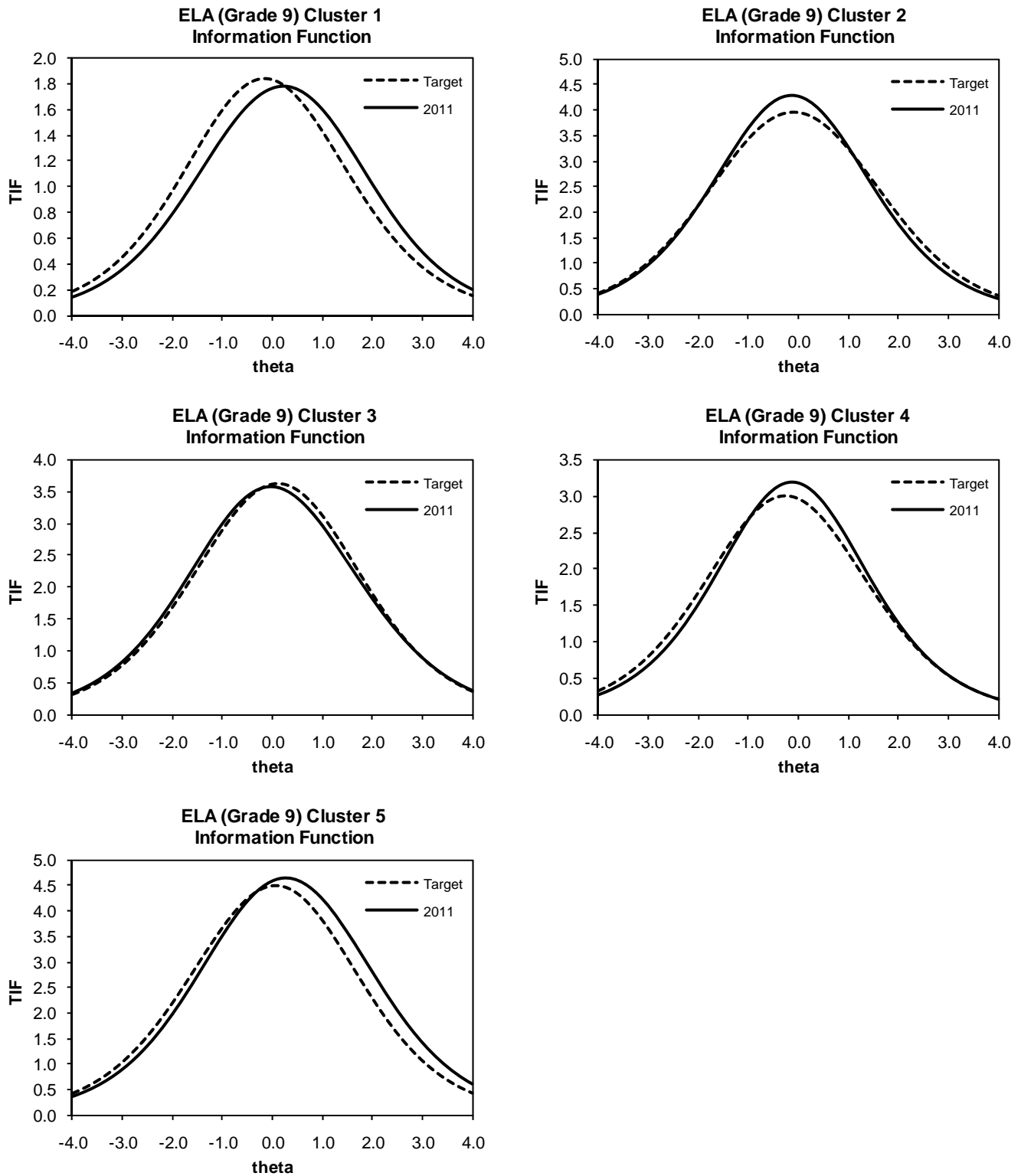


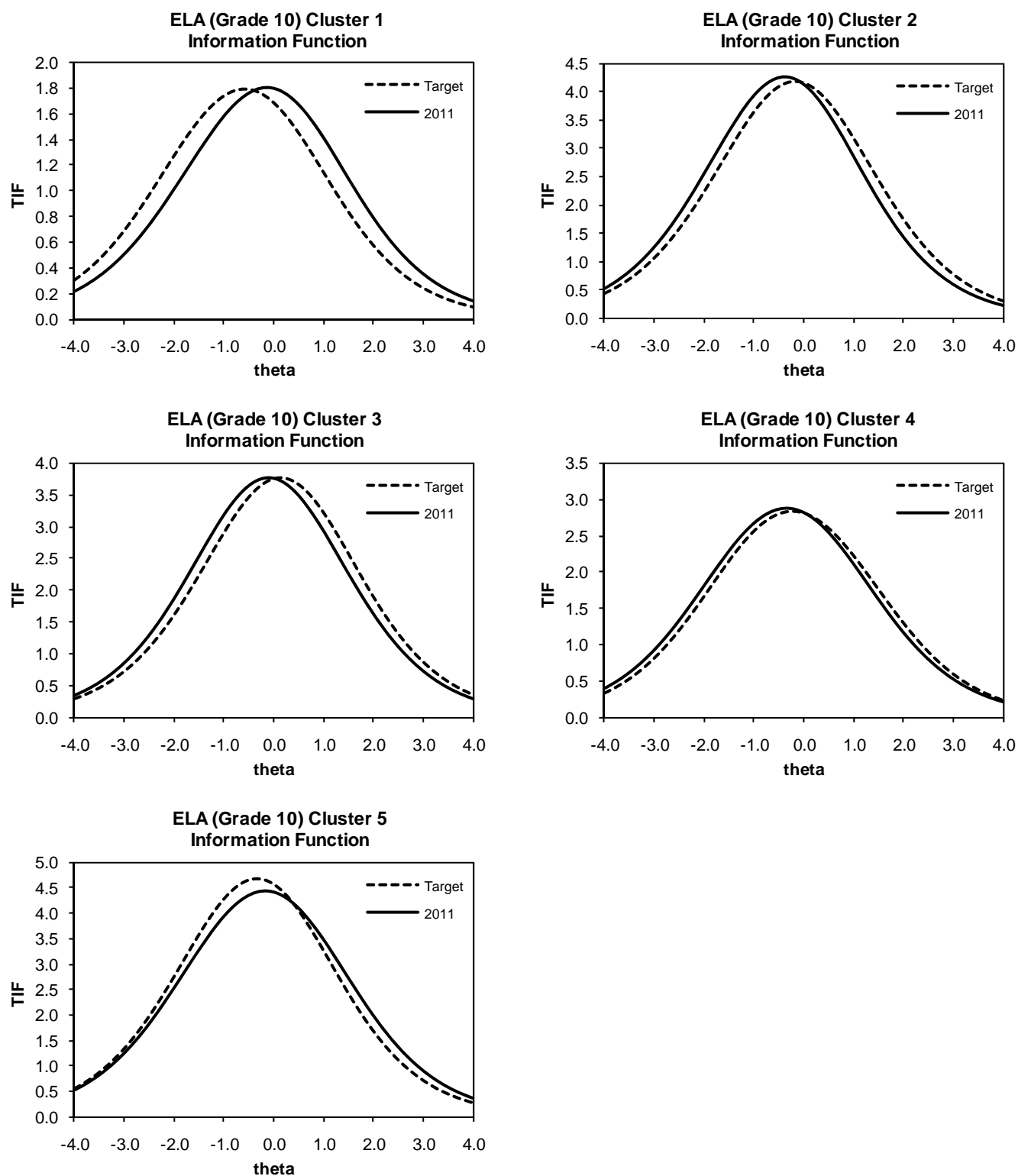
Figure 4.B.9 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Ten

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

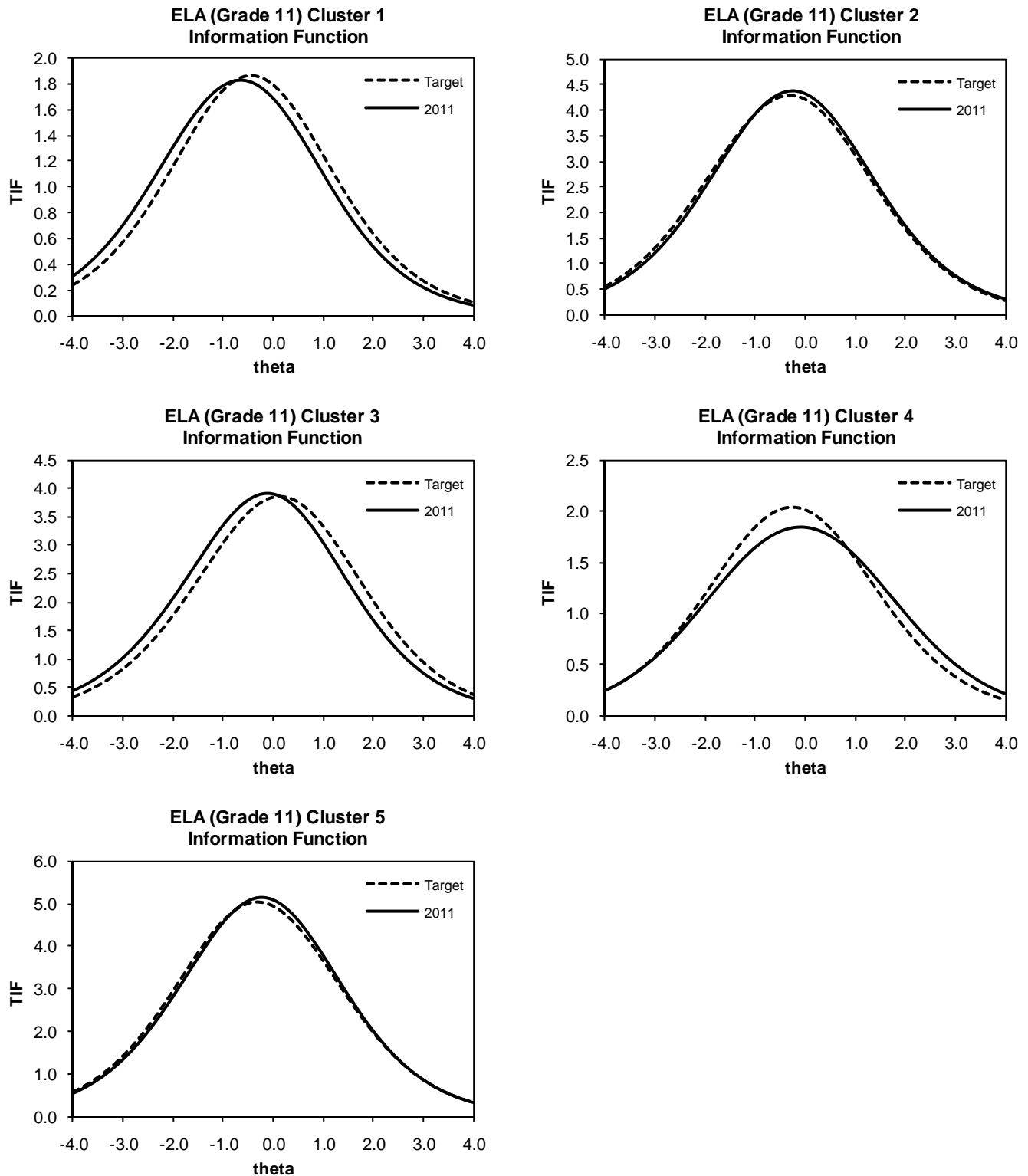


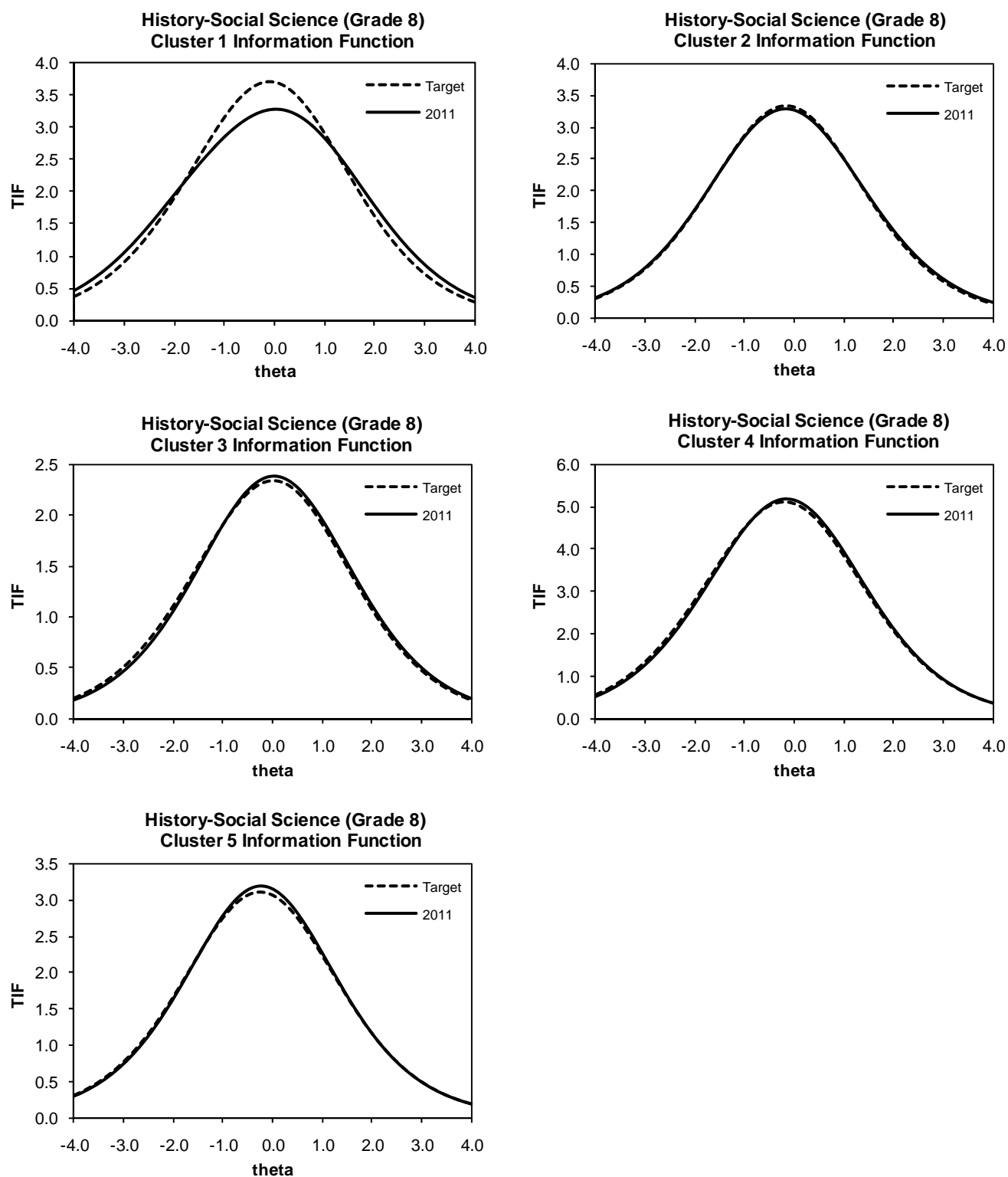
Figure 4.B.11 Plots of Target Information Functions and Projected Information for Clusters for History–Social Science, Grade Eight

Figure 4.B.12 Plots of Target Information Functions and Projected Information for Clusters for World History

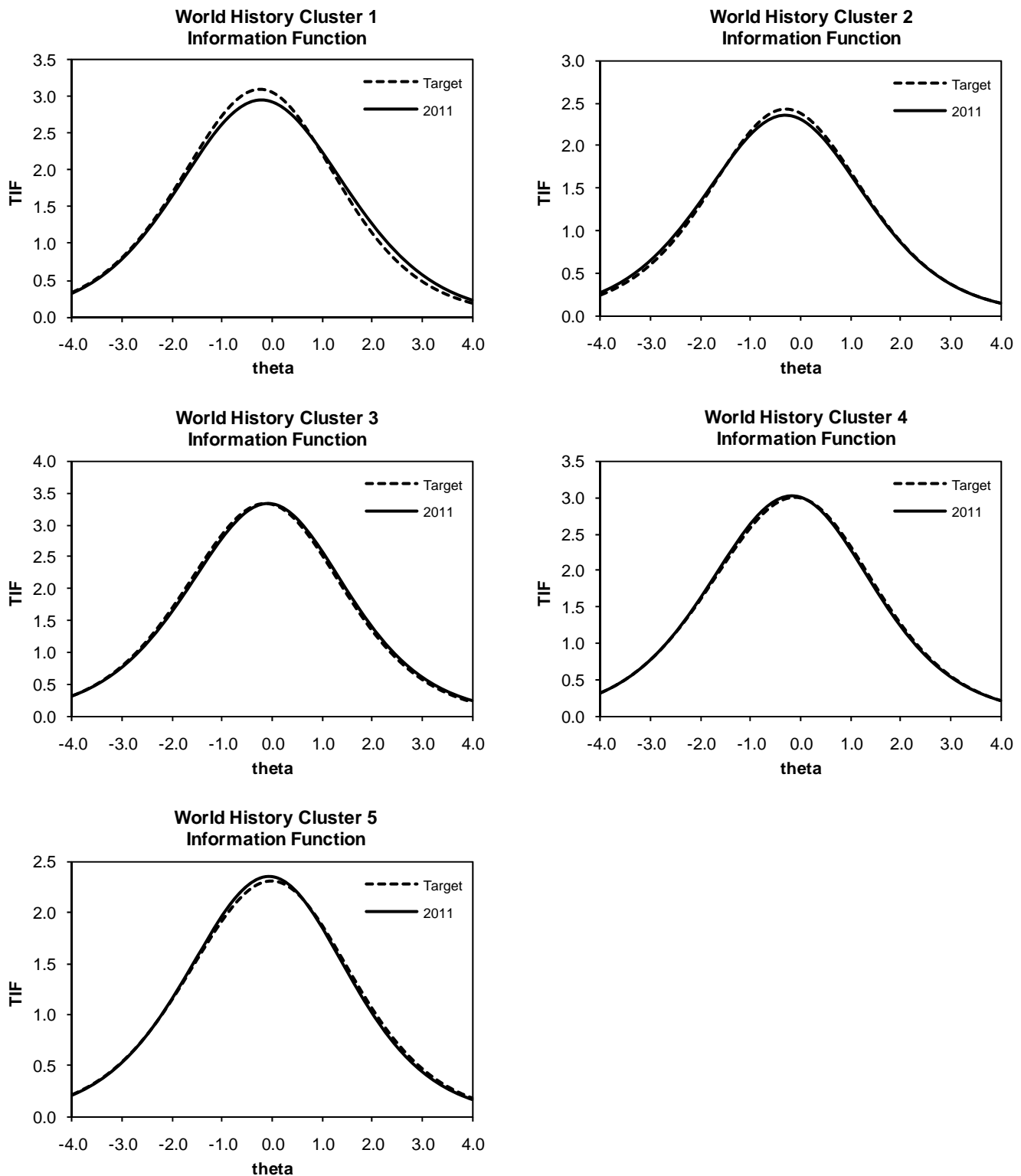


Figure 4.B.13 Plots of Target Information Functions and Projected Information for Clusters for U.S. History, Grade Eleven

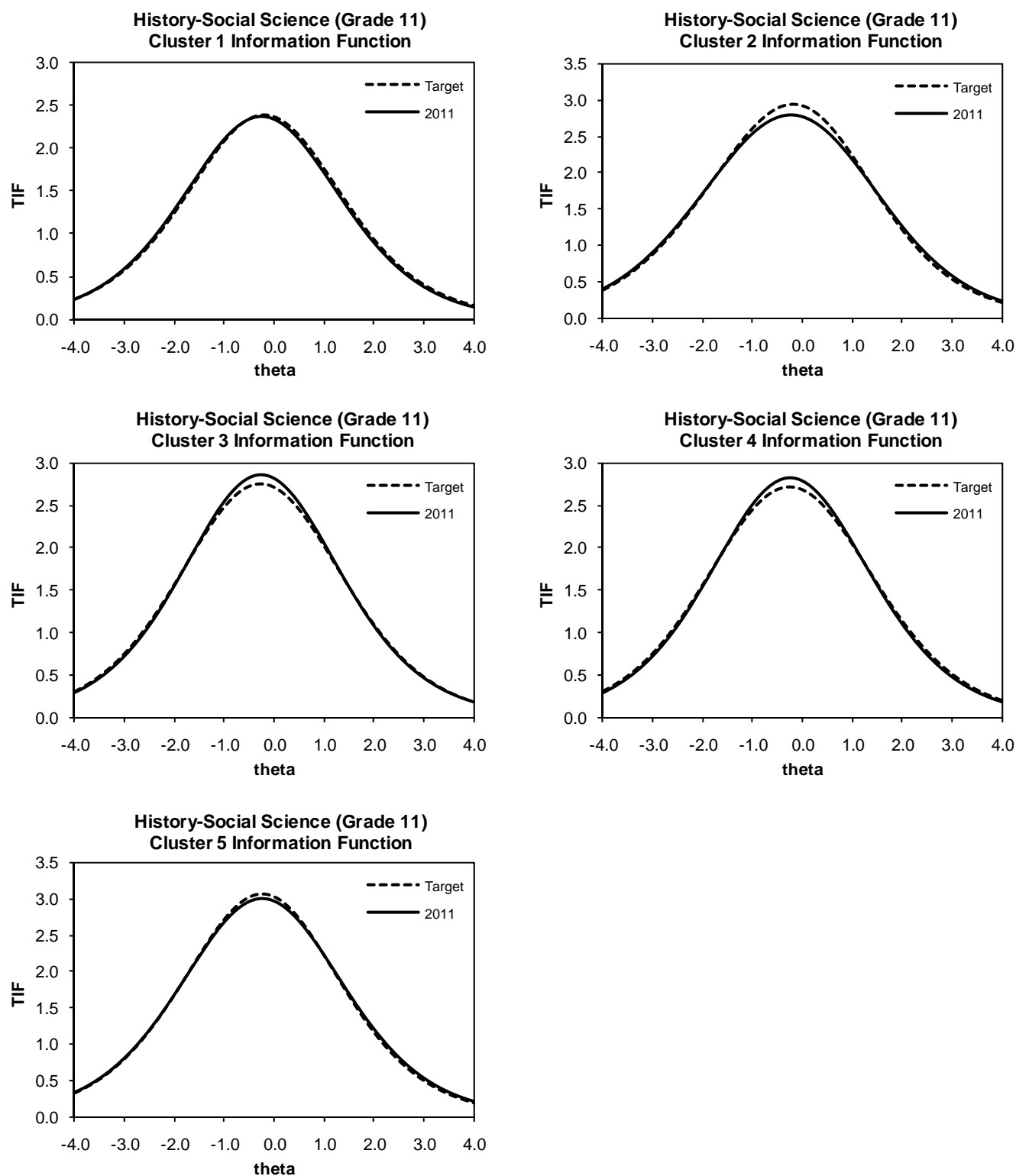


Figure 4.B.14 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Two

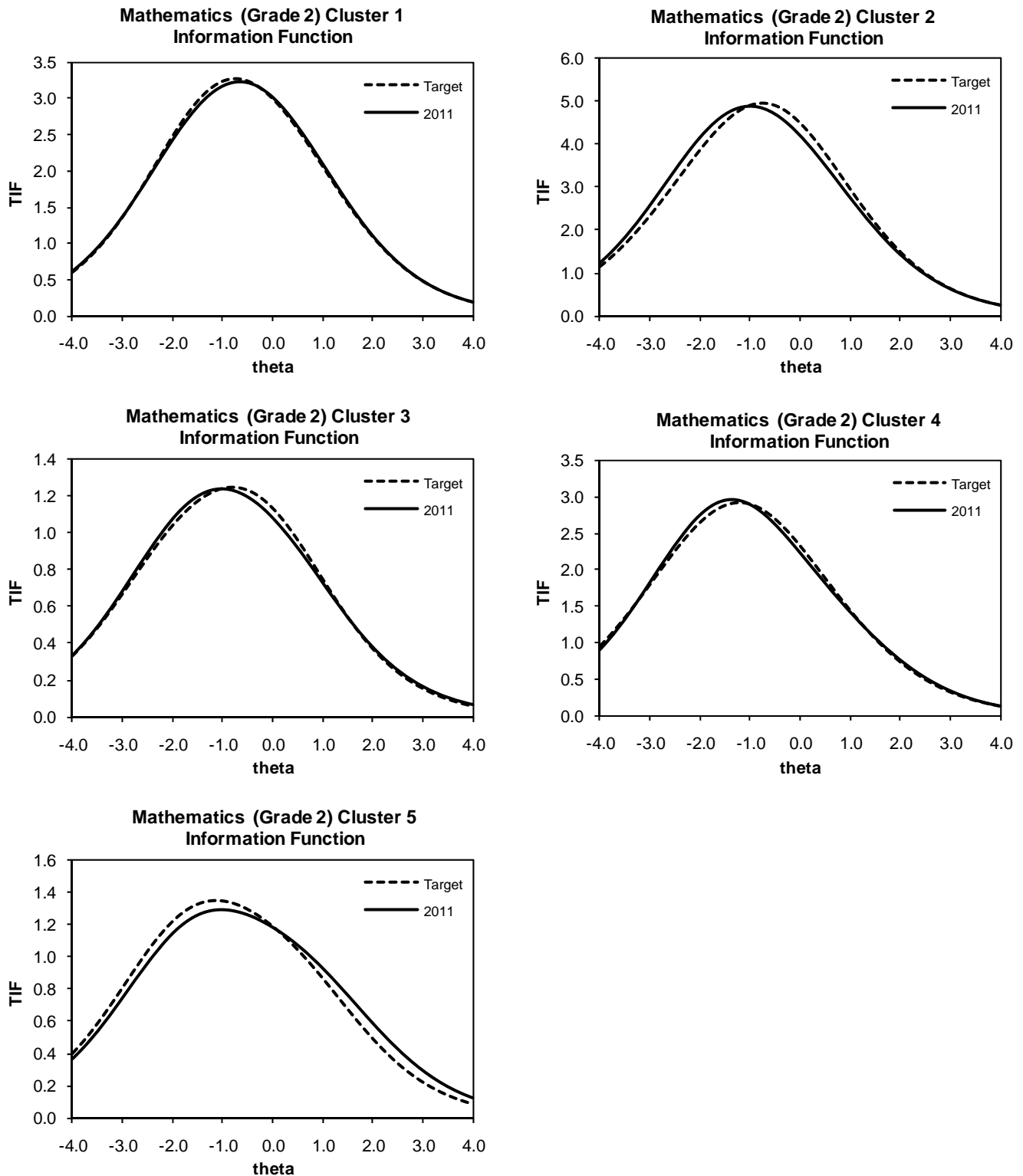


Figure 4.B.15 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Three

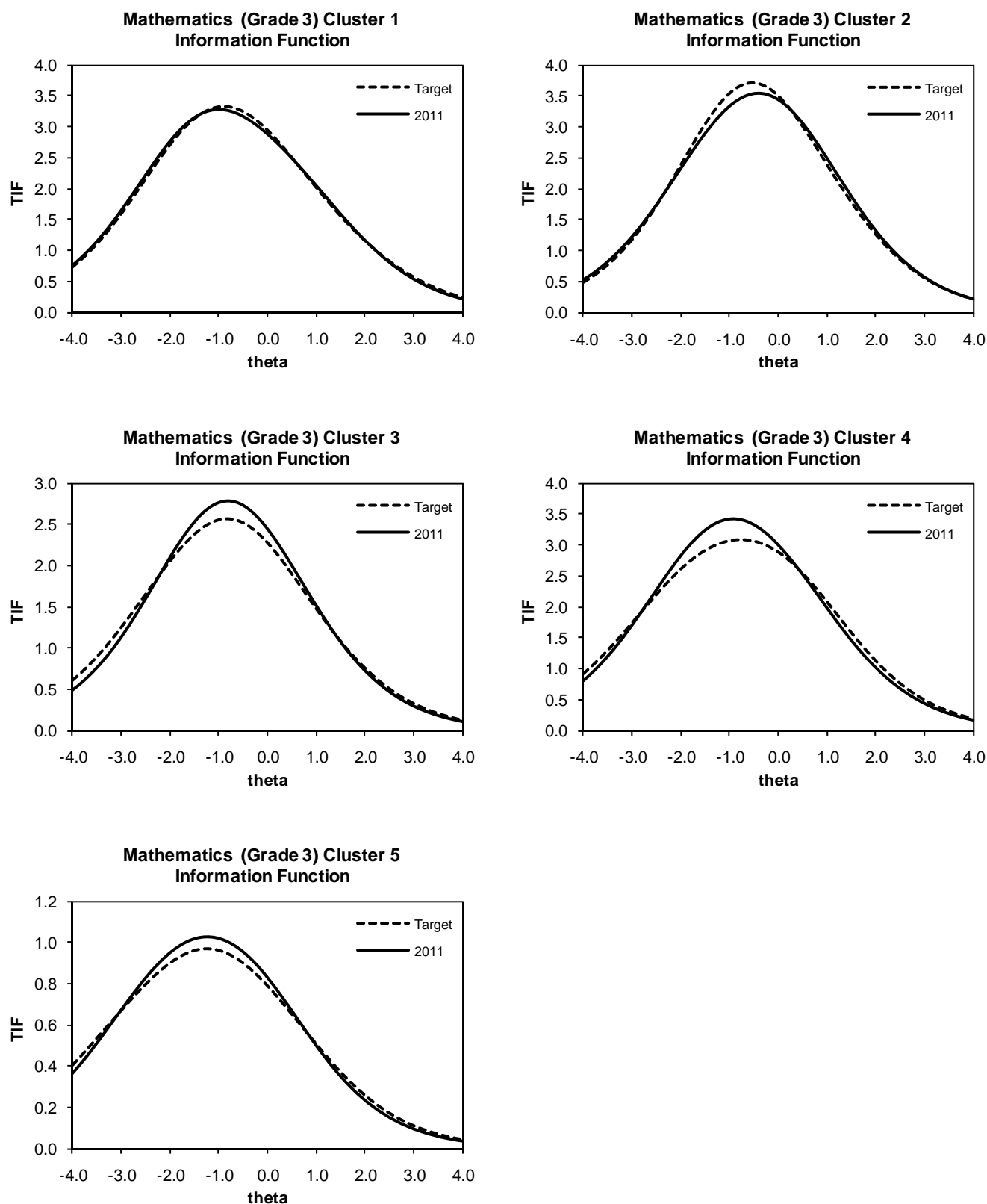


Figure 4.B.16 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Four

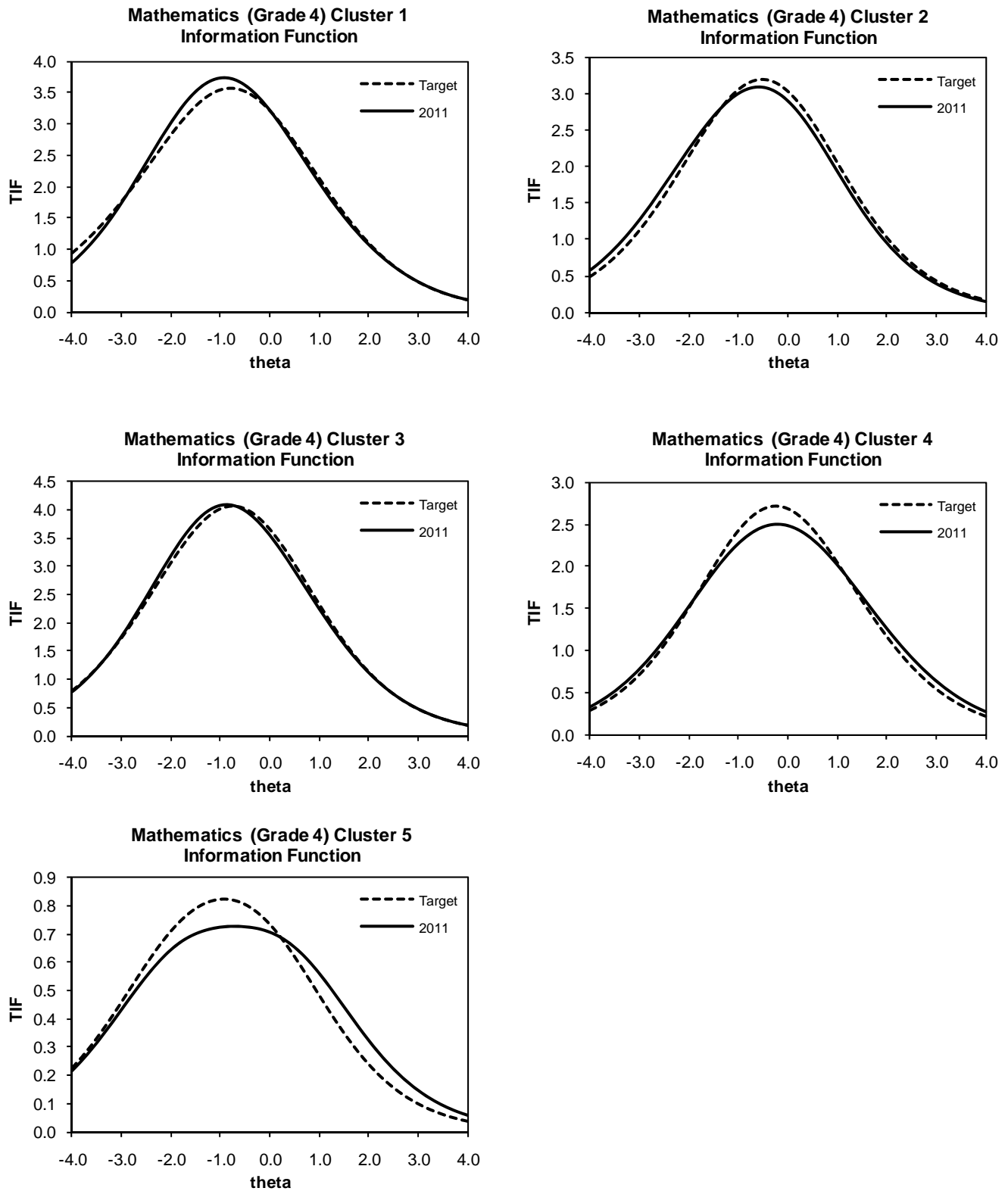


Figure 4.B.17 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Five

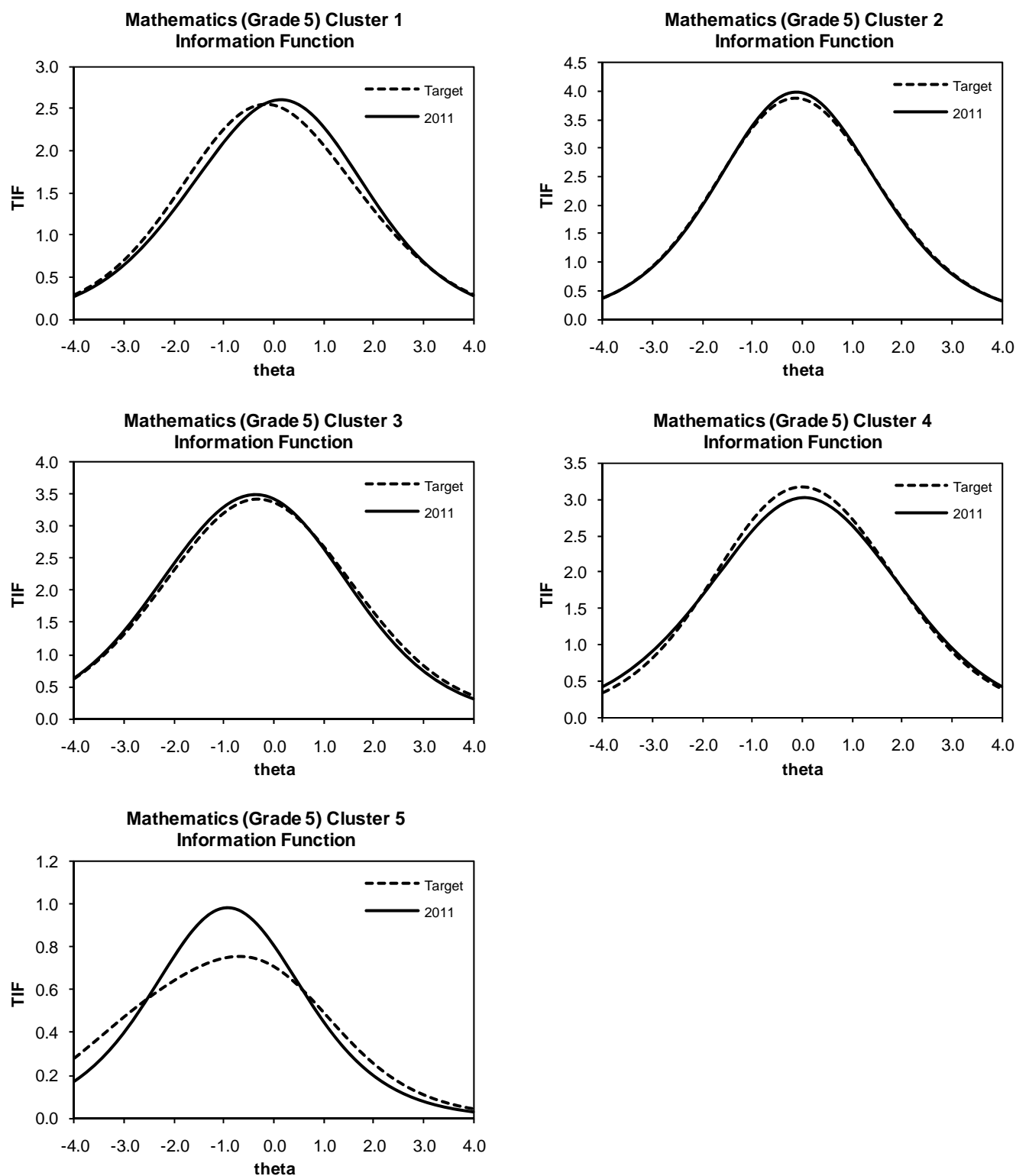


Figure 4.B.18 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Six

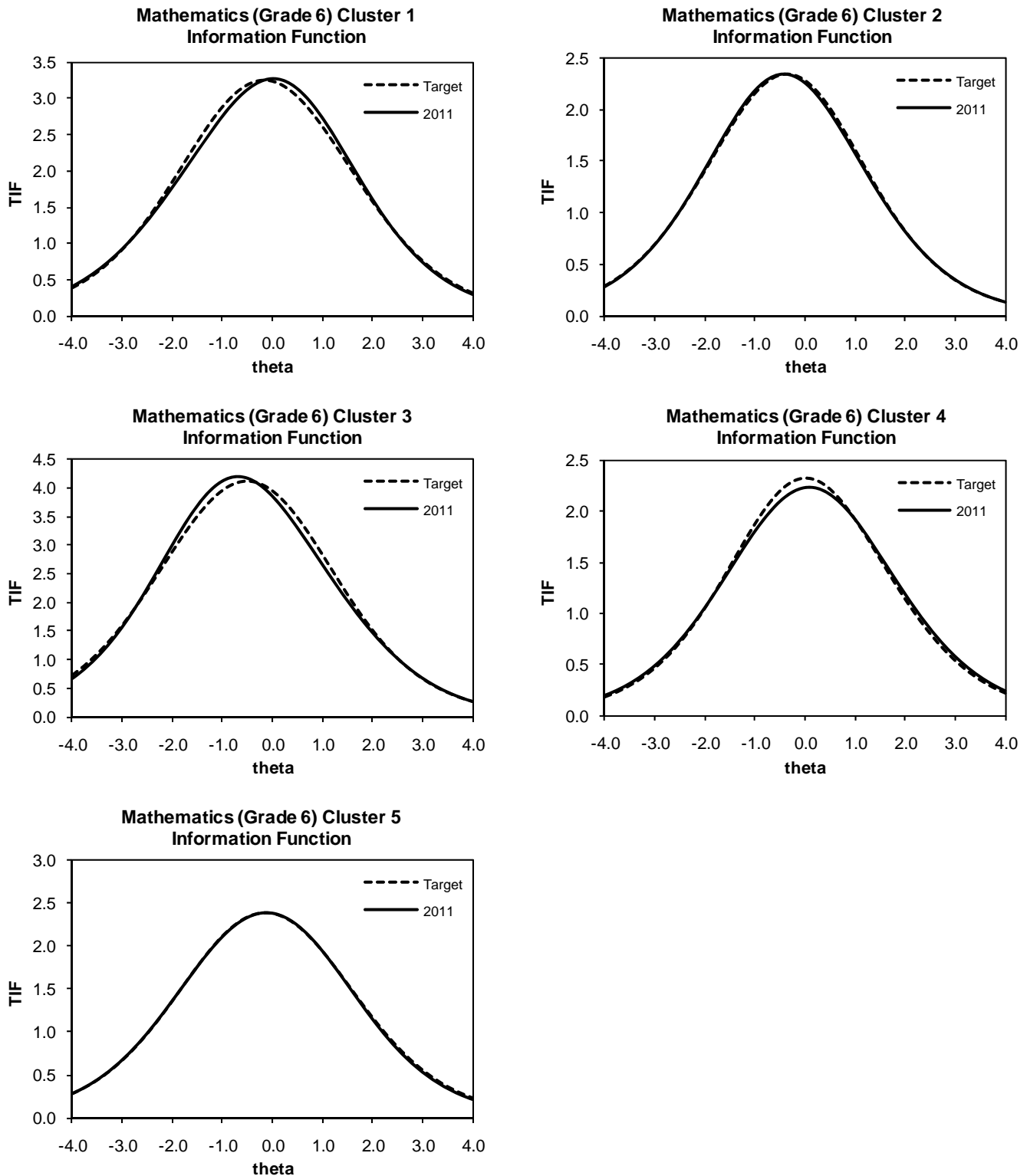


Figure 4.B.19 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Seven

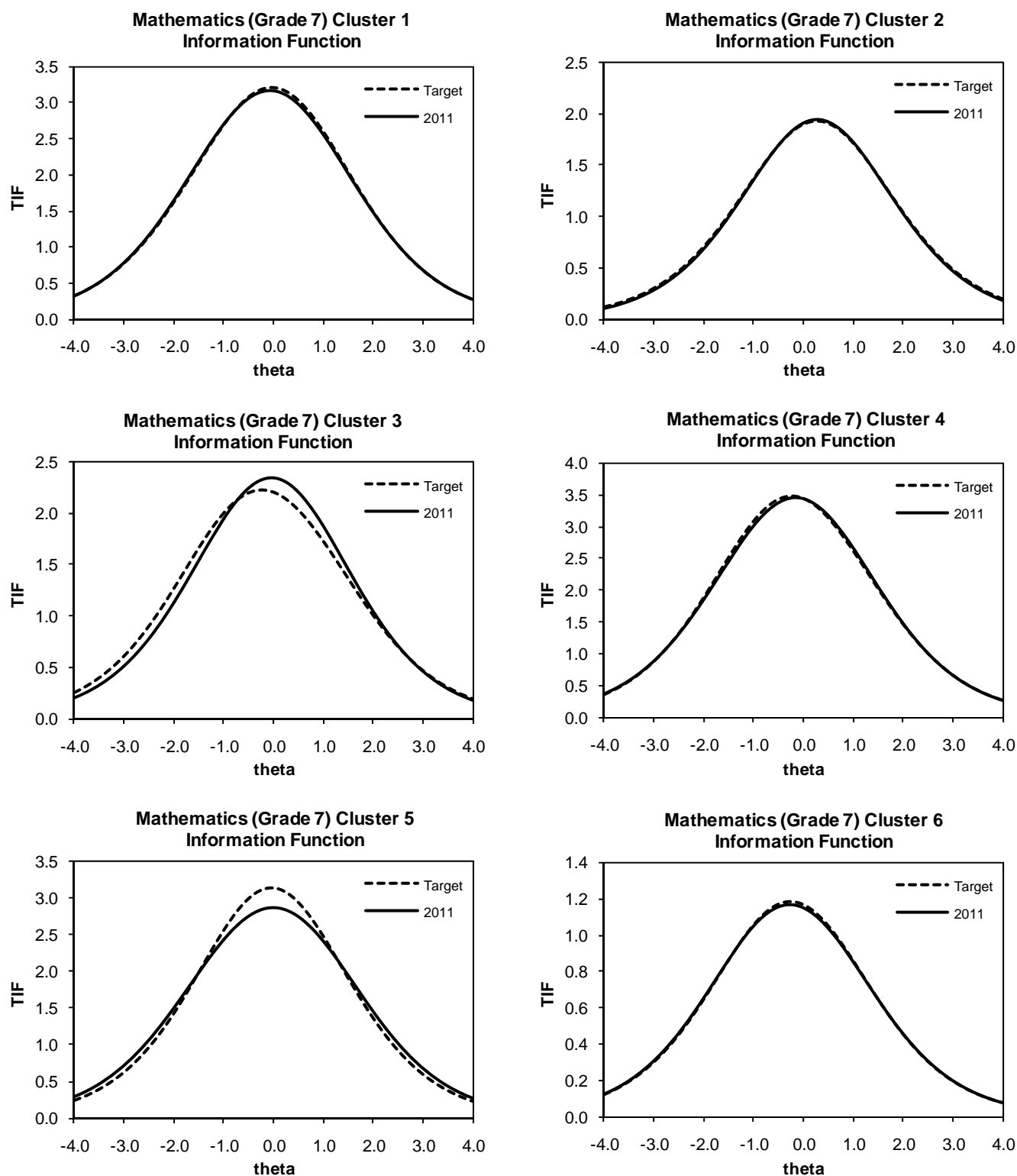


Figure 4.B.20 Plots of Target Information Functions and Projected Information for Clusters for General Mathematics

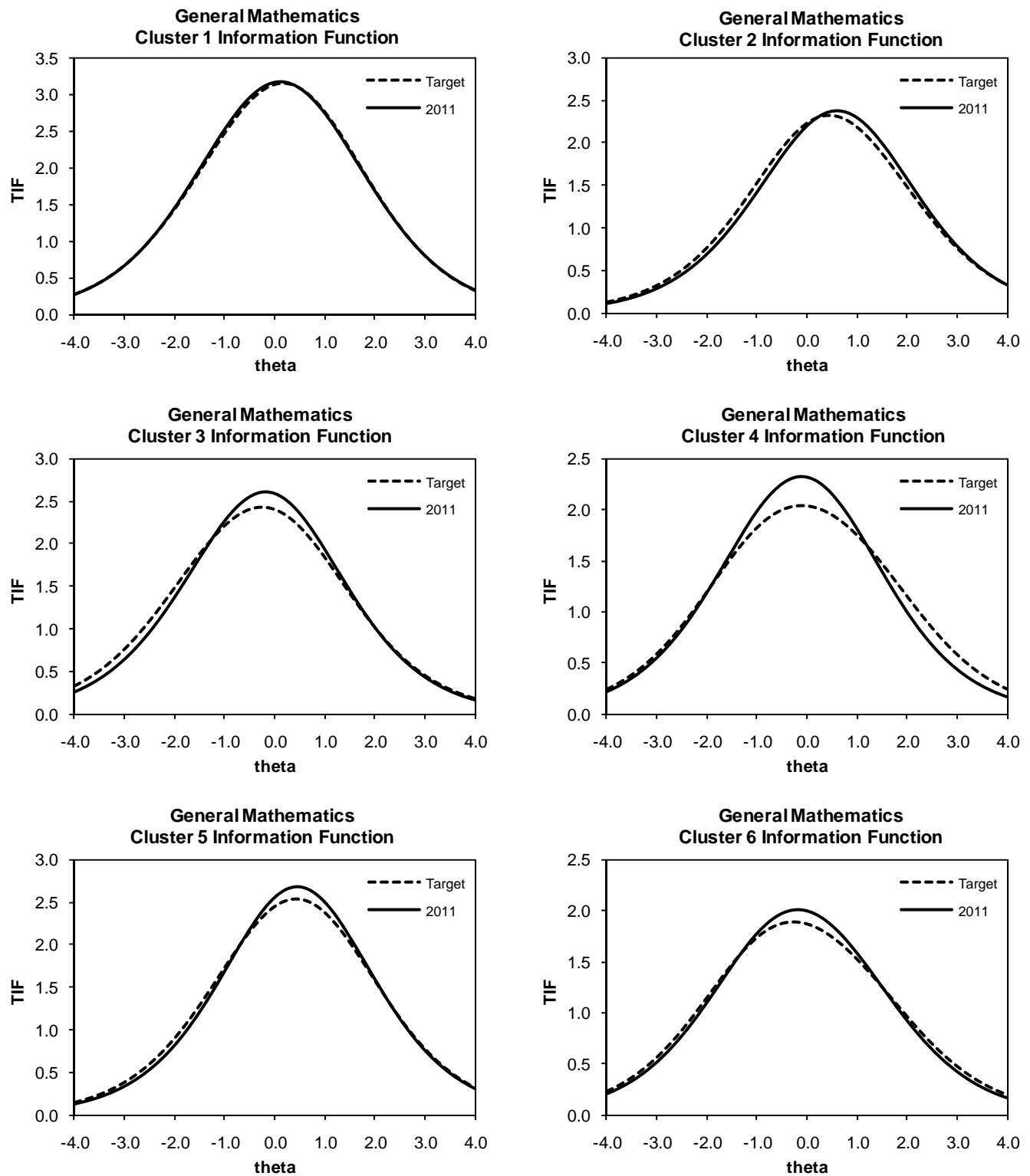


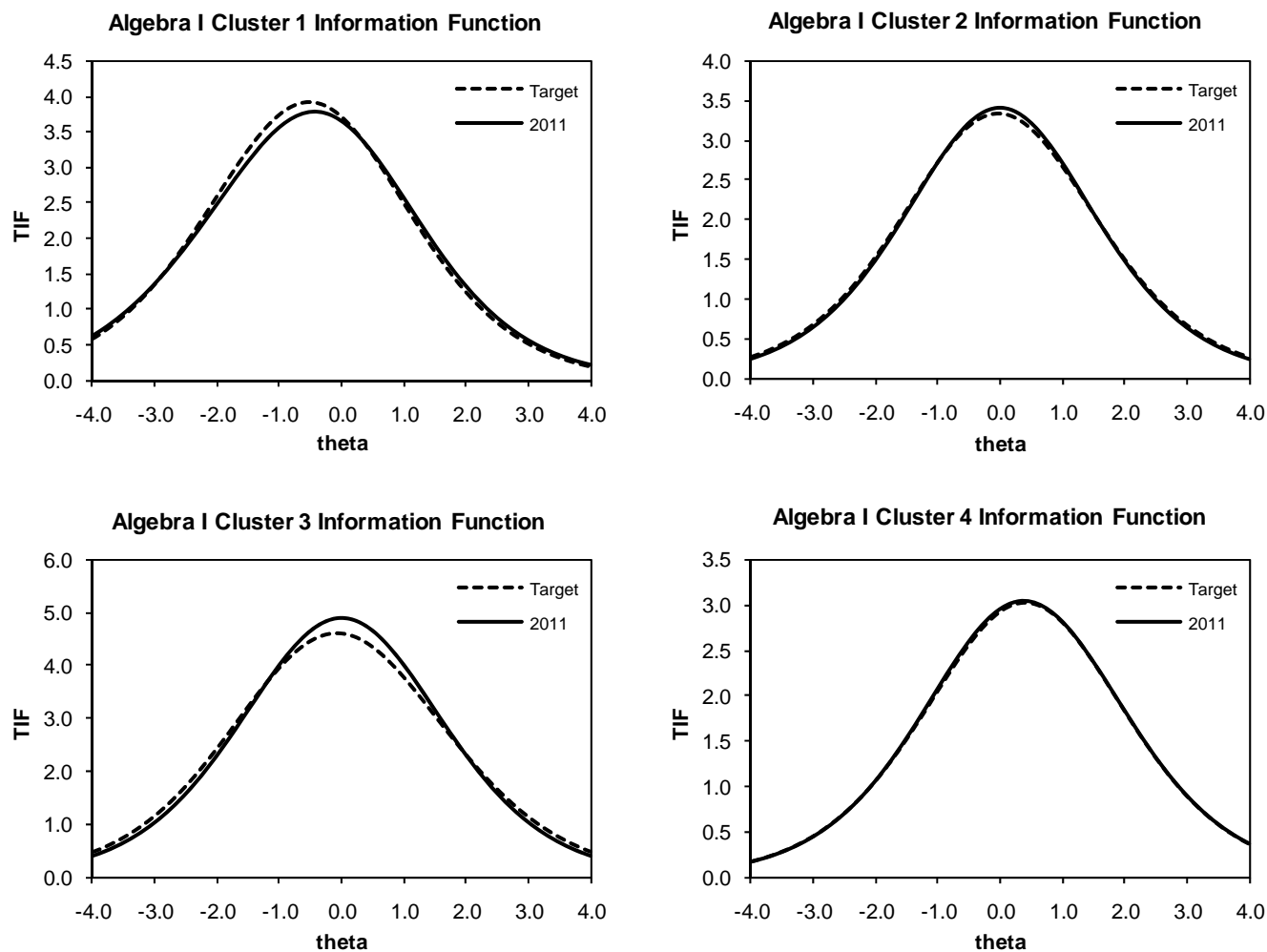
Figure 4.B.21 Plots of Target Information Functions and Projected Information for Clusters for Algebra I

Figure 4.B.22 Plots of Target Information Functions and Projected Information for Clusters for Geometry

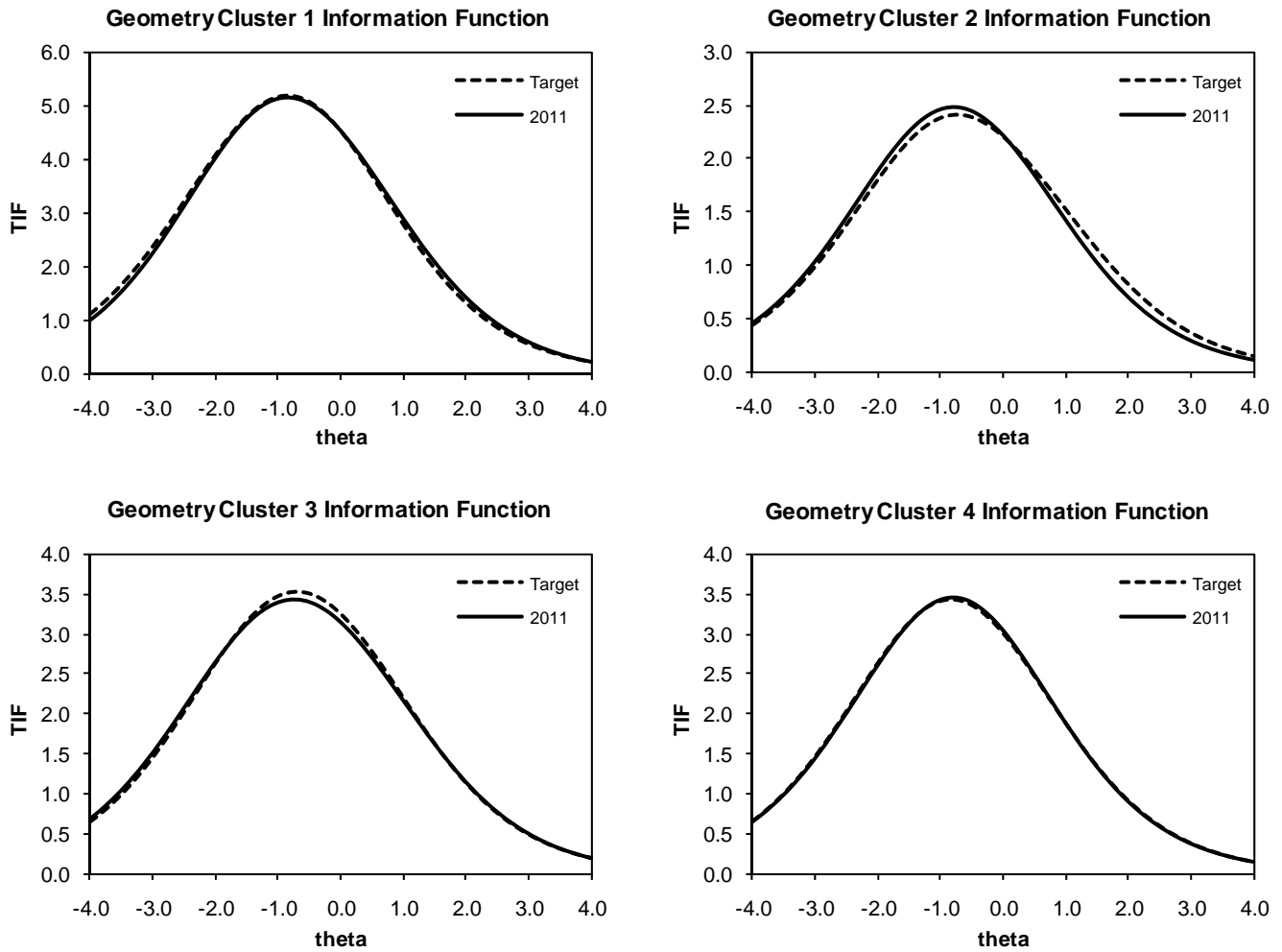


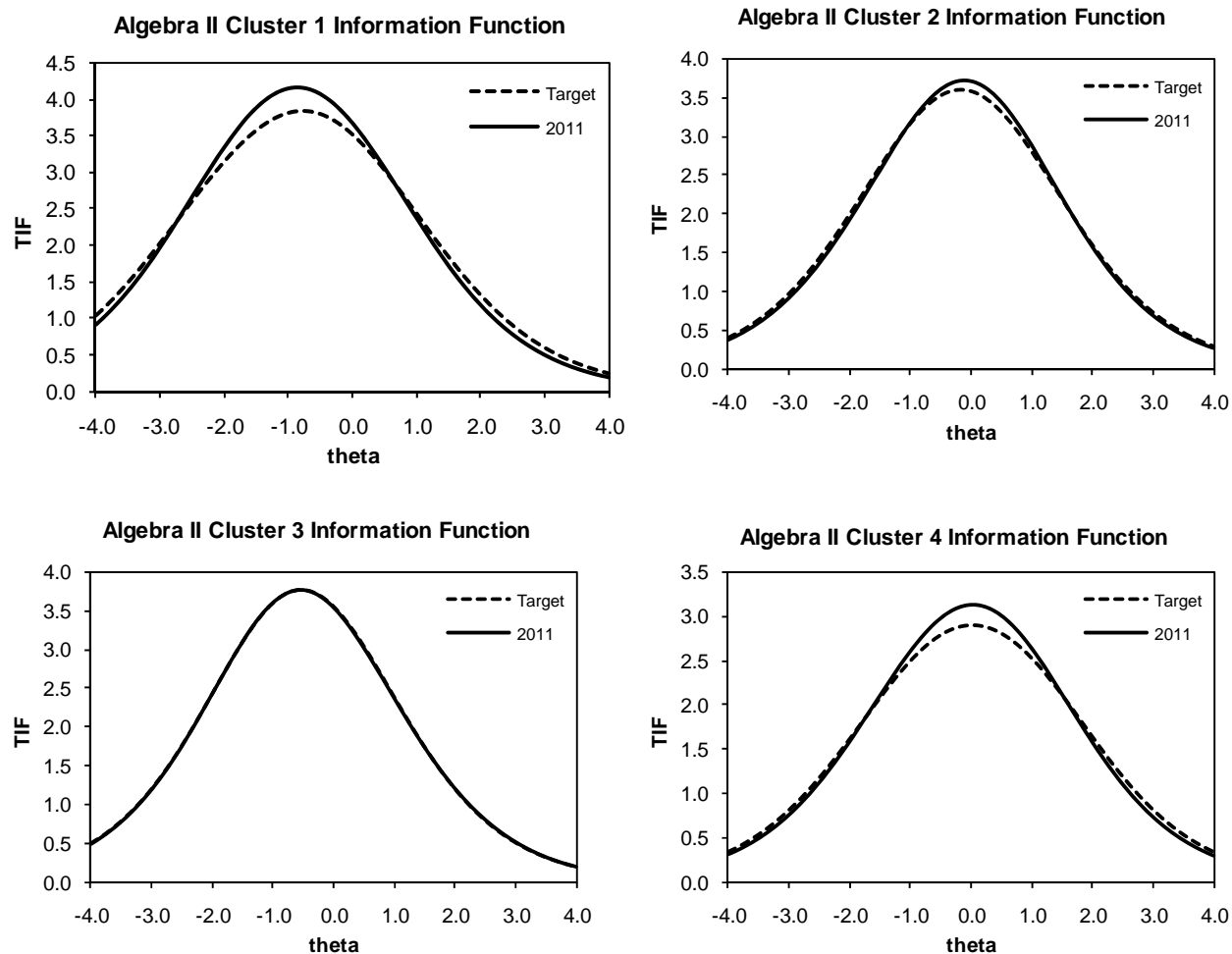
Figure 4.B.23 Plots of Target Information Functions and Projected Information for Clusters for Algebra II

Figure 4.B.24 Plots of Target Information Functions and Projected Information for Clusters for Summative H.S. Math

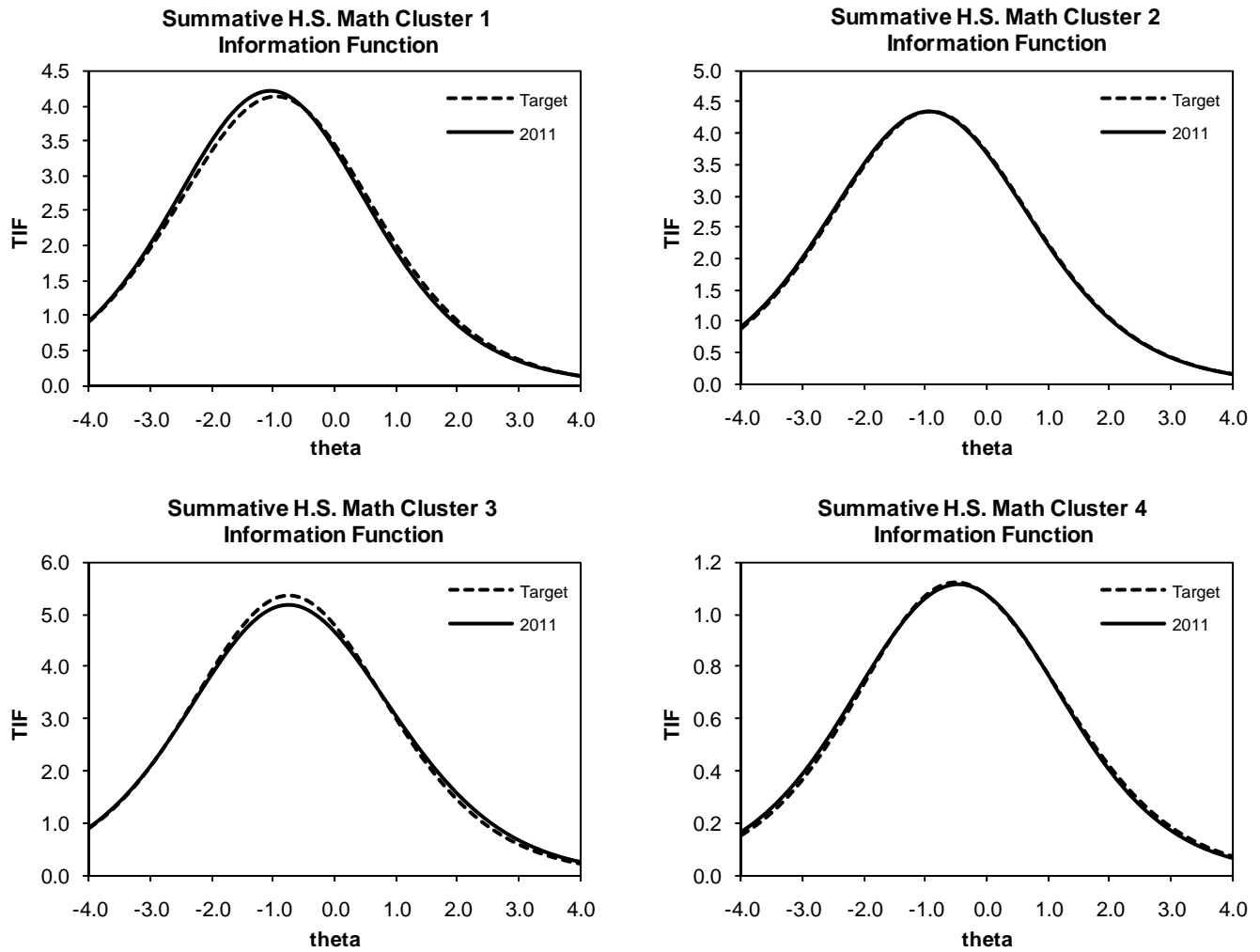


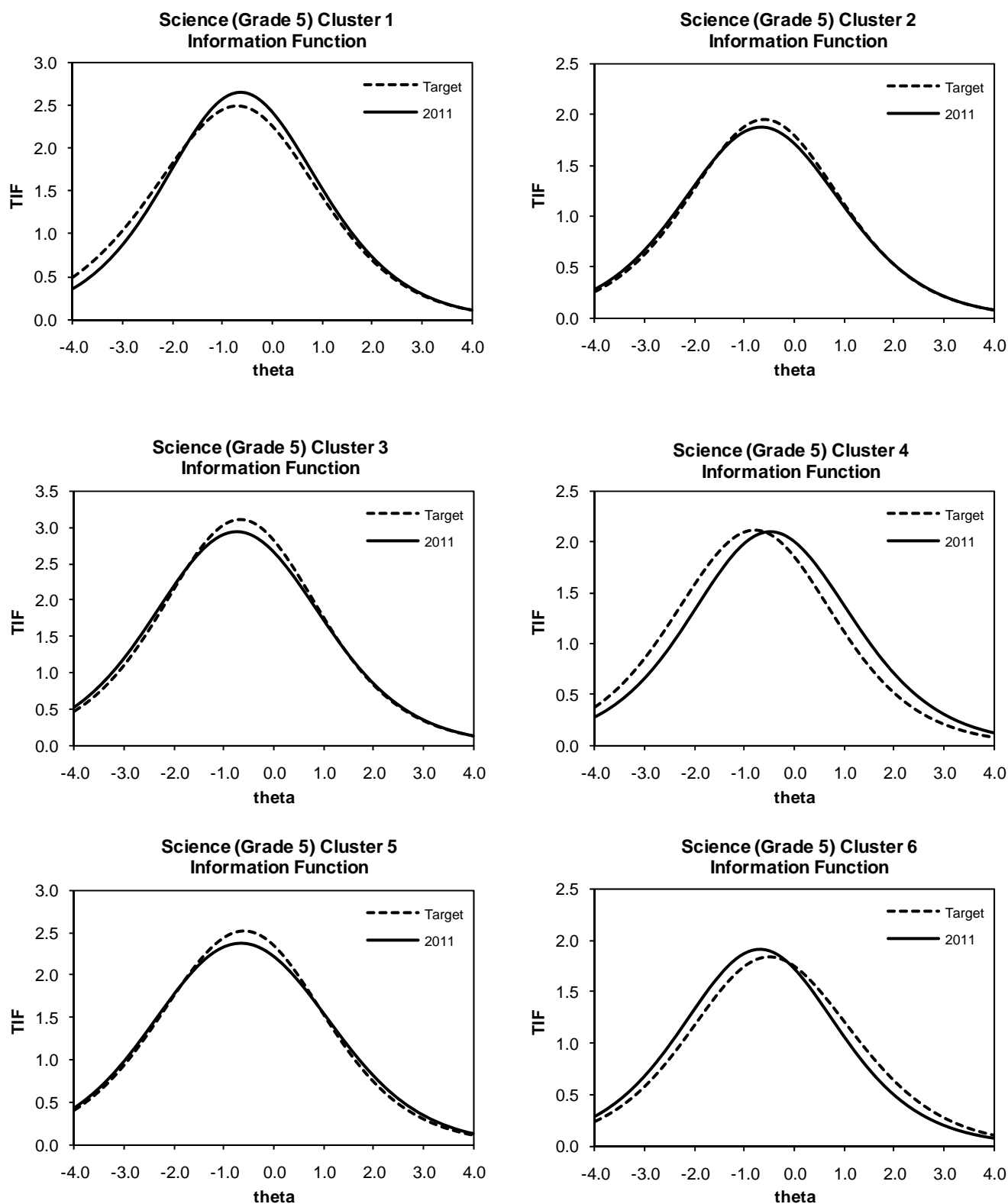
Figure 4.B.25 Plots of Target Information Functions and Projected Information for Clusters for Science, Grade Five

Figure 4.B.26 Plots of Target Information Functions and Projected Information for Clusters for Science, Grade Eight

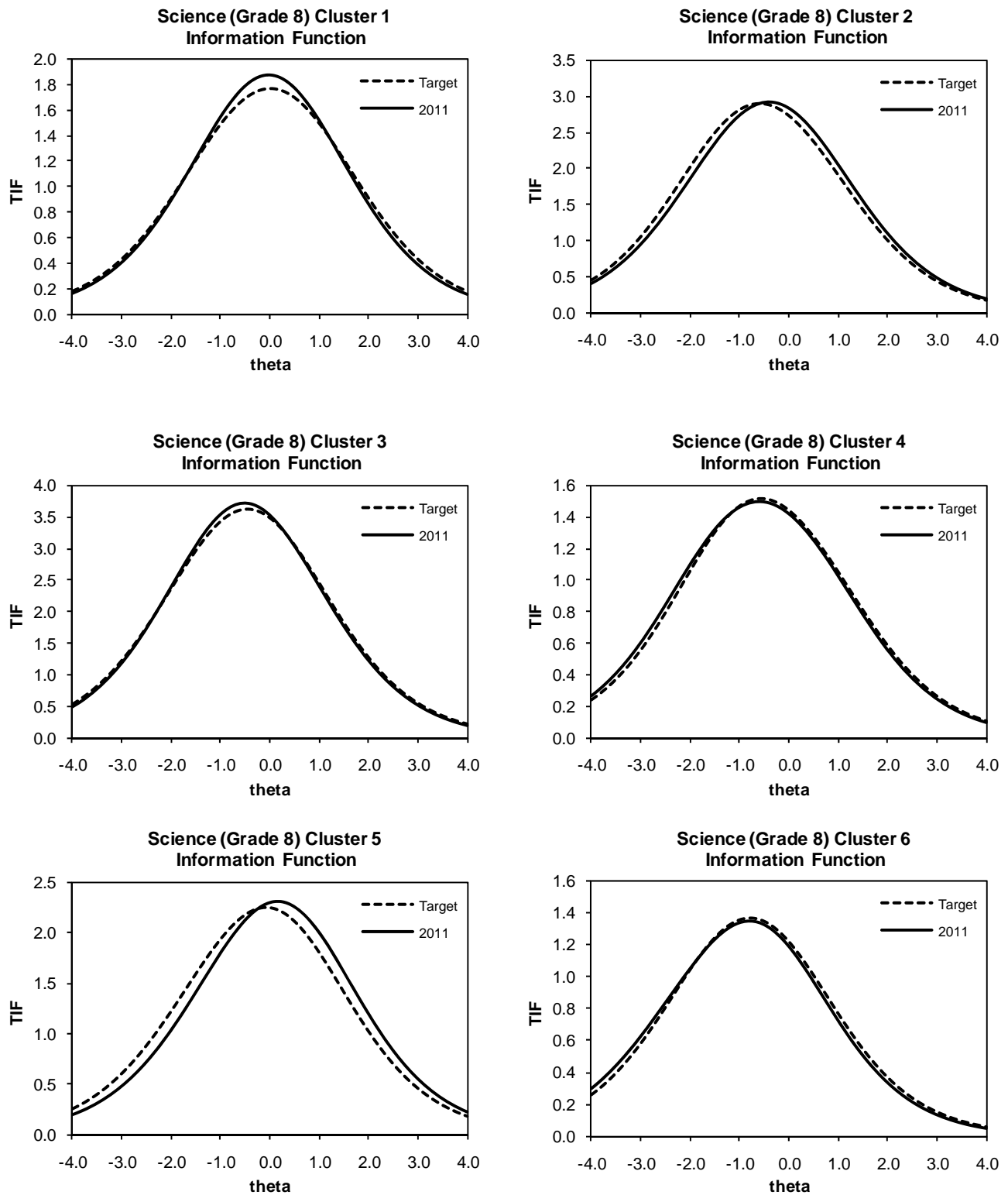


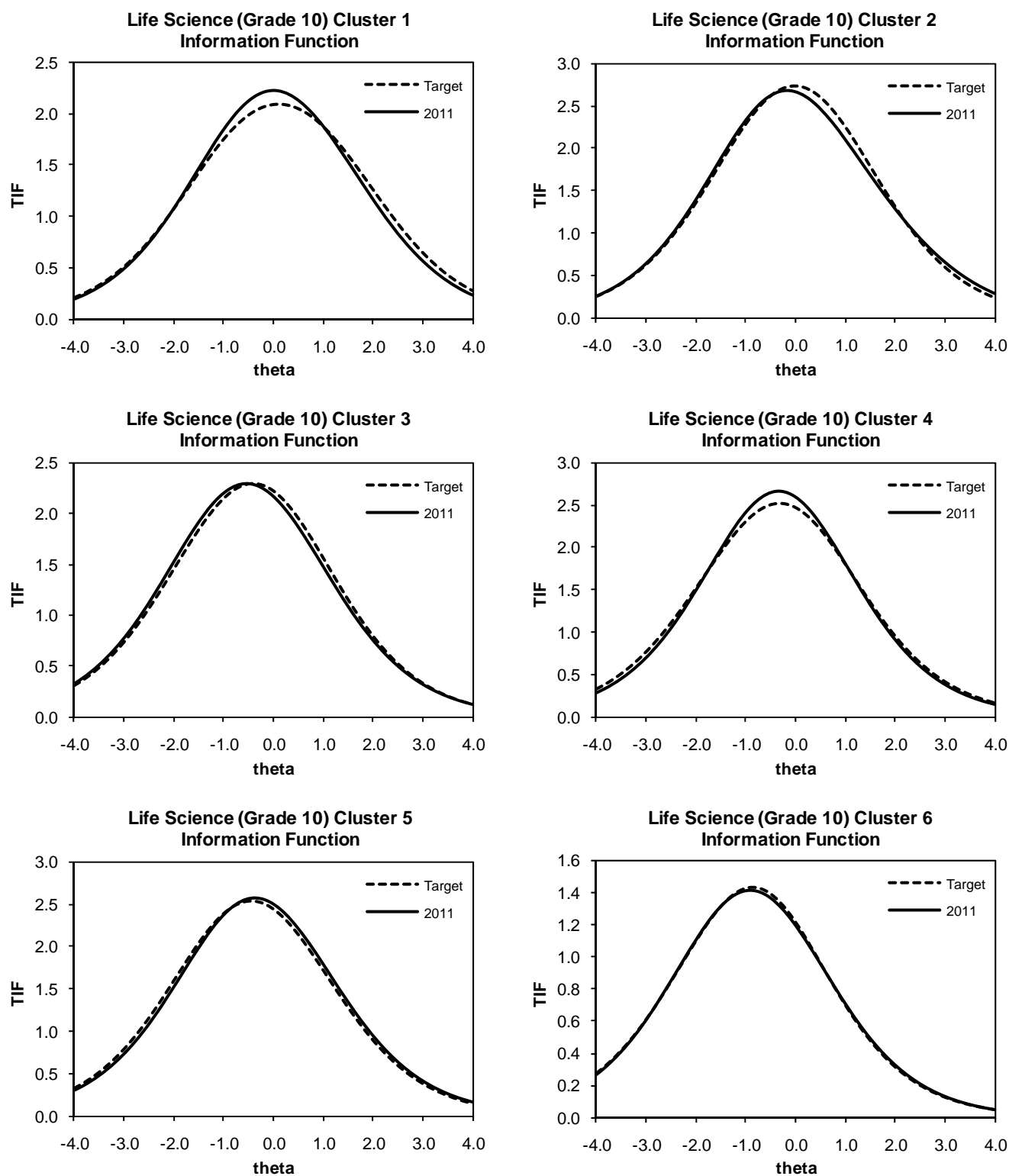
Figure 4.B.27 Plots of Target Information Functions and Projected Information for Clusters for Life Science, Grade Ten

Figure 4.B.28 Plots of Target Information Functions and Projected Information for Clusters for Biology

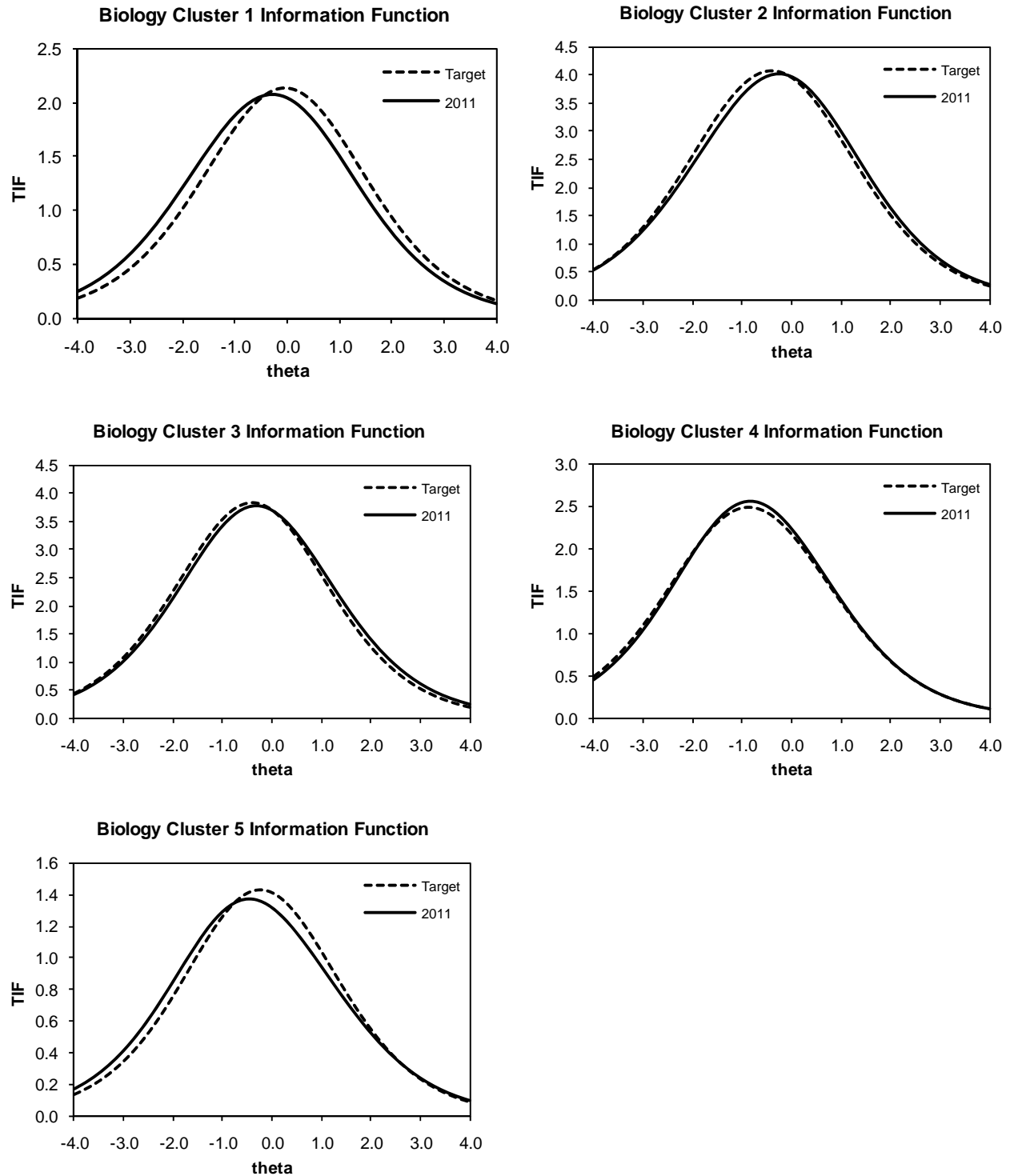


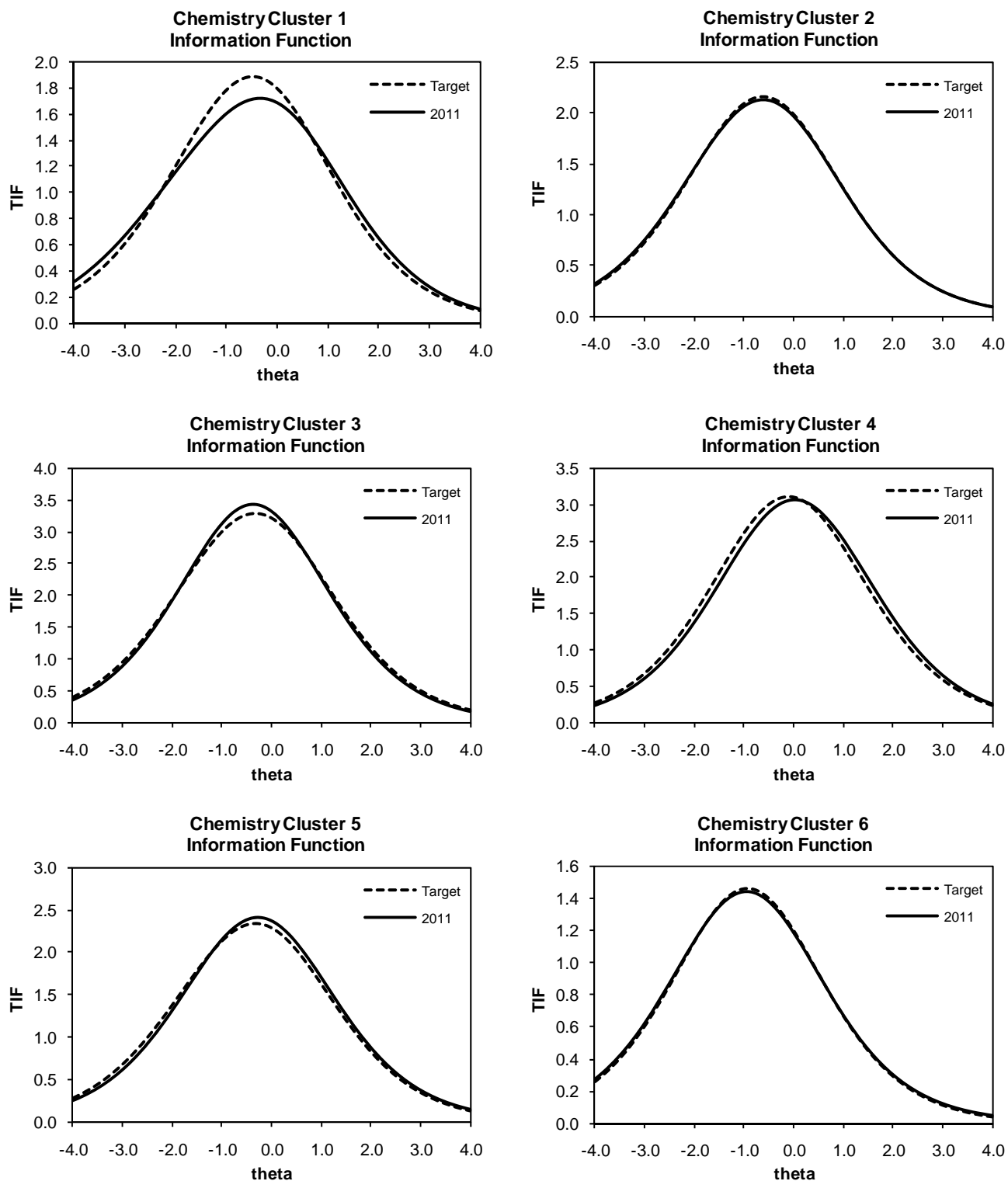
Figure 4.B.29 Plots of Target Information Functions and Projected Information for Clusters for Chemistry

Figure 4.B.30 Plots of Target Information Functions and Projected Information for Clusters for Earth Science

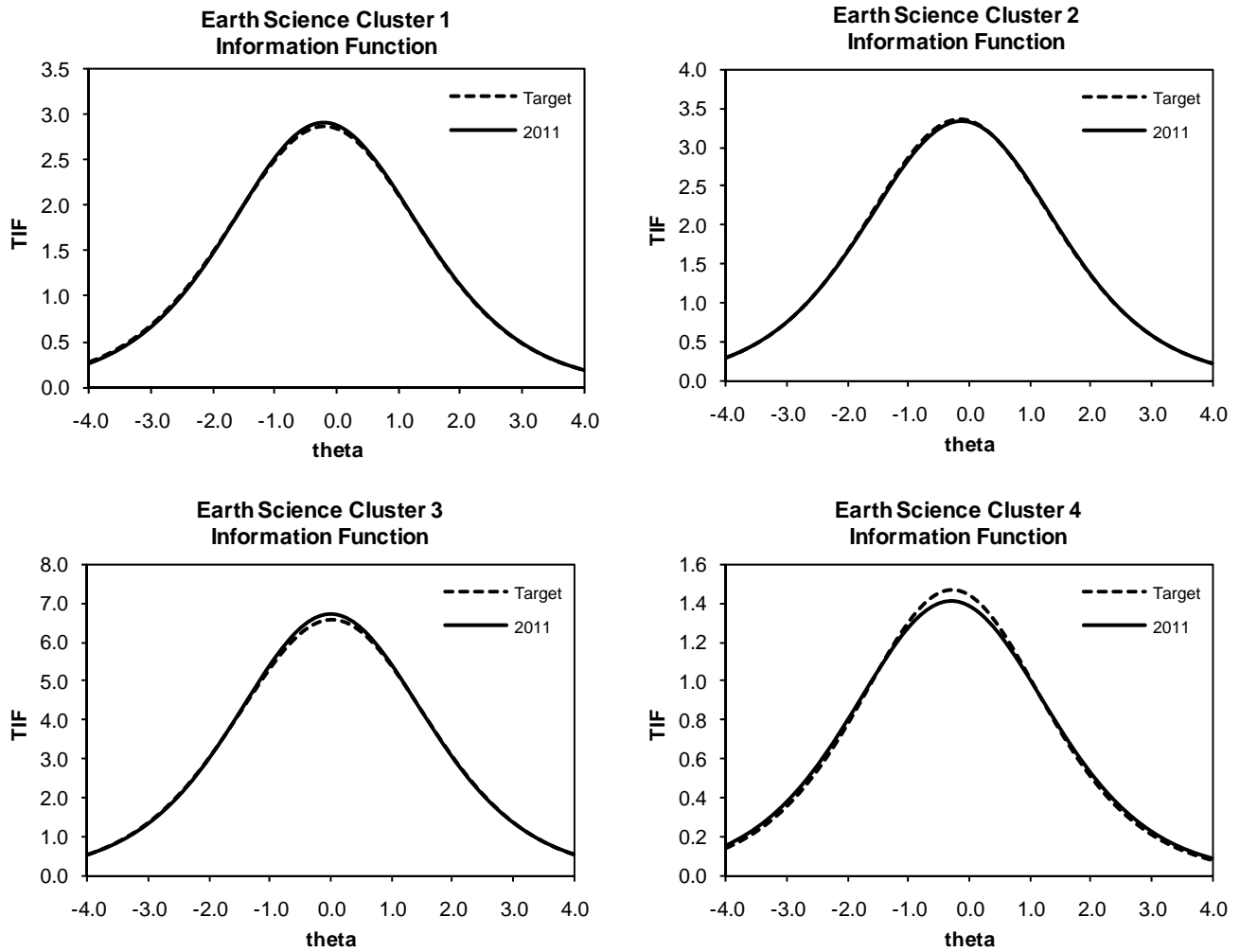
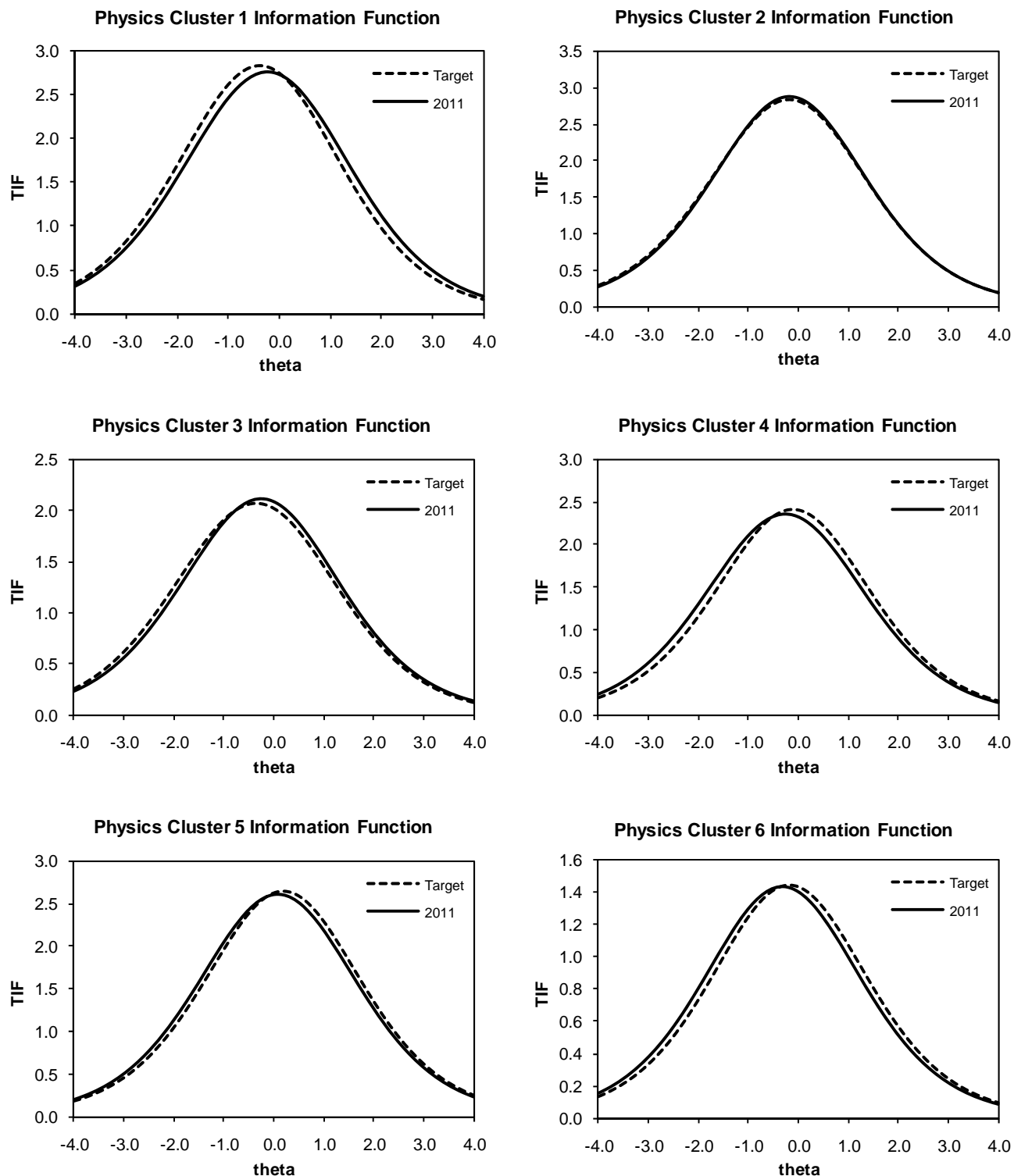


Figure 4.B.31 Plots of Target Information Functions and Projected Information for Clusters for Physics

Chapter 5: Test Administration

Test Security and Confidentiality

All tests within the STAR Program are secure documents. For the CST 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), confidential files, processes, and activities are kept secure. ETS has systems in place that maintain tight security for test questions and test results, as well as for student data. To ensure security for all the tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI), which is described in the next section.

ETS's Office of Testing Integrity

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

The OTI's mission is to

- Minimize any testing security violations that can impact the fairness of testing
- Minimize and investigate any security breach
- Report on security activities

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

Test Development

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

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

Item and Data Review

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

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

Item Banking

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

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

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

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

Transfer of Forms and Items to the CDE

ETS shares a secure file transfer protocol (SFTP) site with the CDE. SFTP is a method for reliable and exclusive routing of files. Files reside on a password-protected server that only authorized users may access. On that site, ETS posts Microsoft Word and Excel, Adobe Acrobat PDF, or other document files for the CDE to review. ETS sends a notification e-mail to the CDE to announce that files are posted. Item data are always transmitted in an encrypted format to the SFTP site; test data are never sent via e-mail. The SFTP server is used as a conduit for the transfer of files; secure test data are not stored permanently on the shared SFTP server.

Security of Electronic Items Using a Firewall

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

All electronic applications included in the STAR Management System (CDE, 2011a) remain protected by the ETS firewall software at all times. Due to the sensitive nature of the student information processed by the STAR Management System, the firewall plays a significant role in maintaining an assurance of confidentiality in the users of this information. (It should be noted that the STAR Management System neither stores nor processes tests or student test results.)

Printing and Publishing

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

Test Administration

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

Test Delivery

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

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

Processing and Scoring

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

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

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

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

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

Data Management

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

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

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

Transfer of Scores via Secure Data Exchange

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

Statistical Analysis

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

Reporting and Posting Results

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

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

Student Confidentiality

To meet ESEA and state requirements, school districts must collect demographic data about students. This includes information about students' ethnicity, parent education, disabilities, whether the student qualifies for the National School Lunch Program (NSLP), and so forth (CDE, 2011b). In addition, students may reveal other information about themselves through the essays they write. ETS takes precautions to prevent any of this information from becoming public or being used for anything other than testing purposes. These procedures are applied to all documents in which these student demographic data may appear, including the following:

- Pre-ID files
- Reports
- Essays

Student Test Results

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

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

represent points of vulnerability, particularly to unauthorized access or denial of service. Routers, switches, firewalls, and gateways may possess little in the way of logical access.

ETS has many facilities and procedures that protect computer files. Facilities, policies, software, and procedures such as firewalls, intrusion detection, and virus control are in place to provide for physical security, data security, and disaster recovery. Comprehensive disaster recovery facilities are available and tested regularly at the SunGard installation in Philadelphia, Pennsylvania. ETS routinely sends backup data cartridges and files for critical software, applications, and documentation to a secure offsite storage facility for safekeeping.

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

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

- Scoring
- Transfer of scores by means of secure data exchange
- Reporting
- Posting of aggregate data
- Storage

In addition to protecting the confidentiality of testing materials, ETS's Code of Ethics further prohibits ETS employees from financial misuse, conflicts of interest, and unauthorized appropriation of ETS's property and resources. Specific rules are also given to ETS employees and their immediate families who may take a test developed by ETS, such as a STAR examination. The ETS Office of Testing Integrity verifies that these standards are followed throughout ETS. It does this, in part, by conducting periodic onsite security audits of departments, with followup reports containing recommendations for improvement.

Procedures to Maintain Standardization

The CST 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 CST tests, as described in this section.

Test Administrators

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

The responsibilities for district and test site staff members are included in the *STAR District and Test Site Coordinator Manual* (CDE, 2011c). This manual is described in the next section.

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

District STAR Coordinator

Each local education agency (LEA) designates a district STAR coordinator who is responsible for ensuring the proper and consistent administration of the STAR tests. LEAs include public school districts, statewide benefit charter schools, state board-authorized charter schools, county of education programs, and charter schools testing independently from their home district.

District STAR coordinators are also responsible for securing testing materials upon receipt, distributing testing materials to schools, tracking the materials, training and answering questions from district staff and test site coordinators, reporting any testing irregularities or security breaches to the CDE, receiving scorable and nonscorable materials from schools after an administration, and returning the materials to the STAR contractor for processing.

Test Examiner

CSTs 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 and has signed a STAR Test Security Affidavit. Test examiners must follow the directions in the *California Standardized Testing and Reporting Directions for Administration (DFA)* (CDE, 2011d) exactly.

Test Proctor

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

Scribe

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

Directions for Administration

CST DFAs are manuals used by test examiners to administer the CSTs to students (CDE, 2011d). Test examiners must follow all directions and guidelines and read, word-for-word, the instructions to students in "SAY" boxes to ensure test standardization. The DFA for the grade two CSTs also includes test questions that the examiner reads aloud to students.

District and Test Site Coordinator Manual

Test administration procedures are to be followed exactly so that all students have an equal opportunity to demonstrate their academic achievement. The *STAR District and Test Site Coordinator Manual* contributes to this goal by providing information about the responsibilities of district and test site coordinators, as well as those of the other staff involved in the administration cycle (CDE, 2011c). However, the manual is not intended as a substitute for the CCR, Title 5, Education (5 CCR) or to detail all of the coordinator's responsibilities.

STAR Management System Manuals

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

- **Test Administration Setup**—This module allows school districts to determine and calculate dates for scheduling test administrations for school districts, to verify contact information for those school districts, and to update the school district's shipping information. (CDE, 2011e)
- **Order Management**—This module allows school districts to enter quantities of testing materials for schools. Its manual includes guidelines for determining which materials to order. (CDE, 2011f)
- **Pre-ID**—This module allows school districts to enter or upload student information including demographics and to identify the test(s) the student will take. This information is printed on student test booklets or answer documents or on labels that can be affixed to test booklets or answer documents. Its manual includes the CDE's Pre-ID layout. (CDE, 2010b)
- **Extended Data Corrections**—This module allows school districts to correct the data that were submitted during Pre-ID prior to the last day of the school district's selected testing window. (CDE, 2011g)

Test Booklets

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

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

Test Variations, Accommodations, and Modifications

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

Identification

Most students with disabilities and most English learners take the CSTs under standard conditions. However, some students with disabilities and some English learners may need assistance when taking the CSTs. This 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 CSTs, test examiners are responsible for marking the accommodation or modification used on the students' test booklets, answer documents, or Writing Response Booklet.

In the event that a student injures a hand or arm prior to the writing test, is willing and able to sit for the examination, but unable to write, the school completes a Section 504 plan for the student. The Section 504 plan identifies which accommodations or modifications the student will use in completion of his or her writing test (CDE, 20101b).

Scoring

The purpose of test variations, accommodations, and modifications is to enable students to take the CSTs, not to give them an advantage over other students or to inflate their scores artificially. Scores for students tested with modifications are counted as far below basic for API calculations and not proficient for AYP calculations. Test administration variations and accommodations do not result in changes to students' scores for API or AYP calculations.

Demographic Data Corrections

After reviewing student data, some school districts may discover demographic data that are incorrect. The Demographic 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) Have the school district's API/AYP recalculated; (2) Rescore uncoded or miscoded CST end-of-course mathematics and/or science tests; (3) Obtain a corrected data CD-ROM for school district records; or (4) Match unmatched records for grades four and seven writing and multiple-choice tests (CDE, 2010h).

Testing Irregularities

Testing irregularities are circumstances that may compromise the reliability and validity of test results and, if more than five percent of the students tested are involved, could affect a school's API and AYP.

The district STAR coordinator is responsible for immediately notifying the CDE of any irregularities that occur before, during, or after testing. The test examiner is responsible for immediately notifying the district STAR coordinator of any security breaches or testing irregularities that occur in the administration of the test. Once the district STAR coordinator and the CDE have determined that an irregularity has occurred, the CDE instructs the district STAR coordinator on how and where to identify the irregularity on the student test booklet or answer document. The information and procedures to assist in identifying irregularities and notifying the CDE are provided in the *STAR District and Test Site Coordinator Manual* (CDE, 2011c).

Test Administration Incidents

A test administration incident is any event that occurs before, during, or after test administrations that does not conform to the instructions stated in the *DFAs* (CDE, 2011d) and the *STAR District and Test Site Coordinator Manual* (CDE, 2011c). These events include test administration errors, disruptions, and student cheating. Test administration incidents generally do not affect test results. These administration incidents are not reported to the CDE or the STAR Program testing contractor. The STAR test site coordinator should immediately notify the district STAR coordinator of any test administration incidents that occur. It is recommended by the CDE that districts and schools maintain records of these incidents.

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Chapter 6: Performance Standards

Background

The CSTs for ELA and mathematics became part of the STAR Program in 1999. Five performance standards for the ELA tests were developed in 2000 and adopted by the SBE for the 2001 administration of those tests.

Also in 2001, the CSTs for history–social science and EOC science were introduced in grades nine through eleven. The performance standards for those tests were established in the same year and were adopted in their first operational administration in 2002. The performance standards for mathematics tests were also established in 2001 and adopted in the 2002 operational administration of those CSTs.

In 2003, performance standards were adopted for the CST for Science (Grade 5) and were reported operationally starting in 2004. In 2005, performance standards were adopted for the science CSTs for grades eight and ten and were reported operationally starting in 2006. The performance standards for the CSTs were defined by the SBE as far below basic, below basic, basic, proficient, and advanced.

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 or below the basic level.

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

Standard Setting Procedure

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

- Familiarity with the subject matter assessed
- Familiarity with students in the respective grade levels
- An understanding of large-scale assessments
- An appreciation of the consequences of setting these cut scores

Also, in the interest of equity, representatives from diverse geographic regions, and from different gender and major racial/ethnic subgroups are requested to participate (ETS, 2004, 2006).

Most standard setting methods include panelists training prior to making judgments or recommendations for cut scores. The standard setting processes implemented for CSTs required panelists to follow the steps listed below:

1. 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 method. Impact data included the percentage of examinees assessed in a previous administration of the test that would fall into each level, given the panelists’ judgments of cut scores.

2. Panelists looked at the content standards upon which the test items are based and discussed the expectations in the content area. This allowed the panelists to understand how their perception of item difficulty may relate to the complexity of content standards.
3. Panelists became familiar with the difficulty level of the items by taking the actual test and then assessed and discussed the demands of the test items.
4. Panelists discussed the meaning of the performance standard descriptions and visualized the knowledge and skills of students who would belong in each performance level.
5. Panelists identified characteristics of a “borderline” examinee. The borderline examinee is defined as a test-taker who possesses just enough knowledge of the content to move over the border separating a performance level from the performance level below.
6. Panelists made individual judgments and discussed feedback related to other panelists’ judgments and feedback based on student performance data (impact data). Panelists could revise their judgments during the process if they wished.
7. The final recommended cut scores were based on the median of panelists’ judgment scores. For the CSTs, the cut scores recommended by the panelists and the State Superintendent of Public Instruction recommendation were presented for public comment at regional public hearings. Comments and recommendations were then presented to the SBE for approval.

Standard Setting Methodologies

Several methodologies exist to collect panelists’ judgments and to translate their results appropriately into cut scores. For the ELA CSTs, the Modified Angoff method was used for standard setting, while the Bookmark method was used to set the performance standards for the history–social science, mathematics, and science CSTs. Both methods represent an appropriate balance between statistical rigor and informed opinion, as explained in the following sections.

Modified Angoff Method

A modified Angoff approach is widely used for recommending cut scores (Brandon, 2004; Hurtz & Auerbach, 2003; Norcini & Shea, 1997). This approach utilizes panelists’ estimates of the percentage of borderline examinees that would answer each item correctly. The percentages are summed across the set of test items for each panelist and then the average is computed across panelists to arrive at the full panel’s recommended cut score.

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.

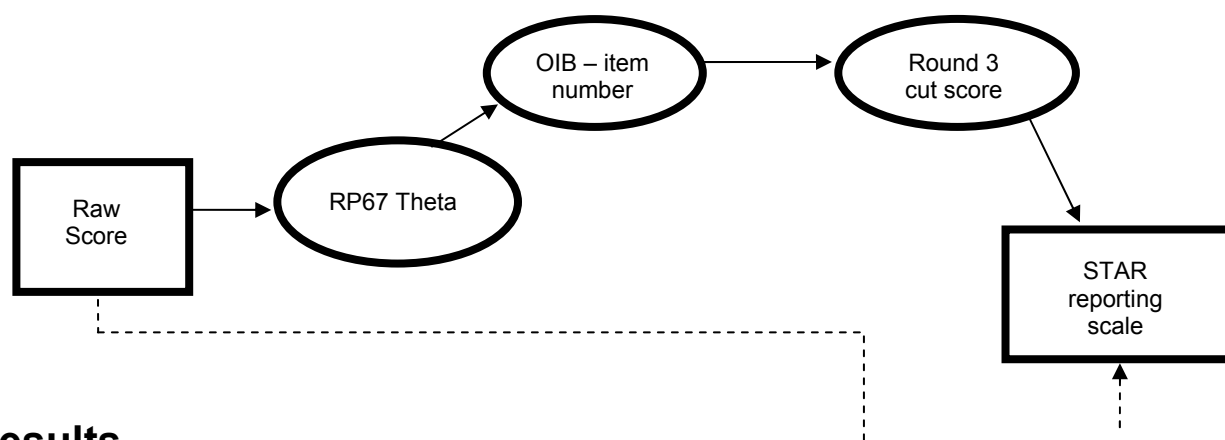
The Bookmark method is an item-mapping procedure in which panelists consider content covered by items in a specially constructed book where items are ordered from easiest to hardest, based on operational performance data from a previous test administration. The “item map,” which accompanies the ordered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

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

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

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

Figure 6.1 Bookmark Standard Setting Process for the CSTs



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 levels are derived using procedures based on IRT and usually vary by grade and subject area. Each raw cut score for a given test is mapped to an IRT *theta* (θ) using the test characteristic function and then transformed to the scale score metric using the following equation:

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

where

θ represents the student ability,

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

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

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

The scale-score ranges for each performance level are presented in Table 2.2 on page 17. The cut score for each performance level is the lower bound of each scale score range. The scale score ranges do not change from year to year. Once established, they remain unchanged from administration to administration until such time that new performance standards are adopted.

Table 7.2 on page 269 in Chapter 7 presents the percentages of examinees meeting each performance level in 2011.

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Chapter 7: Scoring and Reporting

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

Procedures for Maintaining and Retrieving Individual Scores

Items for all CSTs, except for the writing task in grades four and seven, are multiple choice. Students are presented with a question and asked to select the correct answer from among four possible choices. In grades two and three, students mark their answer choices in the test booklet. In the other grades, students mark their answer choices on an answer document. All multiple-choice questions are machine scored. Responses to the writing task are scored by trained raters.

In order to score and report CST 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
- **Form Planner Specifications**—Describes, in detail, the contents of files that contain keys required for scoring
- **Aggregation Rules**—Describes how and when a school's results are aggregated at the school, district, county, and state levels
- **"What If" List**—Provides a variety of anomalous scenarios that may occur when test materials are returned by school districts to Pearson and defines the action(s) to be taken in response
- **Edit Specifications**—Describes edits, defaults, and solutions to errors encountered while data are being captured as answer documents are processed
- **Reporting Cluster Names and Item Numbers**—Identifies the reporting clusters for each test and the number of items in each cluster
- **CST and CMA Matching Criteria**—Describes the criteria necessary to ensure that, for students who take both CST and CMA tests, all results are reported to a single student data record by matching specific demographic fields on test booklets
- **Matching Criteria for Multiple-choice and Writing Answer Documents**—Describes the method used to match students' writing and multiple-choice responses

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

Scanning and Scoring

Answer documents are scanned and scored by Pearson in accordance with the scoring specifications that have been approved by the CDE. Answer documents are designed to produce a single complete record for each student. This record includes demographic data and scanned responses for each student; once computed, the scored responses and the total test scores for a student are also merged into the same record. All scores must comply with the ETS scoring specifications. Pearson has quality control checks in place to ensure the quality and accuracy of scanning and the transfer of scores into the database of student records.

Each school district must return scorable and nonscorable materials within five working days after the selected last day of testing for each test administration period. For the CST for Writing test materials, school districts return the writing booklets within two working days after the test administration's makeup day.

Types of Scores and Subscores

Raw Score

For all of the tests except for ELA in grades four and seven, the total raw score equals the number of multiple-choice test items answered correctly. In grades four and seven, the total ELA raw score equals the sum of examinees' scores on the multiple-choice items and the writing task.

Subscore

The items of each CST are aggregated into groups of reporting clusters. A subscore is a measure of an examinee's performance on the items in each reporting cluster. These results are reported as the percent of items answered correctly. A description of the CST reporting clusters is provided in Appendix 2.B of Chapter 2, starting on page 23.

Scale Score

Raw scores obtained on each CST are transformed to three-digit scale scores using the equating process described in Chapter 2 on page 14. Scale scores range from 150 to 600 on each CST. The scale scores of examinees that have been tested in different years at a given grade level and content area can be compared. However, the raw scores of these examinees cannot be meaningfully compared, because these scores are affected by the relative difficulty of the test taken as well as the ability of the examinee.

Performance Levels

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

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

For all CSTs, 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.

Writing Score

Examinees' responses to the essay associated with the grades four and seven CST for ELA are rated on a 0–4 scale by a single reader. The writing score is obtained by doubling the rating. A score of zero indicates that the student attempted the writing task but either did not provide a response, refused to provide a response, or responded to a writing task from an earlier administration. The rubrics used to assign the nonzero scores to the writing tasks for grades four and seven are presented in Appendix 7.A, which starts on page 276.

It is important to note that the writing score is not related to the performance levels used to show overall student performance on the CST for ELA tests. For example, a writing score of 8 is not related to the advanced performance level, nor does a writing score of 6 relate to the proficient performance level. Students' ELA performance levels are decided in light of their performance on all of the items in the ELA grades four and seven tests; this total may include the writing component.

It should be noted that parents/guardians may choose not to let their child attempt the writing task in grades four or seven. In these cases, the student's ELA score is based on the multiple-choice portion of the test only.

Score Verification Procedures

ETS and Pearson take various necessary measures to ascertain that the scoring keys are applied to the student responses as intended and the student scores are computed accurately.

Scoring Key Verification Process

Scoring keys, provided in the form planners, are produced by ETS and verified by performing multiple quality-control checks. The form planners contain the information about an assembled test form including scoring keys, test name, administration year, subscore identification, and the standards and statistics associated with each item. The quality control checks that are performed before keys are finalized are listed below:

1. Keys in the form planners are checked against their matching test booklets to ensure that the correct keys are listed.
2. The form planners are checked for accuracy against the Form Planner Specification document and the Score Key and Score Conversion document before the keys are loaded into the score key management system (SKM) at ETS.
3. The printed lists of the scoring keys are checked again once the keys have been loaded into the SKM system.
4. The sequences of linking items in the form planners are matched with their sequences in the actual test booklets. Linking items are used to link the scores on current year's test form to scores obtained on the previous years' test forms so as to adjust for the differential difficulty level of the forms across years. This is accomplished during the equating process, as discussed in Chapter 2 on page 14.

5. The demarcations of various sections in the actual test booklets are checked against the list of demarcations provided by ETS test development staff.
6. Scoring is verified internally at Pearson. ETS independently generates scores and verifies Pearson's scoring of the data by comparing the two results. Any discrepancies are then resolved.
7. The entire scoring system is tested using a test deck that includes typical and extremely atypical response vectors.
8. Classical item analyses are computed on an early sample of data to provide an additional check of the keys. Although rare, if an item is found to be problematic, a followup process is carried out for it to be excluded from further analyses.

Monitoring and Quality Control of Writing Scoring

Students who take the CST for ELA in grades four and seven respond to one of two writing tasks each year. One task is administered to the majority of test-takers; the other is administered to students in schools, tracks, or programs not in session during the first administration.

Since 2006, students' responses to the writing task are each read by a single reader; their writing score is based on that reader's rating. In addition, 10 percent of students' responses also are read by a second reader to provide data that can be used to assess the reliability of the writing scores. The score from the second reader does not count toward the student's writing test score. The next sections detail the process employed by Pearson to score the writing tasks.

Scoring System

All student responses are scanned into the Electronic Performance Evaluation Network (ePEN™) system. Scorers view assigned responses on a computer at one of Pearson's regional scoring centers. The screen does *not* display the student's name or background information; the scorer sees only the student response.

Scorer Training

Individuals who are selected to serve as scorers must be college graduates who possess at least a Bachelor of Arts degree. Each prospective scorer is required to participate in extensive computer-based training and is provided with the following kinds of information:

- General information about the ePEN™ system
- Background information about the STAR Program
- Information about the STAR writing tasks
- Explanations of STAR scoring rubrics and scoring principles
- Sets of prescored annotated training papers
 - The training papers include anchor and practice papers.
 - Anchor papers provide samples of student writing that represent each of the four points in the scoring rubric. The samples of student responses are identified at the rangefinding sessions. During these sessions, the content experts at Pearson select sample responses that represent each of the four score points and illustrate the different ways of responding to the topic.
 - Practice papers include samples of student writing that demonstrate the “high” and “low” end of each score point.)

Scorer Qualification

Once the training is complete, the potential scorers complete the Qualification Sets (three sets of scored papers consisting of ten papers per set) before being eligible to score. On at least two of the three sets, scorers must demonstrate exact agreement or adjacent agreement with the scores assigned to seventy percent of the papers on each of these sets.

Scorers continue to qualify throughout the scoring process. Before each operational scoring session, each scorer scores a Calibration Set of three to four papers. The scores on these sets have been previously agreed upon by scoring directors, in conjunction with other personnel. The sets are given to scorers to ensure that the accuracy of their scoring does not drift. These sets are used to calibrate the scorers. The scorers that cannot be calibrated during this process do not qualify for operational scoring.

Scoring Supervisors and Directors

Scoring supervisors monitor and mentor scorers during operational scoring. If a writing response is difficult to score, the scorers elevate the response to the scoring supervisor to be scored. In these cases, the scoring supervisor's score is doubled to produce the final writing score.

Scorers with a history of achieving the highest accuracy on the Qualification Sets and the highest level of scoring consistency and validity statistics during operational scoring are selected as scoring supervisors. Approximately ten scorers are assigned to one scoring supervisor; this ratio allows scoring supervisors to work closely with each scorer. The ePEN™ system also allows scoring supervisors to continuously monitor each response scored and the score point assigned to ensure accuracy. All scoring supervisors participate in a two-day training session that provides the same training that is used to qualify scorers. If a scoring supervisor does not achieve the accuracy required on the Qualification Sets, that individual is not allowed to be a supervisor. In addition, all supervisors received extensive training on how the ePEN™ system works, how to best manage scorers, and how to maintain accuracy as scoring continues.

Scoring directors are responsible for overseeing the scoring and for providing leadership for the scoring supervisors. They also help to manage the scorers and they are ultimately responsible for maintaining the highest accuracy possible during STAR scoring. Scoring directors represent the best of the scoring supervisors. They typically have two to three years' experience as scoring supervisors and strong leadership qualities, as well as a thorough understanding of STAR scoring.

Accuracy Monitoring

The accuracy of all scoring is regularly monitored using several procedures. First, scoring supervisors and scoring directors constantly monitor the degree to which readers are consistent in scores that they assign. This is done using data provided by the second readers employed to score 10 percent of all student responses a second time. The consistency is measured in terms of the percentages of instances in which the first and second readers' scores are identical, adjacent, and nonadjacent; this is a commonly used measure of interrater reliability. If a scorer's rate of agreement begins to decline, the scorer is retrained by a scoring supervisor or scoring director and closely monitored thereafter. If the scorer's performance does not improve, the scorer is released.

Second, the consistency between readers' scores and those of scoring directors or supervisors is evaluated using student responses that are known as validity papers, because they have been previously scored by scoring directors or supervisors. Validity

papers are ones with known psychometric properties that are intended to exemplify certain aspects of student responses and the scores that should be assigned. One in every 40 papers read by each scorer is a validity paper. The consistency of the scorer's ratings with the scores on the validity papers is checked throughout the day to ensure that each scorer has applied the scoring rubrics accurately. The validity papers are introduced throughout the scoring process. If a scorer's performance on the validity papers falls below required levels, the scorer is retrained by a scoring supervisor or scoring director. If a scorer's ratings continue to show poor validity, the scorer is excused.

Third, scoring supervisors "back-read" a certain percentage of the student responses that have been scored by each scorer. The scorer's and supervisor's scores are then compared to check the scorer's reliability and to ensure that the scorer is maintaining scoring standards. In addition, ePEN™ allows scoring directors to view the back-reading completed by scoring supervisors to ensure that scoring supervisors are maintaining accuracy. Scoring directors also back-read to assess scorers' work.

Fourth, to minimize score drift, scorers are required to score a Calibration Set before each scoring session. If a scorer is deficient on any of the accuracy indices, that scorer is immediately retrained or released from the scoring process.

Score Verification Process

ETS psychometricians employ special procedures that adjust for differences in item difficulty of one test form to another. (See Chapter 2, Equating, for details.) As a result of this process, scoring tables are produced. Such tables map the current year's raw score to an appropriate scale score. A series of quality control (QC) checks are carried out by ETS psychometricians to ensure the accuracy of each scoring table, as discussed in Chapter 9 on page 604.

Pearson utilizes the scoring tables to generate scale scores for each student. ETS verifies Pearson's scale scores by conducting QC and reasonableness checks, which are described in Chapter 9 on page 604.

Overview of Score Aggregation Procedures

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

Individual Scores

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

Score Distributions and Summary Statistics

Summary statistics that describe student performance on each CST are presented in Table 7.1, on the next page. Included in the table are the number of items in each test, the number of examinees taking each test, and the means and standard deviations of student scores expressed in terms of both raw scores and scale scores. 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.

The last two rows in the tables present information on the grade-specific end-of-course testing groups. The statistics for grade-specific, end-of-course testing groups are based on

the population of test-takers in a particular grade for which the course is recommended. While the assessments are presented to students at a variety of grade levels, the majority of test-takers belong to that specific grade.

Table 7.1 Mean and Standard Deviation of Raw and Scale Scores for the CSTs

Content Area	CST*	No. of Items	No. of Examinees	Scale Score		Raw Score		Raw Score Percent Correct	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
English–Language Arts	2	65	458,752	360	67	44.65	13.95	68.70	21.46
	3	65	434,795	345	62	44.34	12.21	68.22	18.78
	4	75	429,809	372	60	49.94	15.16	66.59	20.22
	5	75	434,092	362	58	51.78	14.11	69.04	18.82
	6	75	431,155	358	56	48.98	14.06	65.30	18.75
	7	75	435,408	360	61	50.08	13.68	66.77	18.25
	8	75	440,118	362	63	49.34	14.54	65.79	19.38
	9	75	476,121	358	62	47.68	14.62	63.58	19.50
	10	75	465,026	346	58	49.04	14.91	65.38	19.88
	11	75	444,788	342	65	48.17	14.71	64.23	19.62
History–Social Science	8	75	461,566	353	71	47.26	15.02	63.01	20.02
	World History	60	473,651	342	75	37.24	12.53	62.06	20.88
	11	60	446,459	345	73	37.01	12.52	61.68	20.87
Mathematics	2	65	459,483	382	85	49.80	11.58	76.61	17.81
	3	65	437,217	401	91	51.85	11.27	79.77	17.34
	4	65	433,835	392	78	51.56	11.63	79.33	17.89
	5	65	437,504	393	93	45.50	13.09	70.00	20.14
	6	65	432,693	365	78	42.60	13.51	65.54	20.79
	7	65	399,818	355	68	39.88	12.88	61.35	19.81
	General Mathematics	65	199,316	317	58	33.54	12.31	51.59	18.95
	Algebra I	65	736,345	327	73	32.25	12.92	49.62	19.87
	Geometry	65	407,012	320	68	35.65	13.28	54.85	20.43
	Algebra II	65	277,282	328	72	35.75	12.74	55.00	19.59
	Summ. H.S. Mathematics	65	139,940	359	77	47.46	11.93	73.02	18.36
	Integrated Mathematics 1	65	11,943	294	56	27.67	9.88	42.58	15.19
	Integrated Mathematics 2	65	4,483	323	55	29.88	10.81	45.97	16.63
	Integrated Mathematics 3	65	730	320	79	30.65	12.95	47.15	19.92
Science	5	60	435,933	367	70	42.26	11.33	70.44	18.89
	8	60	440,698	386	97	41.40	11.37	68.99	18.95
	10 Life Science	60	458,763	353	68	38.65	12.42	64.42	20.70
	Biology	60	551,808	352	62	37.82	12.53	63.04	20.89
	Chemistry	60	265,079	340	53	36.91	11.47	61.52	19.11
	Earth Science	60	215,259	331	50	34.57	11.99	57.62	19.98
	Physics	60	76,065	354	54	37.98	11.82	63.29	19.70
	Int/Coord Science 1	60	54,656	313	41	30.61	10.57	51.01	17.62
	Int/Coord Science 2	60	4,111	312	44	29.19	10.84	48.65	18.06
	Int/Coord Science 3	60	1,283	309	40	26.83	10.50	44.72	17.51
	Int/Coord Science 4	60	157	289	37	24.40	9.42	40.67	15.69
Grade Specific	Algebra I – 8	65	278,387	352	77	36.79	13.10	56.60	20.15
	Geometry – 9	65	139,998	349	65	41.72	12.18	64.18	18.73
	Algebra II – 10	65	125,288	343	68	38.72	12.05	59.57	18.55
	Summ. H.S. Math – 11	65	116,793	351	75	46.29	12.04	71.21	18.52
	World History – 10	60	426,536	343	73	37.56	12.20	62.61	20.34

* Numbers indicate grade-level tests.

The percentages of students in each performance level are presented in Table 7.2. The last column of the table presents the overall proportion of examinees that were classified at the proficient level or higher.

The numbers in the summary tables may not match exactly the results reported on the CDE's Web site because of slight differences in the samples used to compute the statistics. The P1 data file was used for the analyses in this chapter. This file contained more than 99.5 percent of the entire test-taking population and approximately 99.8 percent of the student records used in the August 15, 2011, reporting of STAR results.

Table 7.2 Percentages of Examinees in Performance Levels for CSTs

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/Advanced**
English–Language Arts	2	8%	12%	23%	29%	27%	56%
	3	8%	16%	29%	29%	18%	46%
	4	3%	9%	23%	27%	37%	65%
	5	6%	10%	25%	29%	31%	60%
	6	4%	11%	29%	28%	27%	55%
	7	6%	11%	26%	33%	24%	58%
	8	7%	11%	26%	27%	30%	57%
	9	7%	11%	26%	27%	28%	55%
	10	8%	14%	30%	27%	21%	48%
	11	12%	14%	28%	24%	21%	45%
History–Social Science	8	13%	12%	24%	23%	27%	51%
	World History	19%	12%	24%	21%	23%	44%
	11	17%	12%	23%	27%	21%	48%
Mathematics	2	4%	13%	17%	30%	36%	66%
	3	2%	11%	19%	27%	41%	68%
	4	2%	10%	17%	26%	45%	71%
	5	4%	13%	20%	29%	34%	63%
	6	5%	17%	25%	29%	24%	53%
	7	5%	17%	28%	32%	18%	49%
	General Mathematics	15%	27%	30%	22%	6%	28%
	Algebra I	14%	30%	24%	22%	10%	33%
	Geometry	12%	31%	27%	22%	9%	30%
	Algebra II	15%	23%	28%	21%	12%	33%
	Summ. H.S. Math	4%	18%	23%	35%	20%	54%
	Integrated Math 1	21%	39%	25%	12%	2%	15%
	Integrated Math 2	9%	26%	36%	24%	5%	29%
	Integrated Math 3	20%	24%	23%	23%	10%	32%
Science	5	7%	11%	25%	33%	25%	58%
	8	9%	10%	18%	21%	42%	64%
	10 Life Science	12%	11%	26%	24%	26%	50%
	Biology	10%	13%	29%	25%	24%	49%
	Chemistry	9%	14%	39%	24%	14%	38%
	Earth Science	15%	13%	36%	23%	12%	35%
	Physics	7%	9%	31%	30%	22%	52%
	Int/Coord Science 1	21%	17%	43%	17%	3%	20%
	Int/Coord Science 2	20%	22%	39%	13%	6%	19%
	Int/Coord Science 3	19%	26%	39%	11%	5%	16%
	Int/Coord Science 4	42%	24%	27%	6%	1%	6%

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/Advanced**
Grade Specific	Algebra I – 8	7%	22%	24%	30%	17%	47%
	Geometry – 9	4%	18%	29%	35%	14%	48%
	Algebra II – 10	9%	19%	30%	28%	15%	42%
	Summ. H. S. Math – 11	5%	21%	24%	33%	17%	50%
	World History – 10	18%	12%	25%	22%	23%	45%

* Numbers indicate grade-level tests.

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

Table 7.B.1 through Table 7.B.5 in Appendix 7.B, starting on page 282, show the distributions of scale scores for each CST. The results are reported in terms of 15 score intervals, each of which contains 30 scale score points. A cell value of “N/A” indicates that there are no obtainable scale scores within that scale score range for the particular CST. Table 7.B.6 presents analogous information for the five grade-specific testing groups.

Group Scores

Statistics summarizing student performance by content area and grade for selected groups of students are provided starting on page 286 in Table 7.C.1 through Table 7.C.38 for the CSTs. When a test is administered at more than one grade level, the results are reported for the test as a whole and also by grade.

In the tables, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, need for special education services, and economic status. The tables show, for each demographic group, the numbers of valid cases, scale score means and standard deviations, the percentages of students in each performance level, as well as the mean percentage correct in each reporting cluster.

Table 7.3 provides definitions of the demographic groups included in the tables. Students' economic status was determined by considering the education level of their parents and whether or not they participated in the National School Lunch Program (NSLP). To protect privacy when the number of students in a subgroup is 10 or fewer, the summary statistics at the test and reporting cluster level are not reported and are presented as a hyphen.

Table 7.3 Subgroup Definitions

Subgroup	Definition
Gender	<ul style="list-style-type: none"> • Male • Female
Ethnicity	<ul style="list-style-type: none"> • American Indian or Alaska Native • Asian <ul style="list-style-type: none"> – Asian Indian – Cambodian – Chinese – Hmong – Japanese – Korean – Laotian – Vietnamese – Other Asian • Pacific Islander <ul style="list-style-type: none"> – Guamanian – Native Hawaiian

Subgroup	Definition
	<ul style="list-style-type: none"> – Samoan – Tahitian – Other Pacific Islander • Filipino • Hispanic or Latino • African American • White (not Hispanic)
English-language Fluency	<ul style="list-style-type: none"> • English only • Initially fluent English proficient • English learner • Reclassified fluent English proficient
Economic Status	<ul style="list-style-type: none"> • Not economically disadvantaged • Economically disadvantaged
Special Services	<ul style="list-style-type: none"> • No special services • Special services

In addition to the subgroups presented in Table 7.3, the demographic tables also include grade-level data for the end-of-course mathematics CSTs. The grades included for the end-of-course tests are as follows:

Grades	Test
8, 9	General Mathematics
7, 8, 9, 10, 11	Algebra I
8, 9, 10, 11	Geometry, Algebra II, Integrated Mathematics 1, 2, and 3
9, 10, 11	World History, Summative High School Mathematics, EOC science CSTs

Reports Produced and Scores for Each Report

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

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

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

Types of Score Reports

There are three categories of STAR reports. These categories and the specific reports in each category are given in Table 7.4.

Table 7.4 Types of CST 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 (including the Ethnicity for Economic Status)
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2. Individual Reports	<ul style="list-style-type: none"> ▪ STAR Student Record Label ▪ STAR Student Master List ▪ STAR Student Report for CSTs
3. Internet Reports	<ul style="list-style-type: none"> ▪ CST Scores (state, county, district, school) ▪ CST Summary Scores (state, county, district, school)

These reports are sent to the independently testing charter schools, counties, or school districts; the school district forwards the appropriate reports to test sites or, in the case of the STAR Student Report, sends the report(s) to the child's parent or guardian and forwards a copy to the student's school or test site. Reports such as the STAR Student Report, Student Record Label, and Student Master List that include individual student results are not distributed beyond the student's school. Internet reports are described on the CDE Web site and are accessible to the public online at <http://star.cde.ca.gov/>.

Score Report Contents

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

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

Students in grades four and seven also receive a numerical score (from 0–8) for the CST writing task. The score for the writing tests is incorporated into the overall grades four and seven ELA test scores (for which a performance level and scale score are available).

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

Further information about the STAR Student Report and the other reports is provided in Appendix 7.D on page 362.

Score Report Applications

CST results provide parents and guardians with information about their children's progress. The results are a tool for increasing communication and collaboration between parents or guardians and teachers. Along with report cards from teachers and information from school and classroom tests, the STAR Student Report can be used by parents and guardians while

talking with teachers about ways to improve their children's achievement of the California content standards.

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

CST results help school districts and schools identify strengths and weaknesses in their instructional programs. Each year, school districts and school staffs examine CST results at each grade and content area tested. Their findings are used to help determine:

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

The results from the CSTs are used for state and federal accountability programs to monitor each school's and district's progress toward achieving established goals. As mentioned previously, CST results are used to calculate each school's and district's API. The API is a major component of California's Public School Accountability Act (PSAA) and is used to rank the academic performance of schools, compare schools with similar characteristics (for example, size and ethnic makeup), identify low-performing and high-priority schools, and set yearly targets for academic growth.

CST results also are used to comply with federal ESEA legislation that requires all schools to meet specific academic goals. The progress of each school toward achieving these goals is provided annually in an Adequate Yearly Progress (AYP) report. Each year, California schools and districts must meet AYP goals by showing that a specified percentage of CST test-takers at the district and school level are performing at or above the proficient level on the CSTs in English–language arts and mathematics. At the high school level, the CAHSEE results for grade ten students are used in place of the CSTs to make this determination.

Criteria for Interpreting Test Scores

A school district may use CST 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 CST results (CDE, 2011a). It is also important to note that a student's score in a content area contains measurement error and could vary somewhat if the student were retested.

Criteria for Interpreting Score Reports

The information presented in various reports must be interpreted with caution when making performance comparisons. When comparing scale score and performance-level results for the CSTs, the user is limited to comparisons within the same content area and grade. This is because the score scales are different for each content area and grade. The user may compare scale scores for the same content area and grade, within a school, between schools, or between a school and its district, its county, or the state. The user can also make comparisons within the same grade and content area across years. Comparing scores obtained in different grades or content areas should be avoided because the results

are not on the same scale. Comparisons between raw scores or cluster scores should be limited to comparisons within not only content area and grade but also test year. For more details on the criteria for interpreting information provided on the score reports, see the *2011 STAR Post-Test Guide* (CDE, 2011b).

References

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- Educational Testing Service. (2002). *ETS standards for quality and fairness*. Princeton, NJ: Author.
- Lu, Y. & Smith, R. L. (2009, April). *An alternative method to estimate cluster performance of proficient students on a large scale state assessment*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Diego, CA.

Appendix 7.A—ELA for Writing (Grades Four and Seven) Rubrics

Grade Four Scoring Rubric

The scoring rubric shown below is used to assign scores to students' written responses on the grade four writing tests. This rubric includes two sets of criteria. The criteria under "The Writing" are adapted from the state English–language arts content standards for Writing Strategies and Written Conventions of English. These criteria are used to evaluate on-demand, first-draft written responses in all genres. Student responses are evaluated on their clarity of purpose, central idea, and organization and for their use of supporting evidence, sentence variety, and written conventions. The criteria under "Narrative writing," "Summary writing," and "Response to literature writing," adapted from the grade four Writing Applications content standards for these genres, are used to evaluate student writing in the specific genres to which they apply.

Score: 4

The Writing:

- *Clearly* addresses the writing task
- Demonstrates a *clear* understanding of purpose
- Maintains a *consistent* point of view, focus, and organizational structure, including paragraphing when appropriate
- Includes a *clearly presented* central idea with *relevant* facts, details, and/or explanations
- Includes sentence *variety*
- Contains *some errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors do **not** interfere with the reader's understanding of the writing.

Narrative writing:

- Provides a *thoroughly developed* sequence of *significant* events to relate ideas, observations, and/or memories
- Includes *vivid* descriptive language and sensory details that enable the reader to imagine the events or experiences

Summary writing:

- Summarizes text with *clear* identification of the main idea(s) and the most significant details, in the student's own words

Response to literature writing:

- Demonstrates a *clear* understanding of the literary work
- Provides *effective* support for judgments through *specific* references to text and/or prior knowledge

Score: 3

The Writing:

- Addresses *most* of the writing task
- Demonstrates a *general* understanding of purpose
- Maintains a *mostly consistent* point of view, focus, and organizational structure, including paragraphing when appropriate
- Presents a central idea with *mostly* relevant facts, details, and/or explanations

- Includes some sentence *variety*
- Contains *errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors do **not** interfere with the reader's understanding of the writing.

Narrative writing:

- Provides an *adequately developed* sequence of significant events to relate ideas, observations, and/or memories
- Includes *some* descriptive language and sensory details that enable the reader to imagine the events or experiences

Summary writing:

- Summarizes text with the main idea(s) and important details, generally in the student's own words

Response to literature writing:

- Demonstrates an understanding of the literary work
- Provides *some* support for judgments through references to text and/or prior knowledge

Score: 2**The Writing:**

- Addresses *some* of the writing task
- Demonstrates *little* understanding of purpose
- Maintains an *inconsistent* point of view, focus, and/or organizational structure; may lack appropriate paragraphing
- *Suggests* a central idea with *limited* facts, details, and/or explanations
- Includes *little* sentence variety
- Contains *many errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors **may** interfere with the reader's understanding of the writing.

Narrative writing:

- Provides a *minimally developed* sequence of events to relate ideas, observations, and/or memories
- Includes *limited* descriptive language and sensory details that enable the reader to imagine the events or experiences

Summary writing:

- Summarizes text with some of the main idea(s) and details, minimal use of the student's own words

Response to literature writing:

- Demonstrates a *limited* understanding of the literary work
- Provides *weak* support for judgments

Score: 1**The Writing:**

- Addresses *only one part*, if any, of the writing task
- Demonstrates *no* understanding of purpose
- *Lacks* a clear point of view, focus, and/or organizational structure; may contain inappropriate paragraphing

- *Lacks* a central idea but may contain *marginally related* facts, details, and/or explanations
- Includes *no* sentence variety
- Contains *serious errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors interfere with the reader's understanding of the writing.

Narrative writing:

- *Lacks* a sequence of events to relate ideas, observations, and/or memories
- *Lacks* descriptive language and sensory details that enable the reader to imagine the events or experiences

Summary writing:

- Summarizes text with few, if any, main idea(s) and/or details, little or no use of the student's own words

Response to literature writing:

- Demonstrates *little or no* understanding of the literary work
- *Fails* to provide support for judgments

Grade Seven Scoring Rubric

The scoring rubric that follows is used to assign scores to students' written responses on the grade seven writing tests. This rubric includes two sets of criteria. The criteria under "The Writing" are adapted from the state English–language arts content standards for Writing Strategies and Written Conventions of English. These criteria are used to evaluate on-demand, first-draft written responses in all genres. Student responses are evaluated on their clarity of purpose, central idea, and organization; their coherence; and their use of supporting evidence, sentence variety, and written conventions. The criteria under "Fictional or autobiographical narrative writing," "Response to literature writing," "Persuasive writing," and "Summary writing," adapted from the grade seven content standards for Writing Applications for these genres, are used to evaluate student writing in the specific genres to which they apply.

Score: 4

The Writing:

- Clearly addresses the writing task
- Demonstrates a *clear* understanding of purpose and audience
- Maintains a *consistent* point of view, focus, and organizational structure, including the *effective* use of transitions
- Includes a *clearly presented* central idea with *relevant* facts, details, and/or explanations
- Includes sentence *variety*
- Contains *some errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors do **not** interfere with the reader's understanding of the writing.

Fictional or autobiographical narrative writing:

- Provides a *thoroughly developed* plot line, including major and minor characters and a *definite* setting
- Includes *appropriate* strategies (e.g., dialogue; suspense; narrative action)

Response to literature writing:

- Develops interpretations that demonstrate a *thoughtful*, comprehensive grasp of the text
- Organizes *accurate and coherent* interpretations around *clear* ideas, premises, or images from the literary work
- Provides *specific* textual examples and details to support the interpretations

Persuasive writing:

- *Authoritatively* defends a clear position with precise and relevant evidence and *convincingly* addresses the reader's concerns, biases, and expectations

Summary writing:

- Summarizes text with clear identification of the main idea(s) and most significant details, in the student's own words, and clearly reflects underlying meaning

Score: 3

The Writing:

- Addresses most of the writing task
- Demonstrates a *general* understanding of purpose and audience
- Maintains a *mostly consistent* point of view, focus, and organizational structure, including use of isolated and/or single word transitions
- Presents a central idea with *mostly relevant* facts, details, and/or explanations
- Includes some sentence *variety*
- Contains *errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors do **not** interfere with the reader's understanding of the writing.

Fictional or autobiographical narrative writing:

- Provides an *adequately developed* plot line, including major and minor characters and a *definite* setting
- Includes *appropriate* strategies (e.g., dialogue; suspense; narrative action)

Response to literature writing:

- Develops interpretations that demonstrate a comprehensive grasp of the text
- Organizes accurate and *reasonably* coherent interpretations around *clear* ideas, premises, or images from the literary work
- Provides textual examples and details to support the interpretations

Persuasive writing:

- *Generally* defends a position with relevant evidence and addresses the reader's concerns, biases, and expectations

Summary writing:

- Summarizes text with the main idea(s) and *important* details, *mostly* in the student's own words, and generally reflects underlying meaning

Score: 2

The Writing:

- Addresses *some* of the writing task
- Demonstrates *little* understanding of purpose and audience
- Maintains an *inconsistent* point of view, focus, and/or organizational structure, which may include *ineffective or awkward* transitions that do not unify important ideas
- *Suggests* a central idea with *limited* facts, details, and/or explanations
- Includes *little* sentence variety
- Contains *many errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors **may** interfere with the reader's understanding of the writing.

Fictional or autobiographical narrative writing:

- Provides a *minimally developed* plot line, including characters and a setting
- *Attempts* to use strategies but with *minimal* effectiveness (e.g., dialogue; suspense; narrative action)

Response to literature writing:

- Develops interpretations that demonstrate a *limited* grasp of the text
- Includes interpretations that *lack* accuracy or coherence as related to ideas, premises, or images from the literary work
- Provides *few, if any*, textual examples and details to support the interpretations

Persuasive writing:

- Defends a position with *little, if any*, evidence and *may* address the reader's concerns, biases, and expectations

Summary writing:

- Summarizes text with *some* of the main idea(s) and details, which may be superficial, minimal use of the student's own words, and minimal reflection of underlying meaning

Score: 1**The Writing:**

- Addresses *only one part*, if any, of the writing task
- Demonstrates *no* understanding of purpose and audience
- *Lacks* a point of view, focus, organizational structure, and transitions that unify important ideas
- *Lacks* a central idea but may contain *marginally related* facts, details, and/or explanations
- Includes *no* sentence variety
- Contains *serious errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors interfere with the reader's understanding of the writing.

Fictional or autobiographical narrative writing:

- *Lacks* a developed plot line
- *Fails* to use strategies (e.g., dialogue; suspense; narrative action)

Response to literature writing:

- Demonstrates *little* grasp of the text
- *Lacks* an interpretation or may be a simple retelling of the passage
- *Lacks* textual examples and details

Persuasive writing:

- *Fails* to defend a position with *any* evidence and *fails* to address the reader's concerns, biases, and expectations

Summary writing:

- Summarizes text with *few, if any*, of the main ideas and/or details, little or no use of the student's own words, little or no reflection of underlying meaning

Appendix 7.B—Scale Score Distributions

Table 7.B.1 Distribution of CST Scale Scores for ELA

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
570 – 600	2,588	1,010	1,551	449	249	436	1,143	907	238	664
540 – 569	N/A	N/A	2,274	1,552	932	1,307	N/A	N/A	898	N/A
510 – 539	6,274	3,041	3,656	N/A	2,048	2,489	2,062	4,523	N/A	1,486
480 – 509	9,623	5,492	11,127	8,812	3,291	8,538	9,061	4,263	2,188	6,913
450 – 479	26,360	7,588	24,892	17,282	18,223	13,043	25,192	20,112	9,445	12,380
420 – 449	31,465	33,198	41,786	36,322	37,201	45,827	46,329	41,146	36,884	26,949
390 – 419	79,364	54,643	75,770	81,315	67,465	67,278	61,023	75,115	62,488	57,424
360 – 389	79,848	69,925	85,180	82,834	78,581	79,534	76,627	84,237	87,993	73,254
330 – 359	68,355	86,401	71,797	80,316	85,751	79,588	80,529	88,585	84,644	75,330
300 – 329	60,788	67,985	57,429	56,691	71,569	64,270	61,838	68,507	77,466	73,264
270 – 299	46,585	55,285	37,377	43,913	43,975	41,081	42,078	48,426	49,163	46,939
240 – 269	36,034	32,005	15,788	20,968	19,882	23,838	28,239	31,796	40,781	41,220
210 – 239	11,042	15,218	1,146	3,488	1,870	7,521	5,682	8,031	11,854	25,266
180 – 209	412	2,861	27	135	94	634	280	413	924	3,417
150 – 179	14	143	9	15	24	24	35	60	60	282

Table 7.B.2 Distribution of CST Scale Scores for History–Social Science

Scale Score	Grade 8	World History	Grade 11
570 – 600	2,606	4,490	1,909
540 – 569	3,021	N/A	N/A
510 – 539	4,251	5,063	2,949
480 – 509	11,592	6,918	11,136
450 – 479	23,308	18,478	17,441
420 – 449	28,094	34,618	35,109
390 – 419	64,721	50,921	54,441
360 – 389	66,051	63,949	67,700
330 – 359	78,737	73,094	69,824
300 – 329	64,534	67,310	56,048
270 – 299	54,520	66,599	52,651
240 – 269	40,478	48,147	37,522
210 – 239	17,656	26,702	31,855
180 – 209	1,831	5,873	7,305
150 – 179	166	1,489	569

Table 7.B.3 Distribution of CST Scale Scores for Mathematics, Grades Two through Seven

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
570 – 600	6,174	20,680	13,182	18,455	3,877	3,729
540 – 569	12,909	25,838	N/A	13,101	6,648	N/A
510 – 539	17,656	N/A	21,387	27,236	8,358	3,355
480 – 509	20,532	26,266	25,145	27,225	19,557	9,769
450 – 479	44,114	47,207	25,579	26,388	21,013	20,107
420 – 449	43,332	58,650	70,100	49,173	43,008	33,047
390 – 419	75,135	47,145	56,874	45,318	43,305	47,508
360 – 389	58,206	61,515	78,612	60,620	63,374	60,095
330 – 359	55,131	46,669	48,970	44,497	68,637	69,130
300 – 329	46,744	46,901	42,084	54,068	60,202	63,788
270 – 299	36,659	29,919	30,779	37,296	49,336	52,578
240 – 269	21,084	16,649	14,871	21,966	34,601	29,159
210 – 239	13,832	7,309	5,884	10,153	9,557	7,065
180 – 209	6,397	2,147	332	1,824	1,174	450
150 – 179	1,578	322	36	184	46	38

Table 7.B.4 Distribution of Scale Scores for Mathematics End-of-Course CSTs

Scale Score	General Math	Algebra I	Geometry	Algebra II	Summative H.S. Math	Integrated Math 1	Integrated Math 2	Integrated Math 3
570 – 600	146	6,302	831	1,890	1,348	26	7	4
540 – 569	N/A	3,574	1,640	1,497	2,616	13	2	2
510 – 539	197	8,749	2,457	1,809	N/A	22	18	7
480 – 509	1,046	11,352	3,086	4,613	3,684	42	23	13
450 – 479	1,879	20,787	12,026	8,609	9,468	61	71	23
420 – 449	6,811	33,827	15,683	10,722	10,404	168	119	32
390 – 419	10,717	51,895	25,595	22,705	16,060	385	243	63
360 – 389	26,823	74,868	45,772	28,328	23,886	642	464	65
330 – 359	28,334	91,218	51,529	39,707	23,101	1,335	847	89
300 – 329	40,951	111,766	74,242	51,036	17,468	2,043	1,119	108
270 – 299	36,849	143,713	71,721	43,676	14,641	2,969	881	97
240 – 269	30,857	135,897	64,403	40,072	9,972	2,708	548	125
210 – 239	13,060	36,131	34,572	18,940	5,715	1,215	128	80
180 – 209	1,568	5,547	3,252	3,420	1,386	294	13	17
150 – 179	78	719	203	258	191	20	0	5

Table 7.B.5 Distribution of CST Scale Scores for Science

Scale Score	Grade 5 Science	Grade 8 Science	Grade 10 Life Science	Biology	Chemistry	Earth Science	Physics
570 – 600	3,049	16,914	1,249	2,397	715	70	157
540 – 569	7,024	10,454	3,287	N/A	N/A	N/A	N/A
510 – 539	N/A	24,832	5,458	5,161	1,581	285	403
480 – 509	10,307	28,406	7,609	7,416	2,464	684	691
450 – 479	27,043	29,735	20,664	19,932	3,005	1,249	2,084
420 – 449	46,483	45,829	39,355	38,571	12,177	7,338	4,945
390 – 419	62,327	58,615	57,538	59,472	22,156	16,766	10,620
360 – 389	70,666	53,185	69,077	108,487	42,194	32,361	14,163
330 – 359	70,443	45,460	81,836	96,508	62,188	46,260	18,610
300 – 329	62,001	45,496	64,723	90,505	56,289	48,056	12,051
270 – 299	42,853	27,297	51,693	78,247	42,516	38,051	8,940
240 – 269	26,446	25,344	38,070	38,381	17,971	20,321	3,146
210 – 239	6,577	15,006	16,076	6,496	1,767	3,681	246
180 – 209	675	10,163	1,927	204	51	119	6
150 – 179	39	3,962	201	31	5	18	3

Scale Score	Integrated Science 1	Integrated Science 2	Integrated Science 3	Integrated Science 4
570 – 600	8	0	0	0
540 – 569	N/A	N/A	N/A	N/A
510 – 539	13	2	0	0
480 – 509	N/A	8	1	N/A
450 – 479	84	12	1	0
420 – 449	324	60	11	1
390 – 419	1,323	173	53	0
360 – 389	5,082	315	76	4
330 – 359	12,092	640	208	19
300 – 329	15,267	1,152	349	29
270 – 299	12,051	1,180	383	49
240 – 269	6,903	514	193	49
210 – 239	1,442	53	8	6
180 – 209	63	1	0	0
150 – 179	4	1	0	0

Table 7.B.6 Distribution of CST Scale Scores for a Grade-specific Population

Scale Score	Algebra I – Grade 8	Geometry – Grade 9	Algebra II – Grade 10	High School Math – Grade 11	World History – Grade 10
570 – 600	3,549	248	650	811	3,793
540 – 569	2,151	582	621	1,716	N/A
510 – 539	5,424	1,080	842	N/A	4,405
480 – 509	7,139	1,484	2,305	2,528	6,000
450 – 479	12,874	6,532	4,959	6,692	16,396
420 – 449	20,121	9,393	6,490	7,581	31,267
390 – 419	28,906	15,297	13,840	12,266	46,661
360 – 389	37,163	25,250	16,473	19,362	59,222
330 – 359	39,217	23,276	21,316	19,974	68,094
300 – 329	40,547	25,376	23,538	15,811	62,431
270 – 299	42,026	16,591	16,554	13,636	60,291
240 – 269	31,649	10,220	12,049	9,486	41,278
210 – 239	6,689	4,273	4,829	5,448	21,631
180 – 209	834	372	754	1,306	4,594
150 – 179	98	24	68	176	473

Appendix 7.C—Demographic Summaries

Table 7.C.1 Demographic Summary for ELA, Grade Two

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	458,752	360	67	8%	12%	23%	29%	27%	71%	67%	76%	69%	60%
Male	234,049	354	67	10%	14%	24%	28%	25%	69%	66%	75%	66%	58%
Female	224,518	366	66	6%	11%	23%	30%	30%	72%	69%	78%	71%	63%
Gender unknown	185	332	65	17%	18%	25%	26%	14%	62%	58%	69%	58%	51%
American Indian	2,847	345	65	11%	16%	26%	26%	20%	65%	64%	73%	63%	56%
Asian American	39,513	401	70	3%	5%	13%	27%	52%	82%	79%	85%	82%	73%
Pacific Islander	2,415	358	61	6%	11%	27%	32%	24%	72%	67%	78%	69%	58%
Filipino	10,731	389	62	2%	5%	17%	33%	42%	80%	76%	84%	79%	69%
Hispanic	244,499	342	61	11%	16%	28%	28%	17%	66%	62%	71%	64%	54%
African American	27,731	343	63	11%	16%	27%	27%	19%	66%	62%	73%	63%	54%
White	116,969	381	66	5%	7%	18%	31%	39%	76%	75%	83%	75%	69%
Two or More Races	14,047	377	68	5%	9%	19%	30%	37%	75%	73%	82%	74%	67%
English Only	260,067	369	67	6%	10%	21%	30%	32%	73%	71%	80%	71%	64%
Initially Fluent English Prof.	19,677	401	66	2%	4%	13%	29%	51%	82%	79%	87%	81%	74%
English Learner	169,213	338	61	12%	18%	29%	27%	16%	65%	60%	69%	62%	53%
Reclassified Fluent Eng. Prof.	8,969	396	54	1%	3%	14%	36%	46%	83%	78%	87%	82%	72%
English Prof. unknown	826	338	69	15%	20%	22%	23%	20%	63%	61%	69%	61%	53%
No Special Ed Services	423,951	364	66	6%	12%	23%	30%	29%	72%	69%	78%	70%	62%
Special Ed Services	34,760	309	64	29%	23%	22%	16%	10%	52%	50%	57%	50%	43%
Special Ed unknown	41	298	58	34%	22%	27%	12%	5%	48%	47%	56%	44%	43%
Not Econ. Disadvantaged	175,688	389	66	3%	6%	16%	31%	44%	78%	77%	85%	78%	71%
Economically Disadvantaged	282,054	341	61	11%	16%	28%	28%	17%	66%	61%	71%	63%	54%
Unknown Economic Status	1,010	341	70	14%	18%	23%	23%	21%	64%	62%	71%	61%	55%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,009	366	67	7%	11%	22%	28%	32%	72%	71%	79%	69%	64%
Asian American	25,266	419	66	1%	3%	9%	25%	63%	86%	84%	89%	86%	78%
Pacific Islander	897	375	61	3%	7%	22%	34%	34%	76%	73%	83%	74%	65%
Filipino	6,897	398	61	1%	4%	15%	32%	48%	82%	79%	86%	82%	72%
Hispanic	40,959	367	63	5%	10%	22%	32%	30%	73%	71%	80%	72%	64%
African American	7,283	364	64	6%	11%	24%	30%	29%	73%	69%	79%	70%	62%
White	84,709	392	63	3%	5%	15%	31%	46%	79%	79%	86%	78%	73%
Two or More Races	8,668	394	65	3%	5%	15%	31%	47%	80%	78%	86%	79%	73%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,826	333	61	14%	19%	28%	25%	14%	62%	60%	70%	59%	52%
Asian American	14,169	371	65	5%	10%	21%	31%	33%	75%	70%	78%	74%	63%
Pacific Islander	1,512	348	58	8%	13%	30%	31%	18%	69%	63%	75%	66%	55%
Filipino	3,809	372	61	4%	8%	22%	34%	32%	76%	71%	80%	75%	63%
Hispanic	203,240	337	60	12%	18%	29%	27%	15%	64%	60%	70%	62%	53%
African American	20,358	336	61	13%	17%	29%	26%	15%	64%	59%	70%	60%	52%
White	32,033	352	64	9%	13%	25%	30%	22%	68%	66%	76%	65%	59%
Two or More Races	5,107	350	63	9%	14%	27%	29%	21%	68%	65%	75%	65%	58%
Primary Ethnicity—Unknown Economic Status													
American Indian	12	294	57	33%	33%	17%	8%	8%	47%	49%	57%	42%	34%
Asian American	78	378	81	14%	5%	8%	29%	44%	74%	74%	76%	74%	66%
Pacific Islander	6	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	25	379	62	4%	8%	12%	32%	44%	75%	73%	83%	79%	68%
Hispanic	300	323	61	18%	23%	28%	22%	10%	59%	56%	66%	55%	48%
African American	90	326	61	13%	20%	34%	19%	13%	58%	57%	67%	55%	51%
White	227	359	74	10%	15%	19%	23%	32%	69%	68%	78%	66%	62%
Two or More Races	272	340	67	14%	19%	24%	24%	19%	64%	62%	70%	61%	55%

Table 7.C.2 Demographic Summary for ELA, Grade Three

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	434,795	345	62	8%	16%	29%	29%	18%	73%	67%	76%	63%	58%
Male	218,702	341	62	9%	17%	30%	27%	16%	73%	65%	75%	62%	56%
Female	215,947	350	62	7%	15%	29%	30%	19%	74%	69%	78%	65%	60%
Gender unknown	146	323	71	21%	19%	29%	16%	14%	65%	60%	69%	54%	52%
American Indian	2,761	335	58	10%	19%	32%	27%	13%	71%	65%	75%	58%	54%
Asian American	37,933	382	65	3%	7%	20%	32%	37%	83%	77%	83%	75%	70%
Pacific Islander	2,367	342	55	5%	18%	34%	30%	14%	74%	66%	77%	63%	57%
Filipino	10,569	367	57	3%	9%	26%	36%	26%	80%	73%	81%	71%	67%
Hispanic	229,198	328	56	11%	21%	34%	25%	9%	68%	62%	72%	59%	52%
African American	27,078	329	58	11%	21%	33%	25%	10%	70%	62%	73%	57%	52%
White	112,002	370	60	3%	9%	24%	35%	29%	80%	76%	84%	69%	66%
Two or More Races	12,887	362	63	5%	11%	26%	33%	25%	78%	72%	81%	67%	64%
English Only	244,330	356	62	6%	13%	28%	32%	22%	77%	71%	80%	66%	62%
Initially Fluent English Prof.	18,566	382	61	2%	7%	21%	35%	35%	83%	78%	85%	74%	70%
English Learner	143,082	315	53	14%	26%	35%	19%	5%	64%	57%	67%	55%	48%
Reclassified Fluent Eng. Prof.	28,095	380	49	0%	3%	23%	44%	29%	84%	78%	85%	76%	70%
English Prof. unknown	722	319	66	20%	20%	28%	20%	11%	64%	58%	68%	54%	50%
No Special Ed Services	409,557	347	62	7%	16%	30%	29%	18%	74%	68%	77%	64%	59%
Special Ed Services	25,106	314	63	21%	24%	27%	19%	9%	63%	57%	67%	53%	48%
Special Ed unknown	132	276	40	33%	44%	20%	2%	1%	50%	46%	55%	37%	36%
Not Econ. Disadvantaged	167,671	375	61	3%	8%	23%	35%	31%	81%	76%	84%	71%	68%
Economically Disadvantaged	266,230	327	56	11%	22%	34%	24%	9%	68%	61%	72%	58%	52%
Unknown Economic Status	894	328	65	16%	21%	27%	22%	14%	67%	62%	71%	56%	53%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,007	354	59	6%	13%	28%	33%	20%	77%	71%	80%	65%	61%
Asian American	24,155	398	62	1%	4%	15%	33%	47%	87%	81%	87%	79%	76%
Pacific Islander	850	360	55	2%	12%	30%	34%	22%	79%	72%	81%	68%	63%
Filipino	6,715	375	57	2%	7%	23%	37%	31%	82%	76%	83%	73%	69%
Hispanic	38,404	353	58	5%	13%	29%	33%	19%	76%	70%	80%	66%	61%
African American	7,306	349	59	7%	14%	30%	32%	18%	75%	68%	78%	64%	60%
White	81,260	380	58	2%	6%	21%	37%	34%	83%	79%	86%	72%	70%
Two or More Races	7,974	378	60	3%	7%	22%	35%	33%	82%	77%	85%	72%	69%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,750	324	55	12%	23%	34%	23%	8%	68%	62%	72%	55%	51%
Asian American	13,695	353	60	6%	13%	29%	32%	20%	77%	69%	76%	67%	61%
Pacific Islander	1,513	332	52	7%	21%	36%	27%	9%	71%	62%	74%	60%	54%
Filipino	3,833	351	55	5%	12%	32%	33%	18%	77%	69%	77%	66%	62%
Hispanic	190,514	322	54	12%	23%	34%	23%	7%	67%	60%	70%	57%	51%
African American	19,693	321	55	13%	23%	34%	22%	7%	68%	59%	71%	55%	50%
White	30,539	343	58	7%	16%	32%	30%	14%	73%	68%	78%	61%	57%
Two or More Races	4,693	337	59	9%	18%	32%	29%	12%	72%	65%	75%	60%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	4	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	83	361	76	10%	16%	16%	27%	33%	73%	72%	75%	69%	66%
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	21	335	64	14%	24%	14%	29%	19%	68%	63%	73%	63%	57%
Hispanic	280	310	57	20%	25%	33%	15%	7%	62%	57%	66%	52%	45%
African American	79	314	61	19%	29%	20%	23%	9%	65%	58%	66%	50%	47%
White	203	351	62	8%	14%	27%	32%	20%	75%	71%	80%	62%	61%
Two or More Races	220	321	66	20%	20%	30%	20%	11%	65%	59%	70%	53%	51%

Table 7.C.3 Demographic Summary for ELA, Grade Four

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	429,809	372	60	3%	9%	23%	27%	37%	75%	62%	66%	69%	59%
Male	215,372	367	61	4%	11%	24%	27%	35%	74%	61%	65%	66%	57%
Female	214,326	377	60	2%	8%	22%	28%	40%	77%	63%	67%	71%	61%
Gender unknown	111	338	54	10%	17%	32%	22%	19%	64%	52%	54%	58%	48%
American Indian	2,635	358	56	5%	13%	26%	29%	28%	72%	58%	62%	64%	54%
Asian American	37,797	408	64	1%	4%	12%	21%	62%	85%	73%	77%	79%	71%
Pacific Islander	2,351	365	54	3%	9%	26%	30%	31%	75%	59%	65%	67%	56%
Filipino	11,022	393	53	1%	4%	15%	28%	52%	83%	69%	72%	76%	67%
Hispanic	224,263	354	54	4%	13%	29%	29%	25%	69%	55%	60%	64%	53%
African American	26,930	352	55	5%	14%	29%	28%	24%	70%	55%	60%	63%	52%
White	112,272	396	58	1%	4%	14%	25%	55%	83%	72%	74%	75%	66%
Two or More Races	12,539	388	60	2%	6%	17%	26%	49%	81%	68%	72%	73%	64%
English Only	240,443	382	60	2%	7%	19%	27%	45%	79%	66%	69%	72%	62%
Initially Fluent English Prof.	18,872	406	60	1%	3%	12%	24%	60%	85%	73%	77%	78%	70%
English Learner	119,735	333	46	7%	19%	37%	26%	11%	61%	47%	53%	57%	46%
Reclassified Fluent Eng. Prof.	50,194	401	45	0%	1%	9%	32%	58%	87%	73%	76%	80%	69%
English Prof. unknown	565	348	60	8%	14%	30%	23%	24%	66%	54%	57%	60%	52%
No Special Ed Services	405,737	373	60	3%	9%	23%	27%	38%	76%	63%	66%	69%	59%
Special Ed Services	22,375	345	61	9%	17%	28%	23%	23%	65%	53%	57%	59%	50%
Special Ed unknown	1,697	338	56	8%	19%	32%	23%	18%	63%	50%	54%	57%	48%
Not Econ. Disadvantaged	167,823	401	58	1%	4%	13%	24%	58%	85%	73%	76%	77%	69%
Economically Disadvantaged	261,328	353	53	5%	13%	29%	29%	24%	69%	55%	60%	63%	52%
Unknown Economic Status	658	355	59	6%	12%	28%	27%	27%	69%	57%	60%	63%	54%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	978	376	57	3%	8%	19%	28%	42%	78%	65%	68%	70%	60%
Asian American	23,764	426	60	1%	2%	7%	16%	75%	89%	79%	82%	83%	77%
Pacific Islander	871	384	55	2%	5%	19%	28%	46%	81%	66%	71%	72%	63%
Filipino	7,052	402	52	0%	2%	12%	26%	59%	86%	72%	75%	78%	70%
Hispanic	37,543	380	55	2%	6%	20%	29%	43%	79%	66%	69%	72%	62%
African American	7,507	373	56	3%	8%	23%	29%	38%	78%	62%	67%	69%	59%
White	82,320	407	56	1%	2%	11%	23%	63%	86%	75%	77%	79%	70%
Two or More Races	7,788	405	57	1%	3%	12%	23%	61%	86%	74%	77%	78%	70%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,652	347	52	6%	15%	30%	29%	20%	68%	54%	58%	60%	50%
Asian American	13,978	378	58	3%	7%	20%	28%	42%	77%	64%	68%	72%	61%
Pacific Islander	1,478	354	50	4%	11%	31%	32%	23%	71%	54%	61%	64%	52%
Filipino	3,956	379	53	1%	6%	21%	32%	40%	79%	64%	68%	72%	62%
Hispanic	186,508	349	52	5%	14%	31%	29%	21%	67%	53%	58%	62%	51%
African American	19,371	344	52	6%	16%	31%	28%	19%	68%	51%	57%	60%	49%
White	29,790	366	55	3%	9%	24%	30%	33%	75%	62%	65%	67%	56%
Two or More Races	4,595	362	54	3%	10%	26%	30%	30%	74%	59%	63%	66%	55%
Primary Ethnicity—Unknown Economic Status													
American Indian	5	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	55	386	77	5%	13%	9%	22%	51%	76%	68%	68%	72%	65%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	14	357	57	7%	14%	14%	43%	21%	73%	60%	56%	63%	59%
Hispanic	212	337	48	8%	13%	39%	25%	15%	63%	49%	54%	58%	48%
African American	52	343	53	8%	15%	35%	25%	17%	65%	54%	53%	59%	51%
White	162	377	58	2%	6%	23%	30%	40%	77%	67%	69%	69%	61%
Two or More Races	156	352	58	7%	15%	26%	28%	25%	68%	56%	59%	63%	53%

Table 7.C.4 Demographic Summary for ELA, Grade Five

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	434,092	362	58	6%	10%	25%	29%	31%	71%	68%	70%	71%	65%
Male	217,649	357	58	7%	11%	25%	28%	28%	71%	67%	68%	68%	62%
Female	216,377	367	56	4%	9%	24%	30%	33%	72%	69%	73%	74%	67%
Gender unknown	66	325	52	15%	20%	32%	24%	9%	57%	56%	58%	59%	54%
American Indian	2,808	349	55	8%	13%	27%	29%	22%	69%	63%	68%	67%	60%
Asian American	39,922	398	60	2%	4%	13%	24%	57%	80%	79%	79%	82%	76%
Pacific Islander	2,409	355	52	5%	10%	30%	31%	23%	70%	65%	69%	71%	62%
Filipino	11,442	383	51	2%	5%	18%	32%	44%	78%	75%	76%	80%	71%
Hispanic	223,413	345	52	8%	14%	31%	29%	18%	66%	62%	64%	67%	60%
African American	27,577	344	54	9%	14%	29%	29%	19%	67%	61%	66%	65%	58%
White	115,182	384	54	2%	5%	17%	30%	46%	79%	76%	78%	76%	72%
Two or More Races	11,339	378	57	4%	7%	19%	29%	42%	77%	73%	76%	75%	70%
English Only	243,250	371	57	4%	8%	21%	30%	37%	75%	71%	74%	73%	68%
Initially Fluent English Prof.	30,240	389	56	2%	5%	16%	29%	48%	79%	77%	79%	79%	74%
English Learner	95,939	317	44	14%	23%	39%	19%	5%	56%	52%	53%	59%	50%
Reclassified Fluent Eng. Prof.	64,159	381	44	0%	2%	19%	41%	37%	77%	76%	76%	79%	73%
English Prof. unknown	504	335	62	18%	16%	24%	23%	19%	62%	59%	61%	61%	56%
No Special Ed Services	409,976	364	57	5%	10%	24%	29%	31%	72%	69%	71%	72%	65%
Special Ed Services	21,790	332	58	15%	17%	29%	22%	16%	62%	57%	59%	61%	54%
Special Ed unknown	2,326	341	54	10%	15%	29%	28%	18%	66%	61%	64%	64%	58%
Not Econ. Disadvantaged	173,559	389	55	2%	4%	15%	29%	49%	80%	78%	79%	78%	74%
Economically Disadvantaged	259,878	344	52	8%	14%	31%	29%	18%	66%	62%	64%	67%	59%
Unknown Economic Status	655	344	61	13%	14%	26%	23%	23%	67%	62%	65%	63%	58%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,062	367	55	5%	8%	23%	30%	34%	75%	70%	74%	71%	66%
Asian American	25,140	414	56	1%	2%	8%	20%	69%	85%	84%	84%	86%	80%
Pacific Islander	895	372	52	3%	7%	22%	34%	35%	75%	72%	75%	75%	68%
Filipino	7,328	391	49	1%	3%	14%	31%	51%	80%	78%	79%	82%	74%
Hispanic	39,039	369	52	4%	7%	22%	33%	33%	74%	71%	73%	73%	68%
African American	8,032	363	54	5%	9%	24%	32%	30%	73%	68%	72%	71%	65%
White	84,956	393	51	1%	3%	13%	29%	53%	82%	79%	81%	78%	75%
Two or More Races	7,107	392	54	2%	4%	14%	28%	52%	81%	79%	81%	79%	74%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,738	339	52	10%	16%	30%	29%	15%	66%	59%	64%	64%	56%
Asian American	14,731	371	57	5%	8%	21%	30%	37%	73%	71%	71%	77%	67%
Pacific Islander	1,512	345	49	6%	13%	35%	30%	17%	67%	61%	65%	69%	58%
Filipino	4,098	368	50	3%	7%	25%	33%	32%	74%	70%	72%	76%	66%
Hispanic	184,158	340	50	9%	15%	33%	29%	15%	64%	60%	62%	66%	58%
African American	19,476	336	52	11%	16%	31%	27%	14%	64%	58%	63%	63%	56%
White	30,053	357	53	6%	10%	26%	32%	26%	72%	67%	71%	68%	63%
Two or More Races	4,112	353	54	7%	12%	28%	29%	25%	70%	65%	69%	68%	62%
Primary Ethnicity—Unknown Economic Status													
American Indian	8	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	51	384	75	10%	10%	8%	25%	47%	76%	71%	75%	75%	71%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	16	355	58	6%	13%	31%	31%	19%	71%	65%	66%	71%	59%
Hispanic	216	335	50	12%	16%	35%	23%	14%	64%	60%	61%	62%	55%
African American	69	329	61	16%	23%	25%	16%	20%	62%	56%	60%	58%	52%
White	173	356	62	12%	9%	22%	28%	29%	72%	67%	70%	66%	62%
Two or More Races	120	338	61	18%	14%	26%	20%	23%	64%	60%	63%	61%	57%

Table 7.C.5 Demographic Summary for ELA, Grade Six

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	431,155	358	56	4%	11%	29%	28%	27%	72%	60%	66%	69%	61%
Male	216,855	354	56	5%	12%	29%	27%	26%	71%	59%	65%	67%	59%
Female	214,197	362	55	3%	10%	29%	29%	29%	73%	61%	67%	72%	63%
Gender unknown	103	336	50	5%	21%	33%	29%	12%	65%	54%	59%	61%	53%
American Indian	2,909	347	51	6%	13%	34%	28%	19%	69%	57%	64%	64%	57%
Asian American	37,204	394	59	2%	4%	16%	25%	53%	82%	70%	76%	81%	73%
Pacific Islander	2,514	352	51	4%	11%	33%	30%	21%	70%	58%	64%	69%	58%
Filipino	12,065	378	50	1%	5%	22%	33%	39%	79%	66%	73%	78%	68%
Hispanic	220,900	342	49	6%	15%	36%	27%	16%	66%	55%	61%	65%	55%
African American	27,889	341	51	7%	16%	34%	27%	16%	66%	55%	61%	63%	54%
White	116,119	380	54	2%	5%	20%	30%	42%	80%	67%	74%	75%	69%
Two or More Races	11,555	372	56	3%	7%	24%	29%	37%	77%	64%	71%	73%	66%
English Only	243,962	368	55	3%	8%	26%	30%	33%	76%	63%	70%	72%	64%
Initially Fluent English Prof.	33,277	380	55	2%	6%	22%	30%	41%	79%	67%	73%	76%	69%
English Learner	75,263	309	39	13%	29%	43%	12%	3%	51%	44%	48%	54%	43%
Reclassified Fluent Eng. Prof.	78,100	367	44	1%	4%	30%	38%	27%	76%	63%	69%	75%	66%
English Prof. unknown	553	338	55	8%	20%	32%	22%	18%	63%	54%	60%	61%	54%
No Special Ed Services	408,526	360	55	4%	10%	29%	29%	28%	72%	61%	67%	70%	62%
Special Ed Services	21,191	323	54	14%	23%	33%	18%	11%	57%	49%	54%	55%	48%
Special Ed unknown	1,438	331	53	10%	22%	34%	21%	14%	61%	52%	57%	59%	51%
Not Econ. Disadvantaged	173,725	384	54	2%	5%	19%	30%	45%	81%	68%	75%	77%	70%
Economically Disadvantaged	256,753	341	49	6%	15%	36%	27%	15%	65%	55%	60%	64%	55%
Unknown Economic Status	677	342	56	9%	17%	28%	27%	19%	66%	55%	61%	63%	55%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,127	363	52	3%	9%	28%	32%	28%	74%	62%	70%	70%	63%
Asian American	22,815	411	55	1%	2%	10%	22%	65%	87%	75%	81%	85%	78%
Pacific Islander	965	368	52	3%	7%	27%	30%	33%	75%	63%	69%	73%	64%
Filipino	7,736	386	48	1%	3%	19%	33%	45%	81%	69%	75%	80%	70%
Hispanic	40,130	364	51	3%	8%	28%	32%	29%	75%	62%	69%	71%	63%
African American	8,423	358	53	4%	10%	28%	30%	27%	73%	61%	67%	69%	61%
White	85,328	390	51	1%	4%	16%	30%	49%	83%	70%	77%	78%	72%
Two or More Races	7,201	386	54	2%	4%	18%	29%	47%	82%	69%	76%	77%	71%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,773	337	48	8%	15%	38%	26%	13%	65%	54%	60%	61%	53%
Asian American	14,333	367	54	3%	8%	25%	30%	33%	74%	62%	68%	75%	65%
Pacific Islander	1,545	342	47	5%	14%	37%	30%	14%	66%	55%	61%	66%	54%
Filipino	4,320	364	49	2%	8%	28%	33%	29%	74%	62%	69%	74%	63%
Hispanic	180,573	337	47	6%	17%	38%	26%	13%	64%	53%	59%	63%	54%
African American	19,401	333	48	8%	19%	37%	25%	11%	63%	52%	59%	60%	51%
White	30,614	355	52	4%	11%	30%	31%	24%	72%	60%	66%	67%	60%
Two or More Races	4,194	350	51	5%	12%	33%	29%	21%	70%	58%	64%	66%	58%
Primary Ethnicity—Unknown Economic Status													
American Indian	9	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	56	351	62	7%	14%	23%	29%	27%	66%	58%	62%	67%	58%
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	9	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	197	326	52	11%	24%	32%	21%	12%	59%	48%	56%	59%	49%
African American	65	332	52	15%	11%	32%	29%	12%	63%	52%	58%	57%	55%
White	177	357	56	6%	12%	26%	29%	26%	73%	60%	67%	66%	60%
Two or More Races	160	345	56	8%	18%	25%	29%	20%	66%	57%	62%	64%	56%

Table 7.C.6 Demographic Summary for ELA, Grade Seven

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	435,408	360	61	6%	11%	26%	33%	24%	72%	70%	69%	66%	59%
Male	218,525	353	61	8%	13%	26%	32%	21%	70%	69%	66%	63%	57%
Female	216,771	368	59	4%	9%	25%	35%	27%	73%	72%	71%	69%	61%
Gender unknown	112	335	66	11%	21%	27%	27%	14%	64%	63%	62%	58%	52%
American Indian	3,084	346	57	8%	13%	30%	32%	16%	67%	67%	67%	61%	54%
Asian American	37,525	400	66	3%	4%	13%	30%	50%	80%	80%	77%	78%	72%
Pacific Islander	2,600	353	57	6%	12%	28%	36%	18%	68%	68%	68%	66%	56%
Filipino	12,543	384	54	2%	5%	18%	39%	36%	78%	77%	74%	75%	67%
Hispanic	220,493	342	54	8%	15%	32%	32%	13%	67%	65%	64%	61%	53%
African American	28,690	340	56	9%	16%	31%	31%	13%	65%	64%	65%	60%	52%
White	119,628	384	58	3%	6%	18%	36%	38%	78%	77%	76%	72%	67%
Two or More Races	10,845	376	62	4%	8%	20%	35%	34%	76%	75%	73%	70%	64%
English Only	248,427	370	60	4%	9%	22%	35%	30%	75%	73%	72%	68%	62%
Initially Fluent English Prof.	36,616	383	60	2%	6%	20%	37%	35%	79%	76%	75%	72%	66%
English Learner	65,302	302	43	19%	30%	37%	12%	2%	52%	51%	49%	51%	40%
Reclassified Fluent Eng. Prof.	84,432	367	47	1%	6%	29%	44%	20%	76%	73%	71%	69%	61%
English Prof. unknown	631	333	63	13%	19%	28%	26%	14%	62%	62%	62%	58%	51%
No Special Ed Services	413,295	363	60	5%	10%	26%	34%	25%	73%	71%	70%	67%	60%
Special Ed Services	20,905	315	58	21%	23%	29%	19%	8%	56%	55%	55%	52%	46%
Special Ed unknown	1,208	331	61	14%	18%	30%	25%	12%	62%	60%	61%	57%	50%
Not Econ. Disadvantaged	182,040	388	59	2%	5%	17%	36%	40%	79%	78%	76%	73%	68%
Economically Disadvantaged	252,422	340	54	8%	15%	32%	32%	12%	66%	65%	63%	61%	52%
Unknown Economic Status	946	339	61	11%	17%	27%	30%	15%	65%	64%	64%	60%	53%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,234	365	58	5%	9%	23%	38%	25%	73%	73%	72%	66%	60%
Asian American	23,151	419	62	1%	2%	8%	26%	62%	85%	84%	81%	82%	78%
Pacific Islander	1,069	373	55	3%	7%	21%	40%	29%	75%	74%	73%	71%	63%
Filipino	8,112	392	53	1%	3%	15%	39%	42%	80%	79%	77%	77%	70%
Hispanic	43,836	365	55	4%	9%	25%	38%	24%	74%	72%	71%	67%	61%
African American	9,376	359	57	5%	11%	25%	37%	22%	72%	70%	70%	66%	58%
White	88,339	394	55	1%	4%	14%	36%	44%	81%	80%	78%	75%	71%
Two or More Races	6,923	392	59	2%	5%	15%	35%	44%	80%	79%	77%	75%	70%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,834	334	53	10%	16%	34%	29%	10%	63%	63%	63%	58%	50%
Asian American	14,310	369	60	5%	8%	22%	36%	29%	73%	73%	70%	71%	62%
Pacific Islander	1,528	340	53	8%	16%	32%	33%	11%	64%	64%	64%	62%	52%
Filipino	4,411	368	54	3%	7%	24%	40%	25%	74%	73%	70%	71%	61%
Hispanic	176,322	336	52	9%	17%	34%	31%	10%	65%	63%	62%	60%	51%
African American	19,238	330	53	12%	18%	33%	28%	9%	62%	61%	62%	58%	49%
White	31,072	354	55	6%	11%	27%	36%	19%	70%	69%	69%	64%	57%
Two or More Races	3,707	348	57	8%	13%	29%	34%	16%	68%	67%	67%	62%	55%
Primary Ethnicity—Unknown Economic Status													
American Indian	16	324	39	6%	25%	50%	13%	6%	60%	60%	62%	54%	46%
Asian American	64	353	74	11%	17%	17%	30%	25%	66%	66%	65%	64%	61%
Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	20	346	55	15%	10%	25%	45%	5%	68%	64%	65%	65%	58%
Hispanic	335	325	56	15%	18%	35%	24%	9%	60%	60%	59%	56%	48%
African American	76	328	52	8%	29%	28%	26%	9%	62%	61%	61%	56%	48%
White	217	356	60	8%	10%	21%	38%	23%	71%	71%	69%	64%	59%
Two or More Races	215	345	63	8%	17%	24%	34%	16%	68%	67%	65%	61%	54%

Table 7.C.7 Demographic Summary for ELA, Grade Eight

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	440,118	362	63	7%	11%	26%	27%	30%	66%	69%	65%	65%	64%
Male	221,223	355	64	9%	12%	26%	26%	27%	65%	68%	63%	62%	61%
Female	218,781	369	61	5%	9%	25%	28%	33%	67%	70%	67%	68%	67%
Gender unknown	114	328	57	15%	18%	37%	16%	14%	55%	58%	58%	52%	52%
American Indian	3,085	353	60	8%	12%	27%	28%	25%	64%	67%	63%	62%	60%
Asian American	39,899	401	66	3%	5%	14%	22%	56%	76%	78%	76%	77%	75%
Pacific Islander	2,689	353	57	7%	11%	30%	28%	24%	63%	66%	63%	64%	62%
Filipino	12,663	383	57	2%	6%	20%	30%	42%	72%	75%	71%	73%	71%
Hispanic	221,817	342	56	9%	14%	32%	27%	17%	59%	64%	59%	59%	58%
African American	28,954	340	58	11%	15%	30%	25%	18%	60%	62%	58%	59%	57%
White	120,887	387	60	3%	5%	18%	28%	46%	74%	76%	73%	72%	72%
Two or More Races	10,124	376	64	5%	8%	20%	27%	39%	70%	73%	69%	69%	68%
English Only	247,907	372	62	5%	8%	22%	28%	37%	69%	72%	68%	68%	67%
Initially Fluent English Prof.	32,851	387	62	3%	6%	20%	28%	45%	72%	76%	72%	73%	71%
English Learner	62,820	300	42	23%	29%	36%	10%	2%	46%	48%	44%	45%	43%
Reclassified Fluent Eng. Prof.	95,814	368	50	2%	6%	30%	35%	27%	67%	72%	67%	69%	67%
English Prof. unknown	726	332	62	16%	17%	29%	22%	16%	57%	60%	56%	54%	53%
No Special Ed Services	418,542	364	62	6%	10%	26%	27%	31%	66%	70%	66%	66%	65%
Special Ed Services	21,501	316	58	23%	21%	30%	16%	10%	52%	54%	50%	49%	48%
Special Ed unknown	75	306	56	31%	15%	28%	24%	3%	52%	51%	46%	45%	45%
Not Econ. Disadvantaged	187,848	389	61	3%	5%	17%	27%	47%	74%	76%	73%	73%	72%
Economically Disadvantaged	251,276	342	56	10%	15%	32%	26%	18%	59%	63%	59%	59%	58%
Unknown Economic Status	994	337	63	15%	15%	28%	23%	19%	58%	61%	58%	56%	55%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,340	369	60	5%	8%	22%	30%	35%	69%	71%	68%	67%	66%
Asian American	24,304	420	61	1%	2%	8%	20%	68%	81%	82%	81%	82%	80%
Pacific Islander	1,171	370	57	4%	7%	24%	30%	34%	69%	71%	68%	69%	67%
Filipino	8,424	391	55	2%	4%	17%	30%	48%	74%	77%	73%	76%	74%
Hispanic	45,362	364	58	5%	9%	26%	30%	30%	67%	70%	66%	66%	65%
African American	9,670	359	59	7%	10%	27%	29%	28%	65%	68%	64%	65%	64%
White	91,152	396	57	2%	4%	15%	28%	52%	76%	79%	76%	75%	75%
Two or More Races	6,425	392	61	3%	5%	16%	27%	49%	75%	77%	74%	74%	73%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,737	340	57	11%	15%	31%	26%	17%	61%	63%	59%	57%	56%
Asian American	15,542	371	63	6%	9%	22%	27%	37%	68%	71%	68%	69%	67%
Pacific Islander	1,509	340	54	9%	15%	35%	26%	16%	59%	62%	59%	60%	57%
Filipino	4,232	367	56	4%	9%	26%	31%	31%	68%	71%	66%	69%	67%
Hispanic	176,092	337	54	10%	16%	34%	26%	14%	58%	62%	57%	58%	56%
African American	19,200	331	55	13%	18%	32%	24%	13%	57%	59%	55%	56%	54%
White	29,474	359	59	7%	10%	26%	29%	28%	66%	69%	65%	64%	63%
Two or More Races	3,490	348	60	10%	14%	27%	27%	22%	63%	65%	61%	61%	60%
Primary Ethnicity—Unknown Economic Status													
American Indian	8	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	53	344	84	25%	11%	17%	15%	32%	56%	60%	59%	60%	57%
Pacific Islander	9	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	7	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	363	324	56	18%	19%	30%	22%	11%	55%	58%	53%	52%	51%
African American	84	315	57	19%	24%	29%	18%	11%	54%	54%	50%	49%	46%
White	261	361	62	7%	9%	26%	28%	30%	66%	70%	66%	63%	63%
Two or More Races	209	335	64	18%	14%	29%	20%	19%	57%	60%	57%	56%	55%

Table 7.C.8 Demographic Summary for ELA, Grade Nine

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	476,121	358	62	7%	11%	26%	27%	28%	59%	70%	64%	65%	58%
Male	241,286	351	62	10%	13%	26%	26%	25%	59%	69%	62%	62%	56%
Female	234,671	364	60	5%	10%	26%	28%	31%	60%	71%	66%	69%	61%
Gender unknown	164	313	56	21%	23%	30%	19%	7%	45%	55%	51%	47%	45%
American Indian	3,864	347	59	9%	13%	28%	28%	22%	57%	67%	62%	61%	55%
Asian American	41,972	396	65	3%	5%	15%	24%	53%	69%	81%	74%	76%	70%
Pacific Islander	2,681	348	57	8%	13%	30%	27%	22%	55%	67%	61%	63%	57%
Filipino	13,484	380	53	2%	5%	20%	33%	40%	65%	79%	70%	73%	66%
Hispanic	241,459	338	54	10%	15%	33%	27%	15%	53%	64%	58%	59%	54%
African American	31,532	335	56	12%	16%	31%	25%	15%	52%	63%	57%	57%	52%
White	129,814	384	60	3%	6%	18%	28%	45%	69%	78%	72%	74%	65%
Two or More Races	11,315	370	64	6%	9%	21%	28%	36%	64%	74%	68%	69%	61%
English Only	268,774	368	62	6%	9%	23%	28%	35%	63%	73%	67%	69%	61%
Initially Fluent English Prof.	33,333	381	61	3%	6%	20%	29%	41%	66%	78%	71%	73%	65%
English Learner	70,252	298	40	22%	30%	37%	9%	2%	38%	47%	44%	45%	42%
Reclassified Fluent Eng. Prof.	102,985	364	49	2%	6%	30%	36%	25%	60%	73%	66%	69%	62%
English Prof. unknown	777	323	59	19%	19%	29%	20%	13%	49%	57%	54%	52%	48%
No Special Ed Services	449,719	361	61	6%	10%	26%	28%	29%	60%	71%	65%	66%	59%
Special Ed Services	26,286	305	52	26%	26%	29%	12%	6%	42%	51%	47%	45%	42%
Special Ed unknown	116	293	47	35%	24%	27%	13%	1%	37%	47%	45%	42%	38%
Not Econ. Disadvantaged	217,205	382	61	4%	6%	19%	28%	43%	68%	78%	71%	73%	65%
Economically Disadvantaged	257,876	337	54	10%	16%	33%	26%	15%	52%	63%	57%	59%	53%
Unknown Economic Status	1,040	328	62	19%	19%	26%	20%	16%	50%	59%	55%	54%	49%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,949	362	59	6%	10%	24%	32%	29%	62%	72%	66%	66%	59%
Asian American	25,773	415	61	1%	2%	9%	21%	66%	76%	86%	79%	82%	74%
Pacific Islander	1,298	361	59	6%	10%	25%	28%	31%	60%	71%	65%	67%	60%
Filipino	9,582	386	52	1%	4%	17%	33%	44%	68%	81%	72%	76%	67%
Hispanic	58,774	356	57	7%	10%	27%	30%	25%	59%	70%	64%	65%	58%
African American	12,462	348	59	9%	13%	27%	28%	22%	57%	67%	62%	62%	56%
White	99,987	393	57	2%	4%	15%	28%	51%	72%	81%	75%	77%	67%
Two or More Races	7,380	384	61	4%	6%	17%	29%	45%	69%	79%	72%	74%	65%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,908	333	55	12%	17%	32%	25%	14%	52%	62%	57%	57%	51%
Asian American	16,141	366	60	5%	9%	25%	28%	33%	59%	73%	66%	67%	63%
Pacific Islander	1,380	335	52	10%	16%	34%	27%	13%	51%	62%	57%	58%	53%
Filipino	3,890	364	52	4%	8%	27%	33%	28%	60%	73%	65%	68%	62%
Hispanic	182,256	333	52	11%	17%	35%	26%	12%	51%	62%	56%	58%	52%
African American	18,981	327	52	14%	19%	34%	23%	10%	49%	60%	55%	54%	50%
White	29,602	354	58	8%	12%	27%	29%	25%	59%	69%	64%	64%	57%
Two or More Races	3,718	343	59	10%	15%	29%	26%	20%	55%	66%	60%	59%	54%
Primary Ethnicity—Unknown Economic Status													
American Indian	7	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	58	358	74	9%	21%	17%	22%	31%	56%	67%	64%	63%	60%
Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	12	342	54	8%	17%	25%	25%	25%	57%	70%	55%	59%	53%
Hispanic	429	317	57	23%	20%	28%	20%	10%	47%	55%	51%	51%	47%
African American	89	307	54	27%	25%	28%	13%	7%	43%	52%	49%	44%	43%
White	225	349	63	12%	12%	22%	27%	27%	58%	68%	63%	60%	55%
Two or More Races	217	327	62	17%	20%	30%	18%	16%	51%	59%	53%	54%	48%

Table 7.C.9 Demographic Summary for ELA, Grade Ten

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	465,026	346	58	8%	14%	30%	27%	21%	65%	69%	63%	67%	64%
Male	235,003	340	59	11%	15%	29%	25%	19%	64%	67%	60%	64%	62%
Female	229,863	353	56	6%	12%	31%	28%	24%	67%	71%	65%	70%	66%
Gender unknown	160	308	51	19%	28%	31%	18%	5%	51%	55%	51%	53%	48%
American Indian	3,838	337	57	10%	17%	31%	25%	16%	63%	65%	60%	63%	61%
Asian American	42,634	379	60	4%	7%	19%	28%	42%	75%	79%	72%	76%	75%
Pacific Islander	2,956	337	54	10%	16%	34%	25%	15%	62%	65%	59%	65%	61%
Filipino	13,798	367	50	2%	7%	26%	35%	30%	73%	77%	68%	75%	72%
Hispanic	228,204	330	52	11%	18%	36%	24%	11%	60%	63%	57%	62%	58%
African American	31,238	325	54	14%	19%	34%	22%	11%	58%	61%	56%	60%	57%
White	132,595	367	57	5%	8%	23%	31%	33%	73%	76%	69%	73%	71%
Two or More Races	9,763	353	61	9%	12%	25%	28%	27%	68%	70%	65%	68%	66%
English Only	265,426	355	59	7%	11%	27%	29%	26%	68%	71%	65%	69%	67%
Initially Fluent English Prof.	39,397	366	56	4%	8%	26%	31%	31%	72%	76%	68%	73%	71%
English Learner	61,954	290	39	25%	36%	32%	5%	1%	45%	46%	44%	47%	42%
Reclassified Fluent Eng. Prof.	97,500	352	46	3%	9%	38%	33%	18%	68%	72%	64%	70%	67%
English Prof. unknown	749	315	54	19%	23%	32%	17%	9%	54%	57%	53%	56%	52%
No Special Ed Services	437,491	350	57	7%	13%	30%	28%	22%	67%	70%	64%	68%	65%
Special Ed Services	27,438	292	50	32%	28%	26%	10%	4%	46%	47%	45%	46%	44%
Special Ed unknown	97	286	51	31%	35%	26%	5%	3%	40%	45%	45%	44%	41%
Not Econ. Disadvantaged	218,399	366	58	5%	8%	24%	30%	33%	72%	75%	69%	73%	71%
Economically Disadvantaged	245,643	329	53	11%	18%	36%	23%	11%	59%	63%	57%	62%	58%
Unknown Economic Status	984	319	57	18%	22%	32%	17%	11%	55%	58%	55%	56%	53%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	2,003	351	57	7%	11%	30%	29%	22%	68%	70%	65%	68%	65%
Asian American	25,722	395	56	2%	4%	14%	27%	53%	81%	84%	76%	80%	79%
Pacific Islander	1,490	349	54	7%	11%	32%	28%	21%	66%	70%	64%	69%	65%
Filipino	9,823	373	48	2%	5%	23%	36%	34%	75%	79%	70%	77%	74%
Hispanic	56,898	344	55	8%	13%	31%	29%	18%	65%	68%	62%	66%	63%
African American	12,819	337	55	11%	14%	33%	26%	16%	62%	65%	60%	64%	61%
White	103,316	375	55	3%	6%	21%	32%	38%	76%	78%	72%	75%	74%
Two or More Races	6,328	367	59	6%	9%	21%	30%	34%	73%	75%	69%	73%	71%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,826	323	53	14%	23%	33%	21%	10%	57%	60%	55%	58%	55%
Asian American	16,867	355	56	6%	11%	28%	29%	25%	67%	72%	65%	70%	67%
Pacific Islander	1,461	324	51	13%	20%	36%	22%	9%	57%	61%	55%	61%	56%
Filipino	3,962	352	50	4%	11%	33%	32%	20%	67%	72%	64%	70%	67%
Hispanic	170,910	325	51	12%	20%	37%	22%	9%	58%	61%	56%	61%	57%
African American	18,359	317	52	16%	22%	35%	19%	7%	54%	58%	53%	57%	54%
White	29,078	339	56	10%	14%	32%	27%	17%	64%	66%	61%	64%	61%
Two or More Races	3,180	329	56	14%	17%	32%	24%	13%	60%	62%	58%	61%	58%
Primary Ethnicity—Unknown Economic Status													
American Indian	9	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	45	352	67	9%	9%	36%	13%	33%	65%	70%	63%	68%	64%
Pacific Islander	5	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	13	354	45	0%	15%	38%	15%	31%	67%	74%	65%	68%	70%
Hispanic	396	306	51	21%	25%	33%	15%	5%	51%	54%	50%	53%	49%
African American	60	301	56	28%	30%	23%	17%	2%	45%	49%	51%	48%	49%
White	201	340	64	13%	15%	28%	21%	22%	61%	67%	61%	63%	62%
Two or More Races	255	318	52	15%	24%	36%	16%	9%	56%	58%	55%	56%	52%

Table 7.C.10 Demographic Summary for ELA, Grade Eleven

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	444,788	342	65	12%	14%	28%	24%	21%	71%	63%	64%	59%	65%
Male	224,261	335	67	16%	15%	27%	23%	19%	69%	62%	63%	57%	61%
Female	220,387	348	63	9%	13%	29%	26%	23%	73%	65%	66%	61%	68%
Gender unknown	140	298	62	30%	18%	32%	13%	7%	58%	51%	51%	45%	49%
American Indian	3,395	333	62	14%	16%	29%	24%	17%	68%	61%	62%	56%	62%
Asian American	42,722	375	67	6%	8%	20%	26%	40%	77%	73%	73%	68%	74%
Pacific Islander	2,737	329	60	14%	17%	33%	23%	13%	66%	59%	61%	56%	61%
Filipino	13,268	360	56	5%	9%	28%	32%	26%	76%	69%	70%	64%	71%
Hispanic	212,402	324	58	16%	18%	33%	22%	11%	68%	58%	59%	53%	60%
African American	30,567	318	61	20%	19%	30%	20%	11%	62%	57%	58%	52%	57%
White	130,943	363	65	8%	9%	23%	28%	32%	75%	70%	71%	65%	71%
Two or More Races	8,754	349	68	13%	12%	25%	26%	25%	71%	66%	67%	61%	66%
English Only	255,431	350	66	11%	12%	26%	26%	25%	72%	66%	67%	61%	67%
Initially Fluent English Prof.	37,729	363	63	6%	9%	26%	28%	30%	78%	70%	71%	65%	71%
English Learner	54,410	278	43	37%	33%	25%	5%	1%	53%	42%	44%	40%	44%
Reclassified Fluent Eng. Prof.	96,617	348	52	5%	11%	37%	30%	17%	76%	66%	66%	60%	68%
English Prof. unknown	601	311	62	24%	18%	31%	16%	10%	61%	54%	56%	50%	54%
No Special Ed Services	417,737	346	64	10%	13%	29%	25%	22%	72%	65%	66%	60%	66%
Special Ed Services	26,980	281	55	42%	25%	22%	8%	4%	49%	44%	46%	42%	43%
Special Ed unknown	71	268	55	52%	23%	14%	8%	3%	44%	39%	41%	40%	40%
Not Econ. Disadvantaged	216,314	362	65	8%	9%	24%	28%	31%	75%	69%	70%	65%	71%
Economically Disadvantaged	227,667	323	59	17%	18%	32%	21%	11%	67%	58%	59%	53%	59%
Unknown Economic Status	807	313	63	24%	19%	29%	16%	11%	62%	55%	57%	51%	54%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,800	346	63	9%	14%	28%	27%	22%	72%	65%	66%	60%	66%
Asian American	25,631	392	64	4%	5%	15%	26%	51%	81%	78%	78%	73%	79%
Pacific Islander	1,383	342	60	10%	14%	30%	27%	19%	70%	63%	65%	60%	65%
Filipino	9,602	365	55	4%	8%	26%	33%	29%	77%	71%	72%	66%	73%
Hispanic	55,190	338	61	12%	14%	30%	26%	18%	71%	62%	64%	58%	64%
African American	13,091	331	63	16%	15%	29%	24%	15%	66%	61%	62%	56%	61%
White	103,815	371	63	6%	7%	22%	29%	36%	77%	72%	73%	67%	73%
Two or More Races	5,802	362	67	9%	9%	22%	28%	32%	75%	70%	71%	64%	71%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,585	317	59	20%	19%	31%	20%	10%	63%	56%	57%	52%	57%
Asian American	17,061	349	63	10%	13%	27%	27%	24%	70%	66%	66%	60%	68%
Pacific Islander	1,348	315	56	18%	20%	35%	19%	8%	63%	56%	57%	52%	56%
Filipino	3,646	346	57	8%	12%	32%	30%	19%	73%	65%	66%	60%	67%
Hispanic	156,905	319	57	17%	20%	34%	21%	9%	67%	56%	57%	52%	58%
African American	17,410	308	58	24%	21%	31%	17%	7%	59%	54%	55%	50%	54%
White	26,928	334	63	15%	15%	29%	25%	17%	67%	62%	63%	57%	62%
Two or More Races	2,784	322	63	21%	16%	28%	22%	13%	64%	57%	59%	54%	58%
Primary Ethnicity—Unknown Economic Status													
American Indian	10	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	30	306	66	37%	7%	27%	17%	13%	54%	54%	52%	47%	55%
Pacific Islander	6	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	20	342	59	5%	15%	45%	15%	20%	73%	64%	64%	57%	67%
Hispanic	307	302	60	25%	26%	29%	11%	8%	61%	50%	53%	48%	50%
African American	66	291	58	36%	21%	29%	9%	5%	55%	47%	48%	45%	48%
White	200	334	63	17%	14%	28%	25%	17%	66%	63%	65%	56%	59%
Two or More Races	168	317	64	22%	15%	33%	18%	12%	64%	56%	57%	52%	56%

Table 7.C.11 Demographic Summary for History–Social Science, Grade Eight

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	World History and Geography: Ancient Civ.	Late Antiquity and the Middle Ages	Renaissance/Reformation	U.S. Constitution and the Early Republic	Civil War and Its Aftermath
All valid scores	461,566	353	71	13%	12%	24%	23%	27%	62%	64%	61%	64%	63%
Male	235,687	355	75	15%	11%	22%	22%	30%	62%	65%	61%	64%	63%
Female	225,744	351	66	11%	12%	27%	25%	25%	61%	64%	61%	64%	64%
Gender unknown	135	303	58	34%	21%	22%	13%	10%	51%	49%	45%	49%	46%
American Indian	3,271	338	65	17%	13%	27%	24%	20%	58%	61%	56%	61%	59%
Asian American	40,570	403	78	5%	5%	14%	21%	55%	74%	78%	72%	76%	77%
Pacific Islander	2,786	347	64	12%	13%	28%	24%	23%	61%	64%	61%	62%	61%
Filipino	12,854	379	65	5%	6%	20%	28%	41%	69%	73%	69%	71%	72%
Hispanic	235,120	332	62	17%	15%	29%	22%	16%	57%	58%	56%	59%	57%
African American	31,450	329	65	21%	15%	26%	21%	16%	55%	57%	55%	56%	57%
White	124,929	377	70	7%	7%	19%	26%	41%	68%	71%	66%	71%	72%
Two or More Races	10,586	366	74	11%	9%	21%	24%	35%	65%	68%	63%	67%	68%
English Only	259,098	362	71	11%	10%	22%	25%	32%	64%	67%	63%	67%	67%
Initially Fluent English Prof.	33,207	383	74	6%	7%	20%	25%	43%	70%	73%	68%	72%	72%
English Learner	71,824	292	48	36%	25%	27%	9%	3%	46%	44%	44%	46%	42%
Reclassified Fluent Eng. Prof.	96,517	363	60	5%	9%	29%	30%	27%	65%	68%	64%	68%	67%
English Prof. unknown	920	310	66	33%	17%	24%	15%	12%	51%	50%	48%	51%	49%
No Special Ed Services	417,663	359	69	10%	11%	25%	25%	30%	63%	66%	62%	66%	66%
Special Ed Services	42,939	294	60	42%	21%	21%	10%	7%	46%	45%	44%	46%	43%
Special Ed unknown	964	269	42	57%	23%	15%	4%	1%	39%	36%	36%	38%	35%
Not Econ. Disadvantaged	192,791	382	71	6%	7%	19%	26%	43%	69%	73%	68%	72%	73%
Economically Disadvantaged	267,551	331	63	18%	16%	29%	22%	16%	56%	58%	55%	58%	57%
Unknown Economic Status	1,224	313	67	31%	17%	24%	15%	13%	52%	52%	49%	51%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,386	357	66	11%	9%	23%	28%	29%	63%	67%	61%	66%	65%
Asian American	24,554	425	74	2%	3%	9%	19%	67%	79%	82%	77%	81%	83%
Pacific Islander	1,203	365	66	7%	9%	25%	26%	33%	65%	69%	65%	67%	67%
Filipino	8,525	388	64	4%	5%	17%	28%	46%	71%	76%	70%	74%	75%
Hispanic	47,116	355	65	10%	11%	25%	27%	27%	63%	66%	62%	65%	65%
African American	10,155	350	68	14%	11%	24%	25%	26%	61%	64%	60%	63%	64%
White	93,276	389	68	4%	5%	17%	27%	47%	71%	74%	69%	75%	76%
Two or More Races	6,576	385	72	6%	6%	17%	25%	45%	70%	74%	68%	73%	74%

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	World History and Geography: Ancient Civ.	Late Antiquity and the Middle Ages	Renaissance/Reformation	U.S. Constitution and the Early Republic	Civil War and Its Aftermath
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,873	325	60	21%	16%	30%	21%	13%	54%	57%	52%	57%	54%
Asian American	15,961	370	72	9%	9%	21%	25%	37%	66%	71%	65%	68%	69%
Pacific Islander	1,574	334	60	15%	16%	31%	23%	16%	58%	60%	58%	58%	57%
Filipino	4,317	362	63	8%	9%	25%	28%	31%	65%	69%	65%	67%	67%
Hispanic	187,580	326	60	19%	17%	30%	21%	13%	55%	56%	54%	57%	55%
African American	21,187	319	61	24%	18%	27%	19%	12%	53%	54%	52%	53%	54%
White	31,352	344	65	14%	12%	26%	25%	22%	60%	63%	58%	62%	61%
Two or More Races	3,707	337	66	18%	14%	26%	22%	19%	58%	61%	56%	59%	59%
Primary Ethnicity—Unknown Economic Status													
American Indian	12	300	44	42%	17%	25%	17%	0%	52%	50%	36%	49%	44%
Asian American	55	339	91	33%	9%	16%	13%	29%	58%	57%	57%	58%	56%
Pacific Islander	9	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	12	318	45	17%	8%	50%	25%	0%	53%	55%	44%	56%	58%
Hispanic	424	304	61	33%	20%	25%	14%	8%	50%	49%	47%	48%	47%
African American	108	292	64	44%	17%	21%	9%	9%	45%	44%	45%	44%	47%
White	301	339	68	20%	10%	27%	20%	24%	60%	62%	56%	60%	59%
Two or More Races	303	303	63	35%	21%	22%	14%	9%	49%	49%	45%	49%	47%

Table 7.C.12 Demographic Summary for World History

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Development of Modern Political Thought	Industrial Expansion and Imperialism	Causes and Effects of the First World War	Causes and Effects of the Second World War	International Developments in the Post-WW II Era
All valid scores	473,651	342	75	19%	12%	24%	21%	23%	62%	65%	61%	63%	61%
Grade 9	33,208	347	90	25%	10%	17%	18%	30%	63%	64%	61%	63%	61%
Grade 10	426,536	343	73	18%	12%	25%	22%	23%	63%	65%	61%	63%	61%
Grade 11	13,907	283	68	50%	15%	18%	10%	7%	45%	47%	44%	44%	44%
Male	240,727	349	81	20%	10%	21%	21%	28%	62%	66%	63%	64%	63%
Female	232,733	335	67	18%	14%	28%	22%	17%	62%	64%	58%	61%	58%
Gender unknown	191	282	61	50%	18%	18%	9%	5%	46%	45%	44%	44%	41%
American Indian	3,699	331	72	23%	14%	25%	20%	18%	59%	62%	58%	59%	58%
Asian American	43,512	387	77	7%	6%	18%	24%	44%	72%	77%	73%	75%	74%
Pacific Islander	2,936	331	67	21%	14%	27%	21%	16%	60%	62%	58%	60%	57%
Filipino	14,138	365	67	8%	8%	26%	28%	30%	68%	73%	67%	70%	69%
Hispanic	233,646	322	67	25%	16%	27%	19%	14%	58%	59%	55%	57%	55%
African American	31,998	312	66	32%	15%	26%	17%	11%	55%	56%	52%	53%	51%
White	133,876	366	75	11%	8%	22%	25%	34%	67%	72%	68%	70%	68%
Two or More Races	9,846	351	79	18%	10%	21%	22%	28%	64%	67%	63%	65%	63%
English Only	268,330	350	76	17%	11%	23%	23%	26%	64%	67%	63%	65%	63%
Initially Fluent English Prof.	39,971	365	75	10%	9%	24%	25%	32%	68%	71%	67%	69%	68%
English Learner	64,985	283	52	48%	21%	21%	8%	3%	47%	45%	44%	45%	42%
Reclassified Fluent Eng. Prof.	99,614	349	66	11%	12%	30%	25%	22%	65%	67%	63%	65%	64%
English Prof. unknown	751	299	66	42%	15%	22%	12%	9%	51%	50%	47%	50%	47%
No Special Ed Services	434,976	347	74	16%	12%	25%	23%	24%	64%	66%	62%	64%	62%
Special Ed Services	38,046	284	63	52%	16%	17%	8%	6%	46%	46%	45%	45%	42%
Special Ed unknown	629	263	48	68%	16%	10%	4%	2%	39%	39%	38%	38%	35%
Not Econ. Disadvantaged	221,391	365	76	12%	8%	22%	25%	33%	67%	72%	67%	69%	68%
Economically Disadvantaged	251,296	321	67	26%	15%	27%	19%	14%	58%	58%	55%	57%	55%
Unknown Economic Status	964	304	68	37%	17%	23%	13%	9%	52%	52%	48%	52%	49%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,945	347	72	17%	11%	25%	24%	24%	63%	67%	63%	64%	63%
Asian American	26,288	405	74	4%	4%	14%	24%	54%	76%	81%	77%	79%	79%
Pacific Islander	1,510	343	69	16%	12%	27%	24%	21%	64%	66%	61%	63%	60%
Filipino	10,038	371	66	6%	7%	25%	29%	33%	70%	75%	69%	71%	71%
Hispanic	57,689	338	71	19%	12%	27%	22%	20%	61%	64%	60%	62%	60%
African American	12,964	325	69	25%	13%	27%	20%	15%	59%	61%	56%	58%	56%
White	104,481	376	74	8%	7%	21%	27%	38%	69%	75%	71%	72%	71%
Two or More Races	6,476	367	79	13%	8%	19%	24%	36%	67%	72%	68%	70%	68%

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Development of Modern Political Thought	Industrial Expansion and Imperialism	Causes and Effects of the First World War	Causes and Effects of the Second World War	International Developments in the Post-WW II Era
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,747	314	66	30%	17%	26%	16%	11%	55%	57%	53%	54%	52%
Asian American	17,189	361	73	11%	9%	24%	26%	30%	67%	70%	66%	68%	68%
Pacific Islander	1,421	318	63	26%	16%	28%	19%	11%	57%	58%	54%	56%	52%
Filipino	4,086	349	66	11%	12%	30%	26%	21%	65%	68%	63%	65%	63%
Hispanic	175,591	317	65	27%	17%	27%	18%	12%	57%	57%	54%	56%	53%
African American	18,974	302	62	36%	17%	25%	14%	8%	53%	53%	49%	50%	48%
White	29,191	333	71	22%	12%	26%	21%	19%	60%	63%	59%	60%	58%
Two or More Races	3,097	321	71	29%	13%	25%	19%	14%	57%	59%	54%	56%	54%
Primary Ethnicity—Unknown Economic Status													
American Indian	7	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	35	343	81	20%	11%	26%	20%	23%	63%	64%	59%	60%	67%
Pacific Islander	5	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	14	335	76	21%	7%	50%	7%	14%	62%	64%	54%	58%	61%
Hispanic	366	294	62	41%	19%	22%	12%	6%	50%	49%	45%	49%	47%
African American	60	280	53	58%	10%	20%	8%	3%	47%	45%	41%	45%	41%
White	204	319	77	31%	14%	26%	14%	15%	54%	57%	53%	55%	55%
Two or More Races	273	305	65	34%	20%	23%	15%	8%	54%	52%	49%	53%	48%

Table 7.C.13 Demographic Summary for History–Social Science, Grade Eleven

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Foundations of Amer. Pol. & Social Thought	Industrialization and the U.S. Role as a World Power	United States Between the World Wars	World War II and Foreign Affairs	Post-World War II Domestic Issues
All valid scores	446,459	345	73	17%	12%	23%	27%	21%	62%	61%	62%	62%	61%
Male	225,978	349	78	19%	10%	20%	26%	25%	64%	62%	63%	64%	61%
Female	220,343	341	67	16%	13%	26%	28%	17%	61%	61%	62%	59%	62%
Gender unknown	138	290	66	47%	13%	21%	14%	4%	47%	45%	44%	45%	45%
American Indian	3,426	336	70	20%	13%	24%	26%	17%	60%	58%	59%	59%	59%
Asian American	42,520	383	73	7%	6%	16%	30%	40%	75%	72%	72%	72%	71%
Pacific Islander	2,725	333	67	19%	14%	26%	26%	15%	60%	58%	58%	58%	58%
Filipino	13,268	364	63	7%	8%	23%	35%	26%	69%	68%	67%	68%	68%
Hispanic	213,881	326	66	22%	15%	26%	24%	12%	55%	57%	57%	58%	55%
African American	30,784	318	67	28%	15%	24%	22%	11%	54%	54%	54%	53%	55%
White	131,192	367	73	11%	8%	19%	31%	32%	70%	67%	69%	67%	68%
Two or More Races	8,663	351	76	16%	10%	21%	28%	25%	65%	63%	64%	63%	64%
English Only	256,235	353	74	15%	10%	21%	28%	25%	65%	63%	64%	63%	64%
Initially Fluent English Prof.	37,630	367	70	9%	9%	21%	31%	30%	70%	68%	68%	67%	67%
English Learner	55,933	281	51	46%	22%	21%	8%	2%	40%	43%	43%	46%	40%
Reclassified Fluent Eng. Prof.	96,055	352	62	9%	11%	29%	32%	19%	64%	65%	65%	65%	64%
English Prof. unknown	606	306	68	34%	15%	24%	18%	8%	50%	50%	50%	51%	51%
No Special Ed Services	411,649	350	71	14%	11%	23%	28%	23%	64%	63%	64%	63%	63%
Special Ed Services	34,588	283	62	51%	18%	17%	10%	5%	42%	43%	43%	45%	41%
Special Ed unknown	222	259	49	70%	15%	7%	6%	2%	36%	35%	35%	38%	33%
Not Econ. Disadvantaged	216,112	366	73	11%	8%	19%	30%	31%	70%	67%	68%	67%	67%
Economically Disadvantaged	229,542	325	67	23%	15%	26%	24%	12%	55%	56%	56%	57%	55%
Unknown Economic Status	805	309	69	33%	17%	22%	17%	10%	51%	51%	51%	50%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,816	350	70	15%	11%	23%	29%	22%	65%	62%	64%	63%	64%
Asian American	25,523	400	70	5%	4%	13%	29%	50%	80%	76%	76%	75%	75%
Pacific Islander	1,373	347	67	14%	12%	25%	29%	20%	64%	62%	62%	62%	63%
Filipino	9,592	369	63	6%	7%	22%	36%	29%	70%	69%	69%	69%	69%
Hispanic	55,159	340	69	17%	12%	24%	28%	18%	61%	60%	61%	61%	60%
African American	13,080	332	70	21%	13%	24%	26%	16%	59%	58%	59%	56%	59%
White	103,840	376	71	8%	7%	18%	32%	35%	73%	69%	71%	69%	70%
Two or More Races	5,729	366	74	12%	8%	19%	31%	31%	70%	67%	68%	66%	68%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Foundations of Amer. Pol. & Social Thought	Industrialization and the U.S. Role as a World Power	United States Between the World Wars	World War II and Foreign Affairs	Post-World War II Domestic Issues
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,600	319	66	26%	16%	26%	22%	10%	54%	54%	54%	55%	55%
Asian American	16,968	359	70	11%	9%	22%	31%	26%	67%	66%	66%	67%	65%
Pacific Islander	1,349	319	63	25%	17%	26%	23%	9%	55%	54%	54%	55%	54%
Filipino	3,658	352	62	10%	11%	26%	33%	20%	64%	65%	64%	65%	64%
Hispanic	158,417	321	65	24%	16%	27%	23%	11%	53%	55%	55%	56%	54%
African American	17,641	307	64	32%	17%	25%	19%	7%	50%	51%	51%	50%	52%
White	27,146	336	71	20%	12%	23%	27%	18%	60%	59%	60%	59%	59%
Two or More Races	2,763	324	71	25%	14%	24%	23%	14%	56%	55%	56%	55%	55%
Primary Ethnicity—Unknown Economic Status													
American Indian	10	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	29	306	77	41%	17%	10%	21%	10%	50%	53%	48%	52%	46%
Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	18	338	55	6%	17%	39%	22%	17%	59%	59%	56%	65%	64%
Hispanic	305	298	65	38%	17%	24%	15%	5%	47%	48%	49%	48%	47%
African American	63	291	56	41%	22%	22%	11%	3%	46%	45%	47%	43%	47%
White	206	328	71	22%	17%	21%	21%	18%	59%	57%	56%	55%	57%
Two or More Races	171	310	72	35%	14%	22%	18%	12%	52%	52%	50%	49%	53%

Table 7.C.14 Demographic Summary for Mathematics, Grade Two

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Addition, and Subtraction	Multiplication, Division, and Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	459,483	382	85	4%	13%	17%	30%	36%	75%	77%	75%	81%	73%
Male	234,654	382	88	5%	13%	16%	29%	37%	75%	76%	75%	80%	73%
Female	224,647	382	83	3%	13%	18%	31%	35%	75%	77%	74%	81%	74%
Gender unknown	182	344	81	8%	23%	20%	29%	20%	66%	68%	66%	74%	64%
American Indian	2,859	363	82	6%	16%	20%	31%	27%	71%	73%	71%	78%	69%
Asian American	39,545	436	84	1%	5%	8%	23%	63%	86%	86%	87%	88%	82%
Pacific Islander	2,413	376	82	4%	13%	20%	31%	32%	74%	75%	74%	79%	72%
Filipino	10,740	410	80	2%	7%	12%	30%	49%	82%	82%	83%	85%	78%
Hispanic	244,934	363	80	5%	17%	20%	31%	26%	71%	73%	70%	77%	70%
African American	27,789	351	83	8%	20%	21%	28%	23%	68%	70%	67%	74%	67%
White	117,141	407	81	2%	7%	12%	30%	48%	80%	82%	81%	85%	78%
Two or More Races	14,062	398	85	3%	10%	14%	29%	44%	78%	80%	79%	83%	76%
English Only	260,448	390	85	4%	11%	15%	30%	40%	77%	78%	77%	82%	75%
Initially Fluent English Prof.	19,665	429	81	1%	5%	10%	27%	58%	85%	86%	85%	88%	82%
English Learner	169,573	362	82	6%	18%	20%	30%	26%	71%	73%	70%	77%	69%
Reclassified Fluent Eng. Prof.	8,973	425	75	0%	4%	10%	30%	55%	85%	85%	85%	88%	82%
English Prof. unknown	824	355	88	9%	19%	20%	29%	24%	68%	70%	70%	74%	67%
No Special Ed Services	423,680	388	82	3%	12%	17%	31%	38%	77%	78%	76%	82%	74%
Special Ed Services	35,758	317	91	22%	25%	17%	20%	16%	58%	60%	59%	66%	58%
Special Ed unknown	45	290	87	31%	31%	13%	11%	13%	53%	53%	56%	59%	43%
Not Econ. Disadvantaged	175,895	415	82	2%	6%	11%	29%	52%	82%	83%	83%	86%	79%
Economically Disadvantaged	282,564	362	81	6%	17%	20%	31%	26%	71%	73%	70%	77%	69%
Unknown Economic Status	1,024	355	89	9%	19%	20%	27%	25%	68%	70%	70%	75%	67%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,012	387	83	4%	11%	16%	33%	36%	76%	77%	77%	82%	75%
Asian American	25,276	455	78	1%	2%	5%	19%	72%	89%	89%	90%	90%	85%
Pacific Islander	897	396	81	2%	9%	16%	30%	42%	79%	80%	79%	83%	76%
Filipino	6,905	420	78	1%	5%	10%	30%	54%	84%	84%	85%	87%	80%
Hispanic	41,014	389	80	3%	11%	16%	32%	38%	77%	79%	77%	82%	75%
African American	7,293	375	84	5%	15%	17%	30%	33%	75%	75%	74%	78%	72%
White	84,825	419	78	1%	5%	10%	29%	54%	83%	84%	84%	87%	80%
Two or More Races	8,673	418	81	1%	6%	11%	28%	54%	83%	84%	84%	87%	79%

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Addition, and Subtraction	Multiplication, Division, and Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,835	351	79	8%	19%	22%	30%	22%	68%	70%	67%	76%	66%
Asian American	14,190	404	85	3%	8%	13%	29%	46%	81%	81%	80%	83%	77%
Pacific Islander	1,510	364	80	5%	16%	21%	31%	27%	72%	73%	71%	77%	70%
Filipino	3,811	392	81	3%	10%	16%	31%	40%	79%	78%	79%	82%	75%
Hispanic	203,617	358	79	6%	18%	21%	31%	24%	70%	72%	69%	77%	69%
African American	20,402	342	81	10%	22%	22%	27%	19%	66%	68%	65%	72%	65%
White	32,086	375	80	4%	13%	18%	33%	31%	74%	76%	74%	80%	72%
Two or More Races	5,113	366	81	6%	15%	20%	31%	28%	72%	73%	72%	78%	70%
Primary Ethnicity—Unknown Economic Status													
American Indian	12	328	65	8%	33%	17%	33%	8%	65%	64%	71%	69%	61%
Asian American	79	404	87	4%	10%	11%	28%	47%	82%	79%	85%	82%	78%
Pacific Islander	6	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	24	386	83	4%	8%	17%	33%	38%	77%	78%	81%	82%	69%
Hispanic	303	333	81	11%	26%	23%	26%	15%	63%	65%	64%	72%	64%
African American	94	329	79	14%	21%	30%	19%	16%	62%	66%	62%	68%	62%
White	230	378	94	7%	14%	16%	28%	36%	72%	75%	75%	79%	72%
Two or More Races	276	353	89	10%	17%	20%	30%	24%	68%	70%	69%	75%	65%

Table 7.C.15 Demographic Summary for Mathematics, Grade Three

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Fractions, and Decimals	Addition, Subtraction, Multiplication, Division	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	437,217	401	91	2%	11%	19%	27%	41%	80%	76%	81%	81%	85%
Male	220,699	402	92	2%	10%	18%	27%	42%	80%	76%	82%	81%	85%
Female	216,366	399	90	2%	11%	20%	28%	40%	79%	77%	80%	81%	86%
Gender unknown	152	355	92	12%	16%	20%	25%	26%	70%	65%	71%	71%	75%
American Indian	2,776	377	87	3%	16%	23%	28%	31%	76%	70%	77%	77%	82%
Asian American	38,007	463	90	1%	3%	8%	19%	69%	89%	89%	91%	89%	92%
Pacific Islander	2,369	388	82	2%	12%	22%	31%	34%	78%	75%	79%	79%	83%
Filipino	10,583	430	86	1%	5%	13%	27%	55%	85%	84%	87%	85%	89%
Hispanic	230,627	381	85	3%	14%	23%	29%	31%	76%	73%	77%	78%	82%
African American	27,152	364	85	5%	18%	25%	27%	25%	73%	69%	74%	74%	79%
White	112,725	425	88	1%	6%	14%	27%	53%	84%	81%	87%	85%	90%
Two or More Races	12,978	415	91	2%	8%	16%	27%	47%	82%	79%	84%	83%	87%
English Only	245,631	408	91	2%	9%	17%	27%	44%	81%	77%	83%	82%	87%
Initially Fluent English Prof.	18,589	451	90	0%	4%	10%	22%	64%	87%	86%	89%	88%	92%
English Learner	144,151	370	82	3%	16%	25%	29%	27%	74%	71%	75%	76%	80%
Reclassified Fluent Eng. Prof.	28,085	458	80	0%	1%	7%	23%	68%	89%	89%	92%	89%	93%
English Prof. unknown	761	361	91	8%	19%	21%	25%	27%	71%	67%	72%	72%	78%
No Special Ed Services	409,251	404	90	2%	10%	19%	27%	42%	80%	77%	82%	81%	86%
Special Ed Services	27,470	358	92	9%	19%	23%	25%	24%	71%	65%	72%	72%	77%
Special Ed unknown	496	312	60	9%	36%	30%	21%	4%	62%	53%	61%	64%	70%
Not Econ. Disadvantaged	168,294	435	89	1%	5%	12%	25%	57%	86%	83%	88%	86%	90%
Economically Disadvantaged	267,985	379	86	3%	14%	23%	29%	31%	76%	72%	77%	77%	82%
Unknown Economic Status	938	367	94	7%	17%	22%	26%	29%	73%	68%	74%	74%	79%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,003	400	89	2%	10%	19%	29%	40%	80%	75%	82%	81%	86%
Asian American	24,177	483	83	0%	2%	5%	15%	79%	92%	92%	94%	92%	94%
Pacific Islander	850	411	82	1%	6%	17%	30%	45%	82%	80%	84%	83%	88%
Filipino	6,725	441	84	1%	3%	11%	25%	60%	87%	86%	89%	87%	91%
Hispanic	38,541	407	87	1%	8%	18%	29%	43%	81%	78%	83%	82%	87%
African American	7,315	390	88	3%	12%	21%	28%	36%	78%	74%	80%	78%	84%
White	81,661	438	86	1%	4%	11%	26%	59%	87%	83%	89%	87%	92%
Two or More Races	8,022	436	89	1%	5%	12%	25%	57%	86%	83%	88%	86%	90%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Fractions, and Decimals	Addition, Subtraction, Multiplication, Division	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,768	364	83	4%	18%	24%	27%	25%	73%	67%	74%	75%	80%
Asian American	13,745	428	89	1%	6%	14%	26%	54%	84%	84%	86%	84%	88%
Pacific Islander	1,515	375	80	2%	14%	24%	32%	27%	76%	72%	77%	77%	81%
Filipino	3,837	412	85	1%	7%	16%	30%	46%	82%	81%	84%	82%	87%
Hispanic	191,785	375	84	3%	15%	24%	29%	29%	75%	72%	76%	77%	81%
African American	19,760	355	82	6%	20%	26%	27%	21%	71%	66%	72%	72%	77%
White	30,858	391	86	3%	11%	21%	29%	37%	79%	73%	80%	80%	85%
Two or More Races	4,717	382	85	3%	13%	21%	30%	32%	77%	72%	78%	78%	83%
Primary Ethnicity—Unknown Economic Status													
American Indian	5	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	85	436	106	2%	11%	13%	14%	60%	83%	83%	86%	83%	85%
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	21	397	103	10%	0%	19%	43%	29%	79%	76%	81%	76%	85%
Hispanic	301	350	85	9%	18%	28%	23%	22%	70%	63%	69%	72%	77%
African American	77	333	88	12%	27%	23%	21%	17%	65%	59%	65%	66%	73%
White	206	387	89	3%	14%	18%	32%	34%	79%	71%	80%	78%	84%
Two or More Races	239	358	90	10%	17%	20%	28%	26%	71%	67%	72%	71%	76%

Table 7.C.16 Demographic Summary for Mathematics, Grade Four

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Decimals, Fractions, and Negative Numbers	Operations and Factoring	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	433,835	392	78	2%	10%	17%	26%	45%	81%	80%	82%	72%	78%
Male	218,489	392	80	2%	11%	16%	26%	45%	82%	80%	81%	72%	77%
Female	215,234	392	75	1%	10%	17%	27%	44%	80%	81%	83%	72%	80%
Gender unknown	112	353	75	5%	21%	25%	24%	25%	72%	69%	73%	61%	72%
American Indian	2,675	371	73	3%	14%	21%	28%	34%	78%	75%	77%	67%	74%
Asian American	37,991	449	79	1%	3%	6%	17%	74%	90%	92%	92%	83%	87%
Pacific Islander	2,358	384	72	2%	10%	17%	29%	42%	80%	80%	81%	69%	77%
Filipino	11,074	419	72	1%	4%	11%	25%	61%	87%	88%	89%	78%	83%
Hispanic	226,731	375	71	2%	13%	20%	29%	35%	77%	77%	79%	68%	75%
African American	27,076	362	72	4%	17%	22%	28%	29%	74%	73%	75%	64%	72%
White	113,294	412	76	1%	6%	12%	25%	56%	86%	84%	86%	76%	84%
Two or More Races	12,636	405	77	1%	8%	14%	26%	52%	84%	83%	85%	74%	81%
English Only	242,544	398	78	2%	9%	15%	26%	48%	83%	81%	83%	73%	80%
Initially Fluent English Prof.	18,934	432	80	1%	4%	9%	21%	65%	88%	88%	89%	81%	86%
English Learner	121,575	358	66	3%	17%	25%	30%	25%	73%	73%	75%	64%	71%
Reclassified Fluent Eng. Prof.	50,212	432	68	0%	2%	7%	23%	68%	89%	91%	91%	81%	86%
English Prof. unknown	570	361	81	6%	18%	20%	25%	30%	73%	71%	73%	64%	72%
No Special Ed Services	405,552	395	77	2%	10%	16%	27%	46%	82%	81%	83%	72%	79%
Special Ed Services	26,292	357	77	6%	19%	22%	25%	28%	73%	70%	72%	63%	71%
Special Ed unknown	1,991	345	71	6%	23%	25%	25%	21%	69%	68%	69%	60%	67%
Not Econ. Disadvantaged	169,003	422	77	1%	5%	10%	23%	61%	87%	87%	88%	78%	85%
Economically Disadvantaged	264,153	373	72	3%	14%	21%	29%	35%	77%	77%	78%	68%	74%
Unknown Economic Status	679	364	75	4%	19%	21%	26%	30%	75%	72%	75%	64%	74%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	990	387	76	2%	10%	18%	28%	42%	82%	79%	81%	70%	78%
Asian American	23,851	467	75	0%	1%	4%	13%	82%	93%	94%	94%	86%	91%
Pacific Islander	868	403	73	2%	6%	12%	27%	53%	84%	84%	86%	74%	81%
Filipino	7,083	428	71	0%	3%	9%	23%	65%	88%	89%	90%	80%	85%
Hispanic	37,900	397	72	1%	8%	15%	28%	48%	83%	83%	84%	73%	80%
African American	7,545	384	74	2%	11%	17%	29%	40%	80%	79%	81%	69%	77%
White	82,924	424	74	0%	4%	10%	23%	63%	88%	87%	89%	79%	86%
Two or More Races	7,842	422	76	1%	5%	10%	23%	61%	88%	87%	88%	78%	85%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Decimals, Fractions, and Negative Numbers	Operations and Factoring	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,680	361	70	4%	17%	22%	27%	30%	76%	72%	74%	65%	72%
Asian American	14,084	418	76	1%	5%	11%	23%	60%	86%	87%	88%	77%	82%
Pacific Islander	1,488	373	69	3%	12%	20%	30%	35%	77%	77%	79%	67%	74%
Filipino	3,977	405	71	1%	6%	14%	28%	52%	84%	85%	86%	75%	81%
Hispanic	188,611	370	70	2%	14%	21%	29%	33%	76%	76%	78%	67%	74%
African American	19,477	353	70	5%	20%	24%	27%	25%	72%	70%	73%	62%	70%
White	30,199	380	72	2%	11%	19%	28%	39%	80%	77%	80%	70%	77%
Two or More Races	4,637	377	71	2%	12%	20%	29%	36%	79%	77%	79%	68%	76%
Primary Ethnicity—Unknown Economic Status													
American Indian	5	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	56	423	89	2%	11%	4%	18%	66%	84%	86%	89%	75%	85%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	14	380	78	7%	7%	7%	43%	36%	76%	85%	80%	69%	73%
Hispanic	220	346	62	4%	22%	25%	29%	20%	72%	68%	71%	61%	70%
African American	54	344	71	2%	31%	28%	17%	22%	71%	67%	68%	57%	67%
White	171	378	74	4%	13%	19%	26%	39%	80%	76%	78%	69%	79%
Two or More Races	157	358	75	5%	19%	24%	26%	26%	73%	71%	74%	63%	71%

Table 7.C.17 Demographic Summary for Mathematics, Grade Five

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	437,504	393	93	4%	13%	20%	29%	34%	66%	69%	74%	67%	81%
Male	220,306	391	95	4%	14%	20%	28%	34%	66%	68%	73%	67%	80%
Female	217,133	394	91	3%	12%	21%	30%	34%	66%	71%	74%	67%	82%
Gender unknown	65	334	79	12%	26%	26%	15%	20%	56%	54%	59%	54%	69%
American Indian	2,839	362	87	6%	19%	26%	26%	23%	59%	62%	67%	61%	75%
Asian American	40,118	465	95	1%	4%	9%	21%	65%	80%	85%	86%	81%	91%
Pacific Islander	2,423	381	85	4%	14%	23%	31%	29%	63%	68%	72%	64%	79%
Filipino	11,479	425	89	1%	6%	15%	30%	48%	73%	77%	81%	74%	87%
Hispanic	225,717	372	85	4%	16%	24%	30%	25%	62%	65%	70%	62%	78%
African American	27,674	356	85	7%	20%	25%	27%	20%	57%	61%	66%	58%	74%
White	115,861	413	91	2%	8%	17%	30%	43%	70%	74%	78%	72%	86%
Two or More Races	11,393	407	96	3%	10%	18%	29%	40%	69%	72%	76%	70%	83%
English Only	244,730	397	93	3%	12%	19%	29%	36%	67%	70%	75%	68%	82%
Initially Fluent English Prof.	30,332	433	96	1%	7%	14%	27%	51%	74%	78%	81%	75%	88%
English Learner	97,749	344	76	7%	23%	29%	27%	14%	55%	59%	64%	55%	71%
Reclassified Fluent Eng. Prof.	64,183	430	85	0%	4%	14%	32%	49%	74%	79%	82%	75%	88%
English Prof. unknown	510	352	96	11%	24%	20%	23%	22%	56%	59%	63%	57%	73%
No Special Ed Services	409,754	396	93	3%	12%	20%	29%	35%	66%	70%	75%	67%	82%
Special Ed Services	25,275	346	88	11%	23%	25%	24%	18%	55%	58%	63%	56%	71%
Special Ed unknown	2,475	354	83	7%	21%	27%	26%	19%	57%	60%	66%	58%	73%
Not Econ. Disadvantaged	174,350	426	94	2%	7%	15%	28%	48%	73%	77%	80%	75%	87%
Economically Disadvantaged	262,487	370	86	5%	17%	24%	30%	25%	61%	65%	70%	62%	77%
Unknown Economic Status	667	352	95	12%	22%	21%	25%	20%	55%	59%	64%	58%	72%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,064	384	90	4%	13%	24%	29%	31%	64%	68%	72%	66%	80%
Asian American	25,220	486	89	0%	2%	6%	18%	74%	84%	88%	89%	85%	93%
Pacific Islander	899	401	89	2%	10%	20%	30%	37%	67%	72%	76%	69%	82%
Filipino	7,345	437	88	1%	4%	13%	29%	53%	75%	80%	83%	76%	88%
Hispanic	39,314	396	87	2%	11%	21%	32%	35%	67%	71%	75%	68%	82%
African American	8,034	381	89	4%	14%	23%	30%	29%	63%	67%	72%	64%	79%
White	85,346	427	90	1%	6%	14%	30%	49%	73%	77%	80%	75%	88%
Two or More Races	7,128	429	94	2%	6%	14%	28%	49%	73%	77%	80%	75%	87%

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,767	350	82	7%	22%	27%	25%	18%	56%	59%	65%	57%	72%
Asian American	14,844	428	94	2%	7%	14%	28%	50%	74%	78%	80%	73%	86%
Pacific Islander	1,522	370	80	4%	16%	25%	31%	24%	61%	65%	70%	62%	77%
Filipino	4,117	404	88	2%	10%	19%	32%	38%	68%	73%	77%	69%	83%
Hispanic	186,185	367	84	5%	17%	25%	30%	23%	61%	64%	69%	61%	77%
African American	19,570	346	81	9%	23%	26%	26%	16%	55%	58%	64%	56%	72%
White	30,341	375	86	4%	15%	24%	31%	26%	62%	66%	71%	64%	79%
Two or More Races	4,141	371	86	5%	16%	23%	30%	25%	61%	65%	70%	62%	77%
Primary Ethnicity—Unknown Economic Status													
American Indian	8	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	54	435	120	6%	13%	11%	17%	54%	71%	77%	78%	75%	81%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	17	400	93	12%	0%	18%	35%	35%	65%	75%	73%	70%	79%
Hispanic	218	338	82	13%	24%	23%	27%	13%	52%	55%	63%	55%	70%
African American	70	331	92	13%	34%	19%	17%	17%	50%	55%	58%	52%	64%
White	174	356	96	11%	21%	19%	27%	22%	56%	60%	64%	59%	75%
Two or More Races	124	345	86	13%	19%	25%	25%	19%	55%	58%	63%	55%	74%

Table 7.C.18 Demographic Summary for Mathematics, Grade Six

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Ratios, Proportions, Percentages, Neg. Fractions	Operations and Problem Solving with Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	432,693	365	78	5%	17%	25%	29%	24%	64%	68%	69%	60%	64%
Male	218,190	364	79	6%	17%	24%	29%	24%	63%	67%	70%	60%	63%
Female	214,398	365	77	5%	16%	26%	30%	23%	65%	68%	69%	60%	66%
Gender unknown	105	325	62	12%	28%	22%	31%	7%	52%	57%	59%	49%	56%
American Indian	2,921	345	68	8%	19%	29%	29%	14%	58%	63%	65%	55%	60%
Asian American	37,321	430	86	1%	5%	13%	26%	55%	79%	82%	84%	76%	79%
Pacific Islander	2,520	355	72	6%	17%	28%	31%	18%	62%	66%	67%	58%	61%
Filipino	12,105	390	76	2%	9%	21%	34%	34%	71%	75%	76%	67%	71%
Hispanic	222,197	344	68	7%	21%	29%	28%	14%	59%	62%	64%	55%	58%
African American	27,894	332	67	10%	26%	29%	24%	11%	55%	60%	59%	51%	55%
White	116,195	388	76	2%	10%	20%	34%	34%	69%	74%	76%	66%	72%
Two or More Races	11,540	378	80	4%	13%	23%	31%	29%	67%	71%	73%	63%	68%
English Only	244,320	372	78	4%	14%	24%	31%	27%	65%	70%	71%	62%	67%
Initially Fluent English Prof.	33,320	395	83	2%	10%	21%	31%	37%	72%	74%	77%	68%	72%
English Learner	76,358	312	58	14%	33%	31%	17%	5%	50%	53%	54%	46%	47%
Reclassified Fluent Eng. Prof.	78,140	381	71	1%	10%	26%	36%	27%	70%	72%	74%	65%	69%
English Prof. unknown	555	333	72	13%	25%	24%	25%	13%	55%	58%	61%	52%	55%
No Special Ed Services	408,293	367	78	5%	16%	25%	30%	25%	65%	68%	70%	61%	65%
Special Ed Services	22,956	318	70	17%	29%	26%	18%	10%	51%	54%	56%	47%	50%
Special Ed unknown	1,444	325	68	13%	28%	29%	20%	10%	52%	57%	58%	49%	52%
Not Econ. Disadvantaged	173,937	396	80	2%	9%	19%	32%	38%	72%	75%	78%	68%	74%
Economically Disadvantaged	258,072	343	69	7%	22%	29%	27%	14%	59%	62%	64%	54%	58%
Unknown Economic Status	684	338	73	11%	22%	26%	27%	13%	56%	60%	63%	53%	57%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,129	364	71	5%	15%	25%	34%	22%	63%	68%	71%	60%	65%
Asian American	22,857	453	81	0%	3%	8%	22%	67%	84%	86%	89%	81%	84%
Pacific Islander	967	375	76	4%	12%	23%	33%	27%	67%	70%	72%	62%	68%
Filipino	7,764	400	75	1%	7%	19%	33%	39%	74%	77%	79%	70%	74%
Hispanic	40,246	367	72	4%	14%	26%	33%	23%	65%	69%	70%	61%	66%
African American	8,416	352	72	6%	19%	27%	29%	18%	61%	66%	66%	57%	62%
White	85,370	400	75	1%	7%	18%	35%	39%	72%	77%	79%	69%	76%
Two or More Races	7,188	396	79	2%	9%	19%	33%	38%	72%	76%	78%	68%	73%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Ratios, Proportions, Percentages, Neg. Fractions	Operations and Problem Solving with Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,783	333	63	9%	23%	32%	26%	10%	55%	59%	62%	52%	56%
Asian American	14,407	394	80	2%	9%	20%	32%	37%	73%	75%	77%	68%	71%
Pacific Islander	1,549	342	66	8%	21%	30%	29%	12%	59%	64%	63%	55%	56%
Filipino	4,332	373	74	3%	13%	24%	35%	25%	67%	71%	72%	63%	66%
Hispanic	181,752	339	66	8%	23%	30%	27%	12%	58%	61%	62%	53%	57%
African American	19,415	323	63	12%	29%	30%	21%	8%	52%	58%	56%	48%	53%
White	30,646	356	69	5%	17%	28%	32%	18%	61%	66%	68%	58%	63%
Two or More Races	4,188	348	71	7%	21%	29%	28%	16%	59%	64%	65%	56%	60%
Primary Ethnicity—Unknown Economic Status													
American Indian	9	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	57	394	82	0%	12%	19%	33%	35%	71%	71%	78%	70%	71%
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	9	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	199	318	67	18%	27%	27%	22%	8%	51%	56%	56%	45%	49%
African American	63	317	64	13%	30%	32%	21%	5%	48%	55%	57%	48%	49%
White	179	349	72	11%	15%	26%	32%	16%	58%	62%	67%	57%	62%
Two or More Races	164	341	72	7%	27%	24%	27%	15%	57%	60%	63%	54%	59%

Table 7.C.19 Demographic Summary for Mathematics, Grade Seven

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	399,818	355	68	5%	17%	28%	32%	18%	62%	54%	62%	62%	61%	68%
Male	200,280	355	70	6%	18%	27%	31%	18%	63%	52%	60%	63%	61%	66%
Female	199,431	355	66	4%	17%	30%	32%	17%	62%	55%	63%	61%	61%	69%
Gender unknown	107	328	61	14%	19%	34%	26%	7%	57%	41%	53%	54%	54%	55%
American Indian	2,953	339	61	7%	22%	32%	29%	11%	59%	48%	56%	58%	57%	62%
Asian American	28,568	408	78	1%	6%	16%	33%	44%	76%	71%	75%	76%	75%	79%
Pacific Islander	2,446	349	62	5%	17%	31%	34%	13%	60%	54%	61%	61%	59%	67%
Filipino	10,816	379	66	2%	9%	24%	39%	27%	69%	63%	70%	69%	68%	76%
Hispanic	210,716	340	61	6%	22%	32%	29%	11%	58%	49%	57%	58%	57%	64%
African American	27,368	328	60	9%	27%	31%	25%	8%	54%	47%	55%	53%	53%	59%
White	107,290	375	67	2%	11%	24%	38%	25%	69%	59%	67%	69%	67%	73%
Two or More Races	9,661	365	69	4%	14%	26%	34%	22%	65%	56%	65%	66%	64%	70%
English Only	226,481	361	68	4%	15%	27%	34%	20%	64%	55%	63%	65%	63%	69%
Initially Fluent English Prof.	31,158	376	72	2%	12%	25%	35%	26%	68%	60%	67%	68%	67%	73%
English Learner	65,214	310	52	12%	35%	32%	16%	4%	49%	40%	48%	48%	47%	54%
Reclassified Fluent Eng. Prof.	76,356	367	62	2%	11%	29%	39%	19%	67%	59%	66%	66%	65%	72%
English Prof. unknown	609	329	66	9%	29%	30%	22%	10%	55%	43%	53%	55%	54%	58%
No Special Ed Services	377,523	357	68	4%	17%	28%	33%	18%	63%	55%	62%	63%	62%	68%
Special Ed Services	21,182	313	61	16%	33%	28%	18%	6%	50%	39%	48%	49%	48%	53%
Special Ed unknown	1,113	325	63	12%	28%	29%	22%	9%	54%	43%	52%	53%	52%	58%
Not Econ. Disadvantaged	158,517	380	70	2%	10%	23%	37%	28%	70%	61%	68%	70%	68%	74%
Economically Disadvantaged	240,389	339	61	7%	22%	32%	29%	11%	58%	49%	57%	57%	56%	63%
Unknown Economic Status	912	332	64	8%	27%	31%	25%	10%	56%	44%	54%	56%	55%	60%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,156	355	62	3%	17%	29%	35%	17%	64%	53%	61%	64%	62%	68%
Asian American	16,414	428	77	1%	3%	11%	31%	54%	81%	76%	80%	80%	79%	83%
Pacific Islander	984	365	63	2%	12%	28%	39%	18%	65%	58%	66%	66%	65%	71%
Filipino	6,881	388	66	1%	7%	21%	40%	31%	71%	65%	72%	71%	71%	78%
Hispanic	40,777	357	63	4%	15%	29%	35%	17%	64%	54%	63%	63%	62%	69%
African American	8,717	344	62	6%	20%	31%	31%	13%	59%	53%	60%	59%	58%	64%
White	77,652	385	66	1%	8%	22%	40%	30%	72%	62%	70%	72%	70%	76%
Two or More Races	5,936	381	69	2%	10%	22%	37%	28%	70%	61%	69%	71%	69%	74%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability	
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores												
Primary Ethnicity—Economically Disadvantaged															
American Indian	1,782	329	57	8%	25%	34%	26%	7%	55%	45%	53%	55%	54%	59%	
Asian American	12,098	382	71	2%	10%	22%	36%	30%	70%	64%	70%	70%	68%	75%	
Pacific Islander	1,458	338	60	7%	21%	34%	30%	9%	57%	51%	58%	57%	56%	64%	
Filipino	3,916	365	63	3%	12%	28%	37%	19%	65%	59%	66%	65%	64%	72%	
Hispanic	169,611	335	59	7%	23%	32%	28%	9%	57%	48%	56%	56%	55%	63%	
African American	18,577	321	57	11%	30%	32%	22%	6%	51%	45%	53%	51%	51%	56%	
White	29,429	347	61	5%	18%	31%	33%	13%	61%	50%	59%	62%	59%	65%	
Two or More Races	3,518	340	61	6%	21%	31%	29%	12%	58%	49%	58%	59%	57%	63%	
Primary Ethnicity—Unknown Economic Status															
American Indian	15	301	38	20%	20%	53%	7%	0%	46%	27%	43%	48%	48%	55%	
Asian American	56	380	76	2%	11%	29%	32%	27%	70%	60%	69%	68%	70%	68%	
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—	—	—	
Filipino	19	365	88	11%	16%	11%	37%	26%	66%	55%	65%	62%	62%	68%	
Hispanic	328	316	56	11%	33%	31%	19%	5%	51%	39%	49%	51%	50%	55%	
African American	74	307	46	11%	32%	38%	18%	1%	47%	39%	46%	49%	47%	51%	
White	209	346	62	3%	24%	25%	36%	11%	62%	48%	58%	61%	59%	66%	
Two or More Races	207	339	67	7%	22%	33%	25%	12%	58%	45%	55%	58%	58%	61%	

Table 7.C.20 Demographic Summary for General Mathematics

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability	
All valid scores	199,316	317	58	15%	27%	30%	22%	6%	52%	42%	58%	57%	44%	57%	
Grade 8	149,380	323	58	12%	25%	31%	25%	7%	54%	44%	60%	59%	46%	59%	
Grade 9	49,936	299	52	21%	33%	28%	15%	3%	45%	36%	53%	52%	39%	51%	
Male	109,775	315	60	17%	27%	28%	21%	7%	51%	41%	57%	57%	44%	55%	
Female	89,418	319	55	12%	26%	32%	23%	6%	52%	43%	61%	57%	44%	59%	
Gender unknown	123	289	61	33%	33%	18%	11%	5%	41%	33%	46%	48%	36%	47%	
American Indian	2,196	310	57	18%	29%	28%	20%	5%	48%	40%	56%	55%	43%	54%	
Asian American	6,827	345	67	8%	18%	27%	31%	16%	62%	53%	67%	64%	52%	63%	
Pacific Islander	1,127	319	56	13%	25%	32%	24%	6%	53%	44%	60%	58%	44%	58%	
Filipino	3,067	339	59	7%	18%	32%	31%	11%	60%	49%	66%	64%	50%	63%	
Hispanic	113,543	309	54	16%	30%	31%	19%	4%	49%	40%	56%	55%	41%	54%	
African American	15,801	300	54	22%	31%	28%	16%	3%	46%	38%	54%	50%	38%	51%	
White	51,859	333	61	10%	21%	29%	29%	11%	57%	46%	63%	63%	51%	63%	
Two or More Races	4,896	322	61	15%	24%	29%	24%	8%	53%	43%	60%	58%	46%	59%	
English Only	113,209	321	60	14%	25%	30%	24%	8%	53%	43%	60%	59%	46%	59%	
Initially Fluent English Prof.	8,410	333	59	9%	21%	32%	29%	9%	57%	47%	64%	63%	49%	62%	
English Learner	51,168	293	48	23%	37%	28%	11%	2%	44%	35%	50%	49%	36%	48%	
Reclassified Fluent Eng. Prof.	25,823	339	52	4%	18%	36%	33%	9%	60%	49%	67%	65%	50%	65%	
English Prof. unknown	706	299	56	21%	35%	24%	15%	4%	45%	36%	51%	51%	40%	51%	
No Special Ed Services	156,685	327	56	9%	24%	33%	26%	8%	55%	45%	62%	61%	47%	60%	
Special Ed Services	41,622	280	47	34%	38%	20%	8%	1%	39%	32%	45%	44%	33%	44%	
Special Ed unknown	1,009	267	39	42%	42%	13%	3%	0%	34%	27%	40%	39%	30%	40%	
Not Econ. Disadvantaged	68,835	334	61	10%	20%	30%	29%	11%	57%	47%	64%	63%	50%	63%	
Economically Disadvantaged	129,568	308	54	17%	30%	30%	19%	4%	49%	39%	56%	54%	41%	54%	
Unknown Economic Status	913	300	58	23%	35%	22%	16%	5%	45%	36%	52%	52%	40%	52%	
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	922	319	59	13%	27%	31%	21%	7%	51%	42%	59%	58%	46%	57%	
Asian American	2,932	364	69	6%	12%	23%	35%	24%	67%	59%	72%	70%	58%	69%	
Pacific Islander	454	329	57	11%	22%	31%	28%	8%	57%	46%	63%	61%	47%	61%	
Filipino	1,897	346	59	6%	17%	30%	35%	13%	62%	51%	69%	67%	53%	66%	
Hispanic	21,917	320	57	13%	25%	32%	24%	6%	53%	43%	60%	59%	45%	58%	
African American	4,806	311	57	18%	27%	29%	21%	5%	50%	42%	57%	54%	41%	55%	
White	33,440	342	60	8%	17%	29%	33%	13%	60%	49%	66%	66%	54%	66%	
Two or More Races	2,467	336	62	10%	20%	29%	30%	11%	58%	48%	64%	63%	51%	63%	

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability	
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores												
Primary Ethnicity—Economically Disadvantaged															
American Indian	1,266	303	54	21%	31%	26%	18%	3%	46%	38%	54%	53%	41%	52%	
Asian American	3,867	331	61	10%	23%	30%	28%	10%	58%	48%	63%	60%	47%	59%	
Pacific Islander	667	313	55	15%	28%	32%	21%	4%	51%	42%	58%	55%	42%	55%	
Filipino	1,163	328	57	10%	20%	36%	27%	7%	56%	46%	63%	61%	47%	60%	
Hispanic	91,305	307	53	17%	31%	31%	18%	3%	49%	39%	55%	54%	40%	53%	
African American	10,914	296	52	24%	32%	27%	14%	2%	44%	37%	52%	49%	36%	50%	
White	18,198	317	58	15%	26%	30%	23%	6%	51%	41%	58%	58%	45%	57%	
Two or More Races	2,188	309	58	19%	27%	30%	18%	5%	49%	39%	56%	54%	42%	54%	
Primary Ethnicity—Unknown Economic Status															
American Indian	8	—	—	—	—	—	—	—	—	—	—	—	—	—	
Asian American	28	346	88	18%	18%	11%	32%	21%	64%	55%	66%	64%	51%	54%	
Pacific Islander	6	—	—	—	—	—	—	—	—	—	—	—	—	—	
Filipino	7	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	321	297	56	26%	32%	24%	13%	5%	43%	35%	51%	51%	39%	50%	
African American	81	274	47	37%	46%	12%	2%	2%	36%	27%	43%	41%	31%	44%	
White	221	318	62	16%	29%	24%	24%	7%	49%	41%	58%	58%	46%	59%	
Two or More Races	241	293	52	22%	40%	20%	15%	2%	42%	35%	49%	50%	38%	50%	

Table 7.C.21 Demographic Summary for Algebra I

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
All valid scores	736,345	327	73	14%	30%	24%	22%	10%	59%	48%	49%	40%
Grade 7	35,961	429	82	1%	4%	11%	34%	49%	81%	75%	77%	65%
Grade 8	278,387	352	77	7%	22%	24%	30%	17%	65%	55%	58%	46%
Grade 9	257,333	309	58	16%	35%	26%	20%	4%	55%	44%	44%	35%
Grade 10	112,259	292	49	22%	41%	24%	12%	1%	50%	38%	38%	32%
Grade 11	52,405	285	47	27%	44%	20%	9%	1%	48%	36%	36%	31%
Male	379,707	324	74	16%	30%	23%	21%	10%	58%	47%	48%	40%
Female	356,395	331	73	12%	29%	25%	24%	11%	59%	49%	51%	40%
Gender unknown	243	282	52	35%	37%	19%	6%	2%	46%	36%	35%	31%
American Indian	5,756	311	63	18%	34%	24%	19%	5%	55%	43%	44%	36%
Asian American	52,330	400	94	4%	12%	17%	30%	37%	74%	67%	69%	59%
Pacific Islander	4,434	323	67	13%	30%	26%	23%	8%	58%	47%	49%	39%
Filipino	18,815	357	75	6%	20%	25%	32%	17%	66%	57%	59%	47%
Hispanic	398,974	311	62	17%	35%	24%	19%	5%	54%	44%	45%	36%
African American	52,588	301	60	21%	38%	22%	15%	4%	51%	41%	42%	34%
White	187,143	345	75	9%	23%	25%	29%	14%	64%	53%	54%	45%
Two or More Races	16,305	335	77	12%	27%	23%	24%	13%	61%	50%	51%	42%
English Only	409,927	330	74	13%	28%	24%	24%	11%	60%	49%	50%	41%
Initially Fluent English Prof.	51,992	353	86	9%	24%	23%	26%	19%	65%	55%	57%	46%
English Learner	120,386	290	54	26%	42%	20%	10%	3%	47%	38%	38%	32%
Reclassified Fluent Eng. Prof.	152,837	339	72	8%	27%	27%	27%	12%	62%	52%	54%	42%
English Prof. unknown	1,203	293	62	27%	39%	19%	10%	4%	48%	38%	38%	34%
No Special Ed Services	691,446	330	74	13%	29%	24%	23%	11%	59%	49%	50%	41%
Special Ed Services	44,580	283	55	32%	41%	16%	9%	2%	45%	36%	36%	31%
Special Ed unknown	319	285	66	37%	37%	12%	8%	5%	45%	36%	36%	31%
Not Econ. Disadvantaged	302,852	348	80	9%	23%	23%	28%	16%	64%	54%	55%	45%
Economically Disadvantaged	431,863	312	64	17%	35%	24%	19%	6%	55%	44%	45%	36%
Unknown Economic Status	1,630	296	63	26%	39%	20%	11%	4%	50%	39%	39%	34%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	2,628	322	66	13%	31%	25%	23%	7%	59%	47%	47%	39%
Asian American	29,743	423	93	2%	8%	13%	29%	48%	79%	72%	74%	65%
Pacific Islander	1,974	333	72	11%	27%	26%	24%	11%	61%	49%	52%	41%
Filipino	12,528	362	75	5%	18%	24%	34%	19%	68%	58%	60%	48%
Hispanic	88,956	320	66	14%	31%	25%	22%	7%	57%	46%	47%	38%
African American	19,020	311	65	18%	34%	23%	19%	6%	54%	44%	45%	36%
White	137,911	354	76	7%	20%	24%	32%	17%	67%	56%	57%	47%
Two or More Races	10,092	351	80	9%	22%	23%	29%	18%	65%	55%	56%	46%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores										
Primary Ethnicity—Economically Disadvantaged												
American Indian	3,107	301	59	22%	37%	23%	15%	4%	52%	41%	41%	34%
Asian American	22,513	369	85	6%	18%	21%	31%	24%	67%	59%	62%	51%
Pacific Islander	2,454	316	62	14%	33%	26%	22%	6%	56%	45%	47%	37%
Filipino	6,271	346	73	8%	23%	25%	30%	14%	64%	54%	56%	44%
Hispanic	309,328	309	61	17%	36%	24%	18%	5%	54%	43%	44%	35%
African American	33,434	295	56	23%	40%	21%	13%	3%	49%	39%	40%	32%
White	48,907	318	65	15%	32%	25%	21%	7%	57%	45%	46%	38%
Two or More Races	5,849	310	64	18%	35%	23%	18%	6%	54%	44%	44%	36%
Primary Ethnicity—Unknown Economic Status												
American Indian	21	294	38	19%	48%	24%	10%	0%	52%	39%	38%	32%
Asian American	74	382	100	7%	18%	26%	18%	32%	66%	62%	64%	56%
Pacific Islander	6	—	—	—	—	—	—	—	—	—	—	—
Filipino	16	321	51	13%	25%	38%	25%	0%	60%	47%	51%	33%
Hispanic	690	284	52	29%	43%	17%	9%	1%	47%	36%	35%	31%
African American	134	277	52	33%	48%	10%	7%	2%	42%	34%	35%	30%
White	325	308	66	21%	33%	23%	19%	5%	54%	43%	43%	36%
Two or More Races	364	294	58	26%	37%	24%	10%	4%	49%	39%	38%	33%

Table 7.C.22 Demographic Summary for Geometry

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
All valid scores	407,012	320	68	12%	31%	27%	22%	9%	56%	54%	54%	56%
Grade 8	25,253	425	68	0%	2%	10%	38%	50%	83%	83%	81%	84%
Grade 9	139,998	349	65	4%	18%	29%	35%	14%	65%	64%	63%	65%
Grade 10	162,041	298	51	15%	39%	30%	15%	2%	49%	47%	48%	49%
Grade 11	79,720	281	45	22%	46%	23%	8%	1%	44%	41%	42%	43%
Male	199,739	323	70	12%	29%	26%	23%	10%	56%	55%	54%	56%
Female	207,185	318	66	11%	33%	27%	21%	8%	55%	53%	53%	55%
Gender unknown	88	285	55	28%	38%	18%	14%	2%	44%	43%	44%	44%
American Indian	2,698	313	59	12%	32%	30%	20%	5%	55%	51%	51%	53%
Asian American	41,874	376	82	4%	15%	21%	31%	29%	70%	70%	69%	71%
Pacific Islander	2,663	305	58	13%	38%	26%	18%	4%	51%	49%	49%	52%
Filipino	14,063	337	65	5%	25%	30%	29%	11%	60%	60%	60%	62%
Hispanic	193,619	298	55	16%	39%	27%	15%	3%	49%	47%	47%	49%
African American	25,580	287	52	22%	42%	23%	11%	2%	46%	44%	44%	44%
White	117,993	341	66	6%	22%	30%	30%	12%	63%	61%	60%	62%
Two or More Races	8,522	336	71	8%	24%	28%	27%	13%	61%	59%	58%	60%
English Only	228,740	328	68	9%	28%	28%	25%	10%	59%	56%	56%	58%
Initially Fluent English Prof.	34,948	339	78	8%	27%	26%	24%	15%	60%	59%	59%	61%
English Learner	45,103	274	50	31%	46%	15%	6%	2%	40%	39%	40%	41%
Reclassified Fluent Eng. Prof.	97,767	318	64	10%	34%	29%	20%	7%	54%	53%	53%	56%
English Prof. unknown	454	294	61	23%	38%	21%	14%	4%	47%	47%	46%	47%
No Special Ed Services	391,484	322	68	11%	31%	27%	22%	9%	56%	54%	54%	56%
Special Ed Services	15,486	277	56	33%	41%	16%	8%	3%	41%	40%	41%	41%
Special Ed unknown	42	261	41	43%	43%	10%	5%	0%	36%	35%	36%	35%
Not Econ. Disadvantaged	200,203	341	72	7%	23%	28%	28%	14%	62%	61%	60%	62%
Economically Disadvantaged	206,238	300	58	16%	39%	26%	15%	4%	49%	47%	48%	50%
Unknown Economic Status	571	299	66	24%	31%	25%	15%	5%	49%	48%	48%	48%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	1,559	324	61	9%	27%	32%	25%	8%	59%	55%	55%	56%
Asian American	25,518	397	82	2%	9%	17%	33%	38%	75%	76%	74%	76%
Pacific Islander	1,318	316	61	10%	34%	28%	23%	6%	55%	53%	52%	55%
Filipino	10,106	343	66	4%	22%	29%	31%	13%	62%	61%	61%	64%
Hispanic	49,397	312	59	12%	34%	29%	20%	5%	54%	51%	51%	53%
African American	11,018	298	56	18%	38%	26%	15%	3%	49%	47%	47%	48%
White	95,243	347	66	4%	19%	30%	32%	14%	65%	63%	62%	64%
Two or More Races	6,044	348	71	6%	20%	28%	31%	16%	64%	63%	62%	64%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores										
Primary Ethnicity—Economically Disadvantaged												
American Indian	1,138	297	53	16%	40%	29%	14%	2%	50%	46%	47%	48%
Asian American	16,318	343	73	6%	24%	27%	28%	15%	61%	61%	61%	64%
Pacific Islander	1,340	295	54	16%	42%	25%	14%	3%	48%	45%	47%	48%
Filipino	3,946	322	61	8%	31%	30%	24%	7%	56%	55%	55%	58%
Hispanic	144,026	294	53	18%	41%	26%	13%	2%	47%	45%	46%	48%
African American	14,523	279	48	25%	45%	20%	8%	1%	43%	41%	41%	42%
White	22,610	316	60	10%	32%	30%	22%	6%	55%	52%	53%	54%
Two or More Races	2,337	309	60	15%	33%	28%	19%	5%	53%	51%	50%	52%
Primary Ethnicity—Unknown Economic Status												
American Indian	1	—	—	—	—	—	—	—	—	—	—	—
Asian American	38	362	84	0%	21%	32%	26%	21%	64%	63%	65%	70%
Pacific Islander	5	—	—	—	—	—	—	—	—	—	—	—
Filipino	11	337	61	18%	0%	36%	36%	9%	60%	62%	59%	67%
Hispanic	196	282	55	30%	35%	26%	8%	3%	43%	44%	43%	43%
African American	39	266	49	44%	36%	13%	8%	0%	38%	38%	39%	35%
White	140	312	65	17%	27%	31%	19%	6%	55%	51%	52%	52%
Two or More Races	141	300	66	23%	35%	19%	17%	6%	50%	47%	47%	47%

Table 7.C.23 Demographic Summary for Algebra II

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
All valid scores	277,282	328	72	15%	23%	28%	21%	12%	65%	49%	57%	47%
Grade 8	780	442	95	2%	3%	10%	26%	59%	87%	77%	82%	73%
Grade 9	28,549	396	84	4%	8%	19%	30%	39%	81%	67%	75%	64%
Grade 10	125,288	343	68	9%	19%	30%	28%	15%	69%	53%	62%	51%
Grade 11	122,665	297	53	24%	32%	28%	13%	3%	56%	41%	47%	38%
Male	131,519	332	75	15%	22%	27%	22%	14%	65%	50%	58%	49%
Female	145,722	325	68	15%	25%	29%	21%	10%	64%	48%	56%	45%
Gender unknown	41	304	73	32%	27%	15%	17%	10%	56%	43%	50%	39%
American Indian	1,550	320	63	14%	27%	32%	20%	7%	62%	47%	54%	45%
Asian American	38,035	382	85	5%	12%	22%	28%	33%	78%	63%	71%	60%
Pacific Islander	1,639	315	61	16%	27%	31%	19%	7%	62%	45%	53%	43%
Filipino	10,969	338	67	10%	21%	31%	26%	13%	68%	52%	60%	49%
Hispanic	115,417	306	60	21%	29%	28%	16%	5%	59%	43%	50%	41%
African American	15,620	294	58	29%	30%	25%	12%	4%	54%	40%	46%	37%
White	88,497	339	68	9%	20%	31%	26%	13%	67%	52%	60%	51%
Two or More Races	5,555	337	74	13%	20%	29%	24%	15%	67%	52%	59%	50%
English Only	158,715	332	69	13%	22%	30%	23%	12%	65%	50%	58%	49%
Initially Fluent English Prof.	28,020	347	81	11%	20%	26%	23%	19%	69%	54%	62%	51%
English Learner	18,172	290	68	37%	29%	18%	10%	6%	52%	40%	44%	35%
Reclassified Fluent Eng. Prof.	72,155	324	71	16%	26%	28%	20%	11%	64%	48%	55%	44%
English Prof. unknown	220	302	71	29%	30%	17%	16%	8%	55%	43%	47%	40%
No Special Ed Services	270,896	329	72	14%	23%	28%	22%	12%	65%	49%	57%	47%
Special Ed Services	6,373	284	65	41%	27%	18%	10%	5%	49%	39%	43%	36%
Special Ed unknown	13	260	47	62%	15%	15%	8%	0%	40%	31%	42%	25%
Not Econ. Disadvantaged	152,884	343	74	10%	20%	29%	25%	16%	68%	53%	61%	52%
Economically Disadvantaged	124,095	310	64	21%	28%	27%	17%	7%	60%	44%	51%	41%
Unknown Economic Status	303	313	79	28%	23%	20%	17%	12%	58%	46%	52%	43%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	956	326	64	12%	25%	32%	22%	8%	65%	48%	56%	47%
Asian American	24,145	397	85	3%	9%	19%	29%	40%	81%	67%	74%	64%
Pacific Islander	920	324	63	13%	25%	32%	21%	9%	64%	47%	56%	46%
Filipino	8,120	341	67	8%	20%	31%	27%	13%	69%	52%	61%	50%
Hispanic	31,395	317	62	16%	26%	31%	20%	7%	62%	46%	54%	44%
African American	7,257	304	60	23%	29%	28%	16%	5%	57%	43%	50%	40%
White	75,866	342	68	8%	19%	31%	27%	14%	68%	53%	61%	52%
Two or More Races	4,225	343	74	11%	18%	28%	26%	17%	68%	53%	61%	52%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores										
Primary Ethnicity—Economically Disadvantaged												
American Indian	591	310	59	17%	29%	32%	16%	5%	59%	45%	51%	42%
Asian American	13,858	356	78	8%	17%	26%	28%	22%	73%	57%	64%	52%
Pacific Islander	716	304	56	20%	30%	30%	16%	4%	59%	43%	50%	39%
Filipino	2,837	328	67	13%	24%	30%	22%	11%	66%	49%	57%	46%
Hispanic	83,931	302	59	23%	30%	27%	15%	5%	58%	42%	49%	39%
African American	8,343	285	55	35%	31%	22%	9%	3%	51%	38%	43%	35%
White	12,559	320	63	15%	26%	31%	20%	8%	63%	47%	54%	45%
Two or More Races	1,260	317	67	18%	25%	30%	19%	8%	61%	46%	54%	43%
Primary Ethnicity—Unknown Economic Status												
American Indian	3	—	—	—	—	—	—	—	—	—	—	—
Asian American	32	411	104	6%	9%	16%	13%	56%	83%	70%	74%	66%
Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—
Filipino	12	308	78	25%	33%	8%	25%	8%	54%	49%	49%	42%
Hispanic	91	290	58	32%	27%	23%	16%	1%	54%	39%	46%	35%
African American	20	269	44	50%	25%	15%	10%	0%	42%	36%	39%	33%
White	72	306	57	31%	19%	21%	24%	6%	55%	42%	54%	44%
Two or More Races	70	325	85	21%	26%	23%	14%	16%	62%	50%	52%	46%

Table 7.C.24 Demographic Summary for Summative High School Mathematics

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Algebra I	Geometry	Algebra II	Probability and Statistics
All valid scores	139,940	359	77	4%	18%	23%	35%	20%	76%	74%	71%	66%
Grade 9	792	429	91	4%	4%	8%	30%	54%	88%	86%	85%	78%
Grade 10	22,355	399	74	1%	7%	16%	42%	35%	84%	83%	81%	76%
Grade 11	116,793	351	75	5%	21%	24%	33%	17%	74%	73%	69%	65%
Male	66,971	370	80	4%	15%	21%	36%	24%	78%	77%	73%	71%
Female	72,960	349	73	5%	21%	25%	34%	15%	74%	72%	69%	63%
Gender unknown	9	—	—	—	—	—	—	—	—	—	—	—
American Indian	594	341	70	6%	24%	26%	32%	13%	72%	71%	66%	65%
Asian American	34,372	400	78	1%	8%	15%	38%	37%	85%	83%	81%	74%
Pacific Islander	657	339	71	5%	28%	26%	29%	12%	71%	69%	67%	60%
Filipino	6,355	350	67	3%	20%	26%	37%	13%	74%	73%	70%	62%
Hispanic	40,091	324	66	8%	29%	28%	27%	7%	69%	66%	63%	55%
African American	5,057	311	66	13%	33%	27%	22%	5%	65%	61%	59%	53%
White	49,840	365	72	3%	15%	23%	39%	20%	77%	77%	72%	72%
Two or More Races	2,974	367	74	3%	16%	21%	39%	21%	77%	77%	73%	71%
English Only	82,196	362	74	4%	17%	23%	36%	20%	76%	75%	72%	70%
Initially Fluent English Prof.	18,974	379	82	3%	14%	20%	35%	28%	80%	78%	76%	70%
English Learner	3,116	318	84	18%	30%	18%	22%	13%	66%	61%	60%	48%
Reclassified Fluent Eng. Prof.	35,595	347	76	6%	23%	24%	31%	16%	74%	71%	69%	60%
English Prof. unknown	59	324	62	5%	27%	41%	17%	10%	69%	67%	61%	59%
No Special Ed Services	138,800	360	77	4%	18%	23%	35%	20%	76%	74%	71%	67%
Special Ed Services	1,135	331	90	17%	23%	20%	24%	16%	68%	65%	62%	58%
Special Ed unknown	5	--	--	--	--	--	--	--	--	--	--	--
Not Econ. Disadvantaged	92,918	373	76	3%	14%	21%	38%	24%	79%	78%	74%	72%
Economically Disadvantaged	46,932	332	70	8%	27%	26%	29%	10%	70%	67%	65%	56%
Unknown Economic Status	90	342	86	9%	23%	26%	22%	20%	70%	71%	63%	63%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	415	347	70	4%	23%	25%	33%	15%	73%	73%	67%	69%
Asian American	24,431	412	77	1%	6%	13%	38%	43%	87%	85%	83%	77%
Pacific Islander	444	348	71	3%	26%	25%	31%	14%	73%	72%	69%	64%
Filipino	4,889	354	67	3%	19%	26%	38%	15%	75%	75%	71%	64%
Hispanic	12,681	339	66	5%	24%	28%	32%	10%	72%	70%	66%	62%
African American	2,743	324	66	9%	28%	30%	26%	7%	68%	65%	63%	57%
White	44,824	368	71	3%	14%	23%	39%	21%	78%	78%	73%	73%
Two or More Races	2,491	372	74	3%	14%	20%	41%	22%	79%	79%	74%	72%

	Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Algebra I	Geometry	Algebra II	Probability and Statistics
Primary Ethnicity—Economically Disadvantaged												
American Indian	178	327	68	10%	25%	28%	30%	8%	69%	67%	63%	56%
Asian American	9,924	371	73	2%	15%	21%	39%	23%	80%	77%	75%	66%
Pacific Islander	213	319	66	8%	33%	28%	23%	8%	68%	62%	63%	52%
Filipino	1,463	336	64	6%	24%	29%	32%	9%	72%	70%	67%	57%
Hispanic	27,385	318	64	9%	32%	28%	25%	6%	67%	64%	61%	52%
African American	2,310	296	62	18%	37%	24%	17%	3%	61%	56%	55%	47%
White	4,996	343	69	5%	22%	27%	33%	12%	73%	71%	67%	65%
Two or More Races	463	337	68	6%	25%	26%	32%	11%	72%	70%	65%	63%
Primary Ethnicity—Unknown Economic Status												
American Indian	1	—	—	—	—	—	—	—	—	—	—	—
Asian American	17	417	103	0%	18%	6%	29%	47%	86%	83%	78%	81%
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—	—	—	—	—
Hispanic	25	293	66	20%	36%	24%	16%	4%	57%	60%	51%	45%
African American	4	—	—	—	—	—	—	—	—	—	—	—
White	20	360	77	10%	10%	15%	35%	30%	76%	77%	70%	71%
Two or More Races	20	329	65	0%	35%	40%	10%	15%	70%	70%	59%	65%

Table 7.C.25 Demographic Summary for Integrated Mathematics 1

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing	Quadratics and Polynomials	Functions and Rational Expressions	Geometry
All valid scores	11,943	294	56	21%	39%	25%	12%	2%	58%	43%	43%	32%	35%
Grade 8	54	268	53	43%	31%	17%	9%	0%	43%	40%	31%	23%	37%
Grade 9	1,107	325	89	20%	27%	21%	20%	13%	62%	51%	51%	42%	43%
Grade 10	4,905	292	50	20%	41%	27%	12%	1%	58%	43%	43%	32%	34%
Grade 11	5,877	289	51	22%	41%	24%	11%	1%	57%	41%	41%	30%	34%
Male	6,403	294	58	22%	37%	25%	13%	3%	58%	43%	42%	32%	35%
Female	5,537	293	54	20%	41%	25%	12%	2%	57%	43%	43%	33%	34%
Gender unknown	3	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	94	298	52	18%	36%	28%	17%	1%	58%	42%	45%	34%	37%
Asian American	457	317	81	18%	32%	23%	18%	8%	61%	49%	50%	40%	39%
Pacific Islander	101	293	57	23%	37%	25%	12%	4%	57%	45%	46%	31%	32%
Filipino	301	309	65	15%	36%	26%	19%	5%	61%	46%	48%	36%	39%
Hispanic	6,296	288	51	23%	42%	25%	10%	1%	56%	42%	41%	31%	33%
African American	1,087	279	50	30%	41%	20%	8%	1%	52%	39%	39%	29%	31%
White	3,230	305	58	16%	35%	29%	17%	3%	62%	45%	46%	34%	38%
Two or More Races	377	295	55	19%	43%	23%	14%	2%	58%	43%	44%	31%	35%
English Only	7,263	298	59	20%	38%	26%	14%	3%	59%	43%	44%	33%	36%
Initially Fluent English Prof.	826	300	55	17%	36%	29%	15%	2%	60%	44%	45%	34%	36%
English Learner	1,868	268	43	36%	45%	15%	4%	0%	47%	37%	35%	27%	29%
Reclassified Fluent Eng. Prof.	1,972	300	52	14%	40%	30%	14%	2%	61%	45%	45%	34%	35%
English Prof. unknown	14	298	49	7%	57%	7%	29%	0%	62%	43%	41%	38%	35%
No Special Ed Services	10,638	297	57	19%	39%	26%	13%	3%	59%	44%	44%	33%	35%
Special Ed Services	1,286	266	42	38%	42%	15%	4%	0%	47%	36%	34%	26%	29%
Special Ed unknown	19	274	36	26%	47%	26%	0%	0%	52%	36%	34%	30%	31%
Not Econ. Disadvantaged	4,709	302	59	17%	36%	28%	15%	3%	61%	45%	46%	34%	37%
Economically Disadvantaged	7,208	288	53	24%	41%	23%	10%	2%	56%	42%	41%	31%	33%
Unknown Economic Status	26	291	57	23%	46%	8%	19%	4%	53%	45%	43%	33%	35%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	44	299	54	16%	41%	23%	20%	0%	59%	42%	45%	37%	36%
Asian American	191	328	89	15%	28%	29%	17%	11%	65%	52%	53%	41%	42%
Pacific Islander	44	291	63	23%	41%	18%	14%	5%	57%	41%	44%	29%	34%
Filipino	193	314	65	11%	38%	26%	20%	6%	63%	48%	49%	39%	40%
Hispanic	1,420	294	53	19%	39%	28%	12%	2%	59%	43%	43%	31%	35%
African American	372	285	53	26%	39%	22%	11%	2%	55%	39%	42%	31%	32%
White	2,226	308	60	15%	33%	30%	17%	4%	63%	46%	47%	35%	39%
Two or More Races	219	296	55	17%	44%	24%	14%	1%	60%	44%	44%	31%	35%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Number Properties, Operations, and Linear Equations	Graphing	Quadratics and Polynomials	Functions and Rational Expressions	Geometry
Primary Ethnicity—Economically Disadvantaged													
American Indian	50	297	50	20%	32%	32%	14%	2%	58%	41%	45%	31%	37%
Asian American	266	308	73	20%	35%	19%	19%	6%	58%	48%	49%	39%	38%
Pacific Islander	57	295	53	23%	33%	30%	11%	4%	57%	48%	47%	33%	31%
Filipino	107	301	65	22%	32%	25%	18%	3%	59%	44%	47%	31%	37%
Hispanic	4,865	286	51	24%	42%	24%	9%	1%	55%	41%	40%	31%	33%
African American	713	276	48	32%	43%	18%	6%	1%	50%	39%	37%	28%	31%
White	997	298	55	18%	38%	25%	16%	2%	60%	44%	44%	33%	37%
Two or More Races	153	291	54	21%	42%	22%	12%	3%	56%	40%	44%	29%	35%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	11	295	64	27%	45%	9%	9%	9%	55%	47%	42%	31%	36%
African American	2	—	—	—	—	—	—	—	—	—	—	—	—
White	7	—	—	—	—	—	—	—	—	—	—	—	—
Two or More Races	5	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.C.26 Demographic Summary for Integrated Mathematics 2

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Algebra I	Logic and Geometric Proofs	Angle Relationships, Constructions, and Lines	Trigonometry	Algebra II/ Probability and Statistics
All valid scores	4,483	323	55	9%	26%	36%	24%	5%	50%	45%	50%	45%	31%
Grade 8	11	380	112	9%	18%	18%	27%	27%	62%	60%	55%	63%	51%
Grade 9	320	343	67	9%	20%	24%	34%	13%	58%	51%	52%	50%	37%
Grade 10	1,156	342	64	7%	19%	32%	31%	11%	56%	50%	55%	51%	36%
Grade 11	2,996	313	47	10%	29%	39%	20%	2%	47%	42%	48%	41%	28%
Male	2,302	324	58	11%	26%	32%	25%	7%	51%	45%	50%	45%	32%
Female	2,180	321	52	8%	25%	40%	23%	4%	50%	44%	51%	44%	29%
Gender unknown	1	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	35	316	33	0%	43%	43%	14%	0%	46%	43%	54%	44%	22%
Asian American	343	341	68	8%	21%	32%	28%	12%	58%	48%	54%	49%	34%
Pacific Islander	30	315	55	20%	23%	30%	23%	3%	46%	44%	48%	43%	26%
Filipino	157	344	66	6%	20%	33%	27%	13%	58%	49%	56%	51%	36%
Hispanic	2,123	316	50	10%	28%	37%	21%	4%	48%	42%	48%	43%	29%
African American	349	305	52	16%	36%	29%	17%	3%	46%	38%	45%	39%	29%
White	1,313	331	55	7%	21%	37%	29%	7%	52%	49%	53%	47%	33%
Two or More Races	133	326	57	6%	25%	42%	23%	4%	51%	46%	50%	44%	29%
English Only	2,825	326	56	9%	24%	36%	25%	6%	51%	46%	51%	45%	32%
Initially Fluent English Prof.	367	339	63	7%	18%	33%	33%	9%	56%	49%	54%	50%	36%
English Learner	488	292	41	18%	46%	27%	9%	1%	41%	34%	40%	34%	24%
Reclassified Fluent Eng. Prof.	800	324	48	8%	21%	43%	25%	4%	52%	44%	51%	46%	28%
English Prof. unknown	3	—	—	—	—	—	—	—	—	—	—	—	—
No Special Ed Services	4,184	325	55	9%	25%	37%	25%	6%	51%	45%	51%	45%	31%
Special Ed Services	297	293	47	20%	41%	27%	9%	3%	41%	35%	40%	36%	26%
Special Ed unknown	2	—	—	—	—	—	—	—	—	—	—	—	—
Not Econ. Disadvantaged	1,959	331	58	8%	22%	36%	27%	7%	52%	48%	53%	47%	33%
Economically Disadvantaged	2,517	316	52	11%	28%	36%	21%	4%	49%	42%	48%	43%	29%
Unknown Economic Status	7	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	16	324	37	0%	31%	50%	19%	0%	48%	46%	57%	47%	24%
Asian American	125	360	76	5%	19%	22%	34%	19%	62%	54%	58%	53%	44%
Pacific Islander	18	312	53	22%	22%	28%	28%	0%	45%	45%	47%	44%	20%
Filipino	109	343	63	6%	21%	33%	27%	14%	57%	49%	57%	51%	38%
Hispanic	530	323	51	8%	24%	40%	25%	4%	50%	45%	52%	45%	31%
African American	164	317	56	12%	32%	30%	21%	5%	49%	42%	49%	42%	31%
White	910	334	57	7%	20%	36%	30%	8%	52%	49%	54%	47%	34%
Two or More Races	87	327	59	5%	23%	48%	21%	3%	52%	47%	50%	43%	29%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Algebra I	Logic and Geometric Proofs	Angle Relationships, Constructions, and Lines	Trigonometry	Algebra II/ Probability and Statistics
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	19	309	28	0%	53%	37%	11%	0%	44%	39%	51%	42%	21%
Asian American	218	330	60	9%	22%	38%	24%	7%	56%	45%	52%	46%	27%
Pacific Islander	12	318	61	17%	25%	33%	17%	8%	48%	43%	49%	42%	35%
Filipino	48	345	72	8%	17%	33%	29%	13%	58%	50%	54%	52%	33%
Hispanic	1,589	314	50	11%	29%	36%	20%	3%	48%	41%	47%	43%	29%
African American	185	295	47	19%	39%	27%	13%	1%	42%	35%	42%	36%	27%
White	401	325	49	7%	23%	39%	27%	4%	51%	47%	50%	45%	31%
Two or More Races	45	324	53	9%	29%	29%	29%	4%	51%	46%	50%	45%	29%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	4	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—
White	2	—	—	—	—	—	—	—	—	—	—	—	—
Two or More Races	1	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.C.27 Demographic Summary for Integrated Mathematics 3

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Geometry	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
All valid scores	730	320	79	20%	24%	23%	23%	10%	64%	50%	41%	49%	40%
Grade 8	5	—	—	—	—	—	—	—	—	—	—	—	—
Grade 9	16	379	76	6%	13%	13%	38%	31%	79%	68%	54%	64%	53%
Grade 10	288	309	78	25%	30%	16%	22%	7%	58%	45%	40%	46%	38%
Grade 11	421	325	76	17%	21%	29%	23%	10%	68%	52%	41%	50%	40%
Male	362	324	83	20%	24%	21%	23%	11%	67%	50%	42%	49%	41%
Female	368	317	75	21%	24%	26%	22%	8%	61%	49%	40%	49%	38%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	5	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	78	369	99	14%	15%	15%	32%	23%	73%	63%	51%	60%	53%
Pacific Islander	6	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	30	319	75	23%	17%	23%	27%	10%	65%	54%	39%	49%	36%
Hispanic	220	309	66	18%	29%	28%	20%	5%	60%	48%	38%	46%	39%
African American	77	263	51	49%	35%	6%	9%	0%	42%	33%	31%	33%	28%
White	273	335	78	14%	20%	27%	26%	13%	72%	54%	45%	54%	41%
Two or More Races	41	303	73	29%	22%	27%	17%	5%	62%	44%	37%	45%	33%
English Only	510	322	79	21%	23%	23%	23%	11%	66%	50%	42%	50%	39%
Initially Fluent English Prof.	39	331	96	15%	28%	26%	18%	13%	68%	51%	40%	51%	46%
English Learner	44	275	61	39%	34%	14%	11%	2%	46%	40%	32%	33%	33%
Reclassified Fluent Eng. Prof.	135	327	75	16%	24%	28%	25%	7%	64%	53%	42%	50%	43%
English Prof. unknown	2	—	—	—	—	—	—	—	—	—	—	—	—
No Special Ed Services	704	322	78	19%	24%	24%	23%	10%	65%	50%	41%	50%	40%
Special Ed Services	26	268	73	46%	35%	12%	4%	4%	48%	34%	32%	31%	30%
Special Ed unknown	0	—	—	—	—	—	—	—	—	—	—	—	—
Not Econ. Disadvantaged	481	331	82	17%	21%	23%	25%	13%	68%	52%	44%	53%	41%
Economically Disadvantaged	248	299	68	26%	29%	23%	18%	4%	57%	46%	36%	42%	36%
Unknown Economic Status	1	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	3	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	56	382	98	13%	11%	14%	36%	27%	77%	66%	54%	63%	56%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	20	321	86	30%	20%	5%	30%	15%	61%	55%	39%	49%	38%
Hispanic	76	313	72	20%	24%	28%	21%	8%	58%	48%	39%	49%	39%
African American	37	273	48	43%	41%	5%	11%	0%	48%	33%	34%	35%	32%
White	257	337	78	13%	19%	27%	27%	14%	73%	54%	45%	55%	42%
Two or More Races	30	320	74	17%	23%	33%	20%	7%	69%	48%	40%	51%	36%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Geometry	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	2	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	22	336	94	18%	27%	18%	23%	14%	64%	54%	42%	53%	45%
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	10	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	144	307	63	17%	31%	28%	20%	3%	61%	48%	37%	45%	39%
African American	40	255	53	55%	30%	8%	8%	0%	36%	33%	28%	32%	25%
White	15	307	68	20%	33%	20%	20%	7%	71%	54%	40%	35%	32%
Two or More Races	11	257	46	64%	18%	9%	9%	0%	44%	35%	27%	29%	24%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—
White	1	—	—	—	—	—	—	—	—	—	—	—	—
Two or More Races	0	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.C.28 Demographic Summary for Science, Grade Five

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Physical Science, Grade Five	Physical Science, Grade Four	Life Science, Grade Five	Life Science, Grade Four	Earth Science, Grade Five	Earth Science, Grade Four
All valid scores	435,933	367	70	7%	11%	25%	33%	25%	71%	72%	72%	69%	69%	71%
Male	219,051	371	73	7%	10%	23%	32%	27%	71%	73%	72%	69%	70%	72%
Female	216,817	364	67	6%	11%	27%	33%	23%	70%	70%	72%	68%	68%	70%
Gender unknown	65	330	54	12%	20%	31%	31%	6%	61%	63%	62%	59%	57%	61%
American Indian	2,843	354	66	9%	13%	27%	33%	18%	68%	68%	68%	65%	66%	66%
Asian American	40,007	412	77	3%	5%	13%	29%	50%	81%	82%	81%	80%	78%	83%
Pacific Islander	2,419	353	63	7%	13%	31%	32%	17%	68%	68%	68%	64%	66%	67%
Filipino	11,450	388	63	2%	5%	20%	39%	34%	77%	78%	77%	76%	75%	79%
Hispanic	224,685	345	60	9%	15%	31%	31%	14%	65%	66%	67%	62%	64%	65%
African American	27,696	342	62	12%	16%	30%	30%	13%	65%	65%	65%	61%	62%	62%
White	115,484	397	67	3%	5%	16%	37%	40%	79%	80%	79%	78%	76%	80%
Two or More Races	11,349	389	70	4%	6%	19%	35%	36%	77%	77%	77%	75%	74%	77%
English Only	244,071	380	69	5%	8%	21%	35%	31%	74%	75%	75%	73%	72%	75%
Initially Fluent English Prof.	30,279	399	69	2%	5%	18%	35%	40%	78%	80%	80%	78%	76%	79%
English Learner	96,943	316	51	17%	24%	35%	19%	4%	56%	57%	58%	52%	56%	54%
Reclassified Fluent Eng. Prof.	64,134	383	58	1%	4%	24%	42%	28%	75%	77%	78%	75%	74%	77%
English Prof. unknown	506	337	71	19%	14%	25%	26%	15%	62%	63%	63%	58%	60%	61%
No Special Ed Services	409,462	369	69	6%	11%	25%	33%	26%	71%	72%	72%	69%	70%	71%
Special Ed Services	24,054	338	72	17%	17%	26%	25%	15%	62%	62%	63%	59%	61%	61%
Special Ed unknown	2,417	342	64	13%	16%	29%	28%	14%	64%	64%	65%	61%	63%	62%
Not Econ. Disadvantaged	173,937	401	69	2%	4%	15%	35%	43%	80%	81%	80%	79%	77%	81%
Economically Disadvantaged	261,342	345	61	10%	15%	31%	31%	14%	65%	66%	66%	62%	64%	64%
Unknown Economic Status	654	347	71	14%	13%	25%	30%	17%	65%	66%	65%	62%	64%	64%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,074	376	69	5%	8%	24%	35%	28%	73%	75%	74%	72%	71%	73%
Asian American	25,165	433	72	1%	2%	8%	26%	62%	86%	87%	85%	86%	82%	88%
Pacific Islander	897	376	66	4%	8%	22%	38%	28%	73%	74%	74%	72%	72%	74%
Filipino	7,328	398	62	1%	4%	16%	39%	40%	79%	80%	79%	79%	78%	82%
Hispanic	39,181	374	63	4%	8%	24%	38%	27%	73%	74%	74%	72%	71%	74%
African American	8,037	364	64	7%	10%	26%	36%	22%	71%	71%	71%	68%	69%	70%
White	85,150	409	65	1%	3%	13%	36%	47%	82%	83%	82%	81%	79%	83%
Two or More Races	7,105	407	68	2%	4%	13%	35%	46%	81%	82%	81%	81%	78%	82%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Physical Science, Grade Five	Physical Science, Grade Four	Life Science, Grade Five	Life Science, Grade Four	Earth Science, Grade Five	Earth Science, Grade Four
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged														
American Indian	1,761	341	60	11%	16%	29%	32%	12%	64%	64%	65%	61%	62%	62%
Asian American	14,789	375	70	6%	9%	22%	34%	30%	73%	73%	74%	71%	71%	74%
Pacific Islander	1,520	339	56	9%	16%	36%	29%	10%	65%	64%	65%	59%	62%	63%
Filipino	4,105	371	60	3%	8%	26%	38%	24%	73%	73%	73%	70%	71%	74%
Hispanic	185,288	339	58	10%	17%	32%	30%	11%	63%	64%	65%	60%	62%	63%
African American	19,591	333	59	14%	18%	32%	27%	9%	62%	62%	63%	58%	60%	59%
White	30,166	366	63	6%	9%	25%	38%	22%	71%	72%	72%	69%	69%	71%
Two or More Races	4,122	358	63	7%	11%	28%	35%	19%	69%	70%	70%	67%	67%	69%
Primary Ethnicity—Unknown Economic Status														
American Indian	8	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	53	392	102	19%	4%	8%	21%	49%	74%	75%	73%	71%	73%	75%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	17	362	55	6%	6%	41%	18%	29%	69%	71%	69%	71%	70%	74%
Hispanic	216	336	57	13%	16%	31%	31%	9%	63%	64%	64%	57%	62%	62%
African American	68	326	71	18%	22%	26%	25%	9%	61%	59%	58%	58%	58%	51%
White	168	366	72	11%	7%	23%	35%	24%	70%	70%	71%	71%	70%	68%
Two or More Races	122	335	67	18%	16%	23%	30%	14%	61%	63%	61%	59%	59%	64%

Table 7.C.29 Demographic Summary for Science, Grade Eight

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Motion	Forces, Density, and Buoyancy	Structure of Matter and Periodic Table	Earth in the Solar System	Reactions and the Chemistry of Living Systems	Investigation and Experimentation	
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores												
All valid scores	440,698	386	97	9%	10%	18%	21%	42%	63%	70%	71%	73%	60%	78%	
Male	221,778	391	103	10%	9%	16%	20%	45%	65%	72%	71%	74%	60%	77%	
Female	218,806	381	91	7%	11%	20%	23%	39%	61%	69%	71%	71%	61%	79%	
Gender unknown	114	321	89	25%	16%	26%	14%	19%	52%	57%	57%	59%	46%	67%	
American Indian	3,077	365	94	12%	12%	20%	22%	34%	59%	66%	67%	69%	57%	74%	
Asian American	39,948	454	98	3%	4%	9%	15%	70%	74%	83%	83%	82%	74%	89%	
Pacific Islander	2,688	372	90	9%	11%	21%	23%	36%	60%	68%	69%	70%	58%	76%	
Filipino	12,669	420	86	3%	5%	13%	22%	58%	68%	78%	79%	80%	68%	85%	
Hispanic	222,343	357	86	12%	13%	22%	23%	30%	58%	65%	65%	68%	55%	73%	
African American	29,010	348	88	15%	14%	22%	22%	27%	56%	62%	63%	66%	54%	70%	
White	120,850	421	94	4%	5%	12%	20%	58%	69%	78%	78%	79%	67%	85%	
Two or More Races	10,113	402	100	7%	8%	15%	20%	50%	66%	74%	74%	75%	64%	81%	
English Only	247,993	398	97	7%	8%	16%	21%	48%	65%	73%	74%	75%	63%	80%	
Initially Fluent English Prof.	32,829	423	97	4%	5%	13%	20%	57%	69%	78%	78%	79%	68%	85%	
English Learner	63,379	304	73	25%	24%	26%	16%	9%	49%	53%	52%	57%	43%	61%	
Reclassified Fluent Eng. Prof.	95,765	396	83	3%	7%	19%	26%	44%	65%	73%	74%	75%	63%	82%	
English Prof. unknown	732	332	96	23%	14%	23%	19%	22%	54%	59%	58%	62%	49%	68%	
No Special Ed Services	417,445	390	96	8%	9%	18%	22%	44%	64%	71%	72%	73%	61%	79%	
Special Ed Services	23,104	320	94	27%	18%	21%	16%	18%	51%	55%	56%	61%	47%	62%	
Special Ed unknown	149	268	61	44%	26%	19%	7%	3%	44%	40%	45%	49%	36%	51%	
Not Econ. Disadvantaged	187,858	425	95	4%	5%	12%	19%	59%	69%	78%	79%	79%	68%	85%	
Economically Disadvantaged	251,839	357	88	12%	13%	22%	23%	30%	58%	65%	65%	68%	55%	73%	
Unknown Economic Status	1,001	336	95	22%	13%	24%	18%	23%	55%	59%	59%	63%	51%	70%	
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	1,335	391	94	8%	8%	16%	24%	44%	63%	72%	72%	74%	62%	79%	
Asian American	24,311	481	90	1%	2%	5%	11%	81%	78%	87%	87%	86%	79%	92%	
Pacific Islander	1,176	396	91	6%	7%	17%	22%	47%	64%	73%	74%	74%	63%	81%	
Filipino	8,424	431	85	2%	4%	11%	20%	63%	69%	80%	81%	81%	70%	87%	
Hispanic	45,384	386	89	7%	9%	19%	23%	42%	63%	71%	72%	74%	61%	79%	
African American	9,659	373	91	10%	10%	19%	23%	37%	61%	68%	69%	71%	59%	76%	
White	91,144	435	91	3%	4%	10%	19%	64%	71%	80%	81%	81%	70%	87%	
Two or More Races	6,425	426	96	4%	6%	11%	19%	60%	69%	78%	79%	79%	69%	85%	

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Motion	Forces, Density, and Buoyancy	Structure of Matter and Periodic Table	Earth in the Solar System	Reactions and the Chemistry of Living Systems	Investigation and Experimentation
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged														
American Indian	1,733	346	89	16%	14%	23%	21%	26%	56%	62%	63%	66%	53%	69%
Asian American	15,584	411	96	5%	7%	14%	20%	53%	67%	75%	76%	76%	66%	83%
Pacific Islander	1,503	354	84	12%	13%	24%	24%	27%	57%	64%	65%	67%	54%	72%
Filipino	4,237	399	85	4%	7%	17%	24%	48%	65%	74%	75%	76%	64%	81%
Hispanic	176,594	350	84	13%	14%	23%	23%	26%	57%	64%	64%	67%	53%	72%
African American	19,266	335	84	17%	17%	24%	21%	21%	54%	59%	61%	63%	51%	68%
White	29,444	378	91	9%	10%	18%	24%	39%	62%	69%	70%	72%	59%	77%
Two or More Races	3,478	363	92	12%	12%	21%	22%	32%	59%	66%	67%	68%	56%	74%
Primary Ethnicity—Unknown Economic Status														
American Indian	9	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	53	384	119	17%	9%	15%	17%	42%	63%	70%	69%	67%	58%	76%
Pacific Islander	9	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	8	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	365	315	84	27%	14%	26%	17%	15%	52%	54%	54%	60%	47%	65%
African American	85	301	94	29%	22%	22%	12%	14%	45%	49%	51%	56%	47%	61%
White	262	371	97	11%	10%	20%	23%	36%	61%	68%	67%	70%	59%	77%
Two or More Races	210	330	91	25%	11%	26%	18%	20%	55%	58%	57%	60%	50%	70%

Table 7.C.30 Demographic Summary for Grade Ten Life Science

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Cell Biology	Genetics	Physiology	Ecology	Evolution	Investigation and Experimentation
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
All valid scores	458,763	353	68	12%	11%	26%	24%	26%	58%	58%	68%	68%	65%	73%
Male	231,664	355	73	15%	11%	23%	22%	29%	60%	57%	68%	69%	66%	71%
Female	226,957	352	63	10%	12%	29%	25%	24%	57%	59%	67%	67%	65%	76%
Gender unknown	142	308	58	30%	20%	28%	15%	7%	44%	45%	55%	54%	49%	56%
American Indian	3,747	344	66	15%	13%	28%	23%	21%	54%	54%	66%	66%	63%	71%
Asian American	42,328	394	72	5%	5%	17%	24%	49%	72%	69%	78%	78%	76%	84%
Pacific Islander	2,895	338	61	14%	14%	32%	22%	17%	55%	55%	63%	63%	60%	69%
Filipino	13,685	376	60	4%	6%	24%	30%	37%	66%	65%	76%	75%	73%	82%
Hispanic	225,004	333	60	16%	15%	32%	22%	15%	52%	53%	62%	62%	59%	68%
African American	30,480	326	60	20%	15%	31%	21%	13%	51%	51%	60%	58%	57%	64%
White	131,145	378	68	7%	6%	20%	27%	40%	66%	64%	76%	76%	74%	80%
Two or More Races	9,479	361	71	12%	10%	23%	24%	32%	61%	60%	71%	71%	68%	75%
English Only	261,440	363	69	10%	9%	24%	25%	31%	61%	60%	71%	71%	69%	76%
Initially Fluent English Prof.	39,038	374	68	7%	7%	23%	27%	36%	65%	64%	74%	74%	72%	80%
English Learner	61,045	293	46	34%	26%	28%	8%	3%	41%	42%	47%	46%	43%	54%
Reclassified Fluent Eng. Prof.	96,546	357	58	6%	9%	33%	29%	23%	60%	61%	70%	70%	68%	77%
English Prof. unknown	694	316	59	24%	22%	28%	15%	11%	48%	46%	57%	57%	53%	60%
No Special Ed Services	430,584	357	67	11%	11%	27%	25%	28%	59%	59%	69%	69%	67%	75%
Special Ed Services	28,044	299	60	38%	20%	23%	11%	8%	43%	41%	50%	49%	46%	53%
Special Ed unknown	135	290	46	39%	24%	25%	9%	3%	39%	39%	46%	47%	42%	53%
Not Econ. Disadvantaged	215,681	376	69	7%	7%	21%	26%	39%	65%	64%	75%	75%	73%	80%
Economically Disadvantaged	242,177	333	61	17%	15%	31%	22%	15%	52%	53%	62%	61%	59%	68%
Unknown Economic Status	905	321	63	23%	18%	30%	17%	13%	49%	47%	58%	58%	54%	61%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,966	359	66	10%	9%	26%	27%	28%	59%	59%	71%	71%	68%	75%
Asian American	25,586	412	69	3%	3%	12%	23%	60%	77%	73%	83%	83%	81%	88%
Pacific Islander	1,469	352	64	11%	11%	29%	24%	25%	59%	58%	68%	68%	65%	74%
Filipino	9,744	382	60	3%	4%	22%	30%	41%	68%	67%	78%	77%	75%	83%
Hispanic	55,864	348	63	12%	11%	28%	25%	23%	57%	57%	67%	67%	65%	72%
African American	12,481	338	62	16%	12%	30%	24%	18%	55%	55%	64%	63%	61%	68%
White	102,382	387	66	5%	5%	18%	27%	45%	68%	67%	78%	79%	77%	83%
Two or More Races	6,189	376	70	8%	7%	20%	25%	40%	65%	64%	75%	75%	73%	79%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Cell Biology	Genetics	Physiology	Ecology	Evolution	Investigation and Experimentation	
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores												
Primary Ethnicity—Economically Disadvantaged															
American Indian	1,772	326	61	20%	16%	31%	19%	13%	49%	50%	61%	60%	58%	65%	
Asian American	16,703	367	67	8%	9%	24%	26%	33%	64%	63%	71%	71%	69%	79%	
Pacific Islander	1,421	324	54	18%	17%	34%	21%	10%	51%	52%	58%	58%	56%	65%	
Filipino	3,929	360	59	6%	10%	28%	29%	27%	62%	61%	71%	70%	68%	77%	
Hispanic	168,786	328	58	17%	16%	33%	21%	13%	51%	52%	60%	60%	57%	67%	
African American	17,947	317	56	23%	18%	32%	18%	9%	48%	49%	57%	55%	53%	61%	
White	28,568	348	66	14%	11%	27%	25%	23%	56%	56%	67%	67%	64%	72%	
Two or More Races	3,051	334	65	18%	14%	29%	22%	18%	52%	53%	63%	62%	60%	67%	
Primary Ethnicity—Unknown Economic Status															
American Indian	9	—	—	—	—	—	—	—	—	—	—	—	—	—	
Asian American	39	363	71	8%	15%	26%	13%	38%	61%	60%	71%	71%	64%	81%	
Pacific Islander	5	—	—	—	—	—	—	—	—	—	—	—	—	—	
Filipino	12	350	56	0%	25%	25%	33%	17%	59%	56%	68%	70%	61%	79%	
Hispanic	354	307	57	28%	22%	29%	14%	7%	45%	43%	53%	53%	50%	56%	
African American	52	306	58	31%	25%	27%	10%	8%	47%	46%	55%	48%	46%	53%	
White	195	340	67	15%	13%	29%	23%	20%	56%	50%	66%	65%	62%	68%	
Two or More Races	239	320	60	23%	17%	33%	16%	11%	48%	48%	59%	59%	54%	60%	

Table 7.C.31 Demographic Summary for Biology

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Cell Biology	Genetics	Ecology and Evolution	Physiology	Investigation and Experimentation
All valid scores	551,808	352	62	10%	13%	29%	25%	24%	63%	61%	60%	70%	62%
Grade 9	216,286	363	62	7%	10%	25%	26%	31%	67%	66%	64%	74%	66%
Grade 10	235,940	340	56	12%	15%	32%	24%	17%	59%	57%	57%	67%	58%
Grade 11	99,582	354	68	12%	13%	26%	23%	26%	62%	61%	61%	71%	63%
Male	274,740	352	65	12%	12%	26%	24%	25%	63%	60%	61%	70%	62%
Female	276,893	352	58	8%	13%	31%	26%	23%	63%	62%	60%	71%	63%
Gender unknown	175	310	50	25%	24%	33%	11%	7%	50%	46%	45%	53%	46%
American Indian	3,822	346	57	11%	13%	30%	25%	20%	60%	59%	59%	70%	61%
Asian American	53,346	394	68	3%	5%	18%	25%	49%	77%	75%	73%	81%	75%
Pacific Islander	3,304	338	54	12%	15%	33%	24%	16%	60%	57%	56%	65%	57%
Filipino	17,231	370	54	3%	6%	26%	33%	32%	70%	69%	67%	78%	71%
Hispanic	271,453	332	52	13%	17%	34%	22%	13%	56%	55%	53%	64%	55%
African American	36,171	327	52	17%	18%	33%	21%	11%	55%	53%	51%	62%	51%
White	155,198	375	61	5%	7%	21%	30%	37%	70%	69%	69%	79%	71%
Two or More Races	11,283	362	63	9%	10%	24%	27%	31%	66%	65%	64%	74%	66%
English Only	310,954	361	62	8%	10%	26%	27%	29%	65%	64%	64%	74%	66%
Initially Fluent English Prof.	45,651	371	65	6%	8%	25%	27%	34%	69%	67%	67%	77%	69%
English Learner	72,137	299	39	28%	31%	31%	8%	2%	46%	43%	40%	48%	40%
Reclassified Fluent Eng. Prof.	122,317	353	53	5%	10%	36%	29%	21%	64%	63%	61%	72%	64%
English Prof. unknown	749	319	52	22%	20%	32%	16%	10%	52%	49%	49%	59%	50%
No Special Ed Services	513,966	356	61	8%	11%	29%	26%	25%	64%	63%	62%	72%	64%
Special Ed Services	37,226	300	49	34%	27%	24%	10%	5%	45%	43%	41%	49%	41%
Special Ed unknown	616	282	33	46%	31%	18%	4%	1%	38%	36%	35%	40%	33%
Not Econ. Disadvantaged	262,435	373	63	6%	7%	23%	28%	36%	70%	68%	68%	78%	70%
Economically Disadvantaged	288,382	332	53	14%	17%	34%	22%	13%	57%	55%	53%	64%	55%
Unknown Economic Status	991	324	55	22%	19%	29%	18%	13%	53%	51%	51%	61%	53%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	2,045	359	59	8%	9%	27%	28%	27%	64%	63%	64%	74%	66%
Asian American	33,304	411	67	2%	3%	12%	23%	60%	81%	79%	78%	86%	80%
Pacific Islander	1,621	351	56	9%	11%	29%	28%	22%	64%	62%	60%	70%	62%
Filipino	12,383	376	54	3%	5%	24%	34%	35%	72%	70%	69%	80%	73%
Hispanic	67,725	347	56	10%	12%	31%	27%	20%	61%	60%	59%	70%	61%
African American	14,894	338	55	13%	14%	32%	25%	16%	59%	57%	56%	67%	56%
White	122,796	382	60	4%	5%	19%	30%	42%	72%	71%	72%	81%	74%
Two or More Races	7,667	374	63	6%	7%	21%	28%	38%	70%	69%	69%	78%	71%

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Cell Biology	Genetics	Ecology and Evolution	Physiology	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,768	331	51	13%	19%	34%	22%	12%	55%	54%	53%	65%	56%
Asian American	19,992	366	61	6%	9%	27%	28%	31%	69%	67%	64%	74%	68%
Pacific Islander	1,677	325	49	15%	19%	36%	20%	9%	56%	53%	51%	60%	52%
Filipino	4,829	356	52	5%	9%	32%	32%	23%	66%	64%	62%	74%	66%
Hispanic	203,342	327	50	15%	19%	36%	21%	10%	55%	53%	52%	62%	53%
African American	21,194	319	49	20%	21%	34%	18%	8%	53%	51%	48%	59%	48%
White	32,204	347	57	10%	12%	29%	27%	21%	61%	60%	60%	70%	62%
Two or More Races	3,376	337	55	14%	16%	30%	25%	16%	58%	57%	56%	66%	57%
Primary Ethnicity—Unknown Economic Status													
American Indian	9	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	50	361	70	10%	12%	18%	24%	36%	64%	63%	63%	74%	65%
Pacific Islander	6	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	19	341	36	0%	16%	32%	47%	5%	63%	56%	56%	75%	63%
Hispanic	386	313	50	26%	22%	30%	14%	8%	48%	47%	47%	56%	48%
African American	83	311	47	28%	22%	30%	14%	6%	50%	48%	46%	53%	46%
White	198	342	59	16%	12%	25%	24%	23%	59%	56%	58%	68%	62%
Two or More Races	240	321	52	21%	20%	32%	16%	11%	53%	50%	48%	60%	51%

Table 7.C.32 Demographic Summary for Chemistry

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Atomic and Molecular Structure	Chemical Bonds, Biochemistry	Kinetics, Thermodynamics	Chemical Reactions	Conservation of Matter and Stoichiometry	Investigation and Experimentation	
All valid scores	265,079	340	53	9%	14%	39%	24%	14%	64%	67%	61%	53%	59%	74%	
Grade 9	5,556	346	64	15%	12%	25%	26%	20%	66%	67%	62%	56%	62%	73%	
Grade 10	126,415	350	53	6%	11%	37%	29%	17%	67%	71%	65%	57%	63%	79%	
Grade 11	133,108	330	51	11%	18%	41%	19%	10%	61%	63%	57%	50%	54%	69%	
Male	124,571	345	58	10%	13%	35%	25%	17%	65%	68%	64%	55%	60%	74%	
Female	140,464	335	48	9%	16%	42%	23%	10%	63%	66%	58%	52%	57%	73%	
Gender unknown	44	304	44	34%	14%	32%	20%	0%	55%	53%	48%	39%	43%	60%	
American Indian	1,441	336	47	8%	14%	42%	25%	10%	63%	67%	61%	52%	56%	74%	
Asian American	37,708	372	60	3%	7%	29%	30%	31%	72%	76%	71%	65%	73%	84%	
Pacific Islander	1,602	324	46	12%	19%	43%	19%	7%	61%	62%	55%	48%	53%	68%	
Filipino	10,653	345	47	5%	11%	43%	29%	13%	66%	70%	63%	56%	63%	78%	
Hispanic	112,601	320	44	14%	21%	43%	17%	5%	60%	60%	53%	46%	51%	66%	
African American	16,242	312	43	19%	23%	40%	14%	4%	57%	58%	51%	43%	46%	61%	
White	79,648	356	51	4%	8%	37%	32%	19%	68%	73%	68%	60%	65%	82%	
Two or More Races	5,184	348	54	7%	11%	38%	28%	17%	66%	71%	65%	57%	62%	78%	
English Only	149,312	347	53	7%	12%	38%	28%	16%	66%	70%	64%	56%	61%	77%	
Initially Fluent English Prof.	28,062	352	58	6%	11%	37%	26%	20%	67%	71%	65%	58%	63%	78%	
English Learner	17,866	293	38	34%	31%	27%	6%	2%	50%	48%	42%	35%	42%	47%	
Reclassified Fluent Eng. Prof.	69,642	332	48	9%	18%	44%	21%	9%	63%	65%	57%	50%	56%	71%	
English Prof. unknown	197	321	43	14%	23%	41%	18%	5%	59%	60%	53%	49%	51%	66%	
No Special Ed Services	258,478	341	53	8%	14%	39%	25%	14%	64%	67%	61%	54%	59%	74%	
Special Ed Services	6,579	299	48	35%	26%	25%	10%	5%	51%	51%	45%	38%	42%	51%	
Special Ed unknown	22	288	38	32%	41%	18%	9%	0%	48%	49%	41%	34%	37%	42%	
Not Econ. Disadvantaged	143,251	355	55	5%	9%	36%	30%	20%	68%	72%	67%	59%	64%	80%	
Economically Disadvantaged	121,581	322	46	14%	20%	42%	18%	6%	60%	61%	54%	46%	52%	66%	
Unknown Economic Status	247	325	48	15%	19%	38%	21%	7%	60%	61%	56%	50%	51%	66%	
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	890	346	47	6%	9%	41%	30%	14%	65%	71%	65%	56%	61%	78%	
Asian American	24,147	385	61	2%	4%	24%	31%	39%	75%	80%	75%	70%	77%	88%	
Pacific Islander	887	334	48	8%	15%	43%	24%	10%	64%	65%	59%	51%	56%	73%	
Filipino	7,851	349	47	4%	10%	42%	30%	15%	67%	71%	64%	57%	64%	80%	
Hispanic	29,973	331	46	9%	16%	44%	22%	8%	62%	65%	58%	51%	55%	72%	
African American	7,263	321	45	14%	20%	43%	18%	5%	59%	61%	54%	47%	50%	66%	
White	68,317	359	51	3%	7%	35%	33%	21%	69%	74%	70%	62%	66%	83%	
Two or More Races	3,923	355	54	5%	9%	36%	30%	20%	67%	73%	68%	60%	64%	81%	

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Atomic and Molecular Structure	Chemical Bonds, Biochemistry	Kinetics, Thermodynamics	Chemical Reactions	Conservation of Matter and Stoichiometry	Investigation and Experimentation	
Primary Ethnicity—Economically Disadvantaged															
American Indian	550	320	42	13%	22%	43%	17%	5%	60%	61%	54%	45%	48%	67%	
Asian American	13,544	351	52	5%	11%	39%	28%	17%	67%	70%	64%	57%	67%	77%	
Pacific Islander	713	313	40	17%	24%	42%	13%	3%	58%	57%	50%	43%	48%	61%	
Filipino	2,792	336	44	7%	14%	46%	25%	9%	64%	67%	59%	52%	59%	74%	
Hispanic	82,560	316	42	16%	22%	43%	15%	4%	59%	59%	52%	44%	49%	63%	
African American	8,960	306	40	22%	26%	38%	11%	2%	55%	55%	48%	40%	44%	57%	
White	11,266	339	47	7%	14%	43%	26%	11%	63%	68%	62%	53%	58%	75%	
Two or More Races	1,196	327	47	12%	18%	42%	19%	8%	60%	64%	57%	48%	54%	69%	
Primary Ethnicity—Unknown Economic Status															
American Indian	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Asian American	17	373	70	12%	6%	24%	18%	41%	66%	76%	69%	67%	76%	77%	
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—	—	
Filipino	10	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	68	309	38	19%	26%	41%	12%	1%	58%	55%	48%	44%	45%	58%	
African American	19	296	30	26%	32%	37%	5%	0%	48%	49%	42%	41%	39%	54%	
White	65	339	46	9%	9%	45%	29%	8%	63%	68%	64%	56%	54%	74%	
Two or More Races	65	323	47	17%	20%	32%	25%	6%	62%	61%	56%	47%	51%	66%	

Table 7.C.33 Demographic Summary for Earth Science

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Astronomy and Cosmology	Solid Earth	The Earth's Energy	Investigation and Experimentation
All valid scores	215,259	331	50	15%	13%	36%	23%	12%	60%	58%	56%	60%
Grade 9	142,707	333	50	14%	13%	36%	24%	13%	61%	59%	56%	61%
Grade 10	31,429	326	50	19%	14%	35%	21%	10%	58%	56%	53%	57%
Grade 11	41,123	329	52	18%	13%	34%	23%	12%	58%	57%	55%	59%
Male	115,541	335	54	16%	12%	32%	24%	16%	63%	58%	58%	59%
Female	99,590	326	46	15%	15%	41%	21%	8%	58%	58%	53%	61%
Gender unknown	128	301	45	31%	23%	32%	10%	4%	48%	48%	43%	44%
American Indian	2,149	330	51	17%	14%	34%	23%	13%	60%	57%	56%	60%
Asian American	9,835	346	51	9%	10%	33%	28%	19%	64%	63%	62%	68%
Pacific Islander	1,286	325	46	17%	13%	41%	21%	8%	59%	56%	53%	58%
Filipino	4,029	349	46	6%	8%	36%	32%	17%	67%	66%	63%	70%
Hispanic	116,502	322	46	18%	16%	39%	20%	7%	58%	55%	51%	56%
African American	15,379	312	45	25%	18%	36%	16%	5%	53%	51%	47%	52%
White	61,061	349	52	10%	9%	30%	30%	22%	67%	64%	64%	69%
Two or More Races	5,018	337	52	14%	11%	33%	26%	15%	62%	60%	59%	63%
English Only	128,255	337	52	14%	12%	34%	26%	15%	63%	60%	58%	63%
Initially Fluent English Prof.	12,072	340	48	10%	11%	37%	28%	15%	64%	62%	59%	65%
English Learner	39,198	300	37	30%	24%	36%	9%	2%	49%	47%	42%	44%
Reclassified Fluent Eng. Prof.	35,244	340	43	7%	10%	43%	29%	12%	65%	63%	59%	66%
English Prof. unknown	490	313	47	27%	17%	33%	17%	6%	53%	51%	48%	51%
No Special Ed Services	189,623	335	49	13%	12%	37%	25%	13%	62%	60%	57%	63%
Special Ed Services	25,099	301	45	35%	21%	29%	10%	4%	48%	46%	43%	43%
Special Ed unknown	537	287	38	47%	23%	24%	5%	1%	43%	41%	38%	34%
Not Econ. Disadvantaged	88,036	346	52	10%	9%	32%	29%	19%	65%	63%	62%	67%
Economically Disadvantaged	126,656	321	46	19%	16%	38%	19%	7%	57%	55%	51%	56%
Unknown Economic Status	567	311	47	29%	17%	31%	17%	6%	52%	49%	49%	49%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	1,024	339	52	13%	11%	33%	26%	17%	63%	60%	60%	64%
Asian American	4,327	359	51	7%	6%	28%	32%	27%	69%	68%	68%	74%
Pacific Islander	559	334	48	14%	8%	41%	24%	13%	62%	60%	57%	62%
Filipino	2,722	353	46	6%	6%	34%	34%	19%	68%	67%	65%	71%
Hispanic	27,829	332	49	14%	13%	37%	25%	11%	61%	59%	56%	61%
African American	5,750	320	48	21%	16%	35%	20%	8%	56%	54%	51%	56%
White	42,886	356	52	7%	7%	29%	32%	25%	69%	66%	66%	72%
Two or More Races	2,939	347	52	10%	8%	32%	30%	20%	65%	64%	63%	68%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster			
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Astronomy and Cosmology	Solid Earth	The Earth's Energy	Investigation and Experimentation
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores										
Primary Ethnicity—Economically Disadvantaged												
American Indian	1,117	321	48	21%	16%	34%	20%	8%	56%	54%	52%	56%
Asian American	5,491	336	49	12%	13%	38%	25%	13%	61%	60%	58%	63%
Pacific Islander	725	318	43	18%	17%	41%	19%	5%	56%	54%	50%	55%
Filipino	1,302	341	45	7%	11%	41%	28%	14%	65%	63%	60%	66%
Hispanic	88,441	318	45	19%	17%	40%	18%	6%	56%	54%	50%	55%
African American	9,600	307	43	28%	20%	36%	13%	4%	51%	50%	45%	49%
White	18,035	334	51	15%	12%	34%	25%	14%	62%	59%	57%	61%
Two or More Races	1,945	324	49	19%	14%	35%	22%	9%	58%	55%	53%	57%
Primary Ethnicity—Unknown Economic Status												
American Indian	8	—	—	—	—	—	—	—	—	—	—	—
Asian American	17	334	42	0%	24%	41%	24%	12%	60%	53%	63%	58%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—
Filipino	5	—	—	—	—	—	—	—	—	—	—	—
Hispanic	232	304	44	31%	20%	31%	13%	4%	48%	46%	46%	45%
African American	29	285	30	52%	24%	21%	3%	0%	43%	40%	35%	37%
White	140	329	50	19%	11%	29%	31%	9%	60%	56%	56%	60%
Two or More Races	134	308	45	31%	19%	35%	10%	6%	51%	49%	46%	48%

Table 7.C.34 Demographic Summary for Physics

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster						
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Motion and Forces	Conservation of Energy and Momentum	Heat and Thermodynamics	Waves	Electric and Magnetic Phenomena	Investigation and Experimentation	
All valid scores	76,065	354	54	7%	9%	31%	30%	22%	64%	64%	64%	65%	58%	66%	
Grade 9	14,344	342	52	10%	12%	36%	26%	16%	60%	59%	59%	62%	54%	59%	
Grade 10	9,117	348	55	9%	11%	33%	28%	19%	62%	61%	60%	62%	56%	63%	
Grade 11	52,604	359	54	6%	8%	30%	32%	24%	66%	66%	66%	66%	60%	68%	
Male	40,242	362	57	7%	8%	27%	31%	27%	68%	67%	67%	66%	60%	67%	
Female	35,811	346	49	7%	11%	36%	30%	16%	60%	61%	61%	63%	56%	64%	
Gender unknown	12	306	42	25%	17%	50%	0%	8%	51%	42%	44%	40%	39%	46%	
American Indian	382	349	53	10%	9%	32%	30%	19%	63%	61%	63%	63%	55%	64%	
Asian American	12,403	381	55	2%	4%	22%	34%	38%	74%	75%	73%	72%	68%	74%	
Pacific Islander	462	340	49	10%	10%	40%	26%	13%	59%	58%	57%	61%	54%	60%	
Filipino	3,269	358	45	3%	7%	32%	37%	20%	65%	67%	66%	68%	61%	67%	
Hispanic	28,822	333	47	11%	14%	40%	25%	10%	56%	56%	55%	58%	52%	58%	
African American	4,315	321	46	18%	18%	37%	19%	6%	50%	50%	51%	53%	47%	53%	
White	24,476	371	51	3%	5%	25%	36%	31%	72%	71%	72%	70%	62%	73%	
Two or More Races	1,936	359	56	7%	8%	30%	31%	24%	65%	66%	67%	66%	59%	67%	
English Only	43,766	360	54	6%	8%	29%	33%	25%	67%	67%	68%	67%	59%	69%	
Initially Fluent English Prof.	8,017	368	56	4%	6%	28%	32%	30%	69%	70%	70%	69%	63%	71%	
English Learner	4,731	302	43	30%	27%	29%	9%	4%	43%	42%	39%	44%	43%	41%	
Reclassified Fluent Eng. Prof.	19,502	348	49	6%	10%	39%	30%	16%	61%	62%	61%	63%	57%	64%	
English Prof. unknown	49	321	61	27%	10%	43%	10%	10%	53%	49%	46%	50%	44%	54%	
No Special Ed Services	73,825	356	53	6%	9%	32%	31%	22%	65%	65%	65%	65%	59%	67%	
Special Ed Services	2,227	307	53	33%	24%	23%	11%	8%	45%	43%	44%	46%	42%	45%	
Special Ed unknown	13	274	31	77%	0%	15%	8%	0%	31%	31%	32%	25%	34%	31%	
Not Econ. Disadvantaged	43,659	369	53	4%	6%	26%	34%	30%	70%	70%	71%	69%	62%	72%	
Economically Disadvantaged	32,309	335	49	11%	14%	38%	25%	11%	56%	56%	56%	58%	53%	58%	
Unknown Economic Status	97	326	63	24%	14%	34%	14%	13%	52%	52%	52%	52%	47%	52%	
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	263	355	52	8%	7%	32%	30%	23%	65%	64%	66%	65%	57%	68%	
Asian American	8,084	391	55	1%	3%	17%	33%	45%	77%	78%	77%	75%	70%	77%	
Pacific Islander	267	350	49	6%	6%	40%	31%	17%	63%	63%	61%	65%	58%	63%	
Filipino	2,437	362	45	2%	6%	31%	39%	22%	67%	68%	68%	70%	62%	69%	
Hispanic	8,024	345	48	8%	11%	36%	31%	15%	61%	61%	61%	62%	55%	63%	
African American	1,931	332	47	12%	15%	38%	25%	9%	55%	55%	57%	57%	50%	59%	
White	21,223	374	51	3%	4%	24%	37%	33%	73%	73%	73%	71%	63%	75%	
Two or More Races	1,430	365	55	5%	6%	29%	33%	27%	68%	68%	70%	68%	60%	69%	

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Motion and Forces	Conservation of Energy and Momentum	Heat and Thermodynamics	Waves	Electric and Magnetic Phenomena	Investigation and Experimentation
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged														
American Indian	119	335	51	13%	13%	33%	30%	10%	58%	56%	58%	58%	52%	56%
Asian American	4,313	362	51	4%	7%	30%	34%	25%	67%	69%	66%	68%	63%	68%
Pacific Islander	194	325	47	16%	15%	41%	20%	8%	53%	52%	51%	56%	48%	55%
Filipino	829	345	45	7%	11%	35%	33%	14%	60%	61%	60%	63%	56%	63%
Hispanic	20,768	329	45	12%	16%	41%	23%	8%	54%	54%	53%	56%	51%	56%
African American	2,373	312	43	23%	21%	37%	15%	4%	47%	46%	46%	49%	44%	48%
White	3,235	351	50	7%	9%	34%	32%	18%	64%	62%	64%	63%	56%	65%
Two or More Races	478	342	55	13%	12%	34%	24%	18%	58%	59%	59%	61%	55%	59%
Primary Ethnicity—Unknown Economic Status														
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	6	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	30	320	52	23%	13%	37%	13%	13%	54%	53%	50%	49%	44%	47%
African American	11	284	46	64%	9%	18%	0%	9%	28%	31%	36%	35%	39%	45%
White	18	348	62	6%	17%	39%	22%	17%	60%	61%	59%	59%	56%	66%
Two or More Races	28	325	70	25%	14%	39%	11%	11%	50%	51%	50%	51%	45%	52%

Table 7.C.35 Demographic Summary for Integrated/Coordinated Science 1

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
All valid scores	54,656	313	41	21%	17%	43%	17%	3%	55%	46%	57%	43%	57%
Grade 9	40,854	316	41	18%	16%	44%	18%	4%	56%	48%	58%	44%	58%
Grade 10	5,209	299	39	32%	20%	37%	10%	1%	50%	40%	49%	38%	49%
Grade 11	8,593	308	41	25%	18%	39%	16%	2%	56%	43%	54%	40%	55%
Male	29,050	313	43	23%	16%	40%	17%	4%	56%	46%	57%	42%	56%
Female	25,586	313	38	18%	18%	46%	16%	2%	54%	46%	57%	43%	58%
Gender unknown	20	281	46	55%	20%	20%	0%	5%	38%	35%	39%	34%	41%
American Indian	454	314	39	19%	16%	45%	17%	3%	57%	46%	58%	43%	59%
Asian American	3,086	339	48	10%	10%	39%	29%	13%	65%	56%	68%	52%	71%
Pacific Islander	340	306	41	26%	18%	40%	13%	2%	51%	44%	52%	42%	52%
Filipino	1,207	327	38	9%	13%	49%	25%	4%	61%	53%	63%	48%	66%
Hispanic	34,742	306	38	23%	19%	44%	12%	1%	52%	44%	54%	40%	53%
African American	4,046	300	37	29%	21%	40%	9%	1%	50%	42%	49%	38%	49%
White	9,790	331	42	12%	10%	41%	30%	7%	65%	52%	65%	48%	67%
Two or More Races	991	319	44	20%	14%	40%	21%	6%	61%	48%	59%	44%	60%
English Only	26,004	318	42	19%	15%	42%	21%	4%	58%	48%	59%	44%	60%
Initially Fluent English Prof.	3,437	326	44	13%	13%	44%	23%	7%	61%	51%	63%	47%	64%
English Learner	11,519	288	31	39%	27%	31%	3%	0%	42%	38%	44%	35%	42%
Reclassified Fluent Eng. Prof.	13,616	322	36	10%	14%	54%	18%	3%	59%	49%	62%	45%	63%
English Prof. unknown	80	302	45	41%	10%	35%	9%	5%	49%	43%	49%	39%	51%
No Special Ed Services	48,222	317	40	17%	16%	45%	18%	4%	57%	48%	58%	44%	59%
Special Ed Services	6,294	284	34	46%	23%	26%	4%	1%	41%	36%	42%	34%	39%
Special Ed unknown	140	284	32	51%	18%	29%	3%	0%	42%	36%	41%	34%	39%
Not Econ. Disadvantaged	19,502	325	44	15%	13%	42%	24%	6%	61%	50%	62%	47%	63%
Economically Disadvantaged	35,042	306	38	24%	19%	43%	12%	2%	52%	44%	53%	40%	53%
Unknown Economic Status	112	295	42	40%	18%	29%	10%	3%	46%	40%	49%	35%	47%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	212	323	39	16%	11%	44%	25%	4%	61%	50%	62%	47%	63%
Asian American	1,853	348	49	6%	8%	37%	32%	17%	69%	59%	71%	55%	74%
Pacific Islander	169	310	45	25%	15%	40%	16%	4%	53%	45%	54%	43%	54%
Filipino	797	329	37	9%	12%	48%	27%	4%	61%	53%	64%	49%	67%
Hispanic	7,491	311	40	21%	17%	44%	16%	2%	55%	46%	56%	42%	56%
African American	1,502	305	39	27%	19%	40%	13%	2%	52%	43%	52%	40%	53%
White	6,881	338	41	9%	8%	41%	34%	8%	69%	55%	68%	51%	71%
Two or More Races	597	325	44	15%	12%	41%	25%	7%	64%	50%	62%	46%	63%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	242	306	37	22%	21%	45%	10%	2%	53%	42%	54%	40%	55%
Asian American	1,227	326	43	15%	12%	41%	24%	7%	60%	52%	62%	48%	65%
Pacific Islander	171	301	36	27%	21%	40%	11%	1%	50%	42%	50%	40%	50%
Filipino	409	325	38	11%	13%	51%	21%	4%	60%	52%	62%	47%	63%
Hispanic	27,195	305	37	24%	20%	44%	11%	1%	51%	44%	53%	40%	52%
African American	2,529	297	35	30%	22%	41%	7%	0%	48%	41%	48%	37%	47%
White	2,889	315	42	21%	14%	42%	19%	3%	57%	47%	58%	43%	59%
Two or More Races	380	308	42	28%	16%	39%	14%	3%	56%	44%	52%	41%	55%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	6	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	56	287	32	45%	16%	34%	5%	0%	42%	35%	47%	33%	41%
African American	15	273	28	60%	27%	13%	0%	0%	35%	30%	38%	32%	31%
White	20	306	39	25%	20%	40%	15%	0%	56%	45%	52%	35%	58%
Two or More Races	14	335	55	14%	21%	14%	36%	14%	63%	58%	63%	46%	74%

Table 7.C.36 Demographic Summary for Integrated/Coordinated Science 2

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
All valid scores	4,111	312	44	20%	22%	39%	13%	6%	53%	43%	56%	40%	52%
Grade 9	846	340	53	13%	11%	33%	24%	20%	60%	56%	68%	52%	66%
Grade 10	1,938	309	40	21%	23%	41%	12%	4%	53%	42%	54%	39%	50%
Grade 11	1,327	299	33	25%	28%	39%	6%	1%	49%	37%	50%	34%	45%
Male	2,273	312	46	23%	20%	37%	14%	7%	52%	43%	57%	41%	51%
Female	1,832	312	41	18%	25%	40%	12%	5%	55%	44%	54%	39%	53%
Gender unknown	6	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	21	292	34	38%	29%	24%	10%	0%	44%	33%	48%	37%	30%
Asian American	321	368	51	5%	4%	26%	30%	35%	72%	69%	77%	63%	77%
Pacific Islander	26	292	33	23%	38%	35%	4%	0%	46%	33%	46%	32%	44%
Filipino	132	311	37	16%	23%	46%	12%	3%	56%	42%	52%	40%	53%
Hispanic	2,250	302	35	23%	26%	41%	8%	2%	50%	39%	51%	36%	46%
African American	344	286	29	38%	32%	27%	3%	0%	43%	34%	42%	30%	39%
White	917	326	46	13%	15%	42%	20%	10%	56%	49%	65%	45%	60%
Two or More Races	100	324	50	18%	17%	32%	23%	10%	57%	49%	62%	43%	62%
English Only	2,118	315	45	20%	20%	38%	15%	7%	53%	44%	58%	40%	54%
Initially Fluent English Prof.	356	330	50	11%	17%	40%	17%	14%	59%	52%	63%	47%	59%
English Learner	668	285	27	42%	31%	24%	3%	0%	43%	33%	40%	31%	35%
Reclassified Fluent Eng. Prof.	959	320	40	9%	22%	49%	14%	6%	58%	45%	59%	42%	55%
English Prof. unknown	10	—	—	—	—	—	—	—	—	—	—	—	—
No Special Ed Services	3,627	317	43	16%	21%	42%	14%	7%	55%	45%	58%	42%	54%
Special Ed Services	466	276	28	55%	29%	14%	3%	0%	37%	31%	37%	28%	34%
Special Ed unknown	18	269	16	61%	39%	0%	0%	0%	34%	32%	30%	26%	32%
Not Econ. Disadvantaged	1,693	329	49	13%	17%	37%	20%	13%	59%	50%	64%	46%	61%
Economically Disadvantaged	2,409	300	35	25%	26%	39%	8%	2%	49%	38%	50%	36%	45%
Unknown Economic Status	9	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	7	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	268	378	47	2%	2%	22%	32%	41%	75%	73%	82%	67%	80%
Pacific Islander	5	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	97	319	35	7%	24%	52%	13%	4%	59%	43%	56%	43%	55%
Hispanic	443	304	34	22%	26%	41%	10%	2%	51%	39%	53%	35%	49%
African American	121	292	29	30%	38%	27%	4%	1%	47%	35%	44%	32%	44%
White	685	333	46	10%	12%	41%	24%	12%	59%	52%	68%	47%	64%
Two or More Races	67	332	51	13%	18%	28%	28%	12%	61%	52%	67%	45%	64%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	14	283	31	50%	29%	14%	7%	0%	39%	32%	43%	35%	20%
Asian American	52	318	42	19%	12%	46%	19%	4%	55%	46%	54%	45%	62%
Pacific Islander	21	287	25	24%	43%	33%	0%	0%	46%	32%	41%	30%	38%
Filipino	35	290	35	40%	20%	31%	9%	0%	45%	40%	41%	31%	48%
Hispanic	1,803	302	35	23%	26%	40%	8%	2%	50%	39%	51%	37%	46%
African American	222	283	29	43%	29%	26%	2%	0%	42%	34%	40%	29%	36%
White	231	304	35	22%	22%	45%	9%	2%	49%	39%	55%	36%	50%
Two or More Races	31	307	45	29%	16%	35%	13%	6%	50%	41%	53%	39%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	1	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	4	—	—	—	—	—	—	—	—	—	—	—	—
African American	1	—	—	—	—	—	—	—	—	—	—	—	—
White	1	—	—	—	—	—	—	—	—	—	—	—	—
Two or More Races	2	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.C.37 Demographic Summary for Integrated/Coordinated Science 3

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
All valid scores	1,283	309	40	19%	26%	39%	11%	5%	51%	39%	52%	37%	51%
Grade 9	35	285	23	31%	46%	23%	0%	0%	35%	31%	42%	27%	42%
Grade 10	103	302	36	23%	28%	37%	10%	2%	48%	36%	49%	34%	50%
Grade 11	1,145	310	40	19%	26%	39%	11%	6%	52%	39%	53%	38%	51%
Male	744	309	41	21%	25%	38%	11%	6%	52%	39%	53%	38%	49%
Female	538	308	37	17%	29%	40%	10%	4%	51%	39%	51%	37%	53%
Gender unknown	1	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	5	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	33	324	44	12%	15%	52%	9%	12%	58%	46%	61%	42%	55%
Pacific Islander	5	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	12	328	47	17%	0%	67%	0%	17%	60%	50%	56%	33%	64%
Hispanic	702	299	34	24%	31%	36%	7%	2%	45%	35%	46%	34%	46%
African American	70	299	35	26%	37%	27%	7%	3%	47%	35%	47%	35%	44%
White	433	325	43	12%	18%	43%	17%	9%	61%	44%	62%	43%	58%
Two or More Races	23	324	38	9%	22%	43%	22%	4%	61%	45%	60%	43%	54%
English Only	715	318	42	14%	22%	42%	14%	7%	57%	42%	58%	40%	55%
Initially Fluent English Prof.	101	306	35	18%	32%	38%	9%	4%	49%	37%	51%	37%	50%
English Learner	207	280	20	42%	38%	20%	0%	0%	35%	29%	34%	27%	34%
Reclassified Fluent Eng.	260	309	35	15%	26%	45%	9%	4%	50%	39%	51%	38%	52%
English Prof. unknown	0	—	—	—	—	—	—	—	—	—	—	—	—
No Special Ed Services	1,103	314	40	15%	25%	43%	12%	6%	54%	41%	55%	39%	53%
Special Ed Services	180	282	28	45%	36%	15%	4%	1%	38%	29%	37%	28%	35%
Special Ed unknown	0	—	—	—	—	—	—	—	—	—	—	—	—
Not Econ. Disadvantaged	627	320	43	13%	23%	41%	15%	8%	58%	43%	59%	41%	55%
Economically Disadvantaged	653	299	33	26%	30%	37%	6%	2%	45%	35%	46%	34%	46%
Unknown Economic Status	3	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	2	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	15	341	36	0%	7%	67%	7%	20%	67%	53%	72%	45%	67%
Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	6	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	198	305	39	19%	33%	33%	11%	4%	49%	37%	51%	36%	47%
African American	26	311	44	19%	31%	27%	15%	8%	51%	39%	54%	40%	50%
White	360	328	44	10%	18%	44%	18%	11%	62%	45%	63%	44%	59%
Two or More Races	17	332	37	0%	24%	47%	24%	6%	67%	48%	65%	44%	57%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Number Tested	Mean Scale Score	Std. Dev. of Scale Scores											
Primary Ethnicity—Economically Disadvantaged													
American Indian	3	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	18	310	46	22%	22%	39%	11%	6%	51%	41%	52%	40%	44%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	6	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	502	296	31	27%	30%	36%	5%	1%	44%	34%	44%	33%	46%
African American	44	292	26	30%	41%	27%	2%	0%	44%	32%	42%	32%	40%
White	72	313	39	19%	22%	42%	13%	4%	52%	41%	54%	41%	54%
Two or More Races	6	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	2	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—
White	1	—	—	—	—	—	—	—	—	—	—	—	—
Two or More Races	0	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.C.38 Demographic Summary for Integrated/Coordinated Science 4

	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
				Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
All valid scores	157	289	37	42%	24%	27%	6%	1%	50%	35%	47%	31%	36%
Grade 9	66	277	26	52%	29%	20%	0%	0%	44%	33%	42%	27%	30%
Grade 10	53	299	41	38%	15%	32%	15%	0%	55%	39%	51%	36%	43%
Grade 11	38	297	41	32%	29%	34%	3%	3%	54%	35%	52%	34%	38%
Male	92	286	35	45%	26%	22%	8%	0%	47%	33%	48%	30%	36%
Female	65	294	38	38%	22%	35%	3%	2%	55%	38%	47%	33%	38%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	2	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	12	295	42	42%	25%	17%	17%	0%	47%	39%	52%	35%	36%
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	79	280	31	51%	24%	23%	3%	0%	47%	33%	43%	27%	33%
African American	10	—	—	—	—	—	—	—	—	—	—	—	—
White	51	305	39	25%	25%	37%	10%	2%	59%	39%	54%	39%	43%
Two or More Races	3	—	—	—	—	—	—	—	—	—	—	—	—
English Only	104	298	36	30%	28%	35%	7%	1%	57%	36%	51%	34%	40%
Initially Fluent English Prof.	6	—	—	—	—	—	—	—	—	—	—	—	—
English Learner	37	270	24	70%	16%	14%	0%	0%	35%	33%	39%	25%	27%
Reclassified Fluent Eng. Prof.	9	—	—	—	—	—	—	—	—	—	—	—	—
English Prof. unknown	1	—	—	—	—	—	—	—	—	—	—	—	—
No Special Ed Services	97	298	40	34%	22%	34%	9%	1%	55%	38%	52%	35%	39%
Special Ed Services	59	275	24	54%	29%	17%	0%	0%	42%	32%	40%	26%	32%
Special Ed unknown	1	—	—	—	—	—	—	—	—	—	—	—	—
Not Econ. Disadvantaged	69	307	41	26%	20%	39%	13%	1%	61%	40%	55%	37%	46%
Economically Disadvantaged	86	275	25	55%	28%	17%	0%	0%	41%	32%	41%	27%	28%
Unknown Economic Status	2	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	7	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	25	302	33	24%	24%	44%	8%	0%	63%	38%	55%	31%	43%
African American	3	—	—	—	—	—	—	—	—	—	—	—	—
White	32	313	44	22%	22%	38%	16%	3%	61%	43%	58%	42%	49%
Two or More Races	1	—	—	—	—	—	—	—	—	—	—	—	—

			Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	1	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	5	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	54	270	24	63%	24%	13%	0%	0%	39%	30%	38%	25%	28%
African American	7	—	—	—	—	—	—	—	—	—	—	—	—
White	18	293	24	28%	33%	39%	0%	0%	55%	34%	50%	33%	33%
Two or More Races	1	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—
White	1	—	—	—	—	—	—	—	—	—	—	—	—
Two or More Races	1	—	—	—	—	—	—	—	—	—	—	—	—

Appendix 7.D—Types of Score Reports

Table 7.D.1 Score Reports Reflecting CST Results

2011 STAR CST Printed Reports	
Description	Distribution
The CST Student Report	
<p>This report provides parents/guardians and teachers with the student's results, presented in tables and graphs. Data presented include the following for each content area:</p> <ul style="list-style-type: none"> • Scale scores • Performance levels (advanced, proficient, basic, below basic, and far below basic) • Number and percent correct in each reporting cluster • Comparison of the student's scores on specific reporting clusters to the range of scores of students statewide who scored proficient on the total test • Student's California Reading List (CRL) number 	<p>This report includes individual student results and is not distributed beyond parents/guardians and the student's school.</p> <p>Two copies of this report are provided for each student. One is for the student's current teacher and one is distributed by the school district to parents/guardians.</p>
Student Record Label	
<p>These reports are printed on adhesive labels to be affixed to the student's permanent school records. Each student shall have an individual record of accomplishment that includes STAR testing results (see California <i>EC</i> Section 60607[a]).</p> <p>Data presented include the following for each content area tested:</p> <ul style="list-style-type: none"> • Scale scores • Performance levels • Student's CRL Number 	<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 that presents individual student results. Data include the following for each content area:</p> <ul style="list-style-type: none"> • Percent correct for each reporting cluster within each content area tested • A scale score and performance level for each content area tested • Writing score (CSTs in grades four and seven) • CRL number 	<p>This report provides administrators and teachers with all students' results within each grade or within each grade and year-round schedule at a school.</p> <p>Because this report includes individual student results, it is not distributed beyond the student's school.</p>
Student Master List Summary	
<p>This report summarizes student results at the school, district, county, and state levels for each grade. It does not include any individual student information.</p> <p>Note: Summaries for specific CSTs for mathematics, science, and history–social science across grades are provided in the Student Master List Summary—</p>	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is packaged for the school and one for the school district.</p> <p>This report is also produced for school districts,</p>

2011 STAR CST Printed Reports	
Description	Distribution
<p>End-of-Course Report.</p> <p>For each content area tested, the following data are summarized:</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 • Mean scale score • Scale score standard deviation • Number and percent of students scoring at each performance level • Number of items and mean percent correct for each reporting cluster • For grades four and seven, the percent of students achieving each Writing Application score 	<p>counties, and the state.</p> <p>Note: The data in this report may be shared with parents/guardians, community members, and the media only if the data are for 11 or more students.</p>
Student Master List Summary—End-of-Course	
<p>This report summarizes Student Master List information for EOC CSTs for mathematics, science, and history–social science across grades seven through eleven at the school, district, county, and state levels. It does not include any individual student information.</p> <p>At grades seven through eleven, CSTs for end-of-course mathematics are given in the following content areas:</p> <ul style="list-style-type: none"> • Algebra I (grades seven through eleven) • General Mathematics (grades eight and nine) • Geometry (grades eight through eleven) • Algebra II (grades eight through eleven) • Integrated Mathematics 1, 2, and 3 (grades eight through eleven) • Summative High School Mathematics (grades nine through eleven). <p>At grades nine through eleven, CSTs for end-of-course science are offered in the following content areas:</p> <ul style="list-style-type: none"> • Biology • Chemistry • Physics • Earth Science • Integrated/Coordinated Science 1, 2, 3, and 4 <p>Students in grades nine through eleven may also take the EOC CST for World History.</p> <p>For each of these CSTs, the following data are summarized by grade and content area:</p>	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is packaged for the school and one for the school district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p>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>

2011 STAR CST Printed Reports	
Description	Distribution
<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 • Mean scale score • Scale score standard deviation • Number and percent of students scoring at each performance level <p>For each reporting cluster:</p> <ul style="list-style-type: none"> • Number of items • Mean percent correct 	
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 • Primary ethnicity <p>These reports contain no individual student-identifying information and are aggregated at the school, district, county, and state levels. CAPA statistics are listed by CAPA level.</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 the subgroup as a percent of all students tested • Number and percent of valid scores • Number tested who received scores • Mean scale score • Standard deviation of scale score • Number and percent of students scoring at each performance level 	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is packaged for the school and one for the school district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p>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—Ethnicity for Economic Status	
<p>This report, a part of the Subgroup Summary, disaggregates and reports results by cross-referencing each ethnicity with economic status. The economic status for each student is “economically disadvantaged,” “not economically disadvantaged,” or “economic status unknown.” A student is defined as “economically disadvantaged” if the most educated parent of the student, as indicated in the answer document or Pre-ID, has not received a high</p>	<p>This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators.</p> <p>One copy is packaged for the school, and one for the school district.</p> <p>This report is also produced for school districts, counties, and the state.</p> <p>Note: The data on this report may be shared with</p>

2011 STAR CST Printed Reports	
Description	Distribution
<p>school diploma or the student is eligible to participate in the free or reduced-price lunch program also known as the National School Lunch Program (NSLP).</p> <p>As with the standard Subgroup Summary, this disaggregation contains no individual student-identifying information and is 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 the subgroup as a percent of all students tested • Number and percent of valid scores • Number tested who received scores • Mean scale score • Standard deviation of scale score • Number and percent of students scoring at each performance level 	<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 CSTs administered during the spring of 2011.

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

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

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

1. Appendix 8.A on page 397 presents the classical item analyses including proportion-correct value (p -value) and point-biserial correlation (Pt-Bis) for each item in each operational test. The appendix also presents information about the distribution of scores on the writing tasks administered in grades four and seven for the overall population and for the various subgroups. In addition, the average and median p -values and Pt-Bis for the operational tests are presented in Table 8.1 on page 368.
2. Appendix 8.B on page 409 presents results of the reliability analyses of total test scores and subscores for the population as a whole and for selected subgroups. Also presented are results of the analyses of the accuracy and consistency of the performance classifications. Finally, interrater reliability results for the writing tasks administered in grades four and seven are shown.
3. Appendix 8.C on page 489 presents tables showing the correlation between scores obtained on the CSTs measured in the different content areas, which are provided as an example of the evidence of the validity of the interpretation and uses of CST scores. The results for the overall test population are presented in Table 8.4; the tables in Appendix 8.C summarize the results for various subgroups.
4. Appendix 8.D on page 533 presents the results of IRT analyses including the distribution of items based on their fit to the Rasch model and the summaries of Rasch item difficulty statistics (b -values) for the operational and field-test items. In addition, the appendix presents the scoring tables obtained as a result of the IRT equating process. Information related to the evaluation of linking items is presented in Table 8.5 on page 391; these linking items were used in the equating process discussed later in this chapter.
5. Appendix 8.E on page 575 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

CST analyses were conducted at different times after test administration and involved varying proportions of the full CST data. The classical-item analyses presented in Appendix 8.A, the reliability statistics included in Appendix 8.B, and the content area

correlations presented in Appendix 8.C were calculated using the P1 data file. This file contained more than 99 percent of the test results of the entire test-taking population.

Following the *Standards for Educational and Psychological Testing* (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 1999, Standard 6.4), the results of the classical item analyses and reliability analyses for the four CSTs for EOC mathematics and the CST for World History are also presented for the grade-specific population in addition to the overall test-taking population. “Grade-specific population” refers to test-takers in the particular grade for which the course has been recommended by the SBE, that is, in grade eight for Algebra I, grade nine for Geometry, grade ten for Algebra II, grade eleven for Summative High School Mathematics, and grade ten for World History.

The IRT results presented in Appendix 8.D and item-level DIF results presented in Appendix 8.E are based on the sample of student data that was used in the final item analyses (FIA) which comprised about 80–90 percent of the full CST data for the majority of tests. Beginning in 2008, the DIF and IRT analyses for the EOC mathematics CSTs were no longer limited to the grade-specific population. Instead, as is the case for other CSTs, all students taking these tests were included in the equating sample and in the FIA sample.

Classical Item Analyses

Multiple-Choice Items

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

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

where,

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

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

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

$$r_{it} = \frac{\text{cov}(i, t)}{s_i s_t} \quad (8.2)$$

where,

$\text{cov}(i, t)$ is the covariance between an item i and total score t ,

s_{xi} is the standard deviation for an item i , and

s_t is the standard deviation for total score t

The classical statistics for the overall test are presented in Table 8.1. The item-by-item values for the indices are presented in Table 8.A.1 through Table 8.A.7, which start on page 397.

Table 8.1 Mean and Median Proportion Correct and Point-Biserial

Content Area	CST*	No. of Items	No. of Examinees	Mean		Median	
				p-value	Pt-Bis	p-value	Pt-Bis
English–Language Arts	2	65	458,752	0.69	0.48	0.69	0.49
	3	65	434,795	0.68	0.43	0.68	0.43
	4	75	429,809	0.67	0.45	0.67	0.46
	5	75	434,092	0.69	0.43	0.71	0.44
	6	75	431,155	0.65	0.42	0.66	0.42
	7	75	435,408	0.67	0.41	0.69	0.41
	8	75	440,118	0.66	0.43	0.67	0.44
	9	75	476,121	0.64	0.42	0.65	0.43
	10	75	465,026	0.65	0.44	0.64	0.43
	11	75	444,788	0.64	0.43	0.65	0.44
History–Social Science	8	75	461,566	0.63	0.43	0.64	0.42
	World History	60	473,651	0.62	0.44	0.60	0.45
	11	60	446,459	0.62	0.45	0.62	0.44
Mathematics	2	65	459,483	0.77	0.45	0.82	0.45
	3	65	437,217	0.80	0.45	0.83	0.45
	4	65	433,835	0.79	0.46	0.81	0.48
	5	65	437,504	0.70	0.46	0.71	0.45
	6	65	432,693	0.66	0.46	0.67	0.46
	7	65	399,818	0.61	0.42	0.62	0.43
	General Mathematics	65	199,316	0.52	0.39	0.52	0.40
	Algebra I	65	736,345	0.50	0.41	0.50	0.42
	Geometry	65	407,012	0.55	0.43	0.59	0.43
	Algebra II	65	277,282	0.55	0.41	0.56	0.41
	Summ. H.S Math	65	139,940	0.73	0.43	0.75	0.44
	Integrated Math 1	65	11,943	0.43	0.32	0.40	0.32
	Integrated Math 2	65	4,483	0.46	0.34	0.48	0.36
	Integrated Math 3	65	730	0.47	0.41	0.48	0.41
Science	5	60	435,933	0.70	0.43	0.72	0.43
	8	60	440,698	0.69	0.43	0.70	0.44
	10 Life Science	60	458,763	0.64	0.45	0.65	0.45
	Biology	60	551,808	0.63	0.45	0.65	0.46
	Chemistry	60	265,079	0.62	0.40	0.61	0.41
	Earth Science	60	215,259	0.58	0.41	0.59	0.42
	Physics	60	76,065	0.63	0.42	0.64	0.43
	Int/Coord Science 1	60	54,656	0.51	0.36	0.52	0.38
	Int/Coord Science 2	60	4,111	0.49	0.37	0.48	0.38
	Int/Coord Science 3	60	1,283	0.45	0.36	0.42	0.38
	Int/Coord Science 4	60	157	0.41	0.32	0.37	0.33
Grade-Specific	Algebra I – 8	65	278,387	0.57	0.42	0.56	0.44
	Geometry – 9	65	139,998	0.64	0.41	0.68	0.42
	Algebra II – 10	65	125,288	0.60	0.40	0.59	0.40
	Summ. H.S. Math – 11	65	116,793	0.71	0.42	0.72	0.43
	World History –10	60	426,536	0.63	0.43	0.61	0.44

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

Writing Tasks

As described earlier, students in grades four and seven were administered two different writing prompts at different times in the STAR testing cycle. Students were given one of the two writing prompts depending upon when they were tested.

The distributions of writing scores for the overall population and for the various subgroups are presented in Table 8.A.8 and Table 8.A.9, which appear on page 406. The subgroups

include gender, ethnicity, economic status, provision of special services, and English–language fluency.

The mean scores obtained on the writing test for the overall population and for various subgroups are presented in Table 8.A.10 and Table 8.A.11. To quantify the differences between mean scores of subgroups, effect sizes were calculated; Cohen’s d (1992) was used as the measure of effect size. Cohen’s d is defined as the difference between two means divided by the pooled standard deviation adjusted for sample size. Cohen (1992) suggested that 0.2 is indicative of a small effect, 0.5 a medium, and 0.8 a large effect size. The effect sizes for various subgroup differences are presented in Table 8.A.12 and Table 8.A.13.

Reliability Analyses

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

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

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

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

where,

n is the number of items,

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

σ_t^2 is the variance of the total score.

The standard error of measurement (SEM) provides a measure of score instability in the score metric. The SEM is defined by:

$$\sigma_e = \sigma_t \sqrt{1 - \alpha} \quad (8.4)$$

where,

α is the reliability in equation 8.3, and

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

The SEM is computed by substituting sample estimates of the population variances in the defining formulas (equations 8.3 and 8.4). The SEM is particularly useful in determining the confidence interval (CI) that captures an examinee's true score. Assuming that measurement error is normally distributed, it can be said that upon infinite replications of the testing occasion, approximately 95 percent of the CIs of ± 1.96 SEM around the observed score would contain an examinee's true score (Crocker & Algina, 1986). For example, if an examinee's observed score on a given test equals 15 points, and the SEM equals 1.92, one can be 95 percent confident that the examinee's true score lies between 11 and 19 points (15 ± 3.76 rounded to the nearest integer).

Table 8.2 gives the reliability and SEM for each of the 38 operational CSTs, along with the number of items and examinees upon which those analyses were performed. The results for the grade-specific population for the five CSTs—grade eight for Algebra I, grade nine for Geometry, grade ten for Algebra II, grade eleven for Summative High School Mathematics, and grade ten for World History—are also presented in this table.

Table 8.2 Reliabilities and Standard Errors of Measurement for the CSTs

Content Area	CST*	No. of Items	No. of Examinees	Reliab.	Scale Score			Raw Score		
					Mean	Std. Dev.	SEM	Mean	Std. Dev.	SEM
English–Language Arts	2	65	458,752	0.95	360	67	15.56	44.65	13.95	3.23
	3	65	434,795	0.93	345	62	16.77	44.34	12.21	3.28
	4**	75	429,809	0.94	372	60	14.16	49.94	15.16	3.56
	5	75	434,092	0.94	362	58	14.25	51.78	14.11	3.50
	6	75	431,155	0.93	358	56	14.33	48.98	14.06	3.62
	7**	75	435,408	0.93	360	61	15.87	50.08	13.68	3.57
	8	75	440,118	0.94	362	63	15.54	49.34	14.54	3.60
	9	75	476,121	0.94	358	62	15.50	47.68	14.62	3.67
	10	75	465,026	0.94	346	58	14.17	49.04	14.91	3.63
	11	75	444,788	0.94	342	65	16.21	48.17	14.71	3.67
History–Social Science	8	75	461,566	0.94	353	71	17.52	47.26	15.02	3.70
	World History	60	473,651	0.93	342	75	19.93	37.24	12.53	3.33
	11	60	446,459	0.93	345	73	19.27	37.01	12.52	3.31
Mathematics	2	65	459,483	0.94	382	85	21.58	49.80	11.58	2.93
	3	65	437,217	0.94	401	91	22.71	51.85	11.27	2.81
	4	65	433,835	0.94	392	78	18.75	51.56	11.63	2.81
	5	65	437,504	0.94	393	93	22.46	45.50	13.09	3.15
	6	65	432,693	0.94	365	78	18.90	42.60	13.51	3.27
	7	65	399,818	0.93	355	68	18.36	39.88	12.88	3.48
	General Math	65	199,316	0.91	317	58	16.97	33.54	12.31	3.61
	Algebra I	65	736,345	0.92	327	73	20.36	32.25	12.92	3.58
	Geometry	65	407,012	0.93	320	68	18.07	35.65	13.28	3.52
	Algebra II	65	277,282	0.92	328	72	19.92	35.75	12.74	3.53
	Summ. H.S. Math	65	139,940	0.93	359	77	20.42	47.46	11.93	3.16
	Integrated Math 1	65	11,943	0.87	294	56	20.60	27.67	9.88	3.63
	Integrated Math 2	65	4,483	0.88	323	55	18.71	29.88	10.81	3.67
	Integrated Math 3	65	730	0.92	320	79	21.87	30.65	12.95	3.59

Content Area	CST*	No. of Items	No. of Examinees	Reliab.	Scale Score			Raw Score		
					Mean	Std. Dev.	SEM	Mean	Std. Dev.	SEM
Science	5	60	435,933	0.92	367	70	19.40	42.26	11.33	3.15
	8	60	440,698	0.92	386	97	26.94	41.40	11.37	3.15
	10 Life Science	60	458,763	0.93	353	68	17.74	38.65	12.42	3.22
	Biology	60	551,808	0.93	352	62	16.09	37.82	12.53	3.27
	Chemistry	60	265,079	0.91	340	53	15.74	36.91	11.47	3.39
	Earth Science	60	215,259	0.92	331	50	14.47	34.57	11.99	3.46
	Physics	60	76,065	0.92	354	54	15.29	37.98	11.82	3.34
	Int/Coord Science 1	60	54,656	0.89	313	41	13.75	30.61	10.57	3.54
	Int/Coord Science 2	60	4,111	0.90	312	44	14.13	29.19	10.84	3.50
	Int/Coord Science 3	60	1,283	0.89	309	40	13.36	26.83	10.50	3.52
	Int/Coord Science 4	60	157	0.86	289	37	13.73	24.40	9.42	3.54
Grade-Specific	Algebra I – 8	65	278,387	0.93	352	77	20.63	36.79	13.10	3.53
	Geometry – 9	65	139,998	0.92	349	65	17.99	41.72	12.18	3.38
	Algebra II – 10	65	125,288	0.92	343	68	19.72	38.72	12.05	3.49
	Summ. H.S. Math – 11	65	116,793	0.93	351	75	20.14	46.29	12.04	3.24
	World History – 10	60	426,536	0.93	343	73	19.97	37.56	12.20	3.34

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

** MC only

Intercorrelations, Reliabilities, and SEMs for Reporting Clusters

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

Intercorrelations and reliability estimates for the reporting clusters are presented in Table 8.B.1 through Table 8.B.4, starting on page 409. Results are also reported in Table 8.B.5 for grade-specific samples of four EOC mathematics tests and the CST for World History. Consistent with previous years, the reliabilities across reporting clusters varied significantly according to the number of items in each cluster.

Subgroup Reliabilities and SEMs

The reliabilities of the 38 operational CSTs and the five grade-specific CSTs were examined for various subgroups of the examinee population. The subgroups included in these analyses were defined by their gender, ethnicity, economic status, provision of special services, and English-language fluency. As of 2008, reliability analyses are also presented by primary ethnicity within economic status.

Reliabilities and SEM information for the total test scores and the reporting cluster scores are reported for each subgroup analysis. Table 8.B.6 through Table 8.B.19 present the overall test reliabilities for the various subgroups. Table 8.B.20 through Table 8.B.44 present the cluster-level reliabilities for the subgroups. Table 8.B.20 through Table 8.B.24 present the cluster-level reliabilities for the subgroups based on gender and economic status.

The next set of tables, Table 8.B.25 through Table 8.B.29, show the same analyses for the subgroups based on provision of special services and English-language fluency. Table 8.B.30 through Table 8.B.34 present results for the subgroups based on primary ethnicity of the examinees. The last set of tables, Table 8.B.35 through Table 8.B.44, present the cluster-based reliabilities for the subgroups based on primary ethnicity within economic status.

Note that the reliabilities are reported only for samples that are comprised of 11 or more examinees. Also, in some cases, score reliabilities were not estimable and are presented in the tables as a hyphen.

Conditional Standard Errors of Measurement

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

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

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

where,

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

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

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

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

Table 8.3 presents the scale score CSEMs at the lowest score required for a student to be classified in the below basic, basic, proficient, and advanced performance levels for each CST. Note that scale score CSEMs are not provided for the Integrated/Coordinated Science tests because these tests were not scaled using the same procedures as the other CSTs. See Chapter 2 on page 18 for additional details. 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 since (1) more items tend to be of middle difficulty; and (2) items at the extremes still provide information toward the middle of the scale. This results in more precise scores in the middle of the scale and less precise scores in the extremes of the scale.

Table 8.3 Scale Score CSEM at Performance-level Cut Points

Content Area	CST*	Below Basic		Basic		Proficient		Advanced	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
English– Language Arts	2	262	14	300	13	350	14	402	18
	3	259	15	300	14	350	16	402	20
	4	269	14	300	13	350	12	393	14
	5	271	13	300	12	350	13	395	15
	6	268	13	300	13	350	13	394	15
	7	263	15	300	14	350	15	401	16
	8	266	15	300	14	350	14	395	17
	9	265	15	300	13	350	15	397	17
	10	263	13	300	13	350	14	392	17
	11	259	15	300	14	350	15	396	19

Content Area	CST*	Below Basic		Basic		Proficient		Advanced	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
History–Social Science	8	271	16	300	15	350	16	396	19
	World History	275	17	300	18	350	18	400	22
	11	270	18	300	18	350	18	401	22
Mathematics	2	236	18	300	17	350	19	414	25
	3	236	16	300	16	350	18	414	24
	4	245	15	300	14	350	16	401	20
	5	248	19	300	19	350	19	430	23
	6	253	17	300	15	350	16	415	20
	7	257	17	300	16	350	17	414	20
	General Mathematics	257	17	300	16	350	17	414	20
	Algebra I	253	19	300	18	350	18	428	22
	Geometry	247	17	300	15	350	16	418	22
	Algebra II	257	18	300	18	350	17	416	22
	Summ. H.S. Mathematics	235	17	300	16	350	18	420	26
	Integrated Mathematics 1	249	21	300	19	350	19	425	23
	Integrated Mathematics 2	258	20	300	18	350	17	418	20
	Integrated Mathematics 3	252	22	300	20	350	20	428	23
Science†	5	268	16	300	16	350	17	410	22
	8	253	24	300	23	350	24	403	27
	10 Life Science	269	16	300	15	350	16	399	20
	Biology	276	15	300	14	350	14	394	17
	Chemistry	276	14	300	13	350	14	394	18
	Earth Science	277	14	300	14	350	14	393	17
	Physics	276	14	300	13	350	14	393	16

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

† CSEMS for the CSTs for Integrated/Coordinated Science are not available

Decision Classification Analyses

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

Decision accuracy describes the extent to which examinees are classified in the same way as they would be on the basis of the average of all possible forms of a test. Decision accuracy answers the following question: How does the actual classification of test-takers, based on their single-form scores, agree with the classification that would be made on the basis of their true scores, if their true scores were somehow known? RELCLASS-COMP estimates decision accuracy using an estimated multivariate distribution of reported classifications on the current form of the exam and the classifications based on an all-forms average (true score).

Decision consistency describes the extent to which examinees are classified in the same way as they would be on the basis of a single form of a test other than the one for which data are available. Decision consistency answers the following question: What is the agreement between the classifications based on two nonoverlapping, equally difficult, forms of the test? RELCLASS-COMP also estimates decision consistency using an estimated multivariate distribution of reported classifications on the current form of the exam and classifications on a hypothetical alternate form using the reliability of the test and strong true-score theory. In each case, the proportion of classifications with exact agreement is the sum of the entries in the diagonal of the contingency table representing the multivariate distribution. Reliability of classification at a cut score is estimated by collapsing the

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

Figure 8.1 Decision Accuracy for Achieving a Performance Level

		Decision made on 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	Misclassification
	Achieves a performance level	Misclassification	Correct classification

Figure 8.2 Decision Consistency for Achieving a Performance Level

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

The results of these analyses are presented in Table 8.B.45 through Table 8.B.84 in Appendix 8.B.

Table 8.B.85 through Table 8.B.89 present the same analyses for the five grade-specific CSTs. For the CST for ELA in grades four and seven, two sets of tables are presented for the decision classification analyses: a table for all examinees who attempted multiple-choice (MC) items and a second table for examinees who attempted MC as well as the Writing Application section of the test.

Each table includes the contingency tables for both accuracy and consistency of the various performance-level classifications. The proportion of students being accurately classified is determined by summing across the diagonals of the upper tables. The proportion of consistently classified students is determined by summing the diagonals of the lower tables.

The classifications are collapsed to below-proficient versus proficient and above, which are the critical categories for Adequate Yearly Progress (AYP) calculations, and are also presented in the tables.

Writing Score Reliability

The reliability of the total scores for the students who responded to the writing prompt for ELA in grades four and seven was estimated using the following definitional formula for composite reliability (Feldt & Brennan, 1989):

$$\alpha_c = 1 - \frac{\sum_{j=1}^k (w_j \sigma_{e_j})^2}{\sigma_c^2} \quad (8.6)$$

where,

k is the number of part scores in the composite,

w_j is the weight associated with the j-th part score,
 σ_{e_j} is the SEM of the j-th part score, and
 σ_c^2 is the variance of the composite score.

The reliability of the writing task can be estimated indirectly by examining the correlation between the MC and writing components in relation to the MC reliability. The lower bound reliability for a constructed response (CR) item in a test with MC items and only one CR item can be estimated using the squared correlation between the MC and writing (CR) portions of the test and dividing by the reliability of the MC portion of the test $((\text{Corr}^{\text{Writing-MC}})^2 / \text{Rel}_{\text{MC}})$ (Sax, 1989).

The SEM for writing (that is, the CR portion of the test) can then be estimated by substituting sample estimates into the following equation:

$$\sigma_{e_{\text{CR}}} = \sigma_{\text{CR}} * \sqrt{1 - \text{reliability}_{\text{CR}}} \quad (8.7)$$

where,

σ_{CR} is the standard deviation of the writing scores.

The reliability estimates for the multiple-choice scores were 0.94 for grade four and 0.93 for grade seven. The approximate lower bound reliability for the essay scores was estimated to be 0.25 and 0.29 for the two grades, respectively. The composite reliability estimates for the combined MC and essay scores were 0.88 and 0.87.

Prompt and Rater Agreement Summary

As described earlier, in order to monitor the accuracy of ratings, two raters scored approximately 10 percent of the examinees' writing responses. The two sets of ratings were used to carry out interrater agreement and generalizability analyses to assess the reliability of the writing scores.

Interrater Reliability Analyses

In the context of essay scoring, interrater reliability or consistency is defined as the degree of agreement between ratings or scores assigned by two or more readers to a given response. It is an indicator of homogeneity and is most frequently measured using intraclass correlation (ICC) which incorporates the exact agreement between raters over and above that expected by chance. The index is defined as the following:

$$\text{ICC} = r_1 = (\text{ms}_{\text{between}} - \text{ms}_{\text{within}}) / (\text{ms}_{\text{between}} + [k - 1]\text{ms}_{\text{within}}) \quad (8.8)$$

where,

$\text{ms}_{\text{between}}$ is the mean-square estimate of between-subjects variance, and

$\text{ms}_{\text{within}}$ is the mean-square estimate of within-subjects variance.

For categorical ratings, Cohen's Kappa statistic has the properties of an intraclass correlation coefficient and can be used for interrater reliability. Cohen's Kappa was therefore used as a primary indicator of the interrater reliability of the writing scoring. In addition, the percentages of ratings on which the raters were in exact agreement or differed by just one point were computed.

The reliability analyses were performed on approximately 10 percent of the overall testing population that were scored by two raters. From those double-scored writing responses, samples were selected that had valid ratings (1, 2, 3, or 4) for both raters (see Appendix 7.A on page 276 for the writing scoring rubrics). Zero is a valid score for the writing responses

but was not provided by a rater. Instead, a score of zero was assigned when the student attempted the writing task but either did not provide a response, refused to provide a response, or responded to a writing task from an earlier administration.

The results of interrater analyses are presented in Table 8.B.90 and Table 8.B.91 in Appendix 8.B. Table 8.B.92 and Table 8.B.93 provide descriptive statistics of the ratings by the two raters.

Generalizability Analyses

Generalizability analyses were performed on the writing scores to quantify the proportion of variance explained by various possible sources of variation including raters, writing prompt, and persons (desired variance). A generalizability study (g-study) was performed to estimate variance components for selected sources of variation also known as “facets.” A d-study was performed to estimate the generalizability coefficient (Brennan, 2001a; Crocker & Algina, 1986).

The computer programs GENOVA and its extension, urGENOVA, were used to carry out these analyses (Brennan, 2001b; Crick & Brennan, 1983). Since two raters scored each student’s response but each student did not receive the same prompt, a nested unbalanced design was used (Lee & Kantor, 2005; Wang et al., 2007) as described below:

$$\text{Design} = (\text{Person} : \text{Task}) \times \text{Rater}$$

The model assumes that the raters are selected from an infinite pool of raters and all the raters are randomly equivalent. The model also assumes that the writing prompts are randomly selected from a universe of prompts and that students’ writing responses are randomly assigned to the raters. The results of the study are presented in Table 8.B.94 and Table 8.B.95 on page 488.

Validity Evidence

Validity refers to the degree to which each interpretation or use of a test score is supported by evidence that is gathered (AERA, APA, & NCME, 1999; ETS, 2002). It is a central concern underlying the development, administration, and scoring of a test and the uses and interpretations of test scores.

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

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

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

1. Evidence based on test content;
2. Evidence based on relations to other variables;
3. Evidence based on response processes;
4. Evidence based on internal structure; and
5. Evidence based on the consequences of testing.

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

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

Purpose of the CSTs

As mentioned in Chapter 1, the 38 CSTs form the cornerstone of the STAR program. These tests carry the most weight in calculating school and district API. Additionally, the CSTs for ELA and mathematics in grades two through eight are used in determining AYP that applies toward meeting the requirement of the federal Elementary and Secondary Education Act (ESEA), which is to have all students score at proficient or above by 2014.

The Constructs to Be Measured

The 38 CSTs, given in English, are designed to show how well students perform relative to the California content standards. These content standards were approved by the SBE; they describe what students should know and be able to do at each grade level.

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

Interpretations and Uses of the Scores Generated

Total scores expressed as scale scores, student performance levels, and subscores for each reporting cluster are generated for each grade-level and content-area test. On the basis of a student's total score, an inference is drawn about how much knowledge and skill in the content area the student has acquired. The total score also is used to classify students in terms of their level of knowledge and skill in the content area. These levels are called performance levels and are as follows: advanced, proficient, basic, below basic, and far below basic.

Reporting cluster scores, also called subscores, are used to draw inferences about a student's achievement in each of several specific knowledge or skill areas covered by each test. Reporting cluster results compare an individual student's percent-correct score to the average-percent correct for the state as a whole. The range of scores for students who

scored proficient is also provided for each cluster using a percent-correct metric. The reference points for this range are: (1) the average-percent correct for students who received the lowest score qualifying for the proficient performance level; and (2) the average-percent correct for students who received the lowest score qualifying for the advanced performance level, minus one percent. A detailed description of the uses and applications of CST scores is presented in Chapter 7, which starts on page 262.

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

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.

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

Intended Test Population(s)

California public school students are the intended test population for the CSTs. Students in grades two through eleven are tested in ELA and mathematics. In addition, students in grades five, eight, and ten take a grade-level science test, and students in grades eight and eleven are tested in grade-level history–social science. Students in grades nine through eleven can also take an EOC World History test and an EOC science test. Beginning in 2007, students in grade seven who were enrolled in an Algebra I course took the CST for Algebra I instead of the grade-level test. Only students whose parents/guardians have submitted written requests to exempt them from STAR program testing do not take the tests.

Validity Evidence Collected

Evidence Based on Content

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

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

Description of the state standards—As was noted in Chapter 1, the SBE adopted rigorous content standards in 1997 and 1998 in four major content areas: ELA, history–social science, mathematics, and science. These standards were designed to guide instruction and learning for all students in the state and to bring California students to world-class levels of achievement.

Specifications and blueprints—ETS maintains item development specifications for each CST. 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 188. Once the items are developed and field-tested, ETS selects all CST test items to conform to the SBE-approved California content standards and test blueprints. Test blueprints for the CSTs were proposed by ETS and reviewed and approved by the Assessment Review Panels (ARPs), which are advisory panels to the CDE and ETS on areas related to item development for the CSTs. Test blueprints were also reviewed and approved by the CDE and presented to the SBE for adoption. There have been no recent changes in the blueprints for the CSTs. The test blueprints for the CSTs can be found on the CDE STAR CST Blueprints Web page at <http://www.cde.ca.gov/ta/tg/sr/blueprints.asp>.

Item development process—A detailed description of the content and psychometric criteria applicable to the construction of the 2011 CSTs is presented in Chapter 4, starting on page 200.

Item review process—Chapter 3 explains in detail the extensive item review process applied to items written for use in the CSTs. In brief, items written for the CSTs 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—For each test, the content standards, blueprints, and test specifications are used as the basis for choosing items. Additional targets for item difficulty and discrimination that are used for test construction were defined in light of what are desirable statistical characteristics in test items and statistical evaluations of the CST 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 201.

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 195.

Alignment study—Strong alignment between standards and assessments is fundamental to meaningful measurement of student achievement and instructional

effectiveness. Alignment results should demonstrate that the assessments represent the full range of the content standards and that these assessments measure student knowledge in the same manner and at the same level of complexity as expected in the content standards.

Human Resource Research Organization (HumRRO) performed an alignment study for the CSTs in April 2007. The result of this study was a report entitled *Independent Evaluation of the Alignment of the California Standards Tests (CSTs) and the California Alternate Performance Assessment (CAPA)*.

HumRRO utilized the Webb alignment method to evaluate the alignment of the 2006 CSTs to the California content standards. The Webb method requires a set of raters to evaluate each test item on two different dimensions: (1) the standard(s) targeted by items, and (2) the depth of knowledge required of students to respond to items. These ratings form the basis of the four separate Webb alignment analyses: categorical concurrence, depth-of-knowledge consistency, range-of-knowledge correspondence, and balance-of-knowledge representation. Good alignment was found for the CSTs in English–language arts, mathematics, science, and history–social science. A copy of the study is available as a CDE Web document at <http://www.cde.ca.gov/ta/tg/sr/documents/alignmentreport.pdf>.

Evidence Based on Relations to Other Variables

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

Correlations Between Scores on the CSTs and Scores on the CAT/6 Survey

Convergent validity evidence was collected in 2004 by examining the relationship between CSTs and their CAT/6 Survey (Terra Nova, 2nd Edition, 2000) counterparts. The CAT/6 Survey is a norm-referenced test that assesses students in reading, language, spelling, mathematics, and science and evaluates student achievement in terms of norms. The CSTs were expected to relate closely to their counterparts in the CAT/6 Survey programs when they measured similar constructs, and to correlate less well when they measured different constructs. A full description of the study can be found in the *California Standardized Testing Program Technical Report, Spring 2005 Administration*, linked on the CDE STAR Technical Reports Web page at <http://www.cde.ca.gov/ta/tg/sr/technicalrpts.asp>. A summary of findings follows:

Correlations Between Scores on the CST for ELA and Scores on the CAT/6 Survey Reading/Language/Spelling—The study showed that, as expected, CST for ELA scores in all grades correlated highly with scores on both the CAT/6 Survey Reading Language tests, because these tests assessed similar skills. The correlation coefficients between the CST for ELA and CAT/6 Survey Spelling tests were somewhat lower, which is to be expected because these tests measured somewhat different skills.

Correlations Between Scores on the CST for Mathematics and Scores on the CAT/6 Survey Mathematics—In grades two through seven, student scores on the CST Mathematics tests correlated highly with their scores on CAT/6 Survey Mathematics test.

This was expected because these tests assessed similar skills. In general, more moderate results were found in the upper grades when students' CAT/6 scores were correlated with the EOC CSTs and the integrated tests. This was expected since the CSTs at the upper grade levels were designed to measure more specific content defined by the state's content standards, whereas the CAT/6 tests were designed to assess content that was most commonly taught across the nation at the time that the CAT/6 tests were published.

Correlations Between Scores on the CST for Science and Scores on the CAT/6 Survey Science—All EOC science CSTs correlated moderately high with the CAT/6 Survey Science tests across grades. This was expected since the EOC tests were designed to assess a narrower range of course-related content than were the CAT/6 Survey Science tests.

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 CSTs, DIF analyses were performed on all operational items and all field-test items for which sufficient student samples were available.

The results of the DIF analyses are presented in Appendix 8.E, which starts on page 575. The vast majority of the items exhibited little or no significant DIF, suggesting that, in general, scores based on the CST items would have the same meaning for individuals who differed in their demographic characteristics.

Correlations Between Content Areas

To the degree that students' content-area scores correlate as expected, evidence of the validity in regarding those scores as measures of the intended constructs is provided. Table 8.4, on the next page, gives the correlations between scores on the CST content-area tests and the numbers of students on which these correlations were based. Sample sizes for individual tests are shown on the diagonals of the correlation matrices, and the numbers of students on which the correlations were based are shown on the lower off-diagonals. The correlations are provided in the upper off-diagonals.

Results in the tables appear to be consistent with expectations. In general, students' ELA scores correlated moderately with their mathematics scores. They correlated more highly with their scores on the history–social science and science CSTs.

Table 8.C.1 through Table 8.C.22 in Appendix 8.C provide the content-area correlations by gender, ethnicity, English proficiency, economic status, and special service utilization. Similar patterns of correlations between students' ELA, history–social science, mathematics, and science scores were found within the subgroups.

Note that the correlations are reported only for samples that are comprised of more than 10 examinees. Correlations between any two content areas where 10 or fewer examinees took the tests are expressed as hyphens. Correlations between two content area tests that cannot be administered together to the same group of students are expressed as “N/A.”

Note: Due to limited column space, test names were not repeated on the column heading of each correlation matrix in Table 8.4 and Table 8.C.1 through Table 8.C.22. Instead, numerical headings, such as “1.” or “2.” were used (in the case of Grade 2 in Table 8.4, “1.” refers to “1. English–Language Arts”, and “2.” refers to “2. Mathematics”).

Table 8.4 CST Content-area Correlations (All Valid Scores)

Grade	CST	1.	2.						
2	1. English–Language Arts	458,752	0.78						
	2. Mathematics	457,660	459,483						
Grade	CST	1.	2.						
3	1. English–Language Arts	434,795	0.77						
	2. Mathematics	432,966	437,217						
Grade	CST	1.	2.						
4	1. English–Language Arts	429,809	0.75						
	2. Mathematics	428,367	433,835						
Grade	CST	1.	2.	3.					
5	1. English–Language Arts	434,092	0.73	0.80					
	2. Mathematics	432,297	437,504	0.71					
	3. Science	433,251	436,801	461,156					
Grade	CST	1.	2.						
6	1. English–Language Arts	431,155	0.79						
	2. Mathematics	428,792	432,693						
Grade	CST	1.	2.	3.					
7	1. English–Language Arts	435,408	0.75	0.61					
	2. Mathematics	396,707	399,818	N/A					
	3. Algebra I	35,936	0	35,961					
Grade	CST	1.	2.	3.	4.	5.	6.	7.	
8	1. English–Language Arts	440,118	0.82	0.65	0.66	0.56	0.58	0.79	
	2. History–Social Science	438,424	461,566	0.64	0.63	0.55	0.62	0.80	
	3. General Mathematics	132,435	148,107	149,380	N/A	N/A	N/A	0.66	
	4. Algebra I	277,123	277,745	0	278,387	N/A	N/A	0.70	
	5. Geometry	25,229	25,234	0	0	25,253	N/A	0.63	
	6. Algebra II	780	780	0	0	0	780	0.65	
	7. Science	438,142	459,968	148,054	277,725	25,233	780	461,804	

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	476,121	0.80	0.63	0.58	0.68	0.62	0.64	0.81	0.80	0.74	0.76
	2. World History	32,465	33,208	0.52	0.62	0.71	0.64	0.64	0.83	0.79	0.75	0.70
	3. General Mathematics	43,110	2,661	49,936	N/A	N/A	N/A	N/A	0.60	0.66	0.63	0.54
	4. Algebra I	253,680	12,550	0	257,333	N/A	N/A	N/A	0.62	0.63	0.55	0.68
	5. Geometry	139,684	12,671	0	0	139,998	N/A	N/A	0.71	0.82	0.66	0.76
	6. Algebra II	28,502	4,126	0	0	0	28,549	N/A	0.64	0.78	0.56	0.71
	7. Summ. H.S. Mathematics	789	126	0	0	0	0	792	0.62	0.76	0.70	0.57
	8. Biology	212,482	19,627	7,785	86,568	96,016	21,355	527	216,286	N/A	N/A	N/A
	9. Chemistry	5,486	1,332	73	882	2,524	1,921	77	0	5,556	N/A	N/A
	10. Earth Science	135,680	3,435	18,512	97,081	20,175	1,341	62	0	0	142,707	N/A
	11. Physics	14,180	1,034	65	5,122	6,774	1,976	80	0	0	0	14,344
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	465,026	0.74	0.52	0.62	0.55	0.55	0.80	0.78	0.70	0.71	0.74
	2. World History	413,634	426,536	0.47	0.55	0.51	0.51	0.76	0.75	0.67	0.72	0.71
	3. Algebra I	109,908	100,150	112,259	N/A	N/A	N/A	0.51	0.53	0.61	0.50	0.62
	4. Geometry	160,978	151,355	0	162,041	N/A	N/A	0.64	0.65	0.72	0.59	0.74
	5. Algebra II	124,984	115,641	0	0	125,288	N/A	0.57	0.62	0.69	0.45	0.69
	6. Summ. H.S. Mathematics	22,330	19,983	0	0	0	22,355	0.56	0.63	0.67	0.48	0.66
	7. Life Science	454,911	419,618	108,438	159,814	124,214	22,246	469,549	0.87	0.76	0.75	0.79
	8. Biology	228,908	222,173	67,272	100,406	41,010	5,256	232,368	235,940	N/A	N/A	N/A
	9. Chemistry	125,911	115,572	4,697	32,787	71,465	14,907	125,252	0	126,415	N/A	N/A
	10. Earth Science	29,514	28,435	14,563	9,014	2,182	160	30,394	0	0	31,429	N/A
	11. Physics	9,028	7,855	728	2,919	3,992	1,189	9,048	0	0	0	9,117

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Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	444,788	0.58	0.80	0.49	0.54	0.46	0.58	0.80	0.68	0.71	0.71
	2. World History	13,391	13,907	0.64	0.40	0.43	0.34	0.26	0.61	0.43	0.61	0.48
	3. History–Social Science	435,603	12,254	446,459	0.46	0.51	0.44	0.54	0.79	0.68	0.75	0.70
	4. Algebra I	51,161	4,255	50,015	52,405	N/A	N/A	N/A	0.50	0.57	0.47	0.62
	5. Geometry	78,886	2,642	78,255	0	79,720	N/A	N/A	0.57	0.62	0.53	0.68
11	6. Algebra II	121,845	1,450	121,612	0	0	122,665	N/A	0.50	0.60	0.42	0.62
	7. Summ. H.S. Mathematics	116,587	667	116,183	0	0	0	116,793	0.65	0.74	0.49	0.70
	8. Biology	97,171	3,721	97,899	14,314	20,585	21,747	29,276	99,582	N/A	N/A	N/A
	9. Chemistry	132,123	1,393	132,170	3,495	19,775	60,835	39,649	0	133,108	N/A	N/A
	10. Earth Science	39,091	2,022	40,172	11,222	10,621	5,997	3,506	0	0	41,123	N/A
	11. Physics	52,279	424	52,289	857	3,824	14,020	31,412	0	0	0	52,604

Correlations between the reporting clusters are presented in Table 8.B.1 through Table 8.B.4 for the 38 CSTs. Results are also reported in Table 8.B.5 for grade-specific samples of four end-of-course mathematics tests and the World History test.

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, moderate intercorrelations were obtained. More specifically, in general they ranged between .60 and .75. As also would be expected, the intercorrelations were higher among clusters that assessed more similar skills than they were among clusters that assessed somewhat dissimilar skills.

The CSTs for General Mathematics, Integrated Mathematics and Integrated/Coordinated Science that are composed of items from other CSTs exhibited lower intercluster correlations, as expected.

Generalizability Analyses for Writing

Generalizability analyses were performed on students' writing scores for grades four and seven to assess the proportion of variance explained by raters, writing prompt, and persons. The details on the design and methodology are described in the subsection "Generalizability Analyses" in the "Writing Score Reliability" section on page 374. Details about the results can be found in Table 8.B.94 and Table 8.B.95 on page 488.

A decision study (d-study) was conducted to look at the generalizability-coefficient (g-coefficient) for the writing scores; the g-coefficient was 0.79 for both grade four and grade seven. The largest variance component was attributed to the "person" variation, which is the desired variation to occur among the examinee or "person" scores. Variation attributable to the construct-irrelevant prompt variable was small, and the variation attributable to the rater was negligible for both grades.

Evidence Based on Response Processes

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

Evidence of Rater Reliability, Interrater Agreement

Rater consistency for the writing prompt is critical to the CST writing scores and their interpretations. These findings provide evidence of the degree to which raters agree in their observations about the qualities evident in students' essay responses. In order to evaluate the reliability of the student scores on the writing prompts administered in grades four and seven, two raters scored approximately 10 percent of the examinee responses. The data collected were used to evaluate interrater reliability and interrater agreement.

Interrater Reliability

Cohen's Kappa statistics findings provide evidence of the degree to which a student's score may vary from rater to rater. Without explicit criteria to guide the rating process, two independent raters may not assign the same score to a given response. Research has shown the value of Kappa statistics between 0.41 and 0.60 as exhibiting moderate levels of agreement between the two ratings (National Institute of Water and Atmospheric Research

Ltd., n.d.). The results showed moderate levels of agreement between raters that scored examinees' written responses to the prompts administered in grades four and seven.

Interrater Agreement

As noted previously, approximately 10 percent of the test population's responses to the writing prompts in grades four and seven were scored by two raters. The percentage of students for whom the raters were in exact agreement was 67 percent for grade four and 70 percent for grade seven. Approximately 98 and 99 percent of the essay responses exhibited exact or adjacent agreement between the two sets of ratings for grades four and seven respectively.

Evidence Based on Internal Structure

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

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

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

Classical Statistics

Point-biserial correlations calculated for the items in a test show the degree to which the items discriminate between students with low and high scores on a test. To the degree that the correlations are high, evidence that the items assess the same construct is provided. The mean point-biserials for the items in the CSTs are presented in Table 8.1, this index was greater than or equal to 0.40 for 31 out of 38 CSTs and was between 0.35 and 0.39 for four CSTs.

Also germane to the validity of a score interpretation are the ranges of item difficulty for the items on which a test score will be based. The finding that items have difficulties that span the range of examinee ability provides evidence that examinees at all levels of ability are adequately measured by the items. Information on average item p -values is given in Table 8.1. The distributions of item b -values are given in Table 8.D.45 through Table 8.D.54.

The data in Table 8.1 indicate that 25 of the CSTs had average p -values ranging from 0.50 to 0.70; out of those, 16 CSTs had average p -values ranging from 0.50 to 0.65 and a wide range of item b -values, indicating a wide range of item difficulty that spanned the ability range. The p -values for the end-of-course integrated CSTs tended to be somewhat lower and somewhat less variable in terms of difficulty; efforts have been made in recent years to increase these values.

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 38 operational CSTs are presented in Table 8.2. The results indicate that the reliabilities for all grade-level CSTs for ELA, history–social science, mathematics, and science were very high, ranging from 0.92 to 0.95. Reliability estimates for the EOC CSTs also tended to be high with the exception of the CST for Integrated Mathematics 1 and 2 and the Integrated/Coordinated Science tests, which were in the mid- to high-0.80s.

Reporting cluster reliabilities—For each CST, number-correct scores are computed for the reporting clusters. The reliabilities of these scores are presented in Table 8.B.1 through Table 8.B.5 for the 38 CSTs. The reliabilities of reporting clusters invariably are lower than those for the total tests because they are based on very few items. Consistent with the findings of previous years, the cluster reliabilities also are affected by the number of items in each cluster, with cluster scores based on fewer items having somewhat lower reliabilities than cluster scores based on more items. Because the reliabilities of scores at the cluster level are lower, schools supplement the score results with other information when interpreting the results.

Subgroup reliabilities—The reliabilities of the 38 operational CSTs and the five grade-specific CSTs 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, English-language fluency, and ethnicity-by-economic status. The results of these analyses can be found in Table 8.B.6 through Table 8.B.19.

Reliability of performance classifications—The methodology used for estimating the reliability of classification decisions is described in the section “Decision Classification Analyses” on page 373. The results of these analyses are presented in Table 8.B.45 through Table 8.B.89 in Appendix 8.B; these tables start on page 472. When the decisions are collapsed to below-proficient versus proficient and above, which are the critical categories for AYP analyses, the proportion of students that were classified accurately ranged from 0.90 to 0.97 across all CSTs. Similarly, the proportion of students that were classified consistently ranged from 0.85 to 0.96 for students classified into below-proficient versus proficient and advanced.

These levels of accuracy and consistency are high and they are consistent with levels seen in previous years.

Dimensionality

Dimensionality analyses were conducted by a CDE psychometrics team (Gaffney et al., in press; Gaffney & Perryman, 2009). The study investigated the factor structures of the CSTs in grades three and five as part of peer review for ESEA.

Two factors corresponding to the ELA and mathematics domain were found for the CSTs in these grades, as would be expected, since these tests were designed to measure different constructs.

Evidence Based on Consequences of Testing

As observed in the *Standards*, tests are usually administered “with the expectation that some benefit will be realized from the intended use of the scores” (AERA, APA, & NCME, 1999, p. 18). When this is the case, evidence that the expected benefits accrue will provide support for intended use of the scores. The CDE and ETS are in the process of determining what kinds of information can be gathered to assess the consequences of administration of the CSTs.

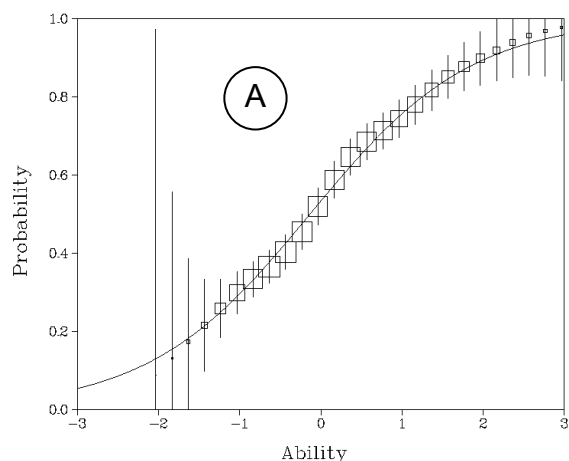
IRT Analyses

The CSTs are equated to a reference form using a common-item nonequivalent groups design and methods based on IRT. The “base” or “reference” calibrations for the CSTs were established by calibrating samples of data from a specific administration. Doing so established a scale to which subsequent item calibrations could be linked. The 2011 items were placed on the reference scale through a set of linking items that appeared in the 2010 operational forms and were re-administered in 2011.

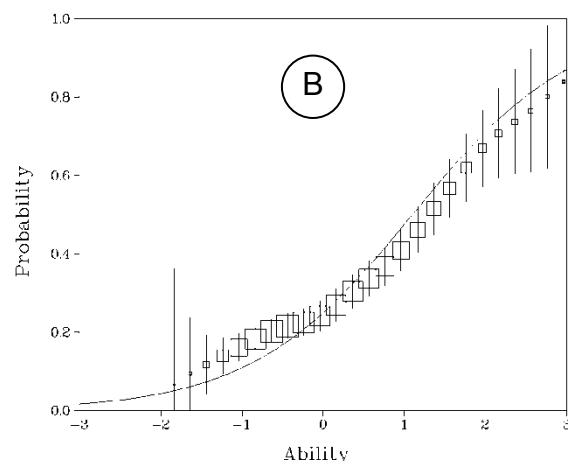
The procedures used for equating the CSTs involve three steps: item calibration, item parameter scaling, and true-score equating. ETS uses GENASYs for the IRT item calibration and equating work. As part of this system, a proprietary version of the PARSCALE computer program (Muraki & Bock, 1995) is used and parameterized to result in one-parameter calibrations. Research at ETS has suggested that PARSCALE calibrations done in this manner produce results that are virtually identical to results based on WINSTEPS (Way, Kubiak, Henderson, & Julian, 2002). The equating procedures were applied to all CSTs except for the four CSTs for Integrated/Coordinated Science. Special scaling procedures were employed for these CSTs. The details on all equating procedures are given in Chapter 2 starting on page 14.

IRT Model-Data Fit Analyses

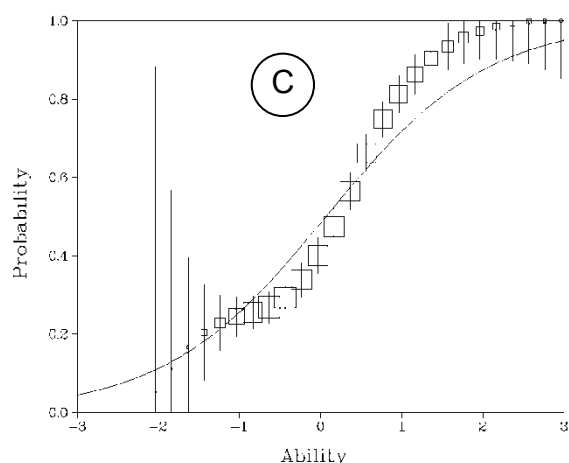
Because the Rasch model is used in equating the CSTs, an important part of IRT analyses is the assessment of model-data fit. ETS psychometricians classify operational and field-test items for the CSTs into discrete categories based on an evaluation of how well each item was fit by the Rasch model. The 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 390. As an illustration, the IRT item characteristic curves and empirical data (item-ability regressions) for five items field-tested in 2005 are shown in Figure 8.3, on the next page. These five items represent the various rating categories. The item number in the calibration and ETS identification number for each item (“accession number”) are listed next to each item, along with the corresponding rating categories.

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

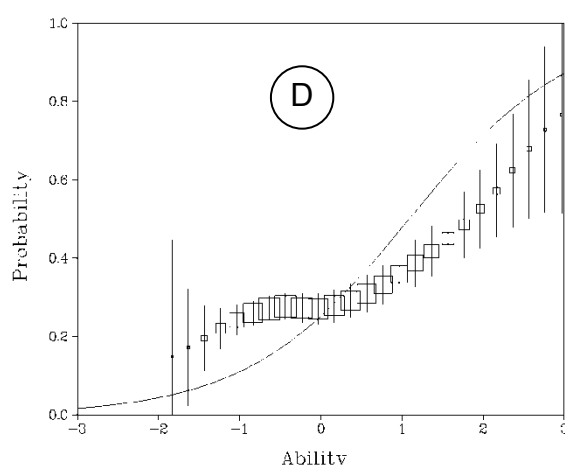
Version 30, Seq 29 (#236) CSV23487 4-Choice $P+ = 0.563$
 $a = 0.588$ F, $b = -0.135$, $c = 0.000$ F, CHI = 5.41, N = 5,912



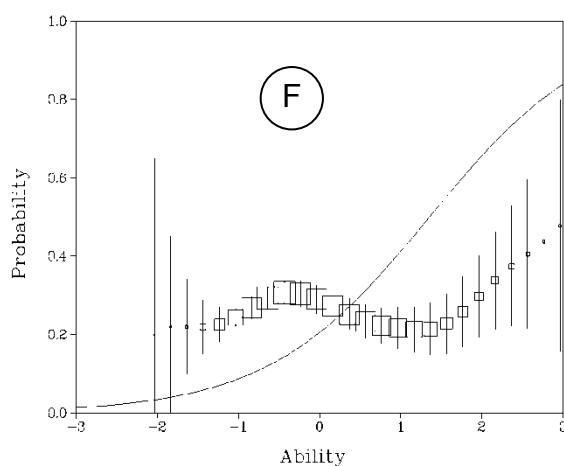
Version 1, Seq 28 (#61) CSV22589 4 Choice $P+ = 0.307$
 $a = 0.588$ F, $b = 1.104$, $c = 0.000$ F, CHI = 66.70, N = 6,348



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 and by CDE content specialists.

The number of the operational items in each IRT model-data fit classification is presented in Table 8.D.1 through Table 8.D.5, which start on page 533. The fit classification information for the field test items is presented in Table 8.D.6 through Table 8.D.10, which start on page 534.

Evaluation of Scaling

Calibrations of the 2011 forms were scaled to the previously obtained reference scale estimates in the item bank using the Stocking and Lord (1983) procedure. Details on the scaling procedures are provided on page 14 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 (WRMSDs) between ICCs on the basis of the old and new difficulty estimates are removed from the linking set. Based on established procedures, any linking items for which the WRMSD is greater than 0.125 are eliminated. This criterion has produced reasonable results over time in similar equating work done for other testing programs at ETS.

Table 8.5 presents, for each CST, the number of linking items between the 2011 form (new) and the test form to which it was linked (2010); the numbers of items removed from the linking item sets; the correlation between the final set of new and reference difficulty estimates for the linking items; and the average WRMSD statistic across the final set of linking items. It should be noted that special scaling procedures were utilized to determine the performance levels and scale scores for the CSTs for Integrated/Coordinated Science and therefore this information is not relevant for these tests. For further details, refer to "Scaling the CSTs for Integrated/Coordinated Science" on page 18 of Chapter 2.

Table 8.5 Evaluation of Common Items between New and Reference Test Forms

Content Area	CST*	# of Linking Items	Linking Items Removed	Final Correlation	WRMSD**
English–Language Arts	2	29	0	0.99	0.02
	3	29	0	0.98	0.03
	4	28	0	0.98	0.02
	5	30	0	0.99	0.02
	6	30	0	0.99	0.02
	7	32	0	0.99	0.02
	8	31	0	0.97	0.03
	9	30	0	0.98	0.03
	10	30	0	0.98	0.02
	11	29	0	0.98	0.02
History–Social Science	8	38	0	0.99	0.02
	World History	29	0	0.99	0.02
	11	30	0	0.99	0.02
Mathematics	2	31	0	0.99	0.02
	3	29	0	0.98	0.03
	4	31	0	0.98	0.02
	5	31	0	0.99	0.02
	6	32	0	0.99	0.02
	7	32	0	0.98	0.03
	General Mathematics	32	0	1.00	0.01
	Algebra I	31	0	0.98	0.02
	Geometry	30	0	0.99	0.03
	Algebra II	32	0	0.99	0.02
	Summative H.S. Mathematics	30	0	0.98	0.03

Content Area	CST*	# of Linking Items	Linking Items Removed	Final Correlation	WRMSD**
Mathematics (cont.)	Integrated Mathematics 1	36	0	0.99	0.02
	Integrated Mathematics 2	27	0	0.98	0.03
	Integrated Mathematics 3	30	2	0.94	0.06
Science	5	27	0	0.99	0.01
	8	26	0	0.99	0.02
	10 Life Science	30	0	0.99	0.02
	Biology	29	0	1.00	0.01
	Chemistry	29	0	0.99	0.01
	Earth Sciences	28	0	0.97	0.02
	Physics	30	0	0.99	0.02
	Integrated/Coordinated Science 1	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 2	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 3	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 4	N/A	N/A	N/A	N/A

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

** Average over retained items

Summaries of Scaled IRT *b*-values

Once the IRT *b*-values are placed on the item bank scale, analyses are performed to assess the overall test difficulty, the difficulty level of reporting clusters, and the distribution of items in a particular range of item difficulty.

Table 8.D.11 through Table 8.D.44 present univariate statistics (mean, standard deviation, minimum, and maximum) for the scaled IRT *b*-values based on the FIA samples. The results for the overall test are presented separately for the operational items and the field test items. For the operational items, the results are also presented for each reporting cluster. No IRT statistics are presented for the CSTs for Integrated/Coordinated Science because these tests are comprised entirely of items that are administered in the content-specific CSTs and they follow different scaling procedures.

Table 8.D.45 to Table 8.D.54 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” points within each interval.

Post-equating Results

As described on page 14 of Chapter 2, 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 respective reference form number-correct scale. These converted raw scores can then be transformed to scale scores through table lookup and linear interpolation. The reference conversions for the 2011 forms were taken from one of the 2002, 2003, 2004, or 2006 forms (see Chapter 10 starting on page 608 for specifics on the base years).

Complete raw-to-scale score conversion tables for the 2011 CSTs are presented in Table 8.D.55 through Table 8.D.79 starting on page 550. The raw scores and corresponding transformed scale scores are listed on those tables. For all the 2011 CSTs, scale scores were truncated at both ends of the scale so that the minimum reported scale score was 150

and the maximum reported scale score was 600. The scale scores defining the various performance-level cut points are presented in Table 2.1, which is in Chapter 2 on page 16.

Differential Item Functioning Analyses

Analyses of DIF assess differences in the item performance of groups of students that differ in their demographic characteristics.

DIF analyses were performed on all operational items and all field-test items for which sufficient student samples were available. The sample size requirements for the DIF analyses were 100 in the focal group and 400 in the combined focal and reference groups. These sample sizes were based on standard operating procedures with respect to DIF analyses at ETS. The DIF analyses utilized the Mantel-Haenszel (MH) DIF statistic (Mantel & Haenszel, 1959; Holland & Thayer, 1985). This statistic is based on the estimate of constant odds ratio and is described as the following:

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

$$\alpha_{MH} = \frac{\left(\sum_m R_{rm} \frac{W_{fm}}{N_{tm}} \right)}{\left(\sum_m R_{fm} \frac{W_{rm}}{N_{tm}} \right)} \quad (8.9)$$

$$MH \ D - DIF = -2.35 \ln [\alpha_{MH}] \quad (8.10)$$

where,

R = number right,

W = number wrong,

N = total in:

fm = focal group at ability m,

rm = reference group at ability m, and

tm = total group at ability m.

Items analyzed for DIF at ETS are classified into one of three categories: A, B, or C. Category A contains items with negligible DIF. Category B contains items with slight to moderate DIF. Category C contains items with moderate to large values of DIF.

These categories have been used by ETS testing programs for more than 14 years. The definitions of the categories based on evaluations of the item-level MH D-DIF statistics are as follows:

DIF Category	Definition
A (negligible)	<ul style="list-style-type: none"> • Absolute value of MH D-DIF is not significantly different from zero, or is less than one. • Positive values are classified as “A+” and negative values as “A-.”
B (moderate)	<ul style="list-style-type: none"> • Absolute value of MH D-DIF is significantly different from zero but not from one, and is at least one; OR • Absolute value of MH D-DIF is significantly different from one, but is

DIF Category	Definition
	less than 1.5.
	• Positive values are classified as “B+” and negative values as “B-.”
C (large)	<ul style="list-style-type: none"> • Absolute value of MH D-DIF is significantly different from one, and is at least 1.5. • Positive values are classified as “C+” and negative values as “C-.”

The factors considered in the DIF analyses included gender, ethnicity, level of English–language fluency, and primary disability. The results of the DIF analyses are presented in Appendix 8.E. Note, however, that analyses of English learners on the CST for ELA are presented for readers’ interest. Differential performance on an ELA item that is due to the language difficulties of nonnative speakers does not indicate that an item is unfair or biased.

Table 8.E.1 on page 575 lists the operational items exhibiting significant DIF (C-DIF). Table 8.E.2 on page 576 represents the analogous list for the field-test items. Test developers are instructed to avoid selecting field-test items flagged as having shown DIF that disadvantages a focal group (C-DIF) for future operational test forms unless their inclusion is deemed essential to meeting test-content specifications.

Table 8.E.3 through Table 8.E.40 show the distributions of operational items across the DIF category classifications for the CSTs. 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.41 to Table 8.E.78 provide the analogous results for the field-test items.

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Table 8.A.2 Item-by-item *p*-value and Point-Biserial for History–Social Science

Item-by-item <i>p</i> -value and Point-Biserial for History–Social Science						
CSTs	Grade 8		World History		Grade 11	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.91	0.35	0.74	0.46	0.70	0.54
2	0.40	0.32	0.72	0.44	0.71	0.45
3	0.87	0.33	0.64	0.43	0.49	0.44
4	0.46	0.44	0.73	0.32	0.61	0.46
5	0.70	0.40	0.57	0.30	0.52	0.46
6	0.56	0.38	0.57	0.39	0.62	0.48
7	0.51	0.41	0.57	0.37	0.46	0.27
8	0.48	0.39	0.84	0.46	0.75	0.55
9	0.49	0.32	0.74	0.48	0.68	0.53
10	0.79	0.39	0.32	0.31	0.66	0.52
11	0.37	0.40	0.57	0.27	0.52	0.30
12	0.61	0.43	0.46	0.21	0.63	0.44
13	0.71	0.31	0.60	0.46	0.68	0.45
14	0.61	0.35	0.82	0.48	0.73	0.46
15	0.85	0.40	0.60	0.47	0.36	0.27
16	0.56	0.42	0.56	0.45	0.57	0.42
17	0.69	0.54	0.65	0.49	0.48	0.49
18	0.67	0.28	0.68	0.37	0.76	0.59
19	0.67	0.40	0.72	0.48	0.90	0.44
20	0.73	0.51	0.48	0.45	0.67	0.50
21	0.50	0.35	0.62	0.43	0.71	0.59
22	0.38	0.30	0.66	0.34	0.57	0.44
23	0.69	0.39	0.69	0.56	0.41	0.24
24	0.69	0.49	0.49	0.34	0.43	0.43
25	0.74	0.56	0.59	0.48	0.57	0.50
26	0.65	0.43	0.58	0.55	0.69	0.50
27	0.58	0.44	0.60	0.39	0.74	0.54
28	0.65	0.53	0.53	0.50	0.67	0.44
29	0.82	0.50	0.57	0.44	0.54	0.41
30	0.54	0.54	0.67	0.46	0.62	0.41
31	0.63	0.47	0.60	0.48	0.51	0.36
32	0.67	0.45	0.83	0.50	0.61	0.40
33	0.70	0.30	0.67	0.49	0.70	0.38
34	0.59	0.42	0.65	0.42	0.74	0.56
35	0.68	0.52	0.59	0.41	0.61	0.44
36	0.71	0.34	0.58	0.42	0.64	0.41
37	0.55	0.36	0.52	0.41	0.39	0.30
38	0.50	0.37	0.52	0.42	0.78	0.56
39	0.46	0.23	0.49	0.38	0.67	0.53
40	0.58	0.40	0.62	0.50	0.57	0.38
41	0.49	0.26	0.61	0.57	0.78	0.44
42	0.49	0.43	0.79	0.42	0.69	0.62
43	0.51	0.42	0.56	0.38	0.61	0.42
44	0.71	0.41	0.73	0.57	0.50	0.27
45	0.77	0.42	0.62	0.53	0.62	0.46
46	0.64	0.52	0.71	0.44	0.60	0.30
47	0.62	0.48	0.55	0.41	0.72	0.43
48	0.64	0.42	0.52	0.42	0.75	0.52
49	0.66	0.48	0.68	0.41	0.61	0.44
50	0.67	0.43	0.76	0.56	0.57	0.48
51	0.55	0.51	0.62	0.49	0.65	0.53
52	0.59	0.53	0.47	0.39	0.66	0.42
53	0.67	0.46	0.55	0.45	0.54	0.49
54	0.64	0.47	0.55	0.51	0.39	0.31
55	0.55	0.50	0.70	0.59	0.55	0.52
56	0.79	0.53	0.64	0.53	0.59	0.53
57	0.75	0.37	0.53	0.38	0.60	0.41
58	0.47	0.37	0.60	0.48	0.38	0.30
59	0.66	0.37	0.63	0.47	0.67	0.41
60	0.82	0.52	0.79	0.49	0.82	0.56

Item-by-item <i>p</i> -value and Point-Biserial for History–Social Science						
CSTs	Grade 8		World History		Grade 11	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
61	0.66	0.34	.	.	.	.
62	0.64	0.40	.	.	.	.
63	0.76	0.44	.	.	.	.
64	0.57	0.42	.	.	.	.
65	0.70	0.58	.	.	.	.
66	0.75	0.55	.	.	.	.
67	0.67	0.46	.	.	.	.
68	0.63	0.52	.	.	.	.
69	0.72	0.50	.	.	.	.
70	0.66	0.50	.	.	.	.
71	0.56	0.54	.	.	.	.
72	0.54	0.46	.	.	.	.
73	0.62	0.49	.	.	.	.
74	0.52	0.33	.	.	.	.
75	0.65	0.54	.	.	.	.

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

Item-by-item <i>p</i> -value and Point-Biserial for Mathematics														
CSTs	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		General Math	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.74	0.54	0.82	0.44	0.92	0.32	0.77	0.46	0.92	0.28	0.65	0.43	0.71	0.39
2	0.85	0.44	0.76	0.56	0.67	0.38	0.73	0.47	0.34	0.36	0.61	0.43	0.35	0.41
3	0.80	0.59	0.88	0.35	0.89	0.37	0.54	0.63	0.61	0.44	0.77	0.34	0.73	0.45
4	0.64	0.36	0.91	0.46	0.89	0.34	0.70	0.52	0.57	0.40	0.56	0.49	0.49	0.42
5	0.87	0.47	0.63	0.54	0.76	0.47	0.74	0.44	0.77	0.51	0.60	0.26	0.39	0.33
6	0.83	0.50	0.90	0.44	0.84	0.40	0.76	0.28	0.84	0.46	0.65	0.54	0.30	0.33
7	0.89	0.40	0.69	0.49	0.81	0.50	0.72	0.53	0.73	0.43	0.57	0.36	0.65	0.39
8	0.72	0.45	0.89	0.46	0.78	0.54	0.89	0.40	0.46	0.42	0.52	0.43	0.58	0.49
9	0.86	0.54	0.83	0.42	0.74	0.54	0.82	0.41	0.70	0.47	0.56	0.56	0.54	0.51
10	0.70	0.63	0.83	0.45	0.92	0.46	0.73	0.51	0.71	0.47	0.81	0.31	0.63	0.47
11	0.68	0.52	0.82	0.42	0.84	0.40	0.89	0.33	0.59	0.38	0.37	0.40	0.47	0.44
12	0.43	0.37	0.90	0.43	0.90	0.38	0.78	0.44	0.64	0.54	0.83	0.41	0.37	0.45
13	0.89	0.48	0.54	0.45	0.92	0.40	0.62	0.52	0.67	0.47	0.65	0.51	0.64	0.47
14	0.82	0.48	0.89	0.34	0.91	0.44	0.67	0.50	0.44	0.41	0.56	0.48	0.53	0.47
15	0.89	0.37	0.64	0.60	0.78	0.58	0.60	0.58	0.69	0.47	0.56	0.41	0.52	0.43
16	0.91	0.46	0.58	0.50	0.90	0.42	0.53	0.45	0.80	0.45	0.46	0.35	0.39	0.39
17	0.77	0.48	0.90	0.47	0.77	0.51	0.81	0.43	0.64	0.42	0.65	0.47	0.53	0.42
18	0.71	0.53	0.87	0.46	0.69	0.50	0.38	0.49	0.69	0.52	0.67	0.32	0.31	0.24
19	0.49	0.45	0.61	0.53	0.75	0.51	0.51	0.52	0.78	0.32	0.57	0.54	0.31	0.37
20	0.82	0.48	0.92	0.45	0.90	0.40	0.46	0.50	0.72	0.44	0.49	0.46	0.47	0.26
21	0.62	0.52	0.69	0.49	0.77	0.43	0.73	0.45	0.42	0.43	0.52	0.49	0.30	0.37
22	0.91	0.39	0.63	0.55	0.73	0.57	0.61	0.38	0.74	0.42	0.44	0.50	0.48	0.36
23	0.57	0.47	0.84	0.38	0.74	0.53	0.67	0.58	0.73	0.58	0.53	0.41	0.34	0.27
24	0.67	0.42	0.57	0.46	0.78	0.53	0.64	0.53	0.57	0.54	0.76	0.40	0.43	0.41
25	0.77	0.52	0.67	0.56	0.77	0.55	0.66	0.49	0.59	0.46	0.68	0.49	0.42	0.28
26	0.74	0.41	0.91	0.45	0.90	0.45	0.67	0.49	0.80	0.45	0.48	0.48	0.63	0.40
27	0.83	0.39	0.91	0.44	0.89	0.47	0.75	0.31	0.67	0.61	0.62	0.35	0.54	0.28
28	0.74	0.44	0.76	0.55	0.77	0.57	0.62	0.47	0.67	0.49	0.41	0.24	0.81	0.48
29	0.79	0.51	0.81	0.53	0.49	0.36	0.71	0.45	0.74	0.38	0.63	0.40	0.55	0.35
30	0.74	0.58	0.89	0.36	0.85	0.49	0.91	0.39	0.62	0.42	0.66	0.45	0.69	0.43
31	0.84	0.48	0.72	0.41	0.77	0.58	0.60	0.38	0.73	0.56	0.73	0.48	0.59	0.54
32	0.89	0.47	0.74	0.57	0.87	0.48	0.81	0.58	0.47	0.45	0.62	0.45	0.59	0.46
33	0.94	0.36	0.76	0.54	0.85	0.58	0.87	0.36	0.81	0.47	0.61	0.39	0.58	0.34
34	0.59	0.42	0.73	0.47	0.79	0.49	0.84	0.54	0.34	0.33	0.52	0.39	0.55	0.42
35	0.90	0.45	0.79	0.49	0.88	0.50	0.70	0.54	0.63	0.56	0.64	0.54	0.37	0.26
36	0.55	0.50	0.83	0.52	0.81	0.37	0.96	0.31	0.78	0.48	0.71	0.50	0.58	0.41
37	0.82	0.51	0.88	0.44	0.78	0.50	0.63	0.45	0.36	0.51	0.82	0.44	0.72	0.47
38	0.69	0.42	0.78	0.46	0.84	0.48	0.77	0.45	0.75	0.54	0.45	0.37	0.76	0.48
39	0.75	0.50	0.63	0.44	0.62	0.50	0.79	0.43	0.79	0.49	0.77	0.36	0.52	0.34
40	0.63	0.50	0.89	0.44	0.90	0.48	0.40	0.43	0.74	0.49	0.43	0.44	0.53	0.38
41	0.86	0.44	0.86	0.46	0.81	0.54	0.65	0.55	0.86	0.47	0.65	0.46	0.49	0.46

Item-by-item <i>p</i> -value and Point-Biserial for Mathematics														
CSTs	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		General Math	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
42	0.57	0.41	0.87	0.49	0.81	0.58	0.54	0.54	0.77	0.39	0.81	0.41	0.54	0.44
43	0.88	0.52	0.88	0.44	0.86	0.48	0.89	0.45	0.86	0.50	0.66	0.49	0.65	0.50
44	0.81	0.46	0.84	0.55	0.84	0.58	0.67	0.41	0.76	0.55	0.64	0.38	0.48	0.25
45	0.71	0.48	0.70	0.33	0.86	0.55	0.84	0.46	0.55	0.43	0.52	0.32	0.53	0.41
46	0.89	0.34	0.90	0.37	0.89	0.55	0.68	0.36	0.76	0.42	0.58	0.32	0.51	0.46
47	0.88	0.33	0.58	0.52	0.92	0.49	0.60	0.49	0.60	0.51	0.57	0.41	0.54	0.36
48	0.83	0.37	0.81	0.40	0.82	0.60	0.71	0.50	0.32	0.44	0.63	0.31	0.45	0.36
49	0.91	0.36	0.79	0.52	0.62	0.47	0.59	0.51	0.69	0.53	0.43	0.37	0.40	0.51
50	0.79	0.39	0.81	0.33	0.84	0.36	0.52	0.56	0.55	0.36	0.66	0.48	0.42	0.38
51	0.88	0.39	0.89	0.40	0.64	0.39	0.94	0.30	0.61	0.47	0.76	0.49	0.51	0.31
52	0.84	0.33	0.95	0.22	0.36	0.34	0.65	0.44	0.51	0.41	0.78	0.44	0.47	0.31
53	0.82	0.46	0.84	0.41	0.62	0.44	0.33	0.41	0.80	0.39	0.45	0.35	0.37	0.33
54	0.88	0.34	0.83	0.39	0.74	0.49	0.40	0.44	0.62	0.48	0.38	0.30	0.30	0.26
55	0.47	0.33	0.91	0.40	0.80	0.50	0.78	0.38	0.47	0.41	0.50	0.32	0.45	0.43
56	0.92	0.35	0.66	0.49	0.91	0.46	0.69	0.54	0.65	0.45	0.65	0.39	0.42	0.33
57	0.59	0.47	0.87	0.41	0.87	0.33	0.86	0.29	0.86	0.48	0.62	0.50	0.64	0.40
58	0.84	0.47	0.60	0.52	0.76	0.53	0.73	0.54	0.79	0.44	0.77	0.52	0.39	0.43
59	0.55	0.57	0.83	0.38	0.67	0.44	0.72	0.59	0.42	0.46	0.50	0.43	0.67	0.39
60	0.93	0.39	0.94	0.33	0.83	0.37	0.77	0.31	0.66	0.61	0.81	0.48	0.38	0.30
61	0.44	0.28	0.97	0.31	0.58	0.37	0.69	0.59	0.53	0.51	0.58	0.36	0.76	0.45
62	0.85	0.46	0.88	0.44	0.93	0.39	0.81	0.45	0.50	0.45	0.75	0.47	0.37	0.33
63	0.84	0.45	0.77	0.37	0.68	0.38	0.85	0.40	0.78	0.52	0.76	0.51	0.66	0.35
64	0.63	0.42	0.88	0.41	0.63	0.42	0.73	0.52	0.61	0.44	0.50	0.41	0.64	0.47
65	0.88	0.40	0.76	0.46	0.90	0.39	0.84	0.37	0.81	0.49	0.79	0.38	0.60	0.45

Table 8.A.4 Item-by-item *p*-value and Point-Biserial for Mathematics [continued]

Item-by-item <i>p</i> -value and Point-Biserial for Mathematics [continued]														
CSTs	Algebra I		Geometry		Algebra II		HS Math		Integ Math 1		Integ Math 2		Integ Math 3	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.71	0.45	0.63	0.40	0.86	0.37	0.83	0.37	0.64	0.36	0.54	0.33	0.60	0.37
2	0.45	0.50	0.77	0.41	0.65	0.51	0.69	0.36	0.76	0.33	0.41	0.29	0.77	0.53
3	0.55	0.44	0.66	0.33	0.83	0.32	0.83	0.49	0.56	0.35	0.48	0.36	0.62	0.33
4	0.46	0.40	0.51	0.47	0.64	0.48	0.79	0.38	0.42	0.37	0.52	0.38	0.63	0.42
5	0.62	0.44	0.46	0.37	0.72	0.48	0.66	0.29	0.49	0.35	0.55	0.43	0.61	0.50
6	0.38	0.39	0.51	0.57	0.41	0.45	0.62	0.54	0.50	0.35	0.47	0.35	0.70	0.45
7	0.37	0.28	0.64	0.28	0.38	0.26	0.89	0.33	0.87	0.23	0.61	0.35	0.67	0.53
8	0.46	0.34	0.64	0.51	0.71	0.44	0.79	0.48	0.46	0.37	0.46	0.45	0.54	0.50
9	0.68	0.41	0.30	0.43	0.65	0.48	0.84	0.39	0.68	0.41	0.62	0.34	0.48	0.56
10	0.56	0.43	0.66	0.51	0.40	0.44	0.86	0.17	0.38	0.32	0.34	0.31	0.30	0.20
11	0.58	0.47	0.35	0.31	0.59	0.46	0.68	0.43	0.54	0.41	0.30	0.23	0.36	0.38
12	0.77	0.39	0.39	0.39	0.68	0.41	0.84	0.44	0.41	0.31	0.55	0.42	0.72	0.46
13	0.60	0.28	0.29	0.26	0.62	0.47	0.63	0.41	0.61	0.26	0.52	0.45	0.57	0.57
14	0.54	0.36	0.61	0.34	0.63	0.51	0.74	0.51	0.77	0.42	0.54	0.26	0.46	0.50
15	0.78	0.46	0.60	0.43	0.72	0.46	0.79	0.44	0.54	0.40	0.51	0.45	0.60	0.57
16	0.58	0.39	0.67	0.55	0.79	0.33	0.72	0.53	0.31	0.30	0.52	0.34	0.52	0.52
17	0.88	0.25	0.66	0.33	0.78	0.45	0.81	0.41	0.40	0.29	0.53	0.36	0.47	0.47
18	0.50	0.57	0.59	0.55	0.55	0.43	0.64	0.39	0.30	0.31	0.44	0.44	0.30	0.40
19	0.41	0.35	0.45	0.32	0.64	0.47	0.83	0.39	0.40	0.46	0.43	0.25	0.49	0.37
20	0.38	0.41	0.60	0.45	0.55	0.34	0.61	0.30	0.58	0.33	0.73	0.39	0.55	0.42
21	0.46	0.40	0.43	0.43	0.49	0.40	0.75	0.47	0.47	0.44	0.58	0.42	0.28	0.40
22	0.53	0.42	0.65	0.51	0.45	0.38	0.88	0.37	0.54	0.27	0.45	0.18	0.46	0.44
23	0.42	0.41	0.73	0.46	0.43	0.44	0.70	0.49	0.48	0.34	0.56	0.46	0.47	0.45
24	0.57	0.33	0.66	0.40	0.49	0.45	0.65	0.45	0.37	0.37	0.56	0.41	0.54	0.42
25	0.43	0.47	0.62	0.46	0.34	0.28	0.67	0.43	0.56	0.48	0.55	0.34	0.48	0.34
26	0.44	0.40	0.51	0.33	0.46	0.52	0.78	0.26	0.49	0.48	0.60	0.42	0.25	0.39
27	0.54	0.51	0.31	0.35	0.42	0.33	0.59	0.49	0.39	0.29	0.24	0.28	0.40	0.28
28	0.43	0.48	0.60	0.54	0.74	0.43	0.77	0.46	0.58	0.47	0.34	0.30	0.39	0.33
29	0.42	0.42	0.34	0.52	0.35	0.33	0.80	0.48	0.43	0.47	0.22	0.06	0.39	0.41
30	0.61	0.33	0.52	0.44	0.41	0.37	0.72	0.47	0.37	0.31	0.55	0.26	0.59	0.50
31	0.59	0.41	0.39	0.42	0.55	0.33	0.53	0.27	0.25	0.16	0.53	0.44	0.48	0.40
32	0.47	0.39	0.61	0.51	0.54	0.41	0.78	0.51	0.43	0.31	0.41	0.50	0.46	0.42

Item-by-item <i>p</i> -value and Point-Biserial for Mathematics [continued]														
CSTs	Algebra I		Geometry		Algebra II		HS Math		Integ Math 1		Integ Math 2		Integ Math 3	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
33	0.40	0.44	0.73	0.53	0.56	0.49	0.84	0.49	0.66	0.45	0.42	0.37	0.42	0.33
34	0.65	0.47	0.63	0.28	0.36	0.23	0.83	0.51	0.31	0.34	0.36	0.26	0.34	0.30
35	0.50	0.47	0.35	0.30	0.71	0.46	0.73	0.29	0.28	0.29	0.48	0.36	0.35	0.27
36	0.43	0.50	0.77	0.39	0.47	0.28	0.88	0.36	0.32	0.34	0.33	0.26	0.34	0.22
37	0.59	0.53	0.30	0.33	0.70	0.38	0.78	0.52	0.32	0.41	0.53	0.46	0.52	0.50
38	0.69	0.39	0.49	0.56	0.46	0.35	0.86	0.43	0.60	0.45	0.56	0.31	0.34	0.19
39	0.40	0.49	0.55	0.38	0.52	0.49	0.71	0.49	0.26	0.25	0.53	0.47	0.48	0.41
40	0.51	0.44	0.29	0.28	0.59	0.39	0.75	0.51	0.23	0.31	0.23	0.16	0.33	0.15
41	0.63	0.51	0.28	0.26	0.68	0.41	0.74	0.47	0.15	0.26	0.36	0.39	0.43	0.27
42	0.41	0.44	0.57	0.59	0.52	0.50	0.88	0.34	0.37	0.38	0.40	0.35	0.50	0.36
43	0.45	0.45	0.51	0.43	0.62	0.49	0.70	0.40	0.24	0.31	0.69	0.42	0.54	0.51
44	0.50	0.56	0.57	0.40	0.26	0.46	0.40	0.33	0.51	0.45	0.51	0.21	0.57	0.47
45	0.29	0.22	0.76	0.45	0.64	0.43	0.75	0.47	0.48	0.28	0.21	0.13	0.47	0.53
46	0.53	0.44	0.72	0.49	0.64	0.47	0.84	0.48	0.25	0.27	0.64	0.46	0.56	0.47
47	0.53	0.52	0.51	0.52	0.60	0.51	0.70	0.54	0.21	0.34	0.28	0.10	0.43	0.28
48	0.65	0.51	0.67	0.50	0.49	0.38	0.75	0.47	0.23	0.14	0.60	0.45	0.55	0.49
49	0.29	0.35	0.63	0.39	0.64	0.49	0.81	0.44	0.37	0.35	0.41	0.49	0.57	0.50
50	0.53	0.28	0.66	0.39	0.57	0.46	0.78	0.45	0.18	0.02	0.68	0.42	0.23	0.39
51	0.38	0.44	0.71	0.51	0.66	0.37	0.72	0.55	0.37	0.18	0.52	0.38	0.47	0.47
52	0.54	0.58	0.59	0.53	0.66	0.40	0.73	0.51	0.52	0.42	0.34	0.30	0.58	0.48
53	0.57	0.31	0.58	0.42	0.40	0.38	0.57	0.42	0.42	0.31	0.25	0.31	0.53	0.52
54	0.44	0.31	0.60	0.48	0.48	0.41	0.49	0.43	0.29	0.28	0.52	0.33	0.54	0.50
55	0.48	0.31	0.43	0.41	0.65	0.29	0.83	0.44	0.42	0.23	0.52	0.40	0.48	0.54
56	0.20	0.36	0.58	0.44	0.49	0.42	0.72	0.47	0.36	0.26	0.42	0.41	0.39	0.24
57	0.32	0.45	0.77	0.52	0.73	0.51	0.76	0.60	0.25	0.31	0.45	0.42	0.36	0.40
58	0.30	0.43	0.61	0.44	0.34	0.41	0.73	0.44	0.39	0.24	0.37	0.38	0.48	0.40
59	0.43	0.45	0.64	0.44	0.42	0.43	0.62	0.31	0.50	0.10	0.63	0.52	0.44	0.40
60	0.33	0.34	0.33	0.39	0.29	0.37	0.51	0.42	0.40	0.33	0.43	0.24	0.29	0.34
61	0.25	0.27	0.36	0.33	0.56	0.37	0.55	0.40	0.48	0.29	0.50	0.39	0.25	0.16
62	0.50	0.38	0.54	0.38	0.27	0.30	0.66	0.47	0.20	0.20	0.30	0.27	0.55	0.58
63	0.47	0.32	0.52	0.51	0.34	0.41	0.50	0.35	0.40	0.33	0.20	0.12	0.52	0.37
64	0.52	0.51	0.50	0.36	0.56	0.35	0.81	0.44	0.31	0.16	0.19	0.15	0.29	0.30
65	0.39	0.24	0.59	0.52	0.40	0.41	0.80	0.40	0.38	0.22	0.35	0.26	0.39	0.36

Table 8.A.5 Item-by-item *p*-value and Point-Biserial for Science

Item-by-item <i>p</i> -value and Point-Biserial for Science															
CSTs	Grade 5 Science		Grade 8 Science		Grade 10 Life Science		Biology		Chemistry		Earth Science		Physics		
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	
1	0.76	0.33	0.43	0.08	0.80	0.39	0.48	0.34	0.82	0.33	0.75	0.28	0.85	0.41	
2	0.75	0.39	0.67	0.37	0.65	0.42	0.57	0.33	0.56	0.34	0.64	0.40	0.66	0.56	
3	0.68	0.36	0.82	0.32	0.75	0.47	0.57	0.32	0.74	0.45	0.61	0.40	0.57	0.35	
4	0.72	0.47	0.79	0.43	0.65	0.37	0.66	0.49	0.61	0.28	0.34	0.29	0.78	0.42	
5	0.73	0.34	0.52	0.42	0.64	0.44	0.79	0.56	0.91	0.21	0.62	0.30	0.64	0.52	
6	0.61	0.31	0.56	0.35	0.44	0.40	0.68	0.45	0.72	0.49	0.65	0.42	0.64	0.29	
7	0.71	0.41	0.69	0.45	0.70	0.49	0.81	0.42	0.49	0.29	0.48	0.34	0.45	0.35	
8	0.61	0.44	0.56	0.35	0.59	0.36	0.53	0.41	0.50	0.29	0.67	0.54	0.63	0.41	
9	0.82	0.41	0.51	0.49	0.45	0.34	0.57	0.43	0.51	0.27	0.65	0.52	0.75	0.43	
10	0.58	0.48	0.73	0.51	0.31	0.37	0.74	0.35	0.79	0.39	0.75	0.34	0.67	0.42	
11	0.70	0.41	0.85	0.52	0.64	0.37	0.67	0.56	0.79	0.41	0.61	0.49	0.75	0.44	
12	0.76	0.37	0.63	0.43	0.62	0.36	0.66	0.40	0.71	0.38	0.65	0.42	0.48	0.43	
13	0.49	0.43	0.94	0.42	0.57	0.44	0.70	0.46	0.57	0.32	0.53	0.41	0.65	0.39	
14	0.88	0.39	0.69	0.45	0.79	0.46	0.58	0.53	0.69	0.45	0.50	0.31	0.67	0.49	
15	0.73	0.39	0.71	0.35	0.19	0.27	0.48	0.45	0.62	0.44	0.60	0.44	0.56	0.50	
16	0.79	0.51	0.77	0.37	0.55	0.46	0.35	0.36	0.60	0.46	0.57	0.43	0.61	0.46	
17	0.68	0.45	0.67	0.47	0.60	0.39	0.66	0.46	0.61	0.27	0.48	0.40	0.86	0.51	
18	0.72	0.53	0.82	0.36	0.58	0.37	0.59	0.35	0.64	0.31	0.51	0.35	0.60	0.41	
19	0.76	0.34	0.85	0.47	0.72	0.45	0.49	0.37	0.81	0.44	0.63	0.39	0.62	0.50	
20	0.66	0.53	0.67	0.57	0.66	0.49	0.52	0.38	0.63	0.42	0.65	0.52	0.69	0.47	
21	0.68	0.46	0.80	0.44	0.68	0.39	0.41	0.27	0.56	0.41	0.71	0.34	0.63	0.50	
22	0.71	0.35	0.77	0.50	0.37	0.35	0.64	0.48	0.58	0.46	0.46	0.39	0.53	0.47	

Item-by-item <i>p</i> -value and Point-Biserial for Science															
CSTs	Grade 5 Science		Grade 8 Science		Grade 10 Life Science		Biology		Chemistry		Earth Science		Physics		
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	
23	0.78	0.44	0.47	0.43	0.78	0.48	0.86	0.49	0.61	0.38	0.52	0.43	0.70	0.45	
24	0.75	0.45	0.72	0.46	0.63	0.47	0.53	0.47	0.67	0.42	0.60	0.38	0.50	0.43	
25	0.88	0.47	0.66	0.46	0.61	0.46	0.86	0.43	0.64	0.46	0.60	0.38	0.66	0.55	
26	0.60	0.43	0.79	0.48	0.60	0.35	0.63	0.46	0.49	0.26	0.71	0.40	0.66	0.34	
27	0.82	0.38	0.76	0.50	0.49	0.40	0.68	0.44	0.55	0.45	0.50	0.40	0.70	0.50	
28	0.61	0.33	0.71	0.51	0.66	0.45	0.34	0.50	0.62	0.42	0.54	0.26	0.66	0.47	
29	0.75	0.47	0.49	0.43	0.77	0.45	0.55	0.45	0.67	0.36	0.69	0.48	0.65	0.48	
30	0.62	0.40	0.65	0.51	0.73	0.54	0.76	0.51	0.48	0.35	0.69	0.54	0.47	0.46	
31	0.83	0.45	0.85	0.48	0.73	0.54	0.61	0.47	0.70	0.57	0.51	0.43	0.65	0.42	
32	0.84	0.35	0.69	0.40	0.80	0.53	0.65	0.47	0.62	0.34	0.48	0.46	0.81	0.40	
33	0.79	0.53	0.76	0.44	0.84	0.43	0.62	0.41	0.56	0.29	0.48	0.43	0.72	0.44	
34	0.51	0.37	0.63	0.46	0.63	0.45	0.67	0.53	0.54	0.45	0.58	0.46	0.77	0.48	
35	0.48	0.44	0.54	0.42	0.67	0.48	0.61	0.28	0.58	0.43	0.57	0.42	0.65	0.43	
36	0.69	0.52	0.76	0.50	0.69	0.47	0.68	0.49	0.66	0.50	0.39	0.24	0.64	0.32	
37	0.79	0.51	0.71	0.46	0.64	0.60	0.63	0.50	0.44	0.42	0.49	0.44	0.56	0.44	
38	0.69	0.42	0.85	0.52	0.79	0.51	0.51	0.47	0.52	0.41	0.63	0.40	0.67	0.50	
39	0.55	0.52	0.78	0.42	0.54	0.39	0.57	0.50	0.64	0.39	0.64	0.48	0.60	0.44	
40	0.68	0.52	0.79	0.51	0.64	0.37	0.71	0.48	0.57	0.51	0.57	0.40	0.51	0.35	
41	0.81	0.43	0.53	0.46	0.73	0.48	0.67	0.55	0.66	0.35	0.62	0.46	0.60	0.33	
42	0.62	0.43	0.55	0.41	0.73	0.58	0.55	0.42	0.35	0.36	0.60	0.44	0.64	0.51	
43	0.61	0.43	0.80	0.52	0.68	0.56	0.53	0.36	0.66	0.40	0.45	0.33	0.50	0.47	
44	0.80	0.39	0.51	0.32	0.63	0.42	0.35	0.30	0.62	0.52	0.63	0.49	0.60	0.33	
45	0.81	0.48	0.76	0.40	0.44	0.35	0.68	0.58	0.73	0.52	0.71	0.47	0.79	0.48	
46	0.47	0.33	0.86	0.44	0.61	0.45	0.65	0.43	0.34	0.32	0.57	0.50	0.48	0.31	
47	0.78	0.39	0.67	0.43	0.74	0.57	0.77	0.52	0.60	0.46	0.60	0.45	0.64	0.34	
48	0.61	0.29	0.84	0.47	0.75	0.50	0.49	0.39	0.52	0.41	0.48	0.38	0.75	0.45	
49	0.81	0.47	0.85	0.42	0.63	0.39	0.79	0.52	0.66	0.44	0.55	0.43	0.61	0.36	
50	0.64	0.40	0.62	0.40	0.80	0.53	0.73	0.54	0.53	0.37	0.38	0.26	0.71	0.53	
51	0.63	0.50	0.54	0.40	0.78	0.56	0.79	0.48	0.61	0.58	0.73	0.50	0.80	0.48	
52	0.84	0.36	0.83	0.51	0.73	0.51	0.68	0.48	0.51	0.38	0.54	0.46	0.60	0.42	
53	0.74	0.40	0.63	0.44	0.46	0.44	0.61	0.32	0.69	0.49	0.47	0.30	0.52	0.35	
54	0.78	0.52	0.73	0.41	0.67	0.56	0.82	0.45	0.72	0.53	0.46	0.44	0.68	0.36	
55	0.74	0.44	0.50	0.30	0.77	0.58	0.77	0.52	0.61	0.49	0.56	0.38	0.62	0.29	
56	0.66	0.45	0.57	0.37	0.75	0.47	0.67	0.57	0.44	0.38	0.55	0.41	0.39	0.27	
57	0.47	0.39	0.69	0.39	0.74	0.45	0.59	0.46	0.70	0.52	0.60	0.46	0.44	0.29	
58	0.81	0.49	0.72	0.44	0.70	0.58	0.75	0.56	0.53	0.36	0.53	0.35	0.62	0.34	
59	0.76	0.39	0.70	0.44	0.64	0.48	0.64	0.50	0.54	0.38	0.63	0.55	0.62	0.34	
60	0.68	0.52	0.43	0.37	0.56	0.39	0.71	0.53	0.84	0.51	0.65	0.53	0.52	0.37	

Table 8.A.6 Item-by-item *p*-value and Point-Biserial for Science [continued]

Item-by-item <i>p</i> -value and Point-Biserial for Science [continued]								
CSTs	Int/Coor Science 1		Int/Coor Science 2		Int/Coor Science 3		Int/Coor Science 4	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.57	0.34	0.84	0.38	0.65	0.44	0.55	0.45
2	0.58	0.39	0.64	0.29	0.74	0.35	0.58	0.48
3	0.62	0.42	0.73	0.45	0.63	0.53	0.31	0.27
4	0.64	0.47	0.48	0.43	0.30	0.29	0.60	0.44
5	0.63	0.46	0.61	0.40	0.65	0.47	0.43	0.33
6	0.46	0.36	0.48	0.45	0.67	0.50	0.31	0.07
7	0.46	0.30	0.51	0.29	0.48	0.36	0.20	0.10
8	0.44	0.38	0.52	0.33	0.47	0.38	0.33	0.21
9	0.40	0.23	0.48	0.24	0.34	0.25	0.50	0.44
10	0.55	0.28	0.44	0.45	0.49	0.41	0.39	0.07
11	0.82	0.42	0.41	0.36	0.60	0.46	0.46	0.33
12	0.45	0.35	0.45	0.47	0.63	0.38	0.39	0.30
13	0.38	0.26	0.49	0.42	0.32	0.19	0.31	0.05
14	0.44	0.25	0.68	0.50	0.34	0.40	0.46	0.29
15	0.58	0.47	0.36	0.38	0.42	0.31	0.32	0.34
16	0.44	0.20	0.47	0.32	0.36	0.26	0.48	0.51
17	0.75	0.43	0.47	0.48	0.41	0.31	0.55	0.47

Item-by-item <i>p</i> -value and Point-Biserial for Science [continued]								
CSTs	Int/Coor Science 1		Int/Coor Science 2		Int/Coor Science 3		Int/Coor Science 4	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
18	0.54	0.32	0.70	0.48	0.57	0.40	0.39	0.45
19	0.66	0.43	0.58	0.38	0.36	0.29	0.52	0.48
20	0.55	0.38	0.59	0.49	0.26	0.14	0.51	0.31
21	0.61	0.39	0.61	0.46	0.36	0.45	0.55	0.47
22	0.56	0.38	0.33	0.36	0.62	0.44	0.49	0.46
23	0.51	0.36	0.54	0.26	0.66	0.48	0.48	0.45
24	0.55	0.44	0.42	0.40	0.51	0.41	0.46	0.38
25	0.44	0.39	0.53	0.46	0.64	0.53	0.35	0.22
26	0.52	0.27	0.41	0.22	0.46	0.43	0.35	0.33
27	0.29	0.25	0.63	0.50	0.47	0.33	0.18	0.30
28	0.53	0.38	0.32	0.35	0.33	0.23	0.31	0.42
29	0.47	0.20	0.42	0.38	0.40	0.30	0.35	0.35
30	0.52	0.52	0.43	0.31	0.37	0.36	0.31	0.17
31	0.44	0.31	0.54	0.29	0.41	0.39	0.61	0.58
32	0.38	0.30	0.55	0.42	0.56	0.42	0.57	0.49
33	0.64	0.50	0.78	0.42	0.54	0.49	0.65	0.42
34	0.61	0.40	0.51	0.31	0.43	0.45	0.32	0.34
35	0.61	0.41	0.45	0.18	0.41	0.31	0.54	0.44
36	0.58	0.54	0.41	0.34	0.50	0.49	0.65	0.46
37	0.43	0.34	0.22	0.32	0.59	0.42	0.39	0.18
38	0.42	0.34	0.54	0.44	0.37	0.28	0.31	0.35
39	0.55	0.48	0.40	0.38	0.39	0.40	0.31	0.41
40	0.26	0.14	0.42	0.43	0.26	0.48	0.34	0.20
41	0.37	0.21	0.35	0.30	0.33	0.32	0.36	0.37
42	0.35	0.32	0.66	0.42	0.38	0.20	0.32	0.21
43	0.53	0.45	0.50	0.32	0.39	0.26	0.36	0.32
44	0.46	0.31	0.55	0.45	0.30	0.39	0.59	0.31
45	0.68	0.50	0.61	0.42	0.38	0.29	0.51	0.25
46	0.59	0.46	0.63	0.43	0.41	0.40	0.37	0.47
47	0.54	0.37	0.49	0.41	0.42	0.39	0.36	0.20
48	0.76	0.47	0.48	0.51	0.36	0.25	0.45	0.13
49	0.50	0.43	0.46	0.41	0.48	0.37	0.38	0.20
50	0.50	0.48	0.39	0.34	0.42	0.38	0.51	0.41
51	0.53	0.49	0.28	0.39	0.42	0.39	0.27	0.33
52	0.63	0.43	0.32	0.27	0.41	0.40	0.36	0.33
53	0.50	0.41	0.33	0.29	0.52	0.44	0.36	0.39
54	0.27	0.30	0.28	0.26	0.47	0.32	0.29	0.16
55	0.27	0.13	0.28	0.32	0.34	0.19	0.31	0.38
56	0.48	0.24	0.49	0.36	0.37	0.12	0.34	0.29
57	0.31	0.12	0.52	0.36	0.42	0.44	0.31	0.14
58	0.52	0.43	0.56	0.49	0.41	0.28	0.24	0.16
59	0.49	0.32	0.29	0.17	0.27	0.29	0.28	0.27
60	0.43	0.39	0.35	0.29	0.35	0.32	0.23	0.23

Table 8.A.7 Item-by-item *p*-value and Point-Biserial for Grade-Specific CSTs

Item-by-item <i>p</i> -value and Point-Biserial for Grade-Specific CSTs										
CSTs	Algebra I (Grade 8)		Geometry (Grade 9)		Algebra II (Grade 10)		Summ. H.S. Math (Grade 11)		World History (Grade 10)	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
1	0.76	0.46	0.73	0.37	0.90	0.33	0.82	0.36	0.75	0.45
2	0.52	0.50	0.85	0.38	0.70	0.50	0.68	0.36	0.73	0.43
3	0.61	0.45	0.73	0.31	0.87	0.29	0.82	0.49	0.65	0.42
4	0.53	0.40	0.63	0.46	0.69	0.46	0.77	0.37	0.74	0.30
5	0.68	0.46	0.54	0.35	0.77	0.47	0.64	0.28	0.58	0.29
6	0.44	0.41	0.64	0.57	0.47	0.43	0.59	0.54	0.57	0.39
7	0.43	0.29	0.71	0.27	0.40	0.24	0.89	0.33	0.57	0.36
8	0.52	0.35	0.76	0.48	0.77	0.40	0.77	0.47	0.85	0.44
9	0.76	0.40	0.38	0.43	0.70	0.46	0.83	0.39	0.75	0.46
10	0.63	0.44	0.76	0.49	0.44	0.44	0.86	0.17	0.32	0.30
11	0.65	0.48	0.41	0.28	0.64	0.45	0.67	0.42	0.58	0.26
12	0.82	0.36	0.47	0.41	0.73	0.39	0.83	0.44	0.46	0.20

Item-by-item <i>p</i> -value and Point-Biserial for Grade-Specific CSTs										
CSTs	Algebra I (Grade 8)		Geometry (Grade 9)		Algebra II (Grade 10)		Summ. H.S. Math (Grade 11)		World History (Grade 10)	
Items	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis	<i>p</i> -value	Pt-Bis
13	0.63	0.26	0.33	0.26	0.67	0.46	0.61	0.39	0.61	0.45
14	0.61	0.33	0.68	0.33	0.69	0.49	0.71	0.51	0.83	0.46
15	0.84	0.45	0.69	0.41	0.77	0.43	0.77	0.43	0.60	0.46
16	0.65	0.40	0.81	0.50	0.84	0.29	0.70	0.52	0.56	0.44
17	0.92	0.20	0.73	0.31	0.83	0.42	0.80	0.40	0.65	0.48
18	0.59	0.58	0.73	0.52	0.59	0.43	0.62	0.38	0.69	0.36
19	0.46	0.38	0.50	0.31	0.70	0.44	0.82	0.39	0.72	0.47
20	0.47	0.41	0.71	0.43	0.59	0.35	0.60	0.30	0.48	0.45
21	0.52	0.43	0.53	0.45	0.53	0.39	0.73	0.46	0.62	0.42
22	0.60	0.42	0.77	0.48	0.49	0.37	0.87	0.37	0.67	0.33
23	0.49	0.41	0.82	0.40	0.47	0.44	0.68	0.49	0.69	0.55
24	0.63	0.31	0.75	0.39	0.54	0.45	0.63	0.44	0.49	0.33
25	0.50	0.49	0.73	0.44	0.36	0.28	0.65	0.43	0.59	0.48
26	0.52	0.43	0.59	0.35	0.52	0.52	0.77	0.25	0.58	0.55
27	0.62	0.53	0.37	0.39	0.45	0.33	0.57	0.48	0.61	0.39
28	0.53	0.48	0.74	0.54	0.80	0.40	0.76	0.46	0.54	0.49
29	0.49	0.47	0.46	0.50	0.37	0.34	0.79	0.48	0.58	0.43
30	0.66	0.33	0.63	0.43	0.45	0.34	0.70	0.46	0.68	0.45
31	0.64	0.40	0.47	0.44	0.59	0.33	0.51	0.27	0.61	0.47
32	0.55	0.38	0.73	0.49	0.59	0.40	0.76	0.51	0.84	0.48
33	0.49	0.45	0.85	0.50	0.62	0.49	0.82	0.49	0.68	0.48
34	0.74	0.44	0.68	0.31	0.37	0.25	0.81	0.51	0.66	0.41
35	0.60	0.48	0.40	0.33	0.77	0.43	0.71	0.29	0.59	0.40
36	0.53	0.51	0.85	0.33	0.51	0.26	0.87	0.35	0.59	0.41
37	0.68	0.52	0.35	0.32	0.74	0.35	0.76	0.53	0.53	0.40
38	0.77	0.34	0.62	0.54	0.50	0.34	0.85	0.43	0.52	0.41
39	0.48	0.54	0.63	0.37	0.57	0.49	0.69	0.48	0.49	0.38
40	0.61	0.44	0.34	0.29	0.64	0.37	0.72	0.51	0.63	0.49
41	0.73	0.48	0.31	0.30	0.73	0.38	0.72	0.47	0.61	0.57
42	0.49	0.48	0.71	0.57	0.58	0.49	0.87	0.34	0.80	0.41
43	0.53	0.48	0.61	0.43	0.69	0.48	0.68	0.39	0.56	0.37
44	0.60	0.58	0.66	0.38	0.29	0.46	0.38	0.31	0.74	0.56
45	0.33	0.23	0.85	0.40	0.70	0.41	0.73	0.46	0.63	0.53
46	0.62	0.46	0.82	0.47	0.70	0.45	0.82	0.48	0.71	0.43
47	0.63	0.50	0.63	0.50	0.66	0.50	0.68	0.54	0.55	0.40
48	0.74	0.50	0.77	0.46	0.54	0.36	0.73	0.47	0.53	0.42
49	0.35	0.41	0.71	0.36	0.70	0.47	0.79	0.43	0.69	0.39
50	0.58	0.27	0.75	0.40	0.63	0.43	0.76	0.44	0.77	0.55
51	0.45	0.48	0.81	0.48	0.70	0.35	0.69	0.54	0.63	0.48
52	0.64	0.58	0.71	0.52	0.71	0.38	0.71	0.51	0.47	0.38
53	0.63	0.30	0.67	0.42	0.44	0.38	0.55	0.41	0.56	0.45
54	0.49	0.34	0.71	0.47	0.52	0.40	0.47	0.42	0.55	0.50
55	0.53	0.31	0.52	0.38	0.69	0.26	0.82	0.44	0.71	0.58
56	0.24	0.44	0.67	0.42	0.54	0.42	0.70	0.46	0.65	0.52
57	0.40	0.49	0.88	0.47	0.79	0.48	0.74	0.59	0.53	0.38
58	0.36	0.50	0.72	0.42	0.37	0.43	0.71	0.43	0.60	0.47
59	0.50	0.49	0.73	0.42	0.47	0.43	0.60	0.30	0.63	0.46
60	0.39	0.37	0.41	0.40	0.31	0.38	0.49	0.41	0.80	0.48
61	0.31	0.30	0.42	0.31	0.60	0.35	0.53	0.39	.	.
62	0.56	0.41	0.62	0.39	0.29	0.30	0.64	0.46	.	.
63	0.53	0.32	0.65	0.50	0.37	0.40	0.49	0.34	.	.
64	0.61	0.53	0.58	0.38	0.59	0.35	0.79	0.44	.	.
65	0.44	0.26	0.71	0.49	0.46	0.40	0.78	0.40	.	.

Table 8.A.8 Distribution of Essay Scores for ELA (Grade Four)—Overall and by Subgroup (all %)

Score	Total	Female	Male	Eng-only	I-FEP	EL	R-FEP	Not Econ Disadv.	Econ Disadv.
0	0.26	0.09	0.17	0.15	0.00	0.10	0.01	0.09	0.17
2	6.25	2.66	3.59	2.89	0.14	2.93	0.29	1.27	4.98
4	30.92	14.32	16.60	15.71	0.97	11.67	2.57	8.64	22.27
6	47.52	24.34	23.18	27.20	2.31	11.46	6.56	20.12	27.40
8	15.05	8.61	6.44	9.79	1.04	1.71	2.51	9.10	5.96
Total*	100.00	50.02	49.98	55.74	4.46	27.86	11.94	39.22	60.78

Score	No Spec. Services	Spec. Services	American Indian	Asian	Pacific Islander	Filipino	Hispanic	African American	White
0	0.22	0.04	0.00	0.03	0.00	0.00	0.13	0.02	0.08
2	5.56	0.65	0.05	0.33	0.03	0.10	4.13	0.58	1.07
4	28.84	1.92	0.22	1.80	0.18	0.60	19.30	2.40	6.57
6	45.42	1.95	0.28	4.57	0.27	1.38	24.73	2.70	13.56
8	14.53	0.49	0.06	2.43	0.08	0.59	5.50	0.62	5.63
Total*	94.57	5.04	0.62	9.16	0.55	2.67	53.78	6.31	26.90

* Note: The marginal percentage for each subgroup is the percentage of examinees in that subgroup obtaining a valid writing score.

Table 8.A.9 Distribution of Essay Scores for ELA (Grade Seven)—Overall and by Subgroup (all %)

Score	Total	Female	Male	Eng-only	I-FEP	EL	R-FEP	Not Econ Disadv.	Econ Disadv.
0	0.25	0.09	0.16	0.14	0.01	0.08	0.02	0.09	0.17
2	0.59	0.17	0.42	0.20	0.01	0.35	0.03	0.11	0.48
4	9.82	3.08	6.74	4.32	0.45	3.78	1.27	1.95	7.86
6	45.69	20.21	25.48	24.16	3.49	8.28	9.75	15.54	30.14
8	43.65	26.46	17.19	28.00	4.59	2.29	8.77	24.40	19.26
Total*	100.00	50.00	50.00	56.82	8.56	14.78	19.83	42.09	57.91

Score	No Spec. Services	Spec. Services	American Indian	Asian	Pacific Islander	Filipino	Hispanic	African American	White
0	0.21	0.04	0.00	0.03	0.00	0.00	0.12	0.02	0.07
2	0.46	0.13	0.01	0.05	0.00	0.01	0.38	0.05	0.10
4	8.64	1.13	0.09	0.49	0.06	0.14	6.64	0.91	1.57
6	43.34	2.22	0.33	2.98	0.28	1.11	26.97	3.31	10.85
8	42.59	0.98	0.28	5.45	0.26	1.74	17.80	2.28	15.61
Total*	95.24	4.50	0.70	9.00	0.61	3.01	51.92	6.57	28.20

* Note: The marginal percentage for each subgroup is the percentage of examinees in that subgroup obtaining a valid writing score.

Table 8.A.10 Mean Scores for ELA (Grade Four Essay)—Overall and by Subgroup

Overall		Female		Male		English-only		I-FEP		EL		R-FEP		Not Econ Disadv		Econ Disadv	
N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
413,959	5.42	207,036	5.55	206,902	5.29	230,592	5.56	18,453	5.90	115,267	4.84	49,383	5.89	162,266	5.88	251,432	5.12

No Spec. Ser.	Spec. Ser.	Am. Indian		Asian		Pac. Islander		Filipino		Hispanic		Af. American		White			
N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean		
391,498	5.45	20,859	4.87	2,492	5.13	36,832	5.97	2,231	5.37	10,743	5.84	216,254	5.17	25,374	5.05	108,172	5.75

Table 8.A.11 Mean Scores for ELA (Grade Seven Essay)—Overall and by Subgroup

Overall		Female		Male		English-only		I-FEP		EL		R-FEP		Not Econ Disadv		Econ Disadv	
N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
418,902	6.64	209,452	6.91	209,424	6.36	237,899	6.80	35,845	6.95	61,894	5.67	83,030	6.74	176,177	7.04	242,365	6.34

No Spec. Ser.	Spec. Ser.	Am. Indian		Asian		Pac. Islander		Filipino		Hispanic		Af. American		White			
N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean		
398,958	6.68	18,845	5.76	2,859	6.51	36,804	7.06	2,479	6.65	12,299	7.04	212,259	6.39	26,848	6.37	115,298	6.97

Table 8.A.12 Effect Sizes for ELA (Grade Four Essay)—by Subgroup

Gender (M-F)	Econom. Disadv. (No-Yes)	Special Serv. (No- Yes)	English Fluency							
			EO-I-FEP	EO-EL	EO-R-FEP	I-FEP-EL	I-FEP- R-FEP	EL-R-FEP		
Grade 4	-0.16	0.36	-0.21	0.46	-0.21	0.69	0.01	-0.69		
Primary Ethnicity										
W-Am. Ind	W-Asian	W-Pac. Isl.	W-Filipino	W-Hisp.	W-Af. Am.	Am. Ind.- Asian	Am. Ind.- Pac. Isl.	Am. Ind.- Filipino	Am. Ind.- Hisp.	Am. Ind.-Af. Am.
Grade 4	0.39	-0.14	0.25	0.37	0.44	-0.53	-0.14	-0.45	-0.02	0.05
Asian-Pac. Isl.	Asian- Filipino	Asian-Hisp.	Asian-Af. Am.	Pac. Isl.- Filipino	Pac. Isl. - Hisp.	Pac. Isl. -Af. Am.	Filipino- Hispanic	Filipino-Af. Am.	Hisp. -Af. Am.	
Grade 4	0.38	0.09	0.51	-0.30	0.13	0.20	0.43	0.49	0.07	

Table 8.A.13 Effect Sizes for ELA (Grade Seven Essay)—by Subgroup

Gender (M-F)	Econom. Disadv. (No-Yes)	Special Serv. (No- Yes)	English Fluency							
			EO-I-FEP	EO-EL	EO-R-FEP	I-FEP-EL	I-FEP- R-FEP	EL-R-FEP		
Grade 7	-0.40	0.52	0.67	0.83	0.05	0.93	0.17	-0.80		
Primary Ethnicity										
W-Am. Ind	W-Asian	W-Pac. Isl.	W-Filipino	W-Hisp.	W-Af. Am.	Am. Ind.- Asian	Am. Ind.- Pac. Isl.	Am. Ind.- Filipino	Am. Ind.- Hisp.	Am. Ind.-Af. Am.
Grade 7	0.36	-0.07	0.25	0.43	0.45	-0.42	-0.10	-0.42	0.09	0.10
Asian-Pac. Isl.	Asian- Filipino	Asian-Hisp.	Asian-Af. Am.	Pac. Isl.- Filipino	Pac. Isl. - Hisp.	Pac. Isl. -Af. Am.	Filipino- Hispanic	Filipino-Af. Am.	Hisp. -Af. Am.	
Grade 7	0.32	0.01	0.49	-0.32	0.19	0.19	0.48	0.49	0.01	

Appendix 8.B—Reliability Analyses

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

Subscore Reliabilities and Intercorrelations for ELA								
Subscore Area	N of Items	Intercorrelation					Reliab.	SEM
Grade 2		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	22	1.00	.	.	.	.	0.86	1.86
2. Reading Comprehension	15	0.78	1.00	.	.	.	0.80	1.58
3. Literary Response and Analysis	6	0.72	0.70	1.00	.	.	0.68	0.88
4. Written and Oral Language Conventions	14	0.80	0.75	0.67	1.00	.	0.82	1.47
5. Writing Strategies	8	0.71	0.72	0.62	0.73	1.00	0.71	1.19
Grade 3		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	20	1.00	.	.	.	.	0.81	1.74
2. Reading Comprehension	15	0.74	1.00	.	.	.	0.78	1.59
3. Literary Response and Analysis	8	0.67	0.67	1.00	.	.	0.61	1.04
4. Written and Oral Language Conventions	13	0.72	0.67	0.57	1.00	.	0.74	1.50
5. Writing Strategies	9	0.67	0.67	0.57	0.65	1.00	0.64	1.32
Grade 4		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	18	1.00	.	.	.	.	0.85	1.57
2. Reading Comprehension	15	0.76	1.00	.	.	.	0.80	1.62
3. Literary Response and Analysis	9	0.69	0.70	1.00	.	.	0.67	1.27
4. Written and Oral Language Conventions	18	0.79	0.72	0.65	1.00	.	0.80	1.72
5. Writing Strategies	15	0.73	0.74	0.65	0.74	1.00	0.76	1.69
Grade 5		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	14	1.00	.	.	.	.	0.75	1.43
2. Reading Comprehension	16	0.75	1.00	.	.	.	0.81	1.58
3. Literary Response and Analysis	12	0.70	0.72	1.00	.	.	0.73	1.41
4. Written and Oral Language Conventions	17	0.69	0.71	0.64	1.00	.	0.76	1.64
5. Writing Strategies	16	0.71	0.76	0.69	0.72	1.00	0.77	1.68
Grade 6		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	13	1.00	.	.	.	.	0.77	1.41
2. Reading Comprehension	17	0.70	1.00	.	.	.	0.72	1.83
3. Literary Response and Analysis	12	0.72	0.69	1.00	.	.	0.70	1.39
4. Written and Oral Language Conventions	16	0.73	0.66	0.67	1.00	.	0.77	1.61
5. Writing Strategies	17	0.75	0.72	0.71	0.73	1.00	0.78	1.77
Grade 7		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	11	1.00	.	.	.	.	0.71	1.32
2. Reading Comprehension	18	0.73	1.00	.	.	.	0.81	1.65
3. Literary Response and Analysis	13	0.66	0.72	1.00	.	.	0.70	1.47
4. Written and Oral Language Conventions	16	0.66	0.68	0.61	1.00	.	0.71	1.69
5. Writing Strategies	17	0.70	0.73	0.67	0.69	1.00	0.78	1.77
Grade 8		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	9	1.00	.	.	.	.	0.62	1.23
2. Reading Comprehension	18	0.68	1.00	.	.	.	0.79	1.70
3. Literary Response and Analysis	15	0.68	0.75	1.00	.	.	0.77	1.62
4. Written and Oral Language Conventions	16	0.65	0.73	0.72	1.00	.	0.78	1.65
5. Writing Strategies	17	0.66	0.74	0.74	0.79	1.00	0.79	1.76

Subscore Reliabilities and Intercorrelations for ELA								
Subscore Area	N of Items	Intercorrelation					Reliab.	SEM
Grade 9		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.62	1.22
2. Reading Comprehension	18	0.70	1.00	.	.	.	0.83	1.71
3. Literary Response and Analysis	16	0.68	0.78	1.00	.	.	0.77	1.66
4. Written and Oral Language Conventions	13	0.64	0.72	0.70	1.00	.	0.75	1.54
5. Writing Strategies	20	0.65	0.74	0.71	0.74	1.00	0.76	1.95
Grade 10		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.64	1.18
2. Reading Comprehension	18	0.69	1.00	.	.	.	0.83	1.72
3. Literary Response and Analysis	16	0.66	0.76	1.00	.	.	0.73	1.75
4. Written and Oral Language Conventions	13	0.65	0.72	0.67	1.00	.	0.74	1.47
5. Writing Strategies	20	0.70	0.78	0.74	0.76	1.00	0.82	1.87
Grade 11		1	2	3	4	5		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.62	1.14
2. Reading Comprehension	19	0.67	1.00	.	.	.	0.81	1.85
3. Literary Response and Analysis	17	0.65	0.78	1.00	.	.	0.77	1.75
4. Written and Oral Language Conventions	9	0.57	0.65	0.63	1.00	.	0.57	1.28
5. Writing Strategies	22	0.69	0.78	0.74	0.69	1.00	0.84	1.98

Table 8.B.2 Subscore Reliabilities and Intercorrelations for History–Social Science

Subscore Reliabilities and Intercorrelations for History–Social Science								
Subscore Area	N of Items	Intercorrelation					Reliab.	SEM
Grade 8		1	2	3	4	5		
1. World History and Geography: Ancient Civilizations	16	1.00	.	.	.	.	0.72	1.69
2. Late Antiquity and the Middle Ages	14	0.72	1.00	.	.	.	0.77	1.57
3. Renaissance/Reformation	10	0.63	0.67	1.00	.	.	0.63	1.41
4. U.S. Constitution and the Early Republic	22	0.71	0.75	0.68	1.00	.	0.84	1.98
5. Civil War and Its Aftermath	13	0.67	0.72	0.65	0.79	1.00	0.80	1.50
World History		1	2	3	4	5		
1. Development of Modern Political Thought	13	1.00	.	.	.	.	0.68	1.56
2. Industrial Expansion and Imperialism	10	0.66	1.00	.	.	.	0.71	1.33
3. Causes and Effects of World War I	14	0.65	0.70	1.00	.	.	0.77	1.62
4. Causes and Effects of World War II	13	0.66	0.70	0.75	1.00	.	0.77	1.53
5. International Developments in the Post-World War II Era	10	0.64	0.68	0.71	0.73	1.00	0.75	1.34
Grade 11 (U.S. History)		1	2	3	4	5		
1. Foundations of American Political and Social Thought	10	1.00	.	.	.	.	0.74	1.33
2. Industrialization and the U.S. role as a World Power	13	0.71	1.00	.	.	.	0.73	1.53
3. United States between the World Wars	12	0.70	0.73	1.00	.	.	0.73	1.49
4. World War II and Foreign Affairs	12	0.66	0.69	0.70	1.00	.	0.72	1.49
5. Post-World War II Domestic Affairs	13	0.69	0.71	0.72	0.70	1.00	0.76	1.53

Table 8.B.3 Subscore Reliabilities and Intercorrelations for Mathematics

Subscore Reliabilities and Intercorrelations for Mathematics									
Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Grade 2		1	2	3	4	5	6		
1. Number Sense: Place Value, Addition, and Subtraction	15	1.00	.	.	.	.	.	0.81	1.42
2. Number Sense: Multiplication, Division, and Fractions	23	0.80	1.00	.	.	.	.	0.85	1.73
3. Algebra and Functions	6	0.68	0.69	1.00	.	.	.	0.63	0.91
4. Measurement and Geometry	14	0.69	0.73	0.61	1.00	.	.	0.71	1.29
5. Statistics, Data Analysis, and Probability	7	0.65	0.67	0.57	0.61	1.00	.	0.59	0.98
Grade 3		1	2	3	4	5	6		
1. Number Sense: Place Value, Fractions, and Decimals	16	1.00	.	.	.	.	.	0.78	1.37
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.78	1.00	.	.	.	.	0.84	1.43
3. Algebra and Functions	12	0.74	0.76	1.00	.	.	.	0.78	1.17
4. Measurement and Geometry	16	0.71	0.69	0.68	1.00	.	.	0.77	1.38
5. Statistics, Data Analysis, and Probability	5	0.57	0.54	0.55	0.57	1.00	.	0.51	0.71
Grade 4		1	2	3	4	5	6		
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	1.00	.	.	.	.	.	0.80	1.40
2. Number Sense: Operations, and Factoring	14	0.74	1.00	.	.	.	.	0.83	1.26
3. Algebra and Functions	18	0.76	0.78	1.00	.	.	.	0.86	1.37
4. Measurement and Geometry	12	0.67	0.65	0.68	1.00	.	.	0.72	1.33
5. Statistics, Data Analysis, and Probability	4	0.52	0.49	0.53	0.52	1.00	.	0.44	0.71
Grade 5		1	2	3	4	5	6		
1. Number Sense: Estimation, Percents, and Factoring	12	1.00	.	.	.	.	.	0.77	1.39
2. Number Sense: Operations with Fractions and Decimals	17	0.73	1.00	.	.	.	.	0.84	1.63
3. Algebra and Functions	17	0.70	0.75	1.00	.	.	.	0.81	1.53
4. Measurement and Geometry	15	0.71	0.75	0.74	1.00	.	.	0.81	1.52
5. Statistics, Data Analysis, and Probability	4	0.50	0.55	0.60	0.57	1.00	.	0.55	0.68
Grade 6		1	2	3	4	5	6		
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	1.00	.	.	.	.	.	0.79	1.59
2. Number Sense: Operations and Problem Solving with Fractions	10	0.68	1.00	.	.	.	.	0.72	1.28
3. Algebra and Functions	19	0.77	0.69	1.00	.	.	.	0.85	1.68
4. Measurement and Geometry	10	0.69	0.60	0.71	1.00	.	.	0.72	1.33
5. Statistics, Data Analysis, and Probability	11	0.71	0.63	0.74	0.67	1.00	.	0.77	1.32

Subscore Reliabilities and Intercorrelations for Mathematics									
Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Grade 7		1	2	3	4	5	6		
1. Number Sense: Rational Numbers	14	1.00	.	.	.	.	.	0.75	1.59
2. Number Sense: Exponent, Powers and Roots	8	0.64	1.00	.	.	.	.	0.68	1.24
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.64	0.64	1.00	.	.	.	0.64	1.39
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.72	0.62	0.67	1.00	.	.	0.76	1.66
5. Measurement and Geometry	13	0.68	0.62	0.65	0.71	1.00	.	0.72	1.54
6. Statistics, Data Analysis, and Probability	5	0.51	0.50	0.53	0.55	0.56	1.00	0.59	0.89
General Mathematics		1	2	3	4	5	6		
1. Number Sense: Rational Numbers	14	1.00	.	.	.	.	.	0.75	1.64
2. Number Sense: Exponent, Powers and Roots	10	0.63	1.00	.	.	.	.	0.65	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.62	0.56	1.00	.	.	.	0.68	1.47
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.60	0.52	0.61	1.00	.	.	0.65	1.40
5. Measurement and Geometry	11	0.59	0.53	0.55	0.60	1.00	.	0.63	1.52
6. Statistics, Data Analysis, and Probability	9	0.55	0.48	0.58	0.58	0.56	1.00	0.66	1.30
Algebra I		1	2	3	4	5	6		
1. Number Properties, Operations, and Linear Equations	17	1.00	.	.	.	.	.	0.76	1.79
2. Graphing and Systems of Linear Equations	14	0.68	1.00	.	.	.	.	0.75	1.68
3. Quadratics and Polynomials	21	0.72	0.74	1.00	.	.	.	0.84	2.00
4. Functions and Rational Expressions	13	0.59	0.62	0.68	1.00	.	.	0.67	1.60
Geometry		1	2	3	4	5	6		
1. Logic and Geometric Proofs	23	1.00	.	.	.	.	.	0.82	2.10
2. Volume and Area Formulas	11	0.73	1.00	.	.	.	.	0.71	1.44
3. Angle Relationships, Constructions, and Lines	16	0.76	0.71	1.00	.	.	.	0.76	1.73
4. Trigonometry	15	0.75	0.69	0.75	1.00	.	.	0.78	1.68
Algebra II		1	2	3	4	5	6		
1. Polynomials and Rational Expressions	19	1.00	.	.	.	.	.	0.82	1.80
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.00	.	.	.	.	0.73	1.80
3. Exponents and Logarithms	16	0.72	0.68	1.00	.	.	.	0.78	1.75
4. Series, Combinatorics, and Probability and Statistics	14	0.64	0.64	0.66	1.00	.	.	0.73	1.64
Summative High School Mathematics		1	2	3	4	5	6		
1. Algebra I	18	1.00	.	.	.	.	.	0.78	1.63
2. Geometry	19	0.73	1.00	.	.	.	.	0.80	1.69
3. Algebra II	23	0.78	0.76	1.00	.	.	.	0.85	1.88
4. Probability and Statistics	5	0.55	0.58	0.58	1.00	.	.	0.54	0.92

Subscore Reliabilities and Intercorrelations for Mathematics									
Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Integrated Mathematics 1		1	2	3	4	5	6		
1. Algebra I: Number Properties, Operations and Linear Equations	15	1.00	.	.	.	.	.	0.69	1.71
2. Algebra I: Graphing	9	0.51	1.00	.	.	.	.	0.57	1.36
3. Algebra I: Quadratics and Polynomials	14	0.59	0.53	1.00	.	.	.	0.70	1.66
4. Algebra I: Functions and Relations Expressions	7	0.40	0.41	0.51	1.00	.	.	0.50	1.11
5. Geometry	20	0.48	0.43	0.48	0.37	1.00	.	0.57	2.02
Integrated Mathematics 2		1	2	3	4	5	6		
1. Algebra I	20	1.00	.	.	.	.	.	0.75	2.05
2. Geometry: Logic and Geometric Proofs	22	0.66	1.00	.	.	.	.	0.73	2.14
3. Geometry: Angle Relationships, Construction, and Lines	8	0.55	0.60	1.00	.	.	.	0.48	1.26
4. Trigonometry	10	0.57	0.61	0.53	1.00	.	.	0.62	1.43
5. Algebra II: Probability and Statistics	5	0.29	0.33	0.25	0.31	1.00	.	0.40	0.94
Integrated Mathematics 3		1	2	3	4	5	6		
1. Geometry	5	1.00	.	.	.	.	.	0.64	0.91
2. Algebra II: Polynomials and Relations Expressions	19	0.58	1.00	.	.	.	.	0.83	1.88
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	0.42	0.67	1.00	.	.	.	0.68	1.82
4. Algebra II: Exponents and Logarithms	16	0.55	0.72	0.67	1.00	.	.	0.79	1.77
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.47	0.63	0.52	0.61	1.00	.	0.61	1.33

Table 8.B.4 Subscore Reliabilities and Intercorrelations for Science

Subscore Reliabilities and Intercorrelations for Science									
Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Grade 5 Science		1	2	3	4	5	6		
1. Physical Science (Grade 5)	11	1.00	.	.	.	.	.	0.66	1.37
2. Physical Science (Grade 4)	8	0.63	1.00	.	.	.	.	0.63	1.13
3. Life Science (Grade 5)	13	0.67	0.65	1.00	.	.	.	0.72	1.43
4. Life Science (Grade 4)	9	0.65	0.63	0.69	1.00	.	.	0.70	1.21
5. Earth Science (Grade 5)	11	0.62	0.59	0.66	0.64	1.00	.	0.65	1.36
6. Earth Science (Grade 4)	8	0.63	0.62	0.67	0.67	0.66	1.00	0.68	1.13
Grade 8 Science		1	2	3	4	5	6		
1. Motion	8	1.00	.	.	.	.	.	0.51	1.24
2. Forces, Density, and Buoyancy	13	0.59	1.00	.	.	.	.	0.76	1.43
3. Structure of Matter and Periodic Table	16	0.57	0.75	1.00	.	.	.	0.81	1.58
4. Earth in the Solar System	7	0.46	0.60	0.63	1.00	.	.	0.60	1.02
5. Reactions and the Chemistry of Living Systems	10	0.52	0.66	0.69	0.57	1.00	.	0.65	1.38
6. Investigation and Experimentation	6	0.51	0.66	0.66	0.54	0.60	1.00	0.60	0.88

Subscore Reliabilities and Intercorrelations for Science									
Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Grade 10 Life Science		1	2	3	4	5	6		
1. Cell Biology	10	1.00	.	.	.	.	.	0.67	1.37
2. Genetics	12	0.65	1.00	.	.	.	.	0.71	1.48
3. Physiology	10	0.64	0.65	1.00	.	.	.	0.73	1.28
4. Ecology	11	0.65	0.65	0.71	1.00	.	.	0.74	1.36
5. Evolution	11	0.64	0.66	0.70	0.74	1.00	.	0.76	1.35
6. Investigation and Experimentation	6	0.54	0.59	0.63	0.65	0.69	1.00	0.68	0.91
Biology		1	2	3	4	5	6		
1. Cell Biology	9	1.00	.	.	.	.	.	0.64	1.29
2. Genetics	18	0.70	1.00	.	.	.	.	0.80	1.80
3. Ecology and Evolution	16	0.67	0.76	1.00	.	.	.	0.79	1.73
4. Physiology	11	0.62	0.70	0.73	1.00	.	.	0.78	1.28
5. Investigation and Experimentation	6	0.58	0.66	0.68	0.67	1.00	.	0.63	1.01
Chemistry		1	2	3	4	5	6		
1. Atomic and Molecular Structure	8	1.00	.	.	.	.	.	0.44	1.23
2. Chemical Bonds, Biochemistry	9	0.49	1.00	.	.	.	.	0.59	1.29
3. Kinetics, Thermodynamics	14	0.52	0.62	1.00	.	.	.	0.71	1.67
4. Chemical Reactions	13	0.51	0.60	0.68	1.00	.	.	0.73	1.60
5. Conservation of Matter and Stoichiometry	10	0.49	0.56	0.65	0.64	1.00	.	0.72	1.37
6. Investigation and Experimentation	6	0.48	0.59	0.64	0.62	0.59	1.00	0.66	0.93
Earth Science		1	2	3	4	5	6		
1. Astronomy and Cosmology	12	1.00	.	.	.	.	.	0.68	1.54
2. Solid Earth	14	0.63	1.00	.	.	.	.	0.68	1.69
3. The Earth's Energy	28	0.71	0.73	1.00	.	.	.	0.85	2.35
4. Investigation and Experimentation	6	0.59	0.64	0.70	1.00	.	.	0.62	1.05
Physics		1	2	3	4	5	6		
1. Motion and Forces	12	1.00	.	.	.	.	.	0.72	1.47
2. Conservation of Energy and Momentum	12	0.70	1.00	.	.	.	.	0.76	1.45
3. Heat and Thermodynamics	9	0.66	0.68	1.00	.	.	.	0.70	1.26
4. Waves	10	0.60	0.63	0.62	1.00	.	.	0.66	1.35
5. Electric and Magnetic Phenomena	11	0.58	0.63	0.57	0.59	1.00	.	0.64	1.49
6. Investigation and Experimentation	6	0.57	0.59	0.58	0.53	0.49	1.00	0.53	1.05
Integrated/Coordinated Science 1		1	2	3	4	5	6		
1. Biology/Life Sciences	10	1.00	.	.	.	.	.	0.64	1.43
2. Chemistry	15	0.56	1.00	.	.	.	.	0.58	1.79
3. Earth Sciences	17	0.66	0.62	1.00	.	.	.	0.76	1.84
4. Physics	12	0.50	0.50	0.56	1.00	.	.	0.50	1.61
5. Investigation and Experimentation	6	0.60	0.55	0.67	0.50	1.00	.	0.60	1.07
Integrated/Coordinated Science 2		1	2	3	4	5	6		
1. Biology/Life Sciences	15	1.00	.	.	.	.	.	0.68	1.73
2. Chemistry	6	0.53	1.00	.	.	.	.	0.46	1.13
3. Earth Sciences	15	0.63	0.51	1.00	.	.	.	0.77	1.71
4. Physics	18	0.58	0.55	0.61	1.00	.	.	0.69	1.91
5. Investigation and Experimentation	6	0.54	0.46	0.60	0.55	1.00	.	0.52	1.10

Subscore Reliabilities and Intercorrelations for Science									
Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Integrated/Coordinated Science 3		1	2	3	4	5	6		
1. Biology/Life Sciences	16	1.00	.	.	.	.	.	0.76	1.78
2. Chemistry	23	0.63	1.00	.	.	.	.	0.72	2.18
3. Earth Sciences	7	0.63	0.55	1.00	.	.	.	0.60	1.18
4. Physics	8	0.49	0.54	0.44	1.00	.	.	0.40	1.31
5. Investigation and Experimentation	6	0.60	0.51	0.55	0.43	1.00	.	0.50	1.09
Integrated/Coordinated Science 4		1	2	3	4	5	6		
1. Biology/Life Sciences	13	1.00	.	.	.	.	.	0.70	1.61
2. Chemistry	10	0.45	1.00	.	.	.	.	0.32	1.48
3. Earth Sciences	15	0.68	0.46	1.00	.	.	.	0.67	1.80
4. Physics	16	0.47	0.45	0.57	1.00	.	.	0.58	1.77
5. Investigation and Experimentation	6	0.47	0.40	0.47	0.52	1.00	.	0.32	1.11

Table 8.B.5 Subscore Reliabilities and Intercorrelations for Grade-Specific Tests

Subscore Reliabilities and Intercorrelations for Grade-Specific Tests									
Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Algebra I – 8		1	2	3	4	5	6		
1. Number Properties, Operations, and Linear Equations	17	1.00	.	.	.	.	.	0.75	1.74
2. Graphing and Systems of Linear Equations	14	0.69	1.00	.	.	.	.	0.76	1.66
3. Quadratics and Polynomials	21	0.73	0.74	1.00	.	.	.	0.84	1.96
4. Functions and Rational Expressions	13	0.63	0.65	0.70	1.00	.	.	0.70	1.61
Geometry – 9		1	2	3	4	5	6		
1. Logic and Geometric Proofs	23	1.00	.	.	.	.	.	0.80	2.01
2. Volume and Area Formulas	11	0.72	1.00	.	.	.	.	0.71	1.38
3. Angle Relationships, Constructions, and Lines	16	0.74	0.69	1.00	.	.	.	0.74	1.66
4. Trigonometry	15	0.72	0.67	0.72	1.00	.	.	0.77	1.61
Algebra II – 10		1	2	3	4	5	6		
1. Polynomials and Rational Expressions	19	1.00	.	.	.	.	.	0.80	1.74
2. Quadratics, Conics, and Complex Numbers	16	0.68	1.00	.	.	.	.	0.73	1.79
3. Exponents and Logarithms	16	0.69	0.66	1.00	.	.	.	0.77	1.72
4. Series, Combinatorics, and Probability and Statistics	14	0.61	0.61	0.63	1.00	.	.	0.72	1.64
Summative High School Mathematics – 11		1	2	3	4	5	6		
1. Algebra I	18	1.00	.	.	.	.	.	0.77	1.67
2. Geometry	19	0.72	1.00	.	.	.	.	0.80	1.73
3. Algebra II	23	0.78	0.75	1.00	.	.	.	0.84	1.92
4. Probability and Statistics	5	0.54	0.58	0.57	1.00	.	.	0.53	0.93
World History – 10		1	2	3	4	5	6		
1. Development of Modern Political Thought	13	1.00	.	.	.	.	.	0.66	1.56
2. Industrial Expansion and Imperialism	10	0.65	1.00	.	.	.	.	0.70	1.33
3. Causes and Effects of World War I	14	0.63	0.68	1.00	.	.	.	0.76	1.62
4. Causes and Effects of World War II	13	0.65	0.69	0.74	1.00	.	.	0.76	1.53
5. International Developments in the Post-World War II Era	10	0.62	0.66	0.70	0.72	1.00	.	0.74	1.34

Table 8.B.6 Reliabilities and SEMs for the CSTs by Gender

Content Area	CST*	Male			Female		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	234,049	0.95	3.27	224,518	0.94	3.19
	3	218,702	0.93	3.32	215,947	0.93	3.25
	4**	215,372	0.95	3.60	214,326	0.94	3.52
	5	217,649	0.94	3.54	216,377	0.93	3.44
	6	216,855	0.94	3.65	214,197	0.93	3.59
	7**	218,525	0.94	3.62	216,771	0.93	3.52
	8	221,223	0.94	3.64	218,781	0.93	3.54
	9	241,286	0.94	3.70	234,671	0.93	3.63
	10	235,003	0.94	3.66	229,863	0.93	3.59
	11	224,261	0.94	3.70	220,387	0.93	3.63
History–Social Science	8	235,687	0.95	3.66	225,744	0.93	3.74
	World History	240,727	0.94	3.26	232,733	0.91	3.40
	11	225,978	0.94	3.27	220,343	0.92	3.35
Mathematics	2	234,654	0.94	2.92	224,647	0.93	2.93
	3	220,699	0.94	2.79	216,366	0.94	2.82
	4	218,489	0.95	2.81	215,234	0.94	2.81
	5	220,306	0.94	3.16	217,133	0.94	3.14
	6	218,190	0.94	3.27	214,398	0.94	3.28
	7	200,280	0.93	3.47	199,431	0.92	3.48
	General Math	109,775	0.92	3.61	89,418	0.91	3.60
	Algebra I	379,707	0.92	3.58	356,395	0.92	3.58
	Geometry	199,739	0.93	3.50	207,185	0.93	3.53
	Algebra II	131,519	0.93	3.51	145,722	0.92	3.54
	Summ. H.S. Math	66,971	0.93	3.07	72,960	0.93	3.24
	Integrated Math 1	6,403	0.87	3.63	5,537	0.85	3.62
	Integrated Math 2	2,302	0.90	3.65	2,180	0.87	3.69
	Integrated Math 3	362	0.93	3.56	368	0.91	3.62
Science	5	219,051	0.93	3.11	216,817	0.92	3.18
	8	221,778	0.93	3.10	218,806	0.91	3.20
	10 Life Science	231,664	0.94	3.19	226,957	0.92	3.26
	Biology	274,740	0.94	3.25	276,893	0.92	3.28
	Chemistry	124,571	0.92	3.32	140,464	0.90	3.44
	Earth Science	115,541	0.93	3.40	99,590	0.90	3.51
	Physics	40,242	0.93	3.27	35,811	0.91	3.42
	Integrated Science 1	29,050	0.90	3.52	25,586	0.87	3.56
	Integrated Science 2	2,273	0.91	3.48	1,832	0.88	3.52
	Integrated Science 3	744	0.90	3.51	538	0.87	3.54
	Integrated Science 4	92	0.85	3.53	65	0.86	3.55
Grade-Specific	Algebra I – 8	136,367	0.93	3.53	141,969	0.93	3.52
	Geometry – 9	65,803	0.93	3.35	74,180	0.92	3.40
	Algebra II – 10	58,279	0.92	3.47	66,996	0.91	3.50
	Summ. H. S. Math – 11	55,010	0.93	3.15	61,776	0.92	3.31
	World History – 10	215,559	0.94	3.26	210,815	0.91	3.41

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

** MC only

Table 8.B.7 Reliabilities and SEMs for the CSTs by Economic Status

Content Area	CST*	Not Econ. Disadvantaged			Econ. Disadvantaged		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	175,688	0.94	2.94	282,054	0.94	3.39
	3	167,671	0.92	3.02	266,230	0.92	3.43
	4**	167,823	0.94	3.26	261,328	0.94	3.73
	5	173,559	0.93	3.19	259,878	0.93	3.68
	6	173,725	0.93	3.37	256,753	0.92	3.78
	7**	182,040	0.92	3.33	252,422	0.92	3.73
	8	187,848	0.93	3.35	251,276	0.93	3.76
	9	217,205	0.93	3.45	257,876	0.92	3.83
	10	218,399	0.94	3.45	245,643	0.93	3.78
	11	216,314	0.94	3.50	227,667	0.93	3.82
History–Social Science	8	192,791	0.94	3.48	267,551	0.93	3.85
	World History	221,391	0.93	3.18	251,296	0.92	3.45
	11	216,112	0.93	3.18	229,542	0.92	3.43
Mathematics	2	175,895	0.92	2.64	282,564	0.93	3.09
	3	168,294	0.93	2.48	267,985	0.93	2.98
	4	169,003	0.93	2.49	264,153	0.94	2.99
	5	174,350	0.94	2.93	262,487	0.94	3.29
	6	173,937	0.94	3.04	258,072	0.93	3.42
	7	158,517	0.93	3.32	240,389	0.92	3.58
	General Mathematics	68,835	0.92	3.55	129,568	0.90	3.64
	Algebra I	302,852	0.93	3.51	431,863	0.90	3.62
	Geometry	200,203	0.93	3.41	206,238	0.91	3.62
	Algebra II	152,884	0.92	3.48	124,095	0.91	3.59
	Summ. H.S. Mathematics	92,918	0.92	3.05	46,932	0.93	3.37
	Integrated Mathematics 1	4,709	0.88	3.62	7,208	0.85	3.63
	Integrated Mathematics 2	1,959	0.89	3.66	2,517	0.87	3.68
	Integrated Mathematics 3	481	0.93	3.57	248	0.90	3.63
Science	5	173,937	0.91	2.83	261,342	0.91	3.34
	8	187,858	0.92	2.91	251,839	0.91	3.31
	10 Life Science	215,681	0.93	3.04	242,177	0.92	3.38
	Biology	262,435	0.93	3.09	288,382	0.92	3.42
	Chemistry	143,251	0.91	3.27	121,581	0.89	3.51
	Earth Science	88,036	0.92	3.35	126,656	0.91	3.52
	Physics	43,659	0.91	3.23	32,309	0.91	3.48
	Int/Coord Science 1	19,502	0.90	3.47	35,042	0.87	3.57
	Int/Coord Science 2	1,693	0.92	3.41	2,409	0.85	3.55
	Int/Coord Science 3	627	0.90	3.48	653	0.84	3.55
	Int/Coord Science 4	69	0.89	3.50	86	0.71	3.54
Grade-Specific	Algebra I – 8	120,923	0.93	3.43	157,007	0.92	3.60
	Geometry – 9	78,802	0.91	3.25	61,062	0.91	3.53
	Algebra II – 10	73,672	0.91	3.44	51,510	0.91	3.55
	Summ. H.S. Math – 11	75,864	0.92	3.13	40,853	0.92	3.42
	World History – 10	199,686	0.92	3.19	226,004	0.91	3.46

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

** MC only

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

Content Area	CST*	No Special Services			Special Services		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	423,951	0.94	3.21	34,760	0.95	3.52
	3	409,557	0.93	3.27	25,106	0.93	3.48
	4**	405,737	0.94	3.55	24,072	0.95	3.75
	5	409,976	0.94	3.48	21,790	0.94	3.73
	6	408,526	0.93	3.61	21,191	0.93	3.85
	7**	413,295	0.93	3.56	22,113	0.93	3.85
	8	418,542	0.94	3.58	21,501	0.93	3.87
	9	449,719	0.93	3.65	26,286	0.92	3.94
	10	437,491	0.94	3.61	27,438	0.92	3.92
	11	417,737	0.93	3.65	26,980	0.92	3.96
History–Social Science	8	417,663	0.93	3.67	43,903	0.92	3.92
	World History	434,976	0.93	3.31	38,675	0.91	3.52
	11	411,649	0.93	3.29	34,810	0.91	3.51
Mathematics	2	423,680	0.93	2.89	35,803	0.95	3.32
	3	409,251	0.94	2.78	27,966	0.95	3.14
	4	405,552	0.94	2.78	28,283	0.95	3.16
	5	409,754	0.94	3.14	27,750	0.94	3.40
	6	408,293	0.94	3.26	24,400	0.93	3.51
	7	377,523	0.93	3.47	22,295	0.92	3.64
	General Mathematics	156,685	0.91	3.60	42,631	0.87	3.66
	Algebra I	691,446	0.92	3.58	44,899	0.87	3.62
	Geometry	391,484	0.93	3.51	15,528	0.90	3.63
	Algebra II	270,896	0.92	3.53	6,386	0.91	3.61
	Summ. H.S. Mathematics	138,800	0.93	3.16	1,140	0.95	3.31
	Integrated Mathematics 1	10,638	0.87	3.63	1,305	0.77	3.62
	Integrated Mathematics 2	4,184	0.88	3.67	299	0.85	3.66
	Integrated Mathematics 3	704	0.92	3.60	26	0.89	3.56
Science	5	409,462	0.92	3.13	26,471	0.93	3.33
	8	417,445	0.92	3.14	23,253	0.92	3.43
	10 Life Science	430,584	0.93	3.21	28,179	0.92	3.48
	Biology	513,966	0.93	3.25	37,842	0.90	3.51
	Chemistry	258,478	0.91	3.38	6,601	0.90	3.53
	Earth Science	189,623	0.91	3.44	25,636	0.90	3.55
	Physics	73,825	0.92	3.34	2,240	0.92	3.49
	Int/Coord Science 1	48,222	0.88	3.53	6,434	0.84	3.56
	Int/Coord Science 2	3,627	0.89	3.49	484	0.74	3.51
	Int/Coord Science 3	1,103	0.89	3.52	180	0.77	3.48
	Int/Coord Science 4	97	0.88	3.52	60	0.66	3.56
Grade-Specific	Algebra I – 8	269,353	0.93	3.52	9,034	0.92	3.61
	Geometry – 9	137,690	0.92	3.37	2,308	0.94	3.51
	Algebra II – 10	123,473	0.92	3.49	1,815	0.93	3.57
	Summ. H.S. Math – 11	115,800	0.93	3.23	993	0.95	3.38
	World History – 10	392,342	0.92	3.32	34,194	0.91	3.53

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

** MC only

Table 8.B.9 Reliabilities and SEMs for the CSTs by English-Language Fluency

Content Area	CST*	English Only			Initially Desig. Fluent		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	260,067	0.95	3.14	19,677	0.93	2.81
	3	244,330	0.92	3.19	18,566	0.91	2.95
	4**	240,443	0.94	3.46	18,872	0.94	3.22
	5	243,250	0.94	3.40	30,240	0.93	3.21
	6	243,962	0.93	3.54	33,277	0.93	3.42
	7**	248,427	0.93	3.49	36,616	0.92	3.38
	8	247,907	0.94	3.51	32,851	0.93	3.37
	9	268,774	0.94	3.57	33,333	0.93	3.47
	10	265,426	0.94	3.56	39,397	0.93	3.46
	11	255,431	0.94	3.59	37,729	0.93	3.51
History–Social Science	8	259,098	0.94	3.64	33,207	0.94	3.48
	World History	268,330	0.93	3.27	39,971	0.92	3.20
	11	256,235	0.93	3.26	37,630	0.92	3.19
Mathematics	2	260,448	0.93	2.86	19,665	0.91	2.51
	3	245,631	0.94	2.74	18,589	0.93	2.33
	4	242,544	0.94	2.75	18,934	0.93	2.39
	5	244,730	0.94	3.13	30,332	0.94	2.87
	6	244,320	0.94	3.22	33,320	0.94	3.05
	7	226,481	0.93	3.45	31,158	0.93	3.35
	General Mathematics	113,209	0.92	3.60	8,410	0.91	3.56
	Algebra I	409,927	0.92	3.57	51,992	0.94	3.48
	Geometry	228,740	0.93	3.49	34,948	0.94	3.41
	Algebra II	158,715	0.92	3.53	28,020	0.93	3.43
	Summ. H.S. Mathematics	82,196	0.92	3.15	18,974	0.93	2.99
	Integrated Mathematics 1	7,263	0.87	3.63	826	0.87	3.63
	Integrated Mathematics 2	2,825	0.89	3.67	367	0.91	3.61
	Integrated Mathematics 3	510	0.92	3.58	39	0.94	3.56
Science	5	244,071	0.92	3.04	30,279	0.91	2.87
	8	247,993	0.92	3.08	32,829	0.92	2.93
	10 Life Science	261,440	0.93	3.14	39,038	0.93	3.08
	Biology	310,954	0.93	3.20	45,651	0.93	3.12
	Chemistry	149,312	0.91	3.34	28,062	0.92	3.29
	Earth Science	128,255	0.92	3.41	12,072	0.91	3.42
	Physics	43,766	0.92	3.30	8,017	0.92	3.23
	Int/Coord Science 1	26,004	0.90	3.51	3,437	0.90	3.47
	Int/Coord Science 2	2,118	0.90	3.48	356	0.92	3.42
	Int/Coord Science 3	715	0.90	3.49	101	0.86	3.54
	Int/Coord Science 4	104	0.86	3.55	6	–	–
Grade-Specific	Algebra I – 8	155,936	0.93	3.52	22,381	0.93	3.42
	Geometry – 9	81,132	0.92	3.33	12,820	0.93	3.28
	Algebra II – 10	73,708	0.91	3.49	13,844	0.92	3.41
	Summ. H.S. Math – 11	69,249	0.92	3.22	14,790	0.93	3.09
	World History – 10	243,256	0.93	3.28	35,932	0.92	3.21

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

** MC only

Table 8.B.10 Reliabilities and SEMs for the CSTs by English-Language Fluency

Content Area	CST*	Learner			Redesigned Fluent		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	169,213	0.94	3.42	8,969	0.90	2.86
	3	143,082	0.91	3.51	28,095	0.85	2.97
	4**	119,735	0.92	3.89	50,194	0.88	3.28
	5	95,939	0.91	3.89	64,159	0.88	3.32
	6	75,263	0.88	3.97	78,100	0.89	3.59
	7**	65,302	0.88	3.95	84,432	0.88	3.55
	8	62,820	0.88	3.98	95,814	0.90	3.60
	9	70,252	0.86	4.02	102,985	0.90	3.68
	10	61,954	0.88	3.99	97,500	0.90	3.63
	11	54,410	0.87	4.04	96,617	0.90	3.68
History–Social Science	8	71,824	0.88	3.99	96,517	0.91	3.69
	World History	64,985	0.87	3.59	99,614	0.91	3.34
	11	55,933	0.87	3.57	96,055	0.90	3.32
Mathematics	2	169,573	0.93	3.09	8,973	0.89	2.54
	3	144,151	0.93	3.06	28,085	0.89	2.22
	4	121,575	0.93	3.15	50,212	0.89	2.32
	5	97,749	0.92	3.43	64,183	0.92	2.89
	6	76,358	0.91	3.59	78,140	0.92	3.18
	7	65,214	0.89	3.69	76,356	0.91	3.44
	General Mathematics	51,168	0.88	3.67	25,823	0.89	3.56
	Algebra I	120,386	0.87	3.64	152,837	0.92	3.57
	Geometry	45,103	0.88	3.64	97,767	0.92	3.55
	Algebra II	18,172	0.92	3.60	72,155	0.92	3.54
	Summ. H.S. Mathematics	3,116	0.95	3.38	35,595	0.93	3.25
	Integrated Mathematics 1	1,868	0.77	3.61	1,972	0.85	3.63
	Integrated Mathematics 2	488	0.80	3.68	800	0.86	3.69
	Integrated Mathematics 3	44	0.88	3.62	135	0.92	3.63
Science	5	96,943	0.88	3.52	64,134	0.87	3.04
	8	63,379	0.88	3.53	95,765	0.89	3.13
	10 Life Science	61,045	0.87	3.57	96,546	0.90	3.25
	Biology	72,137	0.86	3.56	122,317	0.91	3.30
	Chemistry	17,866	0.86	3.59	69,642	0.90	3.46
	Earth Science	39,198	0.86	3.60	35,244	0.89	3.46
	Physics	4,731	0.89	3.54	19,502	0.90	3.43
	Int/Coord Science 1	11,519	0.81	3.59	13,616	0.85	3.54
	Int/Coord Science 2	668	0.75	3.56	959	0.87	3.51
	Int/Coord Science 3	207	0.53	3.53	260	0.86	3.55
	Int/Coord Science 4	37	0.67	3.50	9	–	–
Grade-Specific	Algebra I – 8	30,732	0.90	3.63	69,031	0.92	3.52
	Geometry – 9	8,243	0.92	3.59	37,702	0.92	3.46
	Algebra II – 10	5,492	0.93	3.55	32,165	0.92	3.50
	Summ. H.S. Math – 11	2,723	0.94	3.43	29,977	0.93	3.31
	World History – 10	56,746	0.87	3.59	89,941	0.90	3.35

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** MC only

Table 8.B.11 Reliabilities and SEMs for the CSTs by Primary Ethnicity

Content Area	CST*	American Indian			Asian		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	2,847	0.95	3.35	39,513	0.94	2.80
	3	2,761	0.92	3.38	37,933	0.92	2.94
	4**	2,635	0.94	3.69	37,797	0.94	3.16
	5	2,808	0.94	3.63	39,922	0.94	3.07
	6	2,909	0.93	3.73	37,204	0.93	3.25
	7**	3,084	0.93	3.69	37,525	0.94	3.17
	8	3,085	0.94	3.68	39,899	0.94	3.21
	9	3,864	0.93	3.74	41,972	0.94	3.31
	10	3,838	0.94	3.71	42,634	0.94	3.29
	11	3,395	0.94	3.73	42,722	0.94	3.39
History–Social Science	8	3,271	0.93	3.80	40,570	0.94	3.29
	World History	3,699	0.93	3.39	43,512	0.92	3.02
	11	3,426	0.93	3.37	42,520	0.93	3.05
Mathematics	2	2,859	0.93	3.08	39,545	0.93	2.44
	3	2,776	0.94	3.01	38,007	0.93	2.20
	4	2,675	0.94	3.02	37,991	0.93	2.19
	5	2,839	0.94	3.33	40,118	0.94	2.60
	6	2,921	0.93	3.41	37,321	0.94	2.74
	7	2,953	0.92	3.58	28,568	0.93	3.07
	General Mathematics	2,196	0.91	3.63	6,827	0.93	3.46
	Algebra I	5,756	0.90	3.63	52,330	0.95	3.24
	Geometry	2,698	0.92	3.58	41,874	0.94	3.16
	Algebra II	1,550	0.91	3.59	38,035	0.94	3.23
	Summ. H. S. Mathematics	594	0.92	3.33	34,372	0.92	2.77
	Integrated Mathematics 1	94	0.86	3.65	457	0.92	3.54
	Integrated Mathematics 2	35	0.72	3.76	343	0.92	3.59
	Integrated Mathematics 3	5	–	–	78	0.95	3.41
Science	5	2,843	0.92	3.25	40,007	0.93	2.72
	8	3,077	0.92	3.26	39,948	0.92	2.70
	10 Life Science	3,747	0.93	3.28	42,328	0.93	2.89
	Biology	3,822	0.93	3.32	53,346	0.93	2.90
	Chemistry	1,441	0.90	3.42	37,708	0.92	3.10
	Earth Science	2,149	0.92	3.45	9,835	0.92	3.36
	Physics	382	0.92	3.37	12,403	0.91	3.11
	Int/Coord Science 1	454	0.88	3.55	3,086	0.91	3.38
	Int/Coord Science 2	21	0.85	3.52	321	0.92	3.10
	Int/Coord Science 3	5	–	–	33	0.90	3.51
	Int/Coord Science 4	2	–	–	12	0.89	3.55
Grade-Specific	Algebra I – 8	1,772	0.91	3.60	26,647	0.93	3.18
	Geometry – 9	778	0.92	3.44	20,547	0.92	3.10
	Algebra II – 10	648	0.91	3.55	19,581	0.92	3.26
	Summ. H.S. Math – 11	504	0.92	3.37	25,770	0.92	2.87
	World History – 10	3,373	0.92	3.38	37,848	0.92	3.05

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** MC only

Table 8.B.12 Reliabilities and SEMs for the CSTs by Primary Ethnicity

Content Area	CST*	Pacific Islander			Filipino		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	2,415	0.94	3.26	10,731	0.93	2.95
	3	2,367	0.91	3.33	10,569	0.91	3.10
	4**	2,351	0.94	3.64	11,022	0.93	3.35
	5	2,409	0.93	3.59	11,442	0.92	3.27
	6	2,514	0.92	3.70	12,065	0.91	3.45
	7**	2,600	0.92	3.65	12,543	0.91	3.36
	8	2,689	0.93	3.68	12,663	0.92	3.43
	9	2,681	0.93	3.75	13,484	0.91	3.48
	10	2,956	0.93	3.73	13,798	0.92	3.45
	11	2,737	0.93	3.78	13,268	0.92	3.55
History–Social Science	8	2,786	0.93	3.78	12,854	0.92	3.53
	World History	2,936	0.92	3.42	14,138	0.91	3.22
	11	2,725	0.92	3.39	13,268	0.91	3.21
Mathematics	2	2,413	0.93	2.98	10,740	0.92	2.67
	3	2,369	0.93	2.90	10,583	0.92	2.51
	4	2,358	0.94	2.87	11,074	0.92	2.49
	5	2,423	0.93	3.25	11,479	0.93	2.93
	6	2,520	0.93	3.35	12,105	0.93	3.09
	7	2,446	0.92	3.53	10,816	0.92	3.33
	General Mathematics	1,127	0.91	3.60	3,067	0.91	3.52
	Algebra I	4,434	0.91	3.61	18,815	0.92	3.51
	Geometry	2,663	0.91	3.60	14,063	0.92	3.45
	Algebra II	1,639	0.90	3.59	10,969	0.91	3.51
	Summ. H.S. Mathematics	657	0.92	3.34	6,355	0.91	3.25
	Integrated Mathematics 1	101	0.88	3.60	301	0.90	3.59
	Integrated Mathematics 2	30	0.89	3.68	157	0.91	3.60
	Integrated Mathematics 3	6	–	–	30	0.92	3.59
Science	5	2,419	0.91	3.28	11,450	0.90	2.97
	8	2,688	0.91	3.25	12,669	0.90	2.95
	10 Life Science	2,895	0.92	3.35	13,685	0.91	3.06
	Biology	3,304	0.92	3.39	17,231	0.91	3.14
	Chemistry	1,602	0.89	3.51	10,653	0.89	3.37
	Earth Science	1,286	0.90	3.51	4,029	0.90	3.36
	Physics	462	0.91	3.46	3,269	0.89	3.35
	Int/Coord Science 1	340	0.88	3.57	1,207	0.87	3.50
	Int/Coord Science 2	26	0.82	3.58	132	0.86	3.54
	Int/Coord Science 3	5	–	–	12	0.91	3.44
	Int/Coord Science 4	0	–	–	0	–	–
Grade-Specific	Algebra I – 8	1,749	0.92	3.56	8,989	0.92	3.46
	Geometry – 9	806	0.91	3.50	6,149	0.91	3.34
	Algebra II – 10	716	0.90	3.54	5,537	0.91	3.46
	Summ. H.S. Math – 11	581	0.92	3.38	5,401	0.91	3.30
	World History – 10	2,678	0.91	3.43	12,847	0.90	3.24

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

** MC only

Table 8.B.13 Reliabilities and SEMs for the CSTs by Primary Ethnicity

Content Area	CST*	Hispanic			African American			White		
		N	Rel	SEM	N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	244,499	0.94	3.39	27,731	0.94	3.36	116,969	0.94	3.02
	3	229,198	0.92	3.42	27,078	0.92	3.40	112,002	0.92	3.07
	4**	224,263	0.94	3.73	26,930	0.94	3.72	112,272	0.94	3.32
	5	223,413	0.93	3.67	27,577	0.94	3.66	115,182	0.93	3.25
	6	220,900	0.92	3.77	27,889	0.93	3.77	116,119	0.93	3.41
	7**	220,493	0.92	3.72	28,690	0.93	3.74	119,628	0.92	3.37
	8	221,817	0.93	3.76	28,954	0.93	3.76	120,887	0.93	3.37
	9	241,459	0.92	3.83	31,532	0.93	3.83	129,814	0.93	3.43
	10	228,204	0.93	3.77	31,238	0.94	3.80	132,595	0.94	3.44
	11	212,402	0.93	3.81	30,567	0.93	3.83	130,943	0.94	3.48
History– Social Science	8	235,120	0.93	3.84	31,450	0.93	3.85	124,929	0.94	3.52
	World History	233,646	0.92	3.45	31,998	0.92	3.48	133,876	0.93	3.17
	11	213,881	0.92	3.43	30,784	0.92	3.43	131,192	0.93	3.17
Mathematics	2	244,934	0.93	3.08	27,789	0.94	3.16	117,141	0.92	2.71
	3	230,627	0.93	2.97	27,152	0.94	3.08	112,725	0.93	2.57
	4	226,731	0.94	2.98	27,076	0.94	3.10	113,294	0.93	2.59
	5	225,717	0.94	3.28	27,674	0.94	3.36	115,861	0.94	3.03
	6	222,197	0.93	3.42	27,894	0.93	3.48	116,195	0.94	3.10
	7	210,716	0.92	3.58	27,368	0.91	3.62	107,290	0.92	3.36
	General Mathematics	113,543	0.90	3.64	15,801	0.90	3.64	51,859	0.92	3.56
	Algebra I	398,974	0.90	3.63	52,588	0.89	3.64	187,143	0.93	3.54
	Geometry	193,619	0.90	3.63	25,580	0.90	3.64	117,993	0.93	3.43
	Algebra II	115,417	0.90	3.61	15,620	0.89	3.63	88,497	0.91	3.52
	Summ. H.S. Math	40,091	0.92	3.44	5,057	0.92	3.51	49,840	0.92	3.12
	Integrated Math 1	6,296	0.84	3.63	1,087	0.84	3.62	3,230	0.88	3.63
	Integrated Math 2	2,123	0.87	3.69	349	0.88	3.66	1,313	0.89	3.66
	Integrated Math 3	220	0.90	3.66	77	0.83	3.60	273	0.92	3.57
Science	5	224,685	0.91	3.33	27,696	0.91	3.35	115,484	0.91	2.87
	8	222,343	0.91	3.31	29,010	0.91	3.35	120,850	0.92	2.94
	10 Life Science	225,004	0.92	3.38	30,480	0.92	3.41	131,145	0.93	3.01
	Biology	271,453	0.92	3.42	36,171	0.92	3.44	155,198	0.93	3.08
	Chemistry	112,601	0.89	3.53	16,242	0.89	3.56	79,648	0.90	3.26
	Earth Science	116,502	0.90	3.52	15,379	0.90	3.55	61,061	0.92	3.32
	Physics	28,822	0.90	3.50	4,315	0.90	3.53	24,476	0.91	3.21
	Int/Coord Science 1	34,742	0.87	3.57	4,046	0.86	3.58	9,790	0.90	3.44
	Int/Coord Science 2	2,250	0.85	3.56	344	0.78	3.55	917	0.90	3.44
	Int/Coord Science 3	702	0.85	3.55	70	0.85	3.55	433	0.90	3.47
	Int/Coord Science 4	79	0.81	3.52	10	–	–	51	0.87	3.54
	Algebra I – 8	139,466	0.91	3.60	18,014	0.91	3.63	75,701	0.92	3.47
Grade- Specific	Geometry – 9	56,235	0.91	3.54	6,431	0.91	3.58	45,668	0.90	3.25
	Algebra II – 10	47,242	0.90	3.58	5,866	0.90	3.60	43,068	0.90	3.46
	Summ. H.S. Math – 11	35,385	0.92	3.47	4,576	0.92	3.54	42,173	0.92	3.18
	World History – 10	210,028	0.91	3.45	28,353	0.91	3.48	122,754	0.92	3.17

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

** MC only

Table 8.B.14 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Not Economically Disadvantaged

Content Area	CST*	American Indian			Asian		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	1,009	0.95	3.17	25,266	0.93	2.60
	3	1,007	0.92	3.22	24,155	0.91	2.76
	4**	978	0.94	3.53	23,764	0.93	2.94
	5	1,062	0.93	3.46	25,140	0.92	2.85
	6	1,127	0.92	3.61	22,815	0.92	3.04
	7**	1,234	0.93	3.54	23,151	0.92	2.96
	8	1,340	0.94	3.54	24,304	0.92	2.99
	9	1,949	0.93	3.64	25,773	0.92	3.09
	10	2,003	0.94	3.60	25,722	0.93	3.10
	11	1,800	0.93	3.64	25,631	0.93	3.21
History–Social Science	8	1,386	0.93	3.68	24,554	0.93	3.07
	World History	1,945	0.92	3.31	26,288	0.91	2.87
	11	1,816	0.93	3.29	25,523	0.92	2.91
Mathematics	2	1,012	0.93	2.90	25,276	0.91	2.24
	3	1,003	0.93	2.81	24,177	0.91	1.97
	4	990	0.94	2.86	23,851	0.91	1.96
	5	1,064	0.94	3.22	25,220	0.93	2.39
	6	1,129	0.93	3.29	22,857	0.93	2.51
	7	1,156	0.92	3.50	16,414	0.93	2.89
	General Mathematics	922	0.92	3.60	2,932	0.93	3.35
	Algebra I	2,628	0.91	3.61	29,743	0.94	3.09
	Geometry	1,559	0.92	3.53	25,518	0.94	2.99
	Algebra II	956	0.91	3.57	24,145	0.93	3.14
	Summ. H.S. Mathematics	415	0.92	3.28	24,431	0.91	2.65
	Integrated Mathematics 1	44	0.87	3.62	191	0.93	3.51
	Integrated Mathematics 2	16	0.77	3.82	125	0.93	3.52
	Integrated Mathematics 3	3	–	–	56	0.95	3.36
Science	5	1,074	0.92	3.09	25,165	0.91	2.48
	8	1,335	0.92	3.13	24,311	0.90	2.47
	10 Life Science	1,966	0.93	3.18	25,586	0.92	2.71
	Biology	2,045	0.93	3.22	33,304	0.92	2.72
	Chemistry	890	0.90	3.35	24,147	0.91	2.97
	Earth Science	1,024	0.92	3.39	4,327	0.92	3.25
	Physics	263	0.92	3.32	8,084	0.90	3.01
	Int/Coord Science 1	212	0.88	3.51	1,853	0.90	3.31
	Int/Coord Science 2	7	–	–	268	0.90	3.01
	Int/Coord Science 3	2	–	–	15	0.86	3.44
	Int/Coord Science 4	1	–	–	7	–	–
Grade-Specific	Algebra I – 8	762	0.91	3.55	15,718	0.93	3.06
	Geometry – 9	460	0.91	3.34	13,301	0.91	2.97
	Algebra II – 10	407	0.90	3.50	12,691	0.91	3.20
	Summ. H.S. Math – 11	356	0.92	3.33	17,773	0.91	2.75
	World History – 10	1,783	0.92	3.30	22,366	0.91	2.90

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

** MC only

Table 8.B.15 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Not Economically Disadvantaged

Content Area	CST*	Pacific Islander			Filipino		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	897	0.93	3.11	6,897	0.92	2.85
	3	850	0.91	3.17	6,715	0.90	3.01
	4**	871	0.94	3.46	7,052	0.92	3.26
	5	895	0.92	3.41	7,328	0.91	3.16
	6	965	0.92	3.55	7,736	0.91	3.36
	7**	1,069	0.92	3.49	8,112	0.90	3.27
	8	1,171	0.93	3.54	8,424	0.92	3.35
	9	1,298	0.93	3.63	9,582	0.91	3.41
	10	1,490	0.93	3.63	9,823	0.91	3.39
	11	1,383	0.93	3.68	9,602	0.91	3.50
History–Social Science	8	1,203	0.93	3.66	8,525	0.92	3.46
	World History	1,510	0.92	3.35	10,038	0.90	3.18
	11	1,373	0.92	3.32	9,592	0.90	3.18
Mathematics	2	897	0.93	2.80	6,905	0.91	2.57
	3	850	0.92	2.68	6,725	0.92	2.40
	4	868	0.94	2.66	7,083	0.91	2.39
	5	899	0.93	3.12	7,345	0.93	2.84
	6	967	0.94	3.21	7,764	0.93	3.01
	7	984	0.91	3.44	6,881	0.91	3.26
	General Mathematics	454	0.91	3.57	1,897	0.91	3.49
	Algebra I	1,974	0.92	3.58	12,528	0.92	3.49
	Geometry	1,318	0.92	3.56	10,106	0.92	3.41
	Algebra II	920	0.91	3.57	8,120	0.91	3.50
	Summ. H.S. Mathematics	444	0.92	3.28	4,889	0.91	3.21
	Integrated Mathematics 1	44	0.90	3.56	193	0.90	3.59
	Integrated Mathematics 2	18	0.88	3.67	109	0.91	3.62
	Integrated Mathematics 3	2	–	–	20	0.94	3.52
Science	5	897	0.91	3.08	7,328	0.89	2.86
	8	1,176	0.91	3.11	8,424	0.89	2.88
	10 Life Science	1,469	0.93	3.25	9,744	0.91	3.00
	Biology	1,621	0.92	3.29	12,383	0.90	3.09
	Chemistry	887	0.90	3.45	7,851	0.89	3.34
	Earth Science	559	0.91	3.46	2,722	0.90	3.33
	Physics	267	0.90	3.42	2,437	0.89	3.32
	Int/Coord Science 1	169	0.90	3.52	797	0.86	3.50
	Int/Coord Science 2	5	–	–	97	0.84	3.54
	Int/Coord Science 3	3	–	–	6	–	–
	Int/Coord Science 4	0	–	–	0	–	–
Grade-Specific	Algebra I – 8	771	0.93	3.50	5,953	0.92	3.43
	Geometry – 9	432	0.91	3.43	4,577	0.90	3.29
	Algebra II – 10	434	0.91	3.51	4,165	0.90	3.45
	Summ. H.S. Math – 11	378	0.92	3.33	4,114	0.91	3.27
	World History – 10	1,368	0.91	3.36	9,103	0.90	3.19

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

** MC only

Table 8.B.16 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Not Economically Disadvantaged

Content Area	CST*	Hispanic			African American			White		
		N	Rel	SEM	N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	40,959	0.94	3.17	7,283	0.94	3.19	84,709	0.93	2.91
	3	38,404	0.92	3.23	7,306	0.92	3.26	81,260	0.91	2.97
	4**	37,543	0.94	3.50	7,507	0.94	3.56	82,320	0.93	3.20
	5	39,039	0.93	3.43	8,032	0.93	3.49	84,956	0.92	3.14
	6	40,130	0.92	3.59	8,423	0.93	3.63	85,328	0.92	3.31
	7**	43,836	0.92	3.55	9,376	0.93	3.60	88,339	0.91	3.27
	8	45,362	0.93	3.59	9,670	0.93	3.63	91,152	0.92	3.28
	9	58,774	0.93	3.69	12,462	0.93	3.73	99,987	0.92	3.35
	10	56,898	0.94	3.66	12,819	0.94	3.72	103,316	0.93	3.36
	11	55,190	0.93	3.71	13,091	0.94	3.74	103,815	0.93	3.42
History–Social Science	8	47,116	0.93	3.70	10,155	0.94	3.73	93,276	0.93	3.43
	World History	57,689	0.92	3.37	12,964	0.92	3.42	104,481	0.92	3.11
	11	55,159	0.92	3.35	13,080	0.93	3.37	103,840	0.92	3.11
Mathematics	2	41,014	0.93	2.87	7,293	0.94	2.98	84,825	0.91	2.59
	3	38,541	0.93	2.75	7,315	0.94	2.88	81,661	0.92	2.44
	4	37,900	0.93	2.74	7,545	0.94	2.88	82,924	0.92	2.45
	5	39,314	0.93	3.15	8,034	0.94	3.24	85,346	0.93	2.94
	6	40,246	0.93	3.27	8,416	0.94	3.36	85,370	0.93	3.01
	7	40,777	0.92	3.49	8,717	0.92	3.55	77,652	0.92	3.28
	General Mathematics	21,917	0.91	3.61	4,806	0.91	3.61	33,440	0.92	3.52
	Algebra I	88,956	0.91	3.61	19,020	0.91	3.62	137,911	0.93	3.51
	Geometry	49,397	0.91	3.58	11,018	0.91	3.62	95,243	0.92	3.39
	Algebra II	31,395	0.90	3.60	7,257	0.90	3.62	75,866	0.91	3.50
	Summ. H.S. Math	12,681	0.92	3.35	2,743	0.92	3.45	44,824	0.92	3.10
	Integrated Math 1	1,420	0.85	3.64	372	0.86	3.60	2,226	0.88	3.62
	Integrated Math 2	530	0.87	3.68	164	0.89	3.65	910	0.89	3.65
	Integrated Math 3	76	0.91	3.63	37	0.81	3.67	257	0.92	3.57
Science	5	39,181	0.91	3.10	8,037	0.91	3.18	85,150	0.89	2.75
	8	45,384	0.91	3.17	9,659	0.92	3.23	91,144	0.91	2.84
	10 Life Science	55,864	0.93	3.27	12,481	0.93	3.33	102,382	0.92	2.94
	Biology	67,725	0.92	3.32	14,894	0.92	3.37	122,796	0.92	3.01
	Chemistry	29,973	0.89	3.47	7,263	0.89	3.52	68,317	0.90	3.24
	Earth Science	27,829	0.91	3.46	5,750	0.91	3.51	42,886	0.92	3.27
	Physics	8,024	0.91	3.43	1,931	0.91	3.50	21,223	0.90	3.19
	Int/Coord Science 1	7,491	0.88	3.55	1,502	0.88	3.56	6,881	0.89	3.40
	Int/Coord Science 2	443	0.84	3.55	121	0.79	3.58	685	0.91	3.40
	Int/Coord Science 3	198	0.88	3.52	26	0.91	3.52	360	0.90	3.45
	Int/Coord Science 4	25	0.85	3.52	3	—	—	32	0.90	3.51
Grade-Specific	Algebra I – 8	28,893	0.92	3.56	6,111	0.92	3.59	58,773	0.92	3.43
	Geometry – 9	15,451	0.91	3.45	3,063	0.91	3.52	38,922	0.90	3.22
	Algebra II – 10	13,297	0.90	3.55	2,909	0.90	3.59	37,713	0.90	3.45
	Summ. H.S. Math – 11	11,021	0.91	3.39	2,440	0.91	3.49	37,795	0.92	3.16
	World History – 10	51,821	0.92	3.37	11,526	0.92	3.42	96,026	0.92	3.12

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

** MC only

Table 8.B.17 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Economically Disadvantaged

Content Area	CST*	American Indian			Asian		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	1,826	0.94	3.44	14,169	0.94	3.12
	3	1,750	0.91	3.46	13,695	0.92	3.22
	4**	1,652	0.93	3.77	13,978	0.94	3.50
	5	1,738	0.93	3.73	14,731	0.94	3.39
	6	1,773	0.92	3.81	14,333	0.93	3.54
	7**	1,834	0.92	3.79	14,310	0.93	3.48
	8	1,737	0.93	3.78	15,542	0.94	3.51
	9	1,908	0.93	3.85	16,141	0.93	3.61
	10	1,826	0.93	3.82	16,867	0.94	3.55
	11	1,585	0.93	3.84	17,061	0.93	3.63
History–Social Science	8	1,873	0.93	3.87	15,961	0.94	3.59
	World History	1,747	0.92	3.48	17,189	0.92	3.24
	11	1,600	0.92	3.46	16,968	0.92	3.24
Mathematics	2	1,835	0.93	3.17	14,190	0.93	2.74
	3	1,768	0.93	3.11	13,745	0.93	2.54
	4	1,680	0.94	3.10	14,084	0.93	2.51
	5	1,767	0.93	3.39	14,844	0.94	2.90
	6	1,783	0.92	3.49	14,407	0.94	3.05
	7	1,782	0.91	3.63	12,098	0.93	3.29
	General Math	1,266	0.91	3.64	3,867	0.92	3.55
	Algebra I	3,107	0.89	3.64	22,513	0.94	3.43
	Geometry	1,138	0.89	3.65	16,318	0.93	3.40
	Algebra II	591	0.90	3.63	13,858	0.93	3.39
	Summ. H.S. Mathematics	178	0.92	3.42	9,924	0.92	3.04
	Integrated Mathematics 1	50	0.85	3.67	266	0.91	3.57
	Integrated Mathematics 2	19	0.62	3.74	218	0.90	3.63
	Integrated Mathematics 3	2	–	–	22	0.94	3.49
Science	5	1,761	0.91	3.35	14,789	0.92	3.07
	8	1,733	0.92	3.35	15,584	0.92	3.01
	10 Life Science	1,772	0.92	3.40	16,703	0.93	3.14
	Biology	1,768	0.91	3.43	19,992	0.93	3.17
	Chemistry	550	0.89	3.52	13,544	0.90	3.32
	Earth Science	1,117	0.91	3.51	5,491	0.91	3.44
	Physics	119	0.92	3.47	4,313	0.91	3.29
	Int/Coord Science 1	242	0.86	3.58	1,227	0.90	3.48
	Int/Coord Science 2	14	0.82	3.51	52	0.90	3.50
	Int/Coord Science 3	3	–	–	18	0.91	3.52
	Int/Coord Science 4	1	–	–	5	–	–
Grade-Specific	Algebra I – 8	1,005	0.91	3.63	10,903	0.93	3.35
	Geometry – 9	318	0.90	3.58	7,229	0.91	3.31
	Algebra II – 10	241	0.90	3.61	6,872	0.92	3.36
	Summ. H.S. Math – 11	147	0.92	3.45	7,985	0.92	3.11
	World History – 10	1,583	0.92	3.47	15,453	0.92	3.26

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

** MC only

Table 8.B.18 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Economically Disadvantaged

Content Area	CST*	Pacific Islander			Filipino		
		N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	1,512	0.93	3.34	3,809	0.93	3.11
	3	1,513	0.90	3.41	3,833	0.91	3.24
	4**	1,478	0.93	3.73	3,956	0.93	3.51
	5	1,512	0.92	3.68	4,098	0.92	3.44
	6	1,545	0.91	3.79	4,320	0.92	3.58
	7**	1,528	0.92	3.75	4,411	0.91	3.51
	8	1,509	0.92	3.79	4,232	0.92	3.58
	9	1,380	0.92	3.86	3,890	0.92	3.65
	10	1,461	0.93	3.82	3,962	0.92	3.61
	11	1,348	0.92	3.88	3,646	0.92	3.67
History–Social Science	8	1,574	0.92	3.86	4,317	0.92	3.68
	World History	1,421	0.91	3.49	4,086	0.91	3.34
	11	1,349	0.91	3.46	3,658	0.91	3.31
Mathematics	2	1,510	0.93	3.07	3,811	0.93	2.83
	3	1,515	0.93	3.01	3,837	0.93	2.68
	4	1,488	0.94	2.98	3,977	0.93	2.65
	5	1,522	0.93	3.32	4,117	0.93	3.09
	6	1,549	0.93	3.42	4,332	0.93	3.23
	7	1,458	0.91	3.59	3,916	0.92	3.43
	General Mathematics	667	0.91	3.62	1,163	0.91	3.58
	Algebra I	2,454	0.90	3.63	6,271	0.92	3.55
	Geometry	1,340	0.90	3.63	3,946	0.92	3.54
	Algebra II	716	0.89	3.62	2,837	0.92	3.54
	Summ. H. S. Mathematics	213	0.92	3.47	1,463	0.91	3.35
	Integrated Mathematics 1	57	0.86	3.62	107	0.90	3.59
	Integrated Mathematics 2	12	0.91	3.73	48	0.93	3.56
	Integrated Mathematics 3	4	–	–	10	–	–
Science	5	1,520	0.90	3.39	4,105	0.90	3.14
	8	1,503	0.90	3.34	4,237	0.90	3.09
	10 Life Science	1,421	0.91	3.46	3,929	0.91	3.21
	Biology	1,677	0.90	3.48	4,829	0.91	3.27
	Chemistry	713	0.87	3.58	2,792	0.89	3.45
	Earth Science	725	0.89	3.56	1,302	0.90	3.43
	Physics	194	0.91	3.51	829	0.90	3.44
	Int/Coord Science 1	171	0.86	3.61	409	0.87	3.52
	Int/Coord Science 2	21	0.68	3.57	35	0.85	3.51
	Int/Coord Science 3	2	–	–	6	–	–
	Int/Coord Science 4	0	–	–	0	–	–
Grade-Specific	Algebra I – 8	975	0.91	3.61	3,033	0.92	3.51
	Geometry – 9	373	0.90	3.57	1,569	0.91	3.46
	Algebra II – 10	282	0.89	3.58	1,369	0.91	3.50
	Summ. H.S. Math – 11	203	0.92	3.47	1,284	0.91	3.39
	World History – 10	1,306	0.91	3.50	3,732	0.90	3.34

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

** MC only

Table 8.B.19 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Economically Disadvantaged

Content Area	CST*	Hispanic			African American			White		
		N	Rel	SEM	N	Rel	SEM	N	Rel	SEM
English– Language Arts	2	203,240	0.94	3.43	20,358	0.94	3.41	32,033	0.94	3.30
	3	190,514	0.91	3.46	19,693	0.92	3.46	30,539	0.92	3.32
	4**	186,508	0.93	3.77	19,371	0.93	3.78	29,790	0.94	3.63
	5	184,158	0.93	3.71	19,476	0.93	3.73	30,053	0.93	3.56
	6	180,573	0.92	3.81	19,401	0.92	3.83	30,614	0.93	3.66
	7**	176,322	0.91	3.76	19,238	0.92	3.80	31,072	0.92	3.63
	8	176,092	0.92	3.80	19,200	0.93	3.82	29,474	0.93	3.64
	9	182,256	0.92	3.87	18,981	0.92	3.89	29,602	0.93	3.71
	10	170,910	0.93	3.81	18,359	0.93	3.85	29,078	0.94	3.69
	11	156,905	0.92	3.84	17,410	0.93	3.89	26,928	0.94	3.72
History–Social Science	8	187,580	0.92	3.87	21,187	0.93	3.90	31,352	0.93	3.77
	World History	175,591	0.91	3.48	18,974	0.91	3.52	29,191	0.93	3.38
	11	158,417	0.92	3.45	17,641	0.91	3.48	27,146	0.93	3.36
Mathematics	2	203,617	0.93	3.12	20,402	0.94	3.22	32,086	0.93	2.99
	3	191,785	0.93	3.01	19,760	0.94	3.14	30,858	0.93	2.88
	4	188,611	0.94	3.02	19,477	0.94	3.18	30,199	0.94	2.92
	5	186,185	0.93	3.30	19,570	0.93	3.41	30,341	0.93	3.28
	6	181,752	0.93	3.45	19,415	0.92	3.53	30,646	0.93	3.35
	7	169,611	0.91	3.60	18,577	0.91	3.65	29,429	0.92	3.55
	General Mathematics	91,305	0.90	3.65	10,914	0.90	3.65	18,198	0.91	3.62
	Algebra I	309,328	0.90	3.64	33,434	0.88	3.64	48,907	0.91	3.62
	Geometry	144,026	0.90	3.64	14,523	0.88	3.66	22,610	0.92	3.57
	Algebra II	83,931	0.90	3.62	8,343	0.88	3.64	12,559	0.91	3.59
	Summ. H. S. Math	27,385	0.92	3.48	2,310	0.92	3.59	4,996	0.92	3.31
	Integrated Math 1	4,865	0.84	3.63	713	0.82	3.63	997	0.87	3.64
	Integrated Math 2	1,589	0.87	3.69	185	0.85	3.66	401	0.87	3.68
	Integrated Math 3	144	0.89	3.67	40	0.83	3.54	15	0.91	3.56
Science	5	185,288	0.90	3.38	19,591	0.91	3.41	30,166	0.91	3.17
	8	176,594	0.91	3.35	19,266	0.91	3.41	29,444	0.92	3.20
	10 Life Science	168,786	0.91	3.41	17,947	0.91	3.46	28,568	0.93	3.26
	Biology	203,342	0.91	3.45	21,194	0.91	3.48	32,204	0.93	3.31
	Chemistry	82,560	0.88	3.55	8,960	0.87	3.58	11,266	0.90	3.41
	Earth Science	88,441	0.90	3.54	9,600	0.89	3.57	18,035	0.92	3.43
	Physics	20,768	0.90	3.52	2,373	0.89	3.56	3,235	0.91	3.39
	Int/Coord Science 1	27,195	0.86	3.58	2,529	0.85	3.59	2,889	0.89	3.52
	Int/Coord Science 2	1,803	0.85	3.56	222	0.77	3.53	231	0.85	3.53
	Int/Coord Science 3	502	0.82	3.56	44	0.76	3.57	72	0.89	3.53
	Int/Coord Science 4	54	0.68	3.50	7	–	–	18	0.70	3.58
Grade-Specific	Algebra I – 8	110,395	0.91	3.61	11,864	0.90	3.64	16,823	0.91	3.59
	Geometry – 9	40,741	0.91	3.58	3,360	0.90	3.63	6,711	0.91	3.44
	Algebra II – 10	33,921	0.90	3.59	2,953	0.90	3.62	5,324	0.90	3.54
	Summ. H.S. Math – 11	24,342	0.91	3.50	2,133	0.91	3.60	4,362	0.92	3.36
	World History – 10	157,875	0.91	3.48	16,779	0.90	3.52	26,559	0.92	3.38

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

** MC only

Table 8.B.20 Subscore Reliabilities and SEM for ELA by Gender/Economic Status

Subscore Reliabilities and SEM for ELA by Gender/Economic Status									
Subscore Area	N 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	0.86	1.88	0.85	1.84	0.83	1.70	0.85	1.95
2. Reading Comprehension	15	0.80	1.59	0.79	1.56	0.78	1.43	0.77	1.66
3. Literary Response and Analysis	6	0.69	0.90	0.66	0.87	0.64	0.76	0.67	0.95
4. Written and Oral Language Conventions	14	0.82	1.50	0.81	1.44	0.80	1.34	0.80	1.55
5. Writing Strategies	8	0.71	1.20	0.70	1.18	0.70	1.10	0.67	1.23
Grade 3									
1. Word Analysis and Vocabulary Development	20	0.81	1.76	0.80	1.73	0.78	1.57	0.79	1.84
2. Reading Comprehension	15	0.78	1.61	0.77	1.57	0.75	1.45	0.75	1.67
3. Literary Response and Analysis	8	0.62	1.07	0.59	1.02	0.55	0.93	0.58	1.10
4. Written and Oral Language Conventions	13	0.74	1.51	0.73	1.48	0.72	1.42	0.71	1.54
5. Writing Strategies	9	0.64	1.33	0.64	1.32	0.62	1.25	0.60	1.36
Grade 4									
1. Word Analysis and Vocabulary Development	18	0.86	1.59	0.84	1.54	0.82	1.35	0.84	1.69
2. Reading Comprehension	15	0.80	1.63	0.79	1.60	0.76	1.51	0.77	1.68
3. Literary Response and Analysis	9	0.68	1.27	0.66	1.27	0.65	1.16	0.63	1.33
4. Written and Oral Language Conventions	18	0.80	1.75	0.78	1.69	0.77	1.58	0.78	1.80
5. Writing Strategies	15	0.76	1.70	0.75	1.68	0.76	1.60	0.71	1.74
Grade 5									
1. Word Analysis and Vocabulary Development	14	0.76	1.43	0.73	1.43	0.70	1.29	0.72	1.50
2. Reading Comprehension	16	0.82	1.59	0.80	1.57	0.79	1.43	0.79	1.67
3. Literary Response and Analysis	12	0.72	1.44	0.72	1.38	0.69	1.27	0.70	1.49
4. Written and Oral Language Conventions	17	0.77	1.68	0.74	1.60	0.72	1.51	0.75	1.72
5. Writing Strategies	16	0.77	1.71	0.76	1.66	0.75	1.57	0.74	1.75
Grade 6									
1. Word Analysis and Vocabulary Development	13	0.78	1.41	0.75	1.40	0.74	1.25	0.74	1.50
2. Reading Comprehension	17	0.73	1.83	0.71	1.82	0.69	1.75	0.68	1.88
3. Literary Response and Analysis	12	0.70	1.40	0.69	1.38	0.66	1.29	0.66	1.45
4. Written and Oral Language Conventions	16	0.78	1.64	0.75	1.58	0.76	1.48	0.75	1.69
5. Writing Strategies	17	0.78	1.79	0.77	1.76	0.76	1.67	0.75	1.84
Grade 7									
1. Word Analysis and Vocabulary Development	11	0.73	1.33	0.68	1.30	0.67	1.21	0.69	1.39
2. Reading Comprehension	18	0.82	1.67	0.79	1.63	0.78	1.51	0.79	1.74
3. Literary Response and Analysis	13	0.71	1.50	0.68	1.43	0.64	1.36	0.68	1.54
4. Written and Oral Language Conventions	16	0.72	1.71	0.69	1.66	0.70	1.59	0.67	1.75
5. Writing Strategies	17	0.78	1.78	0.77	1.75	0.77	1.68	0.72	1.83
Grade 8									
1. Word Analysis and Vocabulary Development	9	0.65	1.24	0.59	1.21	0.59	1.16	0.58	1.27
2. Reading Comprehension	18	0.81	1.72	0.78	1.68	0.76	1.57	0.78	1.79
3. Literary Response and Analysis	15	0.77	1.63	0.76	1.60	0.75	1.51	0.73	1.70
4. Written and Oral Language Conventions	16	0.78	1.69	0.77	1.62	0.77	1.53	0.75	1.73
5. Writing Strategies	17	0.79	1.78	0.77	1.73	0.77	1.65	0.76	1.83
Grade 9									
1. Word Analysis and Vocabulary Development	8	0.64	1.22	0.61	1.22	0.62	1.16	0.55	1.27
2. Reading Comprehension	18	0.84	1.71	0.82	1.69	0.82	1.56	0.80	1.82
3. Literary Response and Analysis	16	0.77	1.68	0.76	1.64	0.76	1.56	0.73	1.74
4. Written and Oral Language Conventions	13	0.76	1.57	0.73	1.50	0.75	1.43	0.71	1.62
5. Writing Strategies	20	0.77	1.96	0.74	1.93	0.75	1.88	0.73	2.00

Subscore Reliabilities and SEM for ELA by Gender/Economic Status									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 10									
1. Word Analysis and Vocabulary Development	8	0.66	1.18	0.61	1.18	0.63	1.12	0.60	1.23
2. Reading Comprehension	18	0.85	1.73	0.81	1.70	0.82	1.61	0.82	1.80
3. Literary Response and Analysis	16	0.74	1.76	0.71	1.74	0.73	1.68	0.69	1.81
4. Written and Oral Language Conventions	13	0.75	1.50	0.72	1.44	0.73	1.40	0.72	1.53
5. Writing Strategies	20	0.83	1.89	0.81	1.85	0.81	1.78	0.79	1.94
Grade 11									
1. Word Analysis and Vocabulary Development	8	0.64	1.16	0.58	1.12	0.60	1.09	0.61	1.19
2. Reading Comprehension	19	0.82	1.85	0.79	1.84	0.81	1.76	0.79	1.92
3. Literary Response and Analysis	17	0.78	1.76	0.76	1.74	0.76	1.67	0.74	1.82
4. Written and Oral Language Conventions	9	0.58	1.30	0.55	1.26	0.58	1.24	0.50	1.32
5. Writing Strategies	22	0.85	2.01	0.82	1.95	0.84	1.88	0.82	2.06

Table 8.B.21 Subscore Reliabilities and SEM for History–Social Science by Gender/Economic Status

Subscore Reliabilities and SEM for ELA by Gender/Economic Status									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 8									
1. World History and Geography: Ancient Civilizations	16	0.74	1.68	0.70	1.71	0.71	1.62	0.68	1.74
2. Late Antiquity and the Middle Ages	14	0.80	1.54	0.74	1.59	0.75	1.46	0.75	1.64
3. Renaissance/Reformation	10	0.67	1.39	0.57	1.43	0.61	1.35	0.59	1.45
4. U.S. Constitution and the Early Republic	22	0.85	1.96	0.81	2.01	0.83	1.86	0.81	2.07
5. Civil War and Its Aftermath	13	0.82	1.49	0.78	1.52	0.80	1.38	0.77	1.58
World History									
1. Development of Modern Political Thought	13	0.71	1.55	0.63	1.57	0.67	1.50	0.65	1.61
2. Industrial Expansion and Imperialism	10	0.75	1.30	0.67	1.36	0.70	1.26	0.68	1.39
3. Causes and Effects of World War I	14	0.80	1.57	0.73	1.67	0.77	1.55	0.74	1.68
4. Causes and Effects of World War II	13	0.80	1.49	0.73	1.56	0.77	1.45	0.74	1.59
5. International Developments in the Post-World War II Era	10	0.78	1.29	0.70	1.38	0.75	1.27	0.71	1.39
Grade 11 (U.S. History)									
1. Foundations of American Political and Social Thought	10	0.75	1.31	0.72	1.35	0.74	1.25	0.69	1.40
2. Industrialization and the U.S. role as a World Power	13	0.75	1.51	0.69	1.54	0.73	1.47	0.70	1.58
3. United States between the World Wars	12	0.76	1.47	0.70	1.50	0.73	1.43	0.70	1.54
4. World War II and Foreign Affairs	12	0.76	1.44	0.66	1.53	0.71	1.44	0.71	1.53
5. Post-World War II Domestic Affairs	13	0.79	1.52	0.73	1.53	0.76	1.47	0.74	1.57

Table 8.B.22 Subscore Reliabilities and SEM for Mathematics by Gender/Economic Status

Subscore Reliabilities and SEM for Mathematics by Gender/Economic Status									
Subscore Area	N 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	0.82	1.41	0.80	1.43	0.78	1.29	0.81	1.49
2. Number Sense: Multiplication, Division, and Fractions	23	0.86	1.73	0.84	1.73	0.83	1.56	0.85	1.83
3. Algebra and Functions	6	0.64	0.90	0.61	0.92	0.61	0.80	0.60	0.97
4. Measurement and Geometry	14	0.73	1.30	0.69	1.29	0.67	1.15	0.70	1.37
5. Statistics, Data Analysis, and Probability	7	0.61	0.99	0.56	0.98	0.55	0.92	0.58	1.01
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.36	0.77	1.39	0.74	1.23	0.77	1.45
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.85	1.44	0.84	1.42	0.83	1.28	0.84	1.51
3. Algebra and Functions	12	0.79	1.14	0.77	1.19	0.76	0.99	0.77	1.26
4. Measurement and Geometry	16	0.77	1.38	0.76	1.39	0.74	1.23	0.76	1.47
5. Statistics, Data Analysis, and Probability	5	0.53	0.71	0.49	0.70	0.47	0.60	0.50	0.77
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.81	1.37	0.78	1.43	0.76	1.22	0.79	1.50
2. Number Sense: Operations and Factoring	14	0.83	1.27	0.82	1.24	0.81	1.10	0.83	1.34
3. Algebra and Functions	18	0.87	1.38	0.86	1.36	0.84	1.18	0.86	1.47
4. Measurement and Geometry	12	0.74	1.33	0.71	1.34	0.71	1.23	0.71	1.39
5. Statistics, Data Analysis, and Probability	4	0.48	0.72	0.39	0.71	0.42	0.64	0.41	0.75
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.78	1.38	0.77	1.39	0.77	1.31	0.76	1.43
2. Number Sense: Operations with Fractions and Decimals	17	0.84	1.65	0.83	1.61	0.83	1.51	0.82	1.70
3. Algebra and Functions	17	0.82	1.54	0.80	1.53	0.79	1.42	0.80	1.60
4. Measurement and Geometry	15	0.81	1.52	0.80	1.53	0.80	1.42	0.78	1.58
5. Statistics, Data Analysis, and Probability	4	0.59	0.69	0.51	0.67	0.56	0.58	0.53	0.73
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.79	1.59	0.78	1.59	0.78	1.50	0.76	1.65
2. Number Sense: Operations and Problem Solving with Fractions	10	0.73	1.28	0.70	1.27	0.71	1.18	0.69	1.34
3. Algebra and Functions	19	0.86	1.65	0.84	1.70	0.84	1.51	0.83	1.77
4. Measurement and Geometry	10	0.72	1.33	0.71	1.34	0.72	1.26	0.68	1.38
5. Statistics, Data Analysis, and Probability	11	0.78	1.34	0.76	1.31	0.76	1.23	0.74	1.38
Grade 7									
1. Number Sense: Rational Numbers	14	0.76	1.58	0.75	1.59	0.75	1.51	0.73	1.64
2. Number Sense: Exponent, Powers and Roots	8	0.68	1.24	0.68	1.24	0.68	1.21	0.66	1.26
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.65	1.39	0.63	1.38	0.63	1.33	0.61	1.42
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.77	1.63	0.74	1.68	0.75	1.57	0.73	1.71
5. Measurement and Geometry	13	0.73	1.54	0.70	1.54	0.72	1.46	0.68	1.59
6. Statistics, Data Analysis, and Probability	5	0.61	0.90	0.56	0.88	0.58	0.84	0.57	0.93
General Mathematics									
1. Number Sense: Rational Numbers	14	0.76	1.64	0.74	1.63	0.76	1.61	0.73	1.65
2. Number Sense: Exponent, Powers and Roots	10	0.65	1.41	0.65	1.40	0.68	1.40	0.61	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.69	1.47	0.65	1.47	0.68	1.43	0.66	1.49
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.67	1.39	0.63	1.41	0.67	1.35	0.63	1.42
5. Measurement and Geometry	11	0.65	1.51	0.61	1.53	0.66	1.51	0.59	1.52
6. Statistics, Data Analysis, and Probability	9	0.67	1.31	0.63	1.28	0.68	1.26	0.63	1.31

Subscore Reliabilities and SEM for Mathematics by Gender/Economic Status									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Algebra I									
1. Number Properties, Operations, and Linear Equations	17	0.77	1.79	0.75	1.79	0.77	1.73	0.73	1.82
2. Graphing and Systems of Linear Equations	14	0.76	1.67	0.74	1.68	0.78	1.65	0.70	1.70
3. Quadratics and Polynomials	21	0.84	2.01	0.83	2.00	0.85	1.96	0.81	2.03
4. Functions and Rational Expressions	13	0.66	1.60	0.67	1.61	0.72	1.59	0.58	1.61
Geometry									
1. Logic and Geometric Proofs	23	0.83	2.09	0.82	2.10	0.83	2.03	0.78	2.15
2. Volume and Area Formulas	11	0.72	1.44	0.70	1.44	0.74	1.40	0.64	1.48
3. Angle Relationships, Constructions, and Lines	16	0.78	1.72	0.74	1.74	0.77	1.68	0.70	1.78
4. Trigonometry	15	0.80	1.66	0.77	1.69	0.79	1.62	0.74	1.73
Algebra II									
1. Polynomials and Rational Expressions	19	0.83	1.79	0.81	1.81	0.81	1.75	0.81	1.86
2. Quadratics, Conics, and Complex Numbers	16	0.75	1.79	0.72	1.81	0.75	1.78	0.69	1.82
3. Exponents and Logarithms	16	0.80	1.73	0.77	1.76	0.79	1.72	0.75	1.79
4. Series, Combinatorics, and Probability and Statistics	14	0.75	1.64	0.71	1.64	0.74	1.63	0.68	1.65
Summative High School Mathematics									
1. Algebra I	18	0.78	1.58	0.77	1.66	0.76	1.57	0.77	1.73
2. Geometry	19	0.80	1.63	0.79	1.74	0.78	1.62	0.80	1.82
3. Algebra II	23	0.86	1.83	0.84	1.92	0.84	1.82	0.84	2.00
4. Probability and Statistics	5	0.55	0.88	0.51	0.95	0.51	0.89	0.50	0.97
Integrated Mathematics 1									
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.71	1.71	0.66	1.72	0.70	1.69	0.67	1.73
2. Algebra I: Graphing	9	0.58	1.36	0.56	1.36	0.60	1.35	0.54	1.37
3. Algebra I: Quadratics and Polynomials	14	0.70	1.66	0.69	1.66	0.72	1.65	0.68	1.66
4. Algebra I: Functions and Relations Expressions	7	0.50	1.11	0.49	1.12	0.56	1.11	0.45	1.11
5. Geometry	20	0.60	2.02	0.52	2.01	0.62	2.03	0.52	2.01
Integrated Mathematics 2									
1. Algebra I	20	0.77	2.03	0.72	2.07	0.74	2.05	0.75	2.05
2. Geometry: Logic and Geometric Proofs	22	0.75	2.13	0.70	2.15	0.75	2.13	0.70	2.14
3. Geometry: Angle Relationships, Construction and Lines	8	0.53	1.25	0.41	1.26	0.52	1.23	0.43	1.27
4. Trigonometry	10	0.65	1.41	0.57	1.44	0.64	1.42	0.60	1.43
5. Algebra II: Probability and Statistics	5	0.38	0.96	0.40	0.92	0.44	0.95	0.34	0.94
Integrated Mathematics 3									
1. Geometry	5	0.71	0.85	0.55	0.97	0.62	0.89	0.64	0.94
2. Algebra II: Polynomials and Relations Expressions	19	0.84	1.86	0.82	1.90	0.84	1.86	0.80	1.91
3. Algebra II: Quadratics, Conics and Complex Numbers	16	0.73	1.80	0.62	1.84	0.70	1.82	0.58	1.82
4. Algebra II: Exponents and Logarithms	16	0.80	1.76	0.79	1.77	0.80	1.76	0.76	1.78
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.61	1.33	0.61	1.32	0.63	1.32	0.54	1.32

Table 8.B.23 Subscore Reliabilities and SEM for Science by Gender/Economic Status

Subscore Reliabilities and SEM for Science by Gender/Economic Status									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 5 Science									
1. Physical Science (Grade 5)	11	0.68	1.35	0.65	1.38	0.64	1.22	0.61	1.46
2. Physical Science (Grade 4)	8	0.65	1.11	0.62	1.15	0.60	1.00	0.59	1.21
3. Life Science (Grade 5)	13	0.74	1.42	0.70	1.44	0.69	1.30	0.70	1.51
4. Life Science (Grade 4)	9	0.71	1.20	0.69	1.23	0.67	1.09	0.67	1.29
5. Earth Science (Grade 5)	11	0.67	1.35	0.62	1.38	0.59	1.26	0.62	1.43
6. Earth Science (Grade 4)	8	0.71	1.10	0.66	1.15	0.65	0.99	0.64	1.21
Grade 8 Science									
1. Motion	8	0.54	1.22	0.49	1.25	0.51	1.18	0.47	1.28
2. Forces, Density, and Buoyancy	13	0.78	1.39	0.73	1.46	0.75	1.31	0.73	1.51
3. Structure of Matter and Periodic Table	16	0.83	1.55	0.79	1.60	0.80	1.43	0.79	1.67
4. Earth in the Solar System	7	0.65	0.99	0.53	1.06	0.56	0.94	0.58	1.08
5. Reactions and the Chemistry of Living Systems	10	0.68	1.37	0.61	1.40	0.65	1.32	0.60	1.43
6. Investigation and Experimentation	6	0.63	0.88	0.57	0.88	0.58	0.77	0.57	0.95
Grade 10 Life Science									
1. Cell Biology	10	0.70	1.35	0.64	1.38	0.68	1.31	0.62	1.41
2. Genetics	12	0.74	1.47	0.68	1.49	0.71	1.43	0.68	1.52
3. Physiology	10	0.77	1.25	0.69	1.31	0.73	1.19	0.69	1.36
4. Ecology	11	0.77	1.33	0.71	1.39	0.74	1.27	0.71	1.44
5. Evolution	11	0.78	1.34	0.74	1.36	0.76	1.26	0.73	1.43
6. Investigation and Experimentation	6	0.71	0.92	0.64	0.90	0.68	0.83	0.66	0.97
Biology									
1. Cell Biology	9	0.67	1.28	0.61	1.30	0.65	1.22	0.58	1.35
2. Genetics	18	0.81	1.80	0.78	1.79	0.80	1.72	0.76	1.86
3. Ecology and Evolution	16	0.81	1.71	0.77	1.74	0.79	1.64	0.75	1.80
4. Physiology	11	0.81	1.26	0.75	1.30	0.78	1.17	0.76	1.37
5. Investigation and Experimentation	6	0.66	1.00	0.60	1.01	0.62	0.95	0.59	1.06
Chemistry									
1. Atomic and Molecular Structure	8	0.47	1.22	0.42	1.24	0.43	1.20	0.42	1.26
2. Chemical Bonds, Biochemistry	9	0.63	1.26	0.56	1.32	0.58	1.24	0.56	1.35
3. Kinetics, Thermodynamics	14	0.75	1.62	0.66	1.72	0.70	1.61	0.66	1.74
4. Chemical Reactions	13	0.75	1.58	0.70	1.62	0.74	1.57	0.66	1.64
5. Conservation of Matter and Stoichiometry	10	0.75	1.34	0.69	1.39	0.73	1.32	0.68	1.42
6. Investigation and Experimentation	6	0.69	0.90	0.63	0.94	0.63	0.85	0.63	1.01
Earth Science									
1. Astronomy and Cosmology	12	0.71	1.50	0.63	1.57	0.68	1.49	0.66	1.56
2. Solid Earth	14	0.71	1.67	0.63	1.71	0.67	1.66	0.66	1.71
3. The Earth's Energy	28	0.87	2.31	0.83	2.40	0.86	2.28	0.83	2.40
4. Investigation and Experimentation	6	0.64	1.04	0.59	1.05	0.63	1.00	0.58	1.08
Physics									
1. Motion and Forces	12	0.72	1.42	0.69	1.51	0.70	1.41	0.68	1.54
2. Conservation of Energy and Momentum	12	0.77	1.42	0.74	1.48	0.75	1.40	0.73	1.52
3. Heat and Thermodynamics	9	0.72	1.23	0.66	1.30	0.68	1.21	0.66	1.33
4. Waves	10	0.69	1.32	0.62	1.38	0.63	1.31	0.64	1.40
5. Electric and Magnetic Phenomena	11	0.67	1.47	0.60	1.51	0.63	1.46	0.61	1.52
6. Investigation and Experimentation	6	0.55	1.03	0.51	1.07	0.51	1.00	0.50	1.10

Subscore Reliabilities and SEM for Science by Gender/Economic Status									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Integrated/Coordinated Science 1									
1. Biology/Life Sciences	10	0.65	1.42	0.61	1.44	0.66	1.38	0.60	1.45
2. Chemistry	15	0.61	1.78	0.54	1.80	0.61	1.78	0.54	1.79
3. Earth Sciences	17	0.79	1.82	0.73	1.86	0.78	1.79	0.74	1.87
4. Physics	12	0.53	1.60	0.47	1.62	0.54	1.61	0.46	1.61
5. Investigation and Experimentation	6	0.63	1.06	0.56	1.08	0.64	1.02	0.56	1.10
Integrated/Coordinated Science 2									
1. Biology/Life Sciences	15	0.70	1.73	0.65	1.73	0.71	1.69	0.62	1.75
2. Chemistry	6	0.49	1.12	0.43	1.14	0.55	1.11	0.32	1.14
3. Earth Sciences	15	0.80	1.68	0.74	1.74	0.80	1.63	0.71	1.76
4. Physics	18	0.71	1.90	0.66	1.92	0.76	1.89	0.56	1.92
5. Investigation and Experimentation	6	0.52	1.10	0.52	1.10	0.56	1.06	0.43	1.13
Integrated/Coordinated Science 3									
1. Biology/Life Sciences	16	0.78	1.76	0.73	1.79	0.79	1.72	0.68	1.82
2. Chemistry	23	0.74	2.18	0.70	2.19	0.78	2.17	0.59	2.19
3. Earth Sciences	7	0.64	1.17	0.54	1.20	0.62	1.16	0.53	1.21
4. Physics	8	0.40	1.31	0.40	1.30	0.46	1.31	0.29	1.30
5. Investigation and Experimentation	6	0.54	1.09	0.45	1.11	0.54	1.06	0.45	1.12
Integrated/Coordinated Science 4									
1. Biology/Life Sciences	13	0.70	1.61	0.69	1.62	0.74	1.50	0.52	1.68
2. Chemistry	10	0.21	1.47	0.40	1.49	0.48	1.48	—	—
3. Earth Sciences	15	0.68	1.80	0.68	1.79	0.74	1.75	0.48	1.84
4. Physics	16	0.42	1.79	0.69	1.76	0.67	1.81	0.30	1.73
5. Investigation and Experimentation	6	0.30	1.11	0.36	1.10	0.40	1.11	—	—

Table 8.B.24 Subscore Reliabilities and SEM for Grade-Specific CSTs by Gender/Economic Status

Subscore Reliabilities and SEM for Grade-Specific CSTs by Gender/Economic Status									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Algebra I – 8									
1. Number Properties, Operations, and Linear Equations	17	0.76	1.74	0.75	1.74	0.74	1.67	0.73	1.79
2. Graphing and Systems of Linear Equations	14	0.77	1.66	0.76	1.66	0.78	1.62	0.73	1.69
3. Quadratics and Polynomials	21	0.85	1.97	0.84	1.96	0.84	1.90	0.83	2.01
4. Functions and Rational Expressions	13	0.70	1.60	0.71	1.61	0.73	1.59	0.64	1.62
Geometry – 9									
1. Logic and Geometric Proofs	23	0.81	2.00	0.80	2.02	0.78	1.93	0.78	2.10
2. Volume and Area Formulas	11	0.72	1.37	0.71	1.38	0.70	1.32	0.67	1.44
3. Angle Relationships, Constructions, and Lines	16	0.76	1.64	0.72	1.68	0.72	1.60	0.71	1.73
4. Trigonometry	15	0.78	1.59	0.75	1.63	0.75	1.55	0.75	1.69
Algebra II – 10									
1. Polynomials and Rational Expressions	19	0.81	1.73	0.80	1.76	0.79	1.70	0.81	1.81
2. Quadratics, Conics, and Complex Numbers	16	0.74	1.78	0.72	1.80	0.73	1.77	0.70	1.81
3. Exponents and Logarithms	16	0.78	1.70	0.75	1.74	0.76	1.69	0.76	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.74	1.64	0.71	1.64	0.72	1.63	0.69	1.65

Subscore Reliabilities and SEM for Grade-Specific CSTs by Gender/Economic Status									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Summative High School Mathematics – 11									
1. Algebra I	18	0.78	1.62	0.76	1.70	0.76	1.61	0.76	1.75
2. Geometry	19	0.80	1.67	0.79	1.77	0.78	1.66	0.79	1.84
3. Algebra II	23	0.85	1.88	0.83	1.96	0.84	1.87	0.83	2.02
4. Probability and Statistics	5	0.55	0.90	0.50	0.96	0.51	0.90	0.49	0.98
World History – 10									
1. Development of Modern Political Thought	13	0.69	1.56	0.61	1.57	0.65	1.51	0.63	1.61
2. Industrial Expansion and Imperialism	10	0.74	1.30	0.66	1.36	0.69	1.26	0.67	1.39
3. Causes and Effects of World War I	14	0.79	1.57	0.72	1.67	0.76	1.56	0.73	1.68
4. Causes and Effects of World War II	13	0.79	1.49	0.72	1.56	0.76	1.45	0.73	1.59
5. International Developments in the Post-World War II Era	10	0.77	1.29	0.69	1.38	0.74	1.28	0.71	1.39

Table 8.B.25 Subscore Reliabilities and SEM for ELA by Special Services/English Fluency

Subscore Reliabilities and SEM for ELA by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab.SEM	Reliab.SEM	Reliab.SEM	Reliab.SEM	Reliab.SEM	Reliab.SEM	Reliab.SEM	Reliab.SEM				
Grade 2													
1. Word Analysis and Vocabulary Development	22	0.85	1.84	0.86	2.04	0.85	1.81	0.81	1.61	0.85	1.97	0.75	1.62
2. Reading Comprehension	15	0.79	1.57	0.80	1.69	0.80	1.53	0.76	1.38	0.77	1.67	0.67	1.44
3. Literary Response and Analysis	6	0.66	0.87	0.68	1.04	0.68	0.83	0.60	0.72	0.65	0.98	0.49	0.74
4. Written and Oral Language Conventions	14	0.81	1.46	0.80	1.62	0.82	1.43	0.79	1.27	0.80	1.55	0.73	1.26
5. Writing Strategies	8	0.70	1.18	0.68	1.23	0.72	1.16	0.69	1.07	0.66	1.24	0.60	1.12
Grade 3													
1. Word Analysis and Vocabulary Development	20	0.80	1.74	0.83	1.89	0.80	1.68	0.75	1.52	0.77	1.91	0.61	1.52
2. Reading Comprehension	15	0.77	1.58	0.79	1.68	0.77	1.54	0.73	1.43	0.73	1.71	0.62	1.45
3. Literary Response and Analysis	8	0.60	1.04	0.66	1.15	0.59	0.99	0.48	0.91	0.56	1.14	0.32	0.92
4. Written and Oral Language Conventions	13	0.73	1.49	0.74	1.56	0.73	1.48	0.72	1.38	0.69	1.55	0.63	1.38
5. Writing Strategies	9	0.64	1.32	0.64	1.36	0.64	1.30	0.61	1.23	0.57	1.38	0.51	1.25
Grade 4													
1. Word Analysis and Vocabulary Development	18	0.85	1.56	0.86	1.72	0.85	1.48	0.81	1.32	0.81	1.82	0.67	1.33
2. Reading Comprehension	15	0.79	1.62	0.80	1.67	0.79	1.58	0.77	1.50	0.71	1.73	0.66	1.54
3. Literary Response and Analysis	9	0.67	1.27	0.69	1.32	0.67	1.23	0.64	1.14	0.56	1.39	0.53	1.18
4. Written and Oral Language Conventions	18	0.79	1.71	0.81	1.83	0.79	1.68	0.77	1.56	0.74	1.88	0.63	1.56
5. Writing Strategies	15	0.76	1.69	0.76	1.73	0.76	1.67	0.76	1.57	0.63	1.78	0.64	1.63

Subscore Reliabilities and SEM for ELA by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM				
Grade 5													
1. Word Analysis and Vocabulary Development	14	0.74	1.42	0.78	1.52	0.73	1.38	0.69	1.31	0.66	1.59	0.57	1.36
2. Reading Comprehension	16	0.81	1.58	0.82	1.69	0.82	1.53	0.79	1.44	0.72	1.78	0.69	1.50
3. Literary Response and Analysis	12	0.72	1.40	0.73	1.51	0.71	1.36	0.68	1.28	0.61	1.59	0.58	1.36
4. Written and Oral Language Conventions	17	0.76	1.63	0.78	1.78	0.75	1.61	0.73	1.50	0.71	1.83	0.60	1.52
5. Writing Strategies	16	0.77	1.68	0.78	1.76	0.77	1.65	0.75	1.57	0.67	1.82	0.64	1.62
Grade 6													
1. Word Analysis and Vocabulary Development	13	0.76	1.40	0.77	1.55	0.76	1.35	0.73	1.29	0.64	1.63	0.62	1.40
2. Reading Comprehension	17	0.71	1.83	0.71	1.88	0.71	1.80	0.70	1.76	0.56	1.92	0.61	1.84
3. Literary Response and Analysis	12	0.69	1.38	0.70	1.49	0.69	1.35	0.66	1.32	0.55	1.56	0.55	1.38
4. Written and Oral Language Conventions	16	0.77	1.60	0.77	1.76	0.77	1.58	0.76	1.50	0.69	1.80	0.66	1.55
5. Writing Strategies	17	0.78	1.77	0.76	1.85	0.78	1.74	0.77	1.69	0.62	1.90	0.69	1.77
Grade 7													
1. Word Analysis and Vocabulary Development	11	0.70	1.31	0.73	1.45	0.70	1.29	0.66	1.22	0.60	1.50	0.55	1.29
2. Reading Comprehension	18	0.80	1.64	0.81	1.83	0.81	1.60	0.78	1.55	0.72	1.90	0.71	1.63
3. Literary Response and Analysis	13	0.69	1.46	0.71	1.60	0.68	1.43	0.64	1.39	0.59	1.65	0.57	1.46
4. Written and Oral Language Conventions	16	0.71	1.68	0.69	1.80	0.71	1.66	0.71	1.60	0.58	1.83	0.60	1.67
5. Writing Strategies	17	0.77	1.77	0.74	1.84	0.78	1.74	0.77	1.70	0.56	1.88	0.69	1.79
Grade 8													
1. Word Analysis and Vocabulary Development	9	0.62	1.22	0.62	1.32	0.61	1.20	0.59	1.16	0.44	1.34	0.49	1.22
2. Reading Comprehension	18	0.79	1.69	0.80	1.86	0.79	1.65	0.76	1.58	0.69	1.92	0.68	1.69
3. Literary Response and Analysis	15	0.76	1.61	0.73	1.73	0.76	1.58	0.75	1.53	0.59	1.79	0.68	1.63
4. Written and Oral Language Conventions	16	0.78	1.65	0.74	1.80	0.78	1.61	0.77	1.54	0.62	1.85	0.69	1.65
5. Writing Strategies	17	0.78	1.75	0.76	1.86	0.79	1.72	0.77	1.66	0.62	1.90	0.70	1.77
Grade 9													
1. Word Analysis and Vocabulary Development	8	0.61	1.22	0.56	1.27	0.63	1.20	0.60	1.17	0.35	1.29	0.47	1.24
2. Reading Comprehension	18	0.83	1.69	0.78	1.92	0.83	1.64	0.82	1.56	0.68	1.97	0.76	1.70
3. Literary Response and Analysis	16	0.76	1.65	0.72	1.79	0.77	1.61	0.75	1.58	0.58	1.83	0.67	1.67
4. Written and Oral Language Conventions	13	0.74	1.53	0.69	1.65	0.76	1.49	0.73	1.45	0.58	1.70	0.62	1.56
5. Writing Strategies	20	0.75	1.94	0.70	2.04	0.76	1.92	0.75	1.87	0.60	2.06	0.67	1.94

Subscore Reliabilities and SEM for ELA by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.	Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent		
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM				
Grade 10													
1. Word Analysis and Vocabulary Development	8	0.62	1.17	0.57	1.27	0.64	1.15	0.61	1.12	0.43	1.29	0.52	1.19
2. Reading Comprehension	18	0.83	1.70	0.80	1.89	0.83	1.67	0.81	1.61	0.73	1.94	0.76	1.72
3. Literary Response and Analysis	16	0.72	1.74	0.68	1.85	0.74	1.72	0.71	1.69	0.54	1.89	0.62	1.77
4. Written and Oral Language Conventions	13	0.73	1.46	0.69	1.61	0.75	1.44	0.71	1.39	0.61	1.63	0.63	1.45
5. Writing Strategies	20	0.81	1.86	0.77	2.01	0.82	1.84	0.79	1.79	0.66	2.04	0.74	1.87
Grade 11													
1. Word Analysis and Vocabulary Development	8	0.60	1.13	0.57	1.30	0.62	1.13	0.56	1.06	0.51	1.31	0.49	1.10
2. Reading Comprehension	19	0.80	1.84	0.77	1.97	0.82	1.81	0.80	1.77	0.66	2.02	0.73	1.87
3. Literary Response and Analysis	17	0.76	1.74	0.71	1.88	0.77	1.71	0.75	1.67	0.60	1.92	0.68	1.76
4. Written and Oral Language Conventions	9	0.56	1.27	0.44	1.37	0.58	1.26	0.56	1.24	0.28	1.38	0.45	1.28
5. Writing Strategies	22	0.84	1.97	0.79	2.13	0.85	1.93	0.82	1.90	0.71	2.18	0.76	2.00

Table 8.B.26 Subscore Reliabilities and SEM for History–Social Science by Special Services/English Fluency

Subscore Reliabilities and SEM for History–Social Science by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM				
Grade 8													
1. World History and Geography: Ancient Civilizations	16	0.71	1.68	0.68	1.77	0.72	1.67	0.72	1.61	0.58	1.78	0.64	1.69
2. Late Antiquity and the Middle Ages	14	0.76	1.56	0.75	1.66	0.77	1.54	0.75	1.47	0.67	1.70	0.69	1.56
3. Renaissance/Reformation	10	0.61	1.40	0.58	1.46	0.63	1.40	0.62	1.34	0.48	1.49	0.52	1.40
4. U.S. Constitution and the Early Republic	22	0.83	1.97	0.78	2.13	0.84	1.95	0.83	1.86	0.72	2.16	0.78	1.98
5. Civil War and Its Aftermath	13	0.79	1.49	0.72	1.62	0.80	1.46	0.80	1.40	0.64	1.66	0.74	1.51
World History													
1. Development of Modern Political Thought	13	0.66	1.55	0.63	1.66	0.68	1.54	0.65	1.50	0.55	1.68	0.59	1.56
2. Industrial Expansion and Imperialism	10	0.70	1.32	0.66	1.42	0.72	1.30	0.69	1.27	0.58	1.45	0.64	1.34
3. Causes and Effects of World War I	14	0.76	1.61	0.71	1.70	0.78	1.59	0.76	1.57	0.63	1.73	0.73	1.63
4. Causes and Effects of World War II	13	0.76	1.52	0.71	1.63	0.78	1.50	0.76	1.46	0.64	1.66	0.72	1.53
5. International Developments in the Post-World War II Era	10	0.74	1.33	0.67	1.41	0.75	1.31	0.74	1.28	0.60	1.44	0.70	1.34

Subscore Reliabilities and SEM for History–Social Science by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM				
Grade 11 (U.S. History)													
1. Foundations of American Political and Social Thought	10	0.73	1.32	0.62	1.44	0.74	1.30	0.73	1.26	0.50	1.46	0.67	1.35
2. Industrialization and the U.S. role as a World Power	13	0.72	1.52	0.65	1.63	0.73	1.50	0.71	1.47	0.57	1.65	0.65	1.52
3. United States between the World Wars	12	0.72	1.48	0.68	1.57	0.74	1.46	0.71	1.44	0.58	1.60	0.65	1.50
4. World War II and Foreign Affairs	12	0.71	1.48	0.70	1.56	0.73	1.47	0.70	1.44	0.64	1.59	0.66	1.48
5. Post-World War II Domestic Affairs	13	0.75	1.52	0.70	1.61	0.77	1.50	0.73	1.47	0.60	1.64	0.67	1.53

Table 8.B.27 Subscore Reliabilities and SEM for Mathematics by Special Services/English Fluency

Subscore Reliabilities and SEM for Mathematics by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.	Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent		
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM				
Grade 2													
1. Number Sense: Place Value, Addition, and Subtraction	15	0.80	1.40	0.85	1.58	0.81	1.39	0.76	1.22	0.81	1.49	0.72	1.23
2. Number Sense: Multiplication, Division, and Fractions	23	0.83	1.71	0.88	1.97	0.85	1.69	0.80	1.48	0.85	1.83	0.76	1.51
3. Algebra and Functions	6	0.61	0.90	0.65	1.02	0.63	0.88	0.59	0.76	0.60	0.97	0.54	0.78
4. Measurement and Geometry	14	0.68	1.27	0.79	1.51	0.71	1.26	0.61	1.09	0.70	1.37	0.56	1.11
5. Statistics, Data Analysis and Probability	7	0.56	0.97	0.66	1.09	0.59	0.97	0.48	0.88	0.58	1.01	0.45	0.88
Grade 3													
1. Number Sense: Place Value, Fractions, and Decimals	16	0.77	1.36	0.82	1.51	0.77	1.34	0.73	1.18	0.77	1.48	0.62	1.13
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.84	1.42	0.85	1.59	0.84	1.41	0.83	1.17	0.83	1.54	0.78	1.09
3. Algebra and Functions	12	0.78	1.16	0.81	1.32	0.79	1.12	0.75	0.94	0.76	1.30	0.64	0.88
4. Measurement and Geometry	16	0.76	1.37	0.80	1.55	0.77	1.34	0.73	1.16	0.75	1.51	0.65	1.13
5. Statistics, Data Analysis, and Probability	5	0.49	0.70	0.60	0.80	0.51	0.67	0.41	0.57	0.48	0.80	0.26	0.55
Grade 4													
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.79	1.39	0.83	1.56	0.79	1.35	0.76	1.20	0.78	1.59	0.66	1.17
2. Number Sense: Operations and Factoring	14	0.83	1.24	0.83	1.44	0.83	1.24	0.81	1.04	0.81	1.41	0.75	0.98
3. Algebra and Functions	18	0.86	1.35	0.88	1.58	0.86	1.33	0.84	1.13	0.86	1.56	0.75	1.07
4. Measurement and Geometry	12	0.72	1.33	0.73	1.43	0.72	1.31	0.71	1.19	0.68	1.44	0.63	1.19
5. Statistics, Data Analysis, and Probability	4	0.43	0.71	0.49	0.78	0.45	0.69	0.37	0.63	0.38	0.79	0.26	0.63
Grade 5													
1. Number Sense: Estimation, Percents, and Factoring	12	0.77	1.38	0.76	1.46	0.77	1.38	0.78	1.29	0.73	1.47	0.74	1.30
2. Number Sense: Operations with Fractions and Decimals	17	0.83	1.62	0.83	1.76	0.83	1.62	0.84	1.47	0.80	1.77	0.80	1.49
3. Algebra and Functions	17	0.80	1.52	0.81	1.68	0.81	1.52	0.79	1.38	0.77	1.69	0.73	1.38
4. Measurement and Geometry	15	0.80	1.52	0.79	1.63	0.81	1.51	0.81	1.40	0.74	1.65	0.76	1.43
5. Statistics, Data Analysis, and Probability	4	0.55	0.67	0.57	0.78	0.57	0.66	0.53	0.58	0.48	0.80	0.45	0.58

Subscore Reliabilities and SEM for Mathematics by <i>Special Services/English Fluency</i>														
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent		
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM					
Grade 6														
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.78	1.59	0.77	1.68	0.78	1.58	0.79	1.49	0.72	1.70	0.75	1.55	
2. Number Sense: Operations and Problem Solving with Fractions	10	0.71	1.27	0.70	1.39	0.71	1.26	0.71	1.19	0.64	1.41	0.66	1.23	
3. Algebra and Functions	19	0.85	1.67	0.84	1.84	0.85	1.64	0.85	1.54	0.79	1.90	0.80	1.61	
4. Measurement and Geometry	10	0.72	1.33	0.67	1.40	0.72	1.32	0.73	1.27	0.60	1.42	0.68	1.32	
5. Statistics, Data Analysis, and Probability	11	0.77	1.32	0.74	1.42	0.77	1.30	0.76	1.24	0.65	1.46	0.71	1.30	
Grade 7														
1. Number Sense: Rational Numbers	14	0.75	1.59	0.72	1.67	0.76	1.58	0.76	1.53	0.66	1.68	0.72	1.57	
2. Number Sense: Exponent, Powers and Roots	8	0.68	1.24	0.63	1.25	0.68	1.24	0.70	1.21	0.59	1.26	0.65	1.24	
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.63	1.38	0.61	1.44	0.64	1.37	0.64	1.34	0.54	1.46	0.57	1.37	
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.75	1.65	0.73	1.75	0.76	1.63	0.75	1.59	0.65	1.78	0.70	1.63	
5. Measurement and Geometry	13	0.71	1.54	0.68	1.63	0.72	1.52	0.72	1.48	0.61	1.65	0.65	1.52	
6. Statistics, Data Analysis, and Probability	5	0.58	0.89	0.57	0.98	0.59	0.88	0.57	0.85	0.54	0.98	0.53	0.86	
General Mathematics														
1. Number Sense: Rational Numbers	14	0.74	1.63	0.67	1.67	0.76	1.63	0.75	1.61	0.70	1.66	0.73	1.60	
2. Number Sense: Exponent, Powers and Roots	10	0.65	1.41	0.49	1.38	0.66	1.41	0.67	1.40	0.54	1.40	0.65	1.41	
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.65	1.45	0.62	1.52	0.68	1.46	0.65	1.44	0.63	1.52	0.58	1.43	
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.63	1.38	0.57	1.45	0.67	1.38	0.65	1.36	0.57	1.46	0.59	1.35	
5. Measurement and Geometry	11	0.63	1.53	0.50	1.48	0.65	1.52	0.64	1.53	0.51	1.50	0.59	1.54	
6. Statistics, Data Analysis, and Probability	9	0.65	1.28	0.54	1.36	0.68	1.28	0.66	1.26	0.53	1.35	0.60	1.24	
Algebra I														
1. Number Properties, Operations, and Linear Equations	17	0.76	1.78	0.69	1.86	0.76	1.78	0.78	1.72	0.66	1.86	0.73	1.77	
2. Graphing and Systems of Linear Equations	14	0.75	1.68	0.61	1.69	0.76	1.68	0.80	1.63	0.62	1.70	0.75	1.68	
3. Quadratics and Polynomials	21	0.84	2.00	0.74	2.03	0.84	2.00	0.86	1.94	0.76	2.04	0.83	2.00	
4. Functions and Rational Expressions	13	0.67	1.60	0.46	1.58	0.67	1.60	0.75	1.58	0.48	1.59	0.66	1.61	
Geometry														
1. Logic and Geometric Proofs	23	0.82	2.09	0.77	2.16	0.82	2.08	0.84	2.03	0.72	2.17	0.79	2.12	
2. Volume and Area Formulas	11	0.71	1.44	0.60	1.49	0.72	1.43	0.75	1.39	0.53	1.49	0.69	1.45	
3. Angle Relationships, Constructions, and Lines	16	0.76	1.73	0.69	1.78	0.76	1.71	0.79	1.68	0.65	1.79	0.73	1.74	
4. Trigonometry	15	0.78	1.68	0.72	1.73	0.78	1.67	0.81	1.63	0.69	1.75	0.77	1.70	

Subscore Reliabilities and SEM for Mathematics by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Algebra II													
1. Polynomials and Rational Expressions	19	0.82	1.80	0.82	1.92	0.81	1.80	0.83	1.72	0.83	1.90	0.82	1.81
2. Quadratics, Conics, and Complex Numbers	16	0.73	1.80	0.66	1.81	0.72	1.80	0.78	1.76	0.70	1.80	0.73	1.80
3. Exponents and Logarithms	16	0.78	1.75	0.75	1.78	0.77	1.75	0.81	1.69	0.76	1.78	0.77	1.76
4. Series, Combinatorics, and Probability and Statistics	14	0.73	1.64	0.67	1.64	0.72	1.64	0.77	1.62	0.66	1.63	0.72	1.64
Summative High School Mathematics													
1. Algebra I	18	0.77	1.63	0.83	1.73	0.76	1.63	0.78	1.52	0.84	1.73	0.78	1.66
2. Geometry	19	0.80	1.69	0.86	1.77	0.78	1.67	0.80	1.60	0.85	1.83	0.80	1.75
3. Algebra II	23	0.85	1.88	0.89	1.96	0.84	1.88	0.85	1.77	0.88	1.99	0.85	1.92
4. Probability and Statistics	5	0.54	0.92	0.65	0.91	0.52	0.90	0.53	0.89	0.53	0.98	0.52	0.95
Integrated Mathematics 1													
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.69	1.71	0.61	1.76	0.69	1.71	0.67	1.69	0.60	1.75	0.65	1.69
2. Algebra I: Graphing	9	0.58	1.36	0.40	1.36	0.60	1.36	0.58	1.37	0.38	1.37	0.56	1.37
3. Algebra I: Quadratics and Polynomials	14	0.71	1.66	0.55	1.67	0.71	1.66	0.72	1.65	0.61	1.66	0.68	1.66
4. Algebra I: Functions and Relations Expressions	7	0.51	1.11	0.29	1.10	0.52	1.11	0.52	1.12	0.34	1.10	0.49	1.12
5. Geometry	20	0.58	2.02	0.34	1.98	0.60	2.02	0.57	2.02	0.31	1.97	0.52	2.02
Integrated Mathematics 2													
1. Algebra I	20	0.74	2.05	0.75	2.03	0.74	2.05	0.80	1.99	0.69	2.06	0.74	2.05
2. Geometry: Logic and Geometric Proofs	22	0.73	2.14	0.62	2.12	0.74	2.14	0.77	2.11	0.56	2.13	0.67	2.15
3. Geometry: Angle Relationships, Construction and Lines	8	0.48	1.25	0.38	1.28	0.49	1.25	0.54	1.22	0.39	1.30	0.39	1.26
4. Trigonometry	10	0.62	1.43	0.47	1.43	0.63	1.42	0.68	1.40	0.49	1.42	0.55	1.46
5. Algebra II: Probability and Statistics	5	0.40	0.94	0.32	0.93	0.41	0.94	0.53	0.94	0.20	0.93	0.30	0.93
Integrated Mathematics 3													
1. Geometry	5	0.64	0.91	0.58	0.99	0.64	0.90	0.58	0.92	0.51	1.02	0.66	0.90
2. Algebra II: Polynomials and Relations Expressions	19	0.83	1.88	0.82	1.83	0.84	1.87	0.88	1.80	0.75	1.95	0.81	1.91
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	0.68	1.82	0.56	1.80	0.68	1.83	0.79	1.75	0.54	1.79	0.67	1.83
4. Algebra II: Exponents and Logarithms	16	0.79	1.77	0.66	1.74	0.80	1.77	0.78	1.81	0.74	1.73	0.78	1.78
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.61	1.33	0.56	1.30	0.61	1.32	0.57	1.40	0.38	1.35	0.66	1.32

Table 8.B.28 Subscore Reliabilities and SEM for Science by Special Services/English Fluency

Subscore Reliabilities and SEM for Science by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM				
Grade 5 Science													
1. Physical Science (Grade 5)	11	0.66	1.36	0.69	1.45	0.65	1.32	0.64	1.24	0.54	1.53	0.55	1.33
2. Physical Science (Grade 4)	8	0.63	1.13	0.66	1.21	0.63	1.09	0.59	1.02	0.52	1.28	0.52	1.09
3. Life Science (Grade 5)	13	0.72	1.43	0.75	1.53	0.71	1.39	0.68	1.30	0.65	1.61	0.59	1.37
4. Life Science (Grade 4)	9	0.70	1.21	0.72	1.28	0.69	1.17	0.67	1.10	0.60	1.36	0.59	1.18
5. Earth Science (Grade 5)	11	0.64	1.36	0.69	1.43	0.64	1.33	0.58	1.27	0.56	1.49	0.47	1.32
6. Earth Science (Grade 4)	8	0.68	1.12	0.70	1.20	0.68	1.08	0.64	1.02	0.59	1.28	0.54	1.09
Grade 8 Science													
1. Motion	8	0.51	1.23	0.50	1.30	0.51	1.22	0.51	1.17	0.40	1.32	0.45	1.23
2. Forces, Density, and Buoyancy	13	0.75	1.42	0.74	1.57	0.76	1.39	0.75	1.32	0.65	1.62	0.68	1.42
3. Structure of Matter and Periodic Table	16	0.81	1.57	0.80	1.74	0.81	1.53	0.80	1.44	0.73	1.82	0.76	1.57
4. Earth in the Solar System	7	0.59	1.02	0.64	1.12	0.59	1.00	0.55	0.95	0.53	1.17	0.49	1.01
5. Reactions and the Chemistry of Living Systems	10	0.64	1.38	0.62	1.44	0.65	1.37	0.66	1.32	0.49	1.47	0.56	1.39
6. Investigation and Experimentation	6	0.59	0.87	0.58	1.04	0.61	0.85	0.58	0.78	0.48	1.07	0.47	0.85
Grade 10 Life Science													
1. Cell Biology	10	0.67	1.36	0.59	1.43	0.67	1.35	0.68	1.32	0.49	1.44	0.61	1.38
2. Genetics	12	0.70	1.47	0.64	1.54	0.72	1.46	0.70	1.43	0.56	1.57	0.65	1.48
3. Physiology	10	0.72	1.27	0.71	1.41	0.74	1.24	0.71	1.21	0.58	1.46	0.64	1.30
4. Ecology	11	0.74	1.35	0.72	1.48	0.75	1.32	0.71	1.29	0.60	1.53	0.65	1.39
5. Evolution	11	0.76	1.34	0.69	1.49	0.77	1.31	0.74	1.28	0.56	1.53	0.69	1.36
6. Investigation and Experimentation	6	0.67	0.90	0.66	1.04	0.69	0.87	0.65	0.84	0.58	1.08	0.58	0.90
Biology													
1. Cell Biology	9	0.63	1.28	0.54	1.38	0.65	1.26	0.66	1.23	0.46	1.41	0.58	1.30
2. Genetics	18	0.79	1.79	0.71	1.91	0.80	1.77	0.80	1.73	0.64	1.92	0.75	1.80
3. Ecology and Evolution	16	0.78	1.72	0.71	1.82	0.79	1.69	0.79	1.66	0.60	1.85	0.73	1.76
4. Physiology	11	0.77	1.27	0.75	1.45	0.79	1.23	0.76	1.20	0.66	1.50	0.71	1.30
5. Investigation and Experimentation	6	0.62	1.00	0.53	1.08	0.64	0.98	0.62	0.96	0.43	1.11	0.55	1.02
Chemistry													
1. Atomic and Molecular Structure	8	0.44	1.23	0.44	1.30	0.43	1.22	0.46	1.20	0.37	1.31	0.41	1.24
2. Chemical Bonds, Biochemistry	9	0.59	1.29	0.62	1.37	0.58	1.27	0.59	1.25	0.51	1.40	0.54	1.33
3. Kinetics, Thermodynamics	14	0.71	1.67	0.71	1.71	0.70	1.65	0.72	1.63	0.59	1.75	0.67	1.72
4. Chemical Reactions	13	0.73	1.60	0.67	1.61	0.73	1.59	0.75	1.57	0.53	1.64	0.68	1.63
5. Conservation of Matter and Stoichiometry	10	0.72	1.37	0.64	1.43	0.72	1.35	0.75	1.31	0.61	1.44	0.70	1.39
6. Investigation and Experimentation	6	0.65	0.92	0.65	1.06	0.65	0.88	0.64	0.87	0.51	1.12	0.60	0.97
Earth Science													
1. Astronomy and Cosmology	12	0.67	1.53	0.67	1.59	0.69	1.51	0.65	1.52	0.60	1.61	0.61	1.52
2. Solid Earth	14	0.66	1.69	0.65	1.72	0.69	1.68	0.65	1.68	0.59	1.74	0.59	1.69
3. The Earth's Energy	28	0.85	2.35	0.81	2.42	0.86	2.32	0.85	2.33	0.74	2.46	0.81	2.36
4. Investigation and Experimentation	6	0.60	1.04	0.54	1.09	0.63	1.03	0.59	1.03	0.47	1.11	0.51	1.05

Subscore Reliabilities and SEM for Science by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Physics													
1. Motion and Forces	12	0.71	1.46	0.72	1.54	0.71	1.44	0.71	1.42	0.65	1.57	0.67	1.51
2. Conservation of Energy and Momentum	12	0.76	1.45	0.73	1.53	0.76	1.43	0.76	1.39	0.69	1.55	0.72	1.49
3. Heat and Thermodynamics	9	0.69	1.26	0.69	1.32	0.69	1.24	0.68	1.22	0.55	1.35	0.64	1.31
4. Waves	10	0.65	1.35	0.68	1.42	0.65	1.33	0.64	1.31	0.61	1.44	0.61	1.38
5. Electric and Magnetic Phenomena	11	0.63	1.48	0.62	1.52	0.63	1.48	0.65	1.45	0.58	1.53	0.62	1.50
6. Investigation and Experimentation	6	0.52	1.05	0.54	1.11	0.53	1.02	0.50	1.01	0.40	1.13	0.44	1.09
Integrated/Coordinated Science 1													
1. Biology/Life Sciences	10	0.63	1.42	0.55	1.46	0.66	1.41	0.62	1.40	0.48	1.48	0.55	1.43
2. Chemistry	15	0.57	1.79	0.46	1.77	0.60	1.78	0.61	1.78	0.44	1.78	0.52	1.80
3. Earth Sciences	17	0.75	1.84	0.70	1.88	0.78	1.82	0.77	1.79	0.66	1.90	0.70	1.84
4. Physics	12	0.50	1.61	0.35	1.58	0.52	1.61	0.55	1.60	0.33	1.59	0.45	1.62
5. Investigation and Experimentation	6	0.59	1.06	0.45	1.11	0.63	1.05	0.61	1.03	0.39	1.14	0.53	1.06
Integrated/Coordinated Science 2													
1. Biology/Life Sciences	15	0.67	1.73	0.49	1.76	0.70	1.73	0.71	1.70	0.52	1.77	0.63	1.71
2. Chemistry	6	0.47	1.13	0.15	1.11	0.47	1.13	0.56	1.11	0.08	1.13	0.47	1.13
3. Earth Sciences	15	0.76	1.70	0.64	1.76	0.79	1.69	0.79	1.64	0.62	1.78	0.72	1.71
4. Physics	18	0.70	1.91	0.33	1.87	0.71	1.90	0.77	1.90	0.34	1.91	0.67	1.93
5. Investigation and Experimentation	6	0.51	1.10	0.29	1.10	0.54	1.09	0.53	1.08	0.26	1.12	0.44	1.12
Integrated/Coordinated Science 3													
1. Biology/Life Sciences	16	0.76	1.76	0.59	1.83	0.78	1.74	0.72	1.80	0.44	1.84	0.70	1.79
2. Chemistry	23	0.73	2.19	0.46	2.12	0.76	2.18	0.70	2.17	0.03	2.16	0.70	2.19
3. Earth Sciences	7	0.60	1.18	0.43	1.19	0.63	1.15	0.53	1.21	0.24	1.22	0.50	1.22
4. Physics	8	0.39	1.32	0.32	1.22	0.44	1.31	0.33	1.31	0.24	1.23	0.26	1.33
5. Investigation and Experimentation	6	0.48	1.09	0.44	1.09	0.53	1.07	0.30	1.13	0.27	1.12	0.45	1.11
Integrated/Coordinated Science 4													
1. Biology/Life Sciences	13	0.72	1.58	0.59	1.66	0.70	1.58	—	—	0.34	1.66	—	—
2. Chemistry	10	0.42	1.48	—	—	0.35	1.48	—	—	—	—	—	—
3. Earth Sciences	15	0.70	1.80	0.53	1.81	0.71	1.77	—	—	0.27	1.86	—	—
4. Physics	16	0.66	1.78	—	—	0.57	1.81	—	—	0.35	1.67	—	—
5. Investigation and Experimentation	6	0.45	1.09	—	—	0.33	1.12	—	—	—	—	—	—

Table 8.B.29 Subscore Reliabilities and SEM for Grade-specific CSTs by Special Services/English Fluency

Subscore Reliabilities and SEM for Grade-specific CSTs by <i>Special Services/English Fluency</i>													
Subscore Area	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM	Reliab. SEM				
Algebra I – 8													
1. Number Properties, Operations, and Linear Equations	17	0.75	1.74	0.74	1.83	0.75	1.73	0.76	1.67	0.70	1.84	0.72	1.73
2. Graphing and Systems of Linear Equations	14	0.76	1.66	0.72	1.69	0.76	1.66	0.79	1.61	0.69	1.70	0.75	1.66
3. Quadratics and Polynomials	21	0.84	1.96	0.83	2.02	0.84	1.96	0.85	1.89	0.81	2.03	0.83	1.96
4. Functions and Rational Expressions	13	0.71	1.61	0.63	1.60	0.70	1.61	0.75	1.59	0.60	1.60	0.69	1.62
Geometry – 9													
1. Logic and Geometric Proofs	23	0.80	2.01	0.85	2.09	0.79	1.98	0.80	1.96	0.80	2.15	0.78	2.07
2. Volume and Area Formulas	11	0.71	1.38	0.74	1.43	0.70	1.36	0.73	1.33	0.67	1.47	0.69	1.41
3. Angle Relationships, Constructions, and Lines	16	0.74	1.66	0.79	1.73	0.73	1.64	0.75	1.62	0.75	1.76	0.72	1.70
4. Trigonometry	15	0.77	1.61	0.81	1.67	0.76	1.59	0.77	1.56	0.78	1.71	0.76	1.65
Algebra II – 10													
1. Polynomials and Rational Expressions	19	0.80	1.74	0.84	1.86	0.79	1.74	0.81	1.68	0.85	1.84	0.81	1.76
2. Quadratics, Conics, and Complex Numbers	16	0.73	1.79	0.72	1.81	0.71	1.79	0.76	1.76	0.75	1.80	0.73	1.80
3. Exponents and Logarithms	16	0.77	1.72	0.80	1.75	0.75	1.72	0.78	1.68	0.80	1.76	0.77	1.74
4. Series, Combinatorics, and Probability and Statistics	14	0.72	1.64	0.74	1.63	0.71	1.64	0.75	1.62	0.72	1.64	0.71	1.64
1. Algebra I	18	0.77	1.67	0.81	1.77	0.76	1.67	0.78	1.58	0.83	1.76	0.77	1.69
2. Geometry	19	0.80	1.73	0.85	1.81	0.78	1.71	0.80	1.65	0.84	1.86	0.80	1.79
3. Algebra II	23	0.84	1.92	0.88	2.00	0.84	1.92	0.85	1.84	0.87	2.02	0.84	1.96
4. Probability and Statistics	5	0.53	0.93	0.64	0.93	0.52	0.92	0.53	0.91	0.50	0.98	0.51	0.97
World History – 10													
1. Development of Modern Political Thought	13	0.64	1.55	0.62	1.66	0.66	1.54	0.63	1.51	0.54	1.68	0.56	1.56
2. Industrial Expansion and Imperialism	10	0.69	1.32	0.66	1.42	0.71	1.30	0.68	1.27	0.58	1.45	0.62	1.35
3. Causes and Effects of World War I	14	0.76	1.62	0.71	1.70	0.77	1.60	0.76	1.57	0.63	1.73	0.72	1.64
4. Causes and Effects of World War II	13	0.75	1.52	0.71	1.63	0.76	1.50	0.75	1.46	0.64	1.66	0.70	1.53
5. International Developments in the Post-World War II Era	10	0.73	1.33	0.67	1.41	0.74	1.31	0.73	1.29	0.60	1.44	0.69	1.34

Table 8.B.30 Subscore Reliabilities and SEM for ELA by Primary Ethnicity

Subscore Reliabilities and SEM for ELA by <i>Primary Ethnicity</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 2															
1. Word Analysis and Vocabulary Development	22	0.86	1.93	0.84	1.60	0.84	1.86	0.81	1.67	0.85	1.95	0.86	1.92	0.84	1.75
2. Reading Comprehension	15	0.79	1.62	0.78	1.39	0.76	1.61	0.74	1.46	0.77	1.66	0.78	1.65	0.79	1.46
3. Literary Response and Analysis	6	0.70	0.91	0.64	0.76	0.63	0.89	0.59	0.79	0.66	0.95	0.67	0.93	0.66	0.78
4. Written and Oral Language Conventions	14	0.81	1.54	0.80	1.24	0.80	1.48	0.78	1.30	0.80	1.54	0.81	1.53	0.81	1.38
5. Writing Strategies	8	0.69	1.23	0.71	1.07	0.67	1.21	0.67	1.14	0.67	1.23	0.69	1.23	0.71	1.12
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.80	1.80	0.79	1.51	0.77	1.75	0.76	1.61	0.79	1.84	0.80	1.81	0.78	1.60
2. Reading Comprehension	15	0.76	1.63	0.76	1.44	0.73	1.63	0.73	1.52	0.75	1.66	0.76	1.66	0.76	1.47
3. Literary Response and Analysis	8	0.60	1.07	0.57	0.95	0.55	1.05	0.53	0.99	0.59	1.10	0.60	1.09	0.56	0.93
4. Written and Oral Language Conventions	13	0.71	1.55	0.74	1.35	0.70	1.51	0.71	1.43	0.71	1.53	0.73	1.54	0.72	1.45
5. Writing Strategies	9	0.63	1.35	0.65	1.21	0.58	1.35	0.62	1.27	0.60	1.36	0.61	1.36	0.62	1.27
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.85	1.64	0.84	1.32	0.83	1.60	0.79	1.40	0.84	1.68	0.85	1.66	0.83	1.38
2. Reading Comprehension	15	0.78	1.66	0.79	1.48	0.77	1.67	0.75	1.57	0.77	1.68	0.77	1.69	0.77	1.53
3. Literary Response and Analysis	9	0.66	1.31	0.68	1.12	0.64	1.29	0.62	1.21	0.63	1.33	0.64	1.33	0.65	1.18
4. Written and Oral Language Conventions	18	0.79	1.79	0.78	1.51	0.79	1.74	0.74	1.60	0.78	1.80	0.79	1.80	0.78	1.61
5. Writing Strategies	15	0.74	1.73	0.78	1.55	0.72	1.73	0.73	1.63	0.71	1.74	0.72	1.74	0.76	1.63
Grade 5															
1. Word Analysis and Vocabulary Development	14	0.74	1.47	0.75	1.26	0.70	1.47	0.67	1.33	0.72	1.50	0.74	1.49	0.71	1.31
2. Reading Comprehension	16	0.81	1.65	0.81	1.38	0.79	1.63	0.78	1.48	0.79	1.67	0.81	1.67	0.80	1.45
3. Literary Response and Analysis	12	0.71	1.45	0.73	1.26	0.68	1.45	0.67	1.34	0.70	1.49	0.71	1.47	0.68	1.29
4. Written and Oral Language Conventions	17	0.76	1.72	0.74	1.39	0.73	1.66	0.70	1.47	0.74	1.72	0.76	1.72	0.73	1.55
5. Writing Strategies	16	0.75	1.74	0.78	1.52	0.74	1.73	0.73	1.62	0.74	1.75	0.75	1.75	0.75	1.60
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.74	1.46	0.77	1.21	0.75	1.44	0.70	1.31	0.73	1.50	0.76	1.48	0.74	1.27
2. Reading Comprehension	17	0.69	1.87	0.73	1.70	0.67	1.87	0.68	1.78	0.68	1.88	0.68	1.88	0.69	1.76
3. Literary Response and Analysis	12	0.67	1.41	0.69	1.28	0.65	1.42	0.62	1.32	0.66	1.45	0.68	1.44	0.66	1.30
4. Written and Oral Language Conventions	16	0.75	1.69	0.77	1.38	0.75	1.63	0.71	1.49	0.74	1.69	0.76	1.70	0.76	1.52
5. Writing Strategies	17	0.75	1.82	0.78	1.61	0.76	1.82	0.74	1.72	0.75	1.84	0.75	1.84	0.76	1.69
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.71	1.38	0.71	1.16	0.69	1.37	0.62	1.23	0.68	1.38	0.70	1.40	0.68	1.23
2. Reading Comprehension	18	0.80	1.72	0.79	1.45	0.79	1.70	0.75	1.53	0.79	1.74	0.81	1.75	0.79	1.53
3. Literary Response and Analysis	13	0.69	1.51	0.69	1.32	0.68	1.49	0.63	1.39	0.68	1.53	0.69	1.53	0.65	1.38
4. Written and Oral Language Conventions	16	0.70	1.74	0.73	1.48	0.70	1.69	0.67	1.56	0.66	1.75	0.69	1.74	0.70	1.61
5. Writing Strategies	17	0.75	1.81	0.80	1.61	0.74	1.81	0.74	1.72	0.72	1.83	0.73	1.83	0.77	1.69

Subscore Reliabilities and SEM for ELA by <i>Primary Ethnicity</i>																
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White		
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	
Grade 8																
1. Word Analysis and Vocabulary Development	9	0.61	1.25	0.67	1.11	0.58	1.25	0.53	1.19	0.57	1.27	0.58	1.28	0.58	1.16	
2. Reading Comprehension	18	0.79	1.74	0.79	1.51	0.77	1.75	0.73	1.61	0.77	1.78	0.78	1.79	0.76	1.57	
3. Literary Response and Analysis	15	0.75	1.65	0.77	1.44	0.74	1.66	0.73	1.55	0.73	1.70	0.74	1.70	0.75	1.52	
4. Written and Oral Language Conventions	16	0.78	1.69	0.79	1.45	0.76	1.68	0.74	1.56	0.75	1.73	0.77	1.73	0.77	1.54	
5. Writing Strategies	17	0.79	1.79	0.79	1.59	0.77	1.80	0.75	1.68	0.75	1.82	0.78	1.82	0.78	1.66	
Grade 9																
1. Word Analysis and Vocabulary Development	8	0.62	1.24	0.65	1.13	0.57	1.26	0.54	1.19	0.55	1.26	0.58	1.27	0.61	1.15	
2. Reading Comprehension	18	0.82	1.76	0.84	1.45	0.81	1.77	0.80	1.55	0.80	1.82	0.81	1.82	0.82	1.55	
3. Literary Response and Analysis	16	0.76	1.68	0.77	1.52	0.74	1.70	0.71	1.59	0.73	1.73	0.74	1.72	0.75	1.55	
4. Written and Oral Language Conventions	13	0.74	1.57	0.76	1.37	0.74	1.57	0.69	1.46	0.71	1.61	0.73	1.61	0.75	1.41	
5. Writing Strategies	20	0.74	1.98	0.75	1.82	0.74	1.96	0.68	1.88	0.72	2.00	0.74	2.00	0.75	1.88	
Grade 10																
1. Word Analysis and Vocabulary Development	8	0.63	1.20	0.65	1.07	0.61	1.21	0.57	1.12	0.59	1.23	0.62	1.23	0.62	1.11	
2. Reading Comprehension	18	0.83	1.76	0.82	1.52	0.82	1.77	0.78	1.61	0.82	1.80	0.82	1.82	0.82	1.60	
3. Literary Response and Analysis	16	0.74	1.77	0.73	1.63	0.70	1.79	0.66	1.70	0.69	1.81	0.70	1.81	0.73	1.67	
4. Written and Oral Language Conventions	13	0.75	1.52	0.71	1.33	0.74	1.50	0.64	1.37	0.72	1.53	0.75	1.54	0.73	1.40	
5. Writing Strategies	20	0.81	1.91	0.82	1.71	0.80	1.92	0.77	1.80	0.79	1.94	0.80	1.95	0.81	1.78	
Grade 11																
1. Word Analysis and Vocabulary Development	8	0.61	1.18	0.62	1.06	0.59	1.20	0.48	1.10	0.61	1.18	0.62	1.22	0.60	1.09	
2. Reading Comprehension	19	0.80	1.88	0.81	1.70	0.79	1.91	0.76	1.79	0.78	1.92	0.81	1.92	0.81	1.75	
3. Literary Response and Analysis	17	0.75	1.78	0.78	1.62	0.74	1.80	0.71	1.70	0.74	1.81	0.74	1.83	0.76	1.66	
4. Written and Oral Language Conventions	9	0.54	1.30	0.62	1.20	0.51	1.31	0.49	1.24	0.50	1.32	0.52	1.33	0.57	1.23	
5. Writing Strategies	22	0.84	2.01	0.82	1.83	0.83	2.04	0.79	1.92	0.82	2.06	0.84	2.06	0.84	1.87	

Table 8.B.31 Subscore Reliabilities and SEM for History–Social Science by Primary Ethnicity

Subscore Reliabilities and SEM for History–Social Science by <i>Primary Ethnicity</i>																
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White		
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	
Grade 8																
1. World History and Geography: Ancient Civilizations	16	0.68	1.73	0.76	1.54	0.70	1.71	0.69	1.64	0.67	1.73	0.69	1.76	0.71	1.64	
2. Late Antiquity and the Middle Ages	14	0.76	1.61	0.77	1.35	0.74	1.59	0.72	1.47	0.75	1.64	0.77	1.63	0.75	1.48	
3. Renaissance/Reformation	10	0.61	1.44	0.64	1.28	0.58	1.43	0.56	1.35	0.58	1.45	0.61	1.45	0.62	1.36	
4. U.S. Constitution and the Early Republic	22	0.83	2.03	0.84	1.77	0.81	2.04	0.80	1.90	0.81	2.06	0.82	2.08	0.83	1.87	
5. Civil War and Its Aftermath	13	0.78	1.55	0.81	1.30	0.78	1.54	0.77	1.43	0.76	1.58	0.79	1.56	0.80	1.40	
World History																
1. Development of Modern Political Thought	13	0.67	1.59	0.65	1.45	0.64	1.59	0.59	1.52	0.64	1.61	0.66	1.61	0.67	1.50	
2. Industrial Expansion and Imperialism	10	0.70	1.35	0.69	1.19	0.68	1.36	0.63	1.27	0.68	1.39	0.69	1.39	0.70	1.25	
3. Causes and Effects of World War I	14	0.76	1.65	0.76	1.48	0.74	1.67	0.73	1.58	0.73	1.68	0.73	1.69	0.77	1.54	
4. Causes and Effects of World War II	13	0.76	1.55	0.76	1.37	0.74	1.58	0.72	1.48	0.74	1.59	0.74	1.60	0.77	1.44	
5. International Developments in the Post-World War II Era	10	0.74	1.36	0.73	1.20	0.73	1.37	0.70	1.29	0.71	1.39	0.71	1.40	0.75	1.27	
Grade 11 (U.S. History)																
1. Foundations of American Political and Social Thought	10	0.71	1.36	0.75	1.18	0.68	1.38	0.68	1.29	0.69	1.39	0.70	1.40	0.73	1.25	
2. Industrialization and the U.S. role as a World Power	13	0.71	1.56	0.73	1.40	0.69	1.57	0.66	1.47	0.70	1.58	0.71	1.59	0.72	1.46	
3. United States between the World Wars	12	0.72	1.52	0.71	1.39	0.71	1.53	0.66	1.47	0.70	1.54	0.72	1.53	0.73	1.42	
4. World War II and Foreign Affairs	12	0.71	1.51	0.69	1.38	0.71	1.52	0.67	1.44	0.71	1.53	0.69	1.55	0.71	1.44	
5. Post-World War II Domestic Affairs	13	0.76	1.55	0.74	1.42	0.75	1.55	0.70	1.48	0.73	1.58	0.76	1.55	0.76	1.47	

Table 8.B.32 Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity

Subscore Reliabilities and SEM for Mathematics by <i>Primary Ethnicity</i>																
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White		
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	
Grade 2																
1. Number Sense: Place Value, Addition, and Subtraction	15	0.81	1.49	0.78	1.17	0.81	1.44	0.77	1.29	0.81	1.49	0.82	1.51	0.78	1.33	
2. Number Sense: Multiplication, Division, and Fractions	23	0.85	1.82	0.83	1.45	0.84	1.77	0.83	1.59	0.84	1.82	0.86	1.87	0.83	1.59	
3. Algebra and Functions	6	0.61	0.96	0.60	0.72	0.61	0.92	0.59	0.80	0.59	0.97	0.62	0.98	0.61	0.82	
4. Measurement and Geometry	14	0.71	1.35	0.70	1.08	0.71	1.31	0.67	1.17	0.70	1.36	0.73	1.42	0.67	1.17	
5. Statistics, Data Analysis and Probability	7	0.60	1.02	0.54	0.87	0.57	0.99	0.53	0.93	0.58	1.01	0.62	1.04	0.55	0.93	
Grade 3																
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.46	0.73	1.11	0.75	1.41	0.70	1.24	0.77	1.44	0.79	1.49	0.74	1.27	
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.84	1.54	0.83	1.09	0.83	1.47	0.82	1.26	0.84	1.50	0.84	1.56	0.83	1.35	
3. Algebra and Functions	12	0.78	1.26	0.74	0.88	0.76	1.22	0.73	1.02	0.77	1.26	0.78	1.31	0.77	1.03	
4. Measurement and Geometry	16	0.76	1.47	0.75	1.12	0.74	1.43	0.74	1.26	0.75	1.46	0.77	1.51	0.74	1.26	
5. Statistics, Data Analysis and Probability	5	0.51	0.75	0.45	0.56	0.49	0.74	0.44	0.63	0.49	0.76	0.55	0.79	0.49	0.61	
Grade 4																
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.80	1.49	0.76	1.09	0.79	1.43	0.73	1.24	0.79	1.49	0.80	1.55	0.77	1.26	
2. Number Sense: Operations and Factoring	14	0.82	1.38	0.80	0.91	0.83	1.27	0.79	1.08	0.82	1.33	0.83	1.40	0.81	1.17	
3. Algebra and Functions	18	0.87	1.49	0.83	1.01	0.86	1.39	0.82	1.17	0.86	1.46	0.87	1.52	0.85	1.25	
4. Measurement and Geometry	12	0.72	1.40	0.71	1.14	0.72	1.38	0.69	1.24	0.70	1.39	0.72	1.43	0.71	1.26	
5. Statistics, Data Analysis, and Probability	4	0.45	0.75	0.40	0.60	0.41	0.73	0.36	0.67	0.40	0.75	0.46	0.77	0.45	0.65	
Grade 5																
1. Number Sense: Estimation, Percents, and Factoring	12	0.74	1.45	0.78	1.18	0.74	1.43	0.76	1.31	0.76	1.43	0.75	1.45	0.76	1.35	
2. Number Sense: Operations with Fractions and Decimals	17	0.83	1.73	0.83	1.30	0.82	1.68	0.81	1.51	0.82	1.70	0.82	1.75	0.83	1.57	
3. Algebra and Functions	17	0.80	1.64	0.79	1.26	0.79	1.58	0.78	1.40	0.80	1.59	0.80	1.65	0.79	1.47	
4. Measurement and Geometry	15	0.79	1.59	0.81	1.29	0.79	1.56	0.79	1.44	0.78	1.58	0.78	1.61	0.80	1.46	
5. Statistics, Data Analysis, and Probability	4	0.56	0.75	0.52	0.52	0.53	0.71	0.52	0.60	0.52	0.73	0.55	0.76	0.58	0.61	
Grade 6																
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.76	1.66	0.79	1.34	0.77	1.62	0.77	1.50	0.76	1.64	0.76	1.67	0.77	1.54	
2. Number Sense: Operations and Problem Solving with Fractions	10	0.69	1.34	0.71	1.06	0.68	1.30	0.69	1.19	0.69	1.34	0.69	1.35	0.70	1.21	
3. Algebra and Functions	19	0.83	1.75	0.85	1.33	0.84	1.72	0.83	1.56	0.82	1.78	0.83	1.82	0.84	1.54	
4. Measurement and Geometry	10	0.67	1.38	0.74	1.16	0.68	1.37	0.70	1.28	0.68	1.38	0.65	1.41	0.71	1.28	
5. Statistics, Data Analysis, and Probability	11	0.74	1.38	0.77	1.14	0.76	1.36	0.74	1.27	0.74	1.38	0.74	1.40	0.76	1.25	

Subscore Reliabilities and SEM for Mathematics by <i>Primary Ethnicity</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 7															
1. Number Sense: Rational Numbers	14	0.72	1.64	0.78	1.39	0.73	1.62	0.74	1.52	0.73	1.63	0.72	1.65	0.74	1.53
2. Number Sense: Exponent, Powers and Roots	8	0.65	1.26	0.71	1.12	0.65	1.26	0.67	1.21	0.65	1.26	0.65	1.26	0.67	1.23
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.61	1.42	0.65	1.23	0.63	1.40	0.62	1.32	0.61	1.42	0.62	1.43	0.62	1.34
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.73	1.71	0.77	1.45	0.73	1.68	0.72	1.58	0.72	1.71	0.71	1.74	0.75	1.58
5. Measurement and Geometry	13	0.69	1.59	0.74	1.35	0.69	1.56	0.69	1.46	0.67	1.59	0.68	1.61	0.71	1.48
6. Statistics, Data Analysis, and Probability	5	0.55	0.94	0.58	0.78	0.56	0.91	0.55	0.83	0.57	0.92	0.56	0.95	0.58	0.85
General Mathematics															
1. Number Sense: Rational Numbers	14	0.75	1.64	0.79	1.54	0.75	1.61	0.76	1.58	0.73	1.65	0.72	1.65	0.76	1.62
2. Number Sense: Exponent, Powers and Roots	10	0.63	1.41	0.74	1.36	0.64	1.41	0.69	1.40	0.61	1.41	0.61	1.40	0.67	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.67	1.48	0.69	1.40	0.67	1.46	0.63	1.42	0.66	1.49	0.68	1.49	0.68	1.43
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.64	1.41	0.68	1.33	0.63	1.41	0.66	1.34	0.63	1.42	0.63	1.43	0.67	1.35
5. Measurement and Geometry	11	0.64	1.51	0.69	1.50	0.60	1.53	0.64	1.52	0.59	1.52	0.57	1.51	0.67	1.51
6. Statistics, Data Analysis, and Probability	9	0.66	1.31	0.66	1.25	0.67	1.28	0.63	1.26	0.62	1.31	0.64	1.32	0.69	1.26
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.74	1.82	0.79	1.58	0.74	1.80	0.74	1.73	0.72	1.83	0.72	1.84	0.76	1.74
2. Graphing and Systems of Linear Equations	14	0.70	1.70	0.82	1.52	0.72	1.70	0.77	1.65	0.69	1.70	0.66	1.71	0.77	1.66
3. Quadratics and Polynomials	21	0.80	2.04	0.88	1.78	0.82	2.02	0.84	1.95	0.80	2.04	0.78	2.04	0.84	1.98
4. Functions and Rational Expressions	13	0.56	1.61	0.80	1.52	0.62	1.62	0.69	1.62	0.56	1.61	0.54	1.60	0.69	1.61
Geometry															
1. Logic and Geometric Proofs	23	0.79	2.13	0.85	1.89	0.78	2.15	0.80	2.06	0.77	2.16	0.76	2.17	0.81	2.04
2. Volume and Area Formulas	11	0.66	1.47	0.77	1.28	0.67	1.47	0.72	1.41	0.62	1.49	0.59	1.49	0.71	1.41
3. Angle Relationships, Constructions, and Lines	16	0.72	1.75	0.81	1.56	0.70	1.77	0.74	1.69	0.69	1.78	0.66	1.79	0.75	1.68
4. Trigonometry	15	0.75	1.71	0.81	1.49	0.75	1.72	0.77	1.64	0.73	1.74	0.71	1.75	0.78	1.63
Algebra II															
1. Polynomials and Rational Expressions	19	0.81	1.83	0.83	1.55	0.80	1.84	0.80	1.76	0.80	1.87	0.80	1.91	0.79	1.78
2. Quadratics, Conics, and Complex Numbers	16	0.67	1.83	0.80	1.67	0.66	1.83	0.72	1.80	0.65	1.83	0.62	1.83	0.72	1.80
3. Exponents and Logarithms	16	0.75	1.79	0.81	1.58	0.75	1.78	0.77	1.73	0.73	1.80	0.73	1.81	0.77	1.74
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.66	0.78	1.58	0.67	1.66	0.72	1.65	0.66	1.65	0.62	1.64	0.72	1.64

Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Summative High School Mathematics															
1. Algebra I	18	0.75	1.74	0.75	1.39	0.77	1.71	0.74	1.67	0.75	1.77	0.75	1.82	0.75	1.62
2. Geometry	19	0.79	1.75	0.76	1.48	0.80	1.79	0.76	1.73	0.78	1.86	0.79	1.90	0.77	1.65
3. Algebra II	23	0.84	1.98	0.83	1.65	0.83	1.98	0.82	1.93	0.83	2.03	0.83	2.07	0.83	1.87
4. Probability and Statistics	5	0.52	0.93	0.50	0.86	0.51	0.96	0.46	0.96	0.47	0.98	0.50	0.99	0.50	0.88
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.68	1.71	0.76	1.65	0.69	1.71	0.70	1.68	0.67	1.72	0.66	1.75	0.70	1.69
2. Algebra I: Graphing	9	0.63	1.34	0.69	1.33	0.64	1.35	0.62	1.35	0.52	1.37	0.54	1.35	0.62	1.35
3. Algebra I: Quadratics and Polynomials	14	0.69	1.67	0.78	1.62	0.71	1.65	0.78	1.59	0.67	1.67	0.66	1.67	0.72	1.65
4. Algebra I: Functions and Relations Expressions	7	0.47	1.14	0.69	1.08	0.51	1.11	0.56	1.13	0.43	1.12	0.46	1.10	0.55	1.11
5. Geometry	20	0.40	2.06	0.77	1.98	0.54	1.99	0.67	2.02	0.49	2.01	0.46	1.99	0.62	2.04
Integrated Mathematics 2															
1. Algebra I	20	0.18	2.17	0.81	1.98	0.74	2.08	0.81	1.98	0.73	2.06	0.76	2.04	0.73	2.05
2. Geometry: Logic and Geometric Proofs	22	0.58	2.19	0.79	2.10	0.74	2.11	0.74	2.13	0.68	2.15	0.68	2.12	0.75	2.13
3. Geometry: Angle Relationships, Construction, and Lines	8	—	—	0.57	1.23	0.36	1.33	0.58	1.20	0.44	1.27	0.45	1.28	0.50	1.23
4. Trigonometry	10	0.57	1.44	0.71	1.39	0.70	1.40	0.66	1.41	0.59	1.44	0.60	1.41	0.62	1.42
5. Algebra II: Probability and Statistics	5	0.11	0.91	0.48	0.93	0.54	0.88	0.59	0.92	0.33	0.94	0.34	0.94	0.44	0.95
Integrated Mathematics 3															
1. Geometry	5	—	—	0.70	0.82	—	—	0.54	0.97	0.60	0.95	0.50	1.01	0.61	0.86
2. Algebra II: Polynomials and Relations Expressions	19	—	—	0.89	1.72	—	—	0.83	1.87	0.80	1.92	0.68	1.91	0.83	1.87
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	—	—	0.76	1.80	—	—	0.65	1.84	0.57	1.83	0.42	1.79	0.70	1.83
4. Algebra II: Exponents and Logarithms	16	—	—	0.83	1.69	—	—	0.81	1.74	0.75	1.80	0.62	1.78	0.81	1.75
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	—	—	0.72	1.29	—	—	0.68	1.27	0.56	1.35	0.30	1.30	0.60	1.33

Table 8.B.33 Subscore Reliabilities and SEM for Science by Primary Ethnicity

Subscore Reliabilities and SEM for Science by <i>Primary Ethnicity</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.64	1.42	0.70	1.16	0.61	1.42	0.60	1.28	0.61	1.46	0.62	1.45	0.63	1.24
2. Physical Science (Grade 4)	8	0.60	1.18	0.66	0.97	0.60	1.18	0.58	1.07	0.59	1.20	0.60	1.21	0.60	1.02
3. Life Science (Grade 5)	13	0.72	1.48	0.72	1.26	0.69	1.49	0.66	1.36	0.70	1.51	0.71	1.52	0.69	1.31
4. Life Science (Grade 4)	9	0.69	1.25	0.72	1.04	0.67	1.27	0.64	1.15	0.67	1.29	0.68	1.29	0.66	1.10
5. Earth Science (Grade 5)	11	0.66	1.40	0.63	1.22	0.64	1.40	0.55	1.30	0.61	1.43	0.65	1.43	0.60	1.27
6. Earth Science (Grade 4)	8	0.66	1.18	0.70	0.94	0.67	1.17	0.60	1.04	0.64	1.21	0.66	1.22	0.65	1.01
Grade 8 Science															
1. Motion	8	0.51	1.27	0.55	1.09	0.49	1.26	0.47	1.20	0.46	1.28	0.46	1.29	0.49	1.19
2. Forces, Density, and Buoyancy	13	0.76	1.48	0.76	1.20	0.74	1.47	0.70	1.33	0.72	1.51	0.73	1.54	0.75	1.31
3. Structure of Matter and Periodic Table	16	0.81	1.64	0.80	1.31	0.79	1.62	0.76	1.45	0.79	1.68	0.80	1.69	0.79	1.45
4. Earth in the Solar System	7	0.61	1.05	0.57	0.90	0.56	1.07	0.49	0.95	0.57	1.07	0.59	1.10	0.56	0.95
5. Reactions and the Chemistry of Living Systems	10	0.63	1.41	0.67	1.24	0.60	1.42	0.59	1.34	0.59	1.43	0.61	1.43	0.64	1.33
6. Investigation and Experimentation	6	0.62	0.93	0.58	0.69	0.57	0.92	0.53	0.79	0.56	0.95	0.59	0.97	0.59	0.78
Grade 10 Life Science															
1. Cell Biology	10	0.65	1.40	0.71	1.23	0.62	1.41	0.64	1.31	0.61	1.41	0.60	1.43	0.67	1.31
2. Genetics	12	0.71	1.50	0.72	1.37	0.66	1.52	0.66	1.43	0.67	1.52	0.67	1.52	0.71	1.42
3. Physiology	10	0.73	1.30	0.72	1.14	0.70	1.35	0.66	1.21	0.69	1.36	0.70	1.37	0.73	1.17
4. Ecology	11	0.74	1.38	0.73	1.21	0.71	1.43	0.67	1.30	0.71	1.44	0.71	1.45	0.73	1.25
5. Evolution	11	0.76	1.37	0.74	1.22	0.73	1.41	0.71	1.27	0.73	1.42	0.72	1.44	0.76	1.25
6. Investigation and Experimentation	6	0.68	0.94	0.60	0.77	0.68	0.95	0.58	0.83	0.65	0.97	0.68	0.99	0.68	0.82
Biology															
1. Cell Biology	9	0.60	1.32	0.67	1.12	0.58	1.34	0.58	1.23	0.58	1.35	0.58	1.36	0.64	1.22
2. Genetics	18	0.78	1.83	0.81	1.61	0.77	1.85	0.76	1.74	0.76	1.86	0.77	1.87	0.79	1.72
3. Ecology and Evolution	16	0.78	1.74	0.79	1.56	0.75	1.79	0.73	1.70	0.75	1.80	0.74	1.81	0.78	1.63
4. Physiology	11	0.78	1.29	0.77	1.10	0.77	1.35	0.71	1.20	0.76	1.37	0.77	1.38	0.77	1.16
5. Investigation and Experimentation	6	0.62	1.02	0.59	0.90	0.59	1.05	0.55	0.96	0.59	1.06	0.58	1.07	0.61	0.94
Chemistry															
1. Atomic and Molecular Structure	8	0.39	1.24	0.47	1.16	0.38	1.26	0.40	1.22	0.40	1.26	0.41	1.28	0.39	1.20
2. Chemical Bonds, Biochemistry	9	0.56	1.30	0.59	1.17	0.56	1.35	0.53	1.28	0.54	1.36	0.55	1.37	0.55	1.23
3. Kinetics, Thermodynamics	14	0.69	1.68	0.72	1.54	0.67	1.73	0.64	1.69	0.65	1.74	0.64	1.75	0.68	1.60
4. Chemical Reactions	13	0.71	1.61	0.75	1.51	0.67	1.64	0.68	1.61	0.65	1.65	0.64	1.64	0.72	1.57
5. Conservation of Matter and Stoichiometry	10	0.69	1.40	0.75	1.21	0.67	1.42	0.70	1.35	0.65	1.43	0.63	1.44	0.71	1.33
6. Investigation and Experimentation	6	0.64	0.93	0.63	0.78	0.64	0.99	0.59	0.89	0.62	1.01	0.63	1.04	0.60	0.83
Earth Science															
1. Astronomy and Cosmology	12	0.68	1.54	0.67	1.51	0.65	1.56	0.62	1.50	0.66	1.56	0.66	1.58	0.68	1.48
2. Solid Earth	14	0.70	1.68	0.66	1.66	0.65	1.72	0.61	1.65	0.65	1.71	0.65	1.73	0.68	1.64
3. The Earth's Energy	28	0.86	2.35	0.86	2.27	0.83	2.40	0.84	2.29	0.83	2.41	0.82	2.41	0.87	2.25
4. Investigation and Experimentation	6	0.64	1.05	0.61	1.00	0.57	1.08	0.55	1.01	0.58	1.08	0.59	1.09	0.64	0.99

Subscore Reliabilities and SEM for Science by <i>Primary Ethnicity</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Physics															
1. Motion and Forces	12	0.70	1.48	0.71	1.35	0.69	1.52	0.67	1.48	0.66	1.55	0.68	1.56	0.67	1.40
2. Conservation of Energy and Momentum	12	0.76	1.48	0.74	1.32	0.72	1.51	0.70	1.45	0.72	1.53	0.71	1.55	0.74	1.39
3. Heat and Thermodynamics	9	0.69	1.28	0.68	1.18	0.65	1.33	0.63	1.28	0.65	1.33	0.65	1.35	0.66	1.20
4. Waves	10	0.70	1.34	0.62	1.28	0.63	1.40	0.59	1.34	0.63	1.41	0.62	1.44	0.62	1.30
5. Electric and Magnetic Phenomena	11	0.59	1.52	0.64	1.39	0.63	1.50	0.59	1.48	0.59	1.53	0.57	1.54	0.62	1.47
6. Investigation and Experimentation	6	0.57	1.04	0.50	0.97	0.54	1.08	0.43	1.06	0.48	1.11	0.51	1.12	0.48	0.99
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.61	1.43	0.67	1.35	0.64	1.44	0.56	1.42	0.60	1.45	0.58	1.46	0.66	1.35
2. Chemistry	15	0.54	1.80	0.65	1.75	0.59	1.78	0.54	1.79	0.53	1.80	0.53	1.79	0.61	1.77
3. Earth Sciences	17	0.74	1.86	0.78	1.73	0.75	1.87	0.73	1.81	0.74	1.87	0.72	1.89	0.78	1.77
4. Physics	12	0.47	1.62	0.58	1.59	0.47	1.63	0.49	1.61	0.45	1.61	0.44	1.60	0.53	1.61
5. Investigation and Experimentation	6	0.60	1.07	0.64	0.97	0.56	1.10	0.60	1.02	0.55	1.10	0.56	1.10	0.65	0.99
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.66	1.75	0.72	1.51	0.41	1.86	0.65	1.73	0.62	1.76	0.56	1.77	0.70	1.71
2. Chemistry	6	0.20	1.13	0.62	0.99	—	—	0.45	1.13	0.32	1.14	—	—	0.52	1.13
3. Earth Sciences	15	0.72	1.77	0.80	1.42	0.71	1.79	0.70	1.75	0.72	1.75	0.63	1.78	0.78	1.64
4. Physics	18	0.19	1.94	0.77	1.82	0.54	1.87	0.59	1.93	0.56	1.93	0.39	1.88	0.72	1.90
5. Investigation and Experimentation	6	0.67	0.98	0.59	0.91	0.46	1.10	0.51	1.09	0.40	1.13	0.37	1.11	0.52	1.07
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	—	—	0.75	1.74	—	—	0.83	1.63	0.69	1.82	0.65	1.86	0.79	1.69
2. Chemistry	23	—	—	0.78	2.21	—	—	0.84	2.10	0.63	2.18	0.66	2.15	0.77	2.19
3. Earth Sciences	7	—	—	0.61	1.17	—	—	0.74	1.08	0.52	1.21	0.64	1.16	0.63	1.14
4. Physics	8	—	—	0.30	1.36	—	—	0.54	1.27	0.32	1.29	0.26	1.32	0.48	1.32
5. Investigation and Experimentation	6	—	—	0.55	1.07	—	—	0.28	1.13	0.44	1.12	0.57	1.08	0.51	1.06
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	—	—	0.61	1.68	—	—	—	—	0.66	1.64	—	—	0.68	1.57
2. Chemistry	10	—	—	0.70	1.40	—	—	—	—	0.20	1.46	—	—	0.38	1.50
3. Earth Sciences	15	—	—	0.60	1.87	—	—	—	—	0.55	1.84	—	—	0.79	1.70
4. Physics	16	—	—	0.67	1.77	—	—	—	—	0.44	1.72	—	—	0.64	1.83
5. Investigation and Experimentation	6	—	—	0.73	0.99	—	—	—	—	0.12	1.12	—	—	0.26	1.13

Table 8.B.34 Subscore Reliabilities and SEM for Grade-specific CSTs by Primary Ethnicity

Subscore Reliabilities and SEM for Grade-specific CSTs by <i>Primary Ethnicity</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Algebra I – 8															
1. Number Properties, Operations, and Linear Equations	17	0.74	1.78	0.74	1.54	0.75	1.76	0.73	1.69	0.73	1.80	0.73	1.82	0.72	1.68
2. Graphing and Systems of Linear Equations	14	0.73	1.70	0.80	1.50	0.74	1.68	0.76	1.63	0.72	1.70	0.70	1.71	0.77	1.64
3. Quadratics and Polynomials	21	0.82	2.01	0.85	1.74	0.84	1.98	0.83	1.90	0.82	2.01	0.81	2.03	0.83	1.93
4. Functions and Rational Expressions	13	0.64	1.62	0.77	1.52	0.67	1.62	0.69	1.62	0.63	1.62	0.61	1.62	0.70	1.61
Geometry – 9															
1. Logic and Geometric Proofs	23	0.79	2.04	0.79	1.86	0.78	2.08	0.77	2.00	0.78	2.11	0.78	2.12	0.75	1.93
2. Volume and Area Formulas	11	0.69	1.41	0.71	1.25	0.66	1.44	0.68	1.36	0.67	1.45	0.65	1.47	0.67	1.33
3. Angle Relationships, Constructions, and Lines	16	0.73	1.69	0.74	1.53	0.69	1.72	0.70	1.64	0.70	1.74	0.70	1.75	0.70	1.60
4. Trigonometry	15	0.77	1.64	0.75	1.46	0.76	1.66	0.73	1.58	0.75	1.69	0.74	1.72	0.73	1.55
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.79	1.79	0.78	1.55	0.78	1.79	0.77	1.71	0.80	1.82	0.80	1.87	0.77	1.72
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.81	0.76	1.70	0.68	1.81	0.71	1.79	0.68	1.82	0.66	1.83	0.70	1.79
3. Exponents and Logarithms	16	0.75	1.76	0.77	1.59	0.74	1.76	0.75	1.70	0.74	1.78	0.75	1.79	0.74	1.71
4. Series, Combinatorics, and Probability and Statistics	14	0.70	1.66	0.74	1.60	0.68	1.65	0.70	1.65	0.68	1.65	0.67	1.64	0.70	1.64
Summative High School Mathematics – 11															
1. Algebra I	18	0.75	1.76	0.75	1.45	0.76	1.73	0.74	1.70	0.75	1.78	0.74	1.84	0.75	1.65
2. Geometry	19	0.79	1.77	0.77	1.53	0.79	1.81	0.76	1.76	0.78	1.87	0.78	1.92	0.77	1.68
3. Algebra II	23	0.83	2.01	0.84	1.71	0.83	2.01	0.82	1.96	0.82	2.05	0.82	2.09	0.83	1.91
4. Probability and Statistics	5	0.54	0.94	0.51	0.87	0.51	0.96	0.45	0.97	0.46	0.99	0.48	0.99	0.50	0.90
World History – 10															
1. Development of Modern Political Thought	13	0.66	1.59	0.63	1.46	0.62	1.59	0.57	1.52	0.63	1.61	0.64	1.61	0.65	1.50
2. Industrial Expansion and Imperialism	10	0.70	1.35	0.68	1.20	0.66	1.37	0.62	1.27	0.67	1.39	0.68	1.39	0.69	1.25
3. Causes and Effects of World War I	14	0.76	1.64	0.75	1.50	0.72	1.67	0.72	1.59	0.73	1.68	0.72	1.69	0.76	1.55
4. Causes and Effects of World War II	13	0.76	1.55	0.75	1.39	0.73	1.58	0.71	1.48	0.73	1.59	0.73	1.60	0.76	1.44
5. International Developments in the Post-World War II Era	10	0.74	1.35	0.72	1.21	0.72	1.37	0.69	1.29	0.70	1.39	0.70	1.40	0.74	1.27

Table 8.B.35 Subscore Reliabilities and SEM for ELA by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for ELA by Primary Ethnicity-for-Not Economically Disadvantaged																
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White		
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	
Grade 2																
1. Word Analysis and Vocabulary Development	22	0.85	1.84	0.80	1.49	0.81	1.77	0.78	1.62	0.84	1.82	0.85	1.82	0.81	1.69	
2. Reading Comprehension	15	0.81	1.52	0.74	1.28	0.75	1.52	0.72	1.41	0.77	1.54	0.78	1.56	0.77	1.40	
3. Literary Response and Analysis	6	0.68	0.85	0.57	0.68	0.57	0.82	0.55	0.75	0.65	0.84	0.66	0.85	0.63	0.73	
4. Written and Oral Language Conventions	14	0.82	1.46	0.76	1.14	0.78	1.41	0.77	1.25	0.80	1.44	0.81	1.45	0.79	1.33	
5. Writing Strategies	8	0.69	1.18	0.68	1.01	0.67	1.17	0.65	1.11	0.70	1.17	0.70	1.18	0.69	1.09	
Grade 3																
1. Word Analysis and Vocabulary Development	20	0.80	1.69	0.75	1.39	0.76	1.64	0.73	1.55	0.78	1.71	0.79	1.71	0.75	1.53	
2. Reading Comprehension	15	0.77	1.54	0.72	1.35	0.71	1.55	0.72	1.47	0.75	1.56	0.76	1.58	0.73	1.42	
3. Literary Response and Analysis	8	0.62	1.00	0.50	0.87	0.53	0.98	0.51	0.95	0.57	1.00	0.59	1.02	0.51	0.88	
4. Written and Oral Language Conventions	13	0.71	1.50	0.71	1.29	0.69	1.48	0.70	1.40	0.71	1.49	0.73	1.50	0.70	1.41	
5. Writing Strategies	9	0.64	1.31	0.60	1.16	0.57	1.32	0.60	1.24	0.61	1.31	0.63	1.32	0.59	1.24	
Grade 4																
1. Word Analysis and Vocabulary Development	18	0.85	1.51	0.80	1.18	0.83	1.46	0.77	1.33	0.83	1.51	0.84	1.53	0.80	1.30	
2. Reading Comprehension	15	0.78	1.60	0.74	1.40	0.77	1.60	0.73	1.53	0.77	1.60	0.77	1.64	0.74	1.48	
3. Literary Response and Analysis	9	0.65	1.26	0.63	1.04	0.64	1.22	0.60	1.18	0.64	1.25	0.65	1.27	0.62	1.13	
4. Written and Oral Language Conventions	18	0.79	1.72	0.74	1.40	0.78	1.66	0.72	1.56	0.77	1.69	0.79	1.72	0.74	1.55	
5. Writing Strategies	15	0.75	1.69	0.75	1.46	0.74	1.67	0.72	1.60	0.74	1.68	0.74	1.70	0.74	1.59	
Grade 5																
1. Word Analysis and Vocabulary Development	14	0.73	1.39	0.70	1.17	0.68	1.40	0.63	1.29	0.70	1.40	0.73	1.41	0.66	1.26	
2. Reading Comprehension	16	0.82	1.55	0.77	1.28	0.79	1.54	0.76	1.43	0.79	1.55	0.81	1.59	0.78	1.39	
3. Literary Response and Analysis	12	0.71	1.37	0.68	1.16	0.67	1.36	0.65	1.29	0.69	1.38	0.71	1.39	0.65	1.24	
4. Written and Oral Language Conventions	17	0.75	1.65	0.68	1.30	0.73	1.59	0.66	1.43	0.73	1.62	0.75	1.64	0.70	1.50	
5. Writing Strategies	16	0.76	1.68	0.73	1.43	0.74	1.67	0.71	1.57	0.74	1.66	0.76	1.69	0.72	1.55	
Grade 6																
1. Word Analysis and Vocabulary Development	13	0.73	1.39	0.73	1.09	0.74	1.36	0.66	1.26	0.73	1.38	0.76	1.40	0.71	1.21	
2. Reading Comprehension	17	0.69	1.83	0.69	1.62	0.67	1.82	0.66	1.75	0.69	1.82	0.69	1.84	0.67	1.73	
3. Literary Response and Analysis	12	0.66	1.35	0.63	1.20	0.65	1.35	0.60	1.29	0.66	1.36	0.68	1.38	0.63	1.26	
4. Written and Oral Language Conventions	16	0.75	1.62	0.73	1.27	0.76	1.56	0.68	1.45	0.75	1.60	0.77	1.62	0.74	1.47	
5. Writing Strategies	17	0.75	1.78	0.74	1.52	0.76	1.75	0.73	1.68	0.75	1.77	0.77	1.78	0.74	1.64	
Grade 7																
1. Word Analysis and Vocabulary Development	11	0.71	1.30	0.66	1.07	0.67	1.29	0.59	1.19	0.67	1.31	0.70	1.34	0.64	1.18	
2. Reading Comprehension	18	0.80	1.63	0.75	1.35	0.77	1.60	0.73	1.49	0.78	1.63	0.80	1.67	0.76	1.47	
3. Literary Response and Analysis	13	0.69	1.43	0.63	1.24	0.65	1.42	0.60	1.35	0.65	1.45	0.67	1.47	0.60	1.34	
4. Written and Oral Language Conventions	16	0.70	1.69	0.70	1.38	0.69	1.63	0.65	1.52	0.67	1.69	0.70	1.69	0.67	1.57	
5. Writing Strategies	17	0.77	1.76	0.78	1.51	0.74	1.76	0.73	1.69	0.74	1.78	0.76	1.79	0.75	1.65	

Subscore Reliabilities and SEM for ELA by <i>Primary Ethnicity-for-Not Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 8															
1. Word Analysis and Vocabulary Development	9	0.62	1.20	0.61	1.04	0.57	1.20	0.51	1.16	0.57	1.23	0.59	1.24	0.54	1.14
2. Reading Comprehension	18	0.79	1.67	0.73	1.40	0.76	1.68	0.71	1.57	0.77	1.69	0.78	1.72	0.73	1.52
3. Literary Response and Analysis	15	0.76	1.58	0.73	1.35	0.74	1.60	0.72	1.51	0.74	1.62	0.74	1.64	0.72	1.47
4. Written and Oral Language Conventions	16	0.77	1.63	0.75	1.34	0.76	1.61	0.73	1.52	0.76	1.65	0.77	1.66	0.75	1.50
5. Writing Strategies	17	0.78	1.73	0.74	1.49	0.75	1.74	0.74	1.64	0.77	1.76	0.78	1.77	0.75	1.62
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.62	1.21	0.61	1.06	0.59	1.23	0.53	1.17	0.58	1.24	0.60	1.24	0.59	1.13
2. Reading Comprehension	18	0.81	1.69	0.80	1.31	0.82	1.69	0.78	1.50	0.82	1.72	0.82	1.76	0.80	1.49
3. Literary Response and Analysis	16	0.76	1.63	0.73	1.42	0.76	1.64	0.69	1.56	0.75	1.66	0.76	1.68	0.72	1.51
4. Written and Oral Language Conventions	13	0.75	1.53	0.72	1.26	0.75	1.51	0.67	1.42	0.73	1.55	0.75	1.57	0.73	1.37
5. Writing Strategies	20	0.74	1.95	0.71	1.75	0.75	1.93	0.67	1.86	0.74	1.95	0.76	1.96	0.72	1.86
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.62	1.17	0.59	1.00	0.60	1.18	0.55	1.10	0.62	1.19	0.63	1.20	0.59	1.09
2. Reading Comprehension	18	0.83	1.70	0.79	1.41	0.82	1.71	0.76	1.57	0.83	1.73	0.83	1.77	0.80	1.56
3. Literary Response and Analysis	16	0.74	1.72	0.70	1.55	0.69	1.75	0.65	1.68	0.71	1.76	0.71	1.78	0.71	1.64
4. Written and Oral Language Conventions	13	0.74	1.47	0.68	1.25	0.72	1.46	0.62	1.34	0.73	1.48	0.75	1.50	0.71	1.37
5. Writing Strategies	20	0.80	1.86	0.79	1.62	0.80	1.88	0.75	1.77	0.81	1.88	0.81	1.91	0.79	1.74
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.60	1.14	0.58	0.99	0.56	1.17	0.46	1.08	0.60	1.15	0.63	1.18	0.58	1.06
2. Reading Comprehension	19	0.80	1.84	0.79	1.61	0.80	1.86	0.75	1.77	0.80	1.87	0.81	1.88	0.80	1.72
3. Literary Response and Analysis	17	0.75	1.73	0.75	1.53	0.74	1.75	0.70	1.67	0.75	1.76	0.75	1.79	0.75	1.63
4. Written and Oral Language Conventions	9	0.54	1.28	0.60	1.16	0.51	1.28	0.48	1.22	0.52	1.29	0.54	1.30	0.56	1.21
5. Writing Strategies	22	0.84	1.95	0.80	1.73	0.83	1.98	0.78	1.90	0.83	2.00	0.85	2.01	0.83	1.83

Table 8.B.36 Subscore Reliabilities and SEM for History–Social Science by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for History–Social Science by <i>Primary Ethnicity-for-Not Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 8															
1. World History and Geography: Ancient Civilizations	16	0.69	1.69	0.72	1.45	0.69	1.68	0.67	1.62	0.68	1.69	0.70	1.72	0.69	1.61
2. Late Antiquity and the Middle Ages	14	0.75	1.55	0.72	1.26	0.74	1.52	0.70	1.43	0.74	1.57	0.77	1.58	0.72	1.44
3. Renaissance/Reformation	10	0.60	1.41	0.59	1.21	0.59	1.39	0.55	1.33	0.59	1.41	0.61	1.42	0.60	1.34
4. U.S. Constitution and the Early Republic	22	0.83	1.97	0.81	1.65	0.81	1.97	0.80	1.85	0.82	1.98	0.83	2.01	0.82	1.82
5. Civil War and Its Aftermath	13	0.79	1.49	0.78	1.19	0.79	1.48	0.77	1.38	0.78	1.50	0.81	1.49	0.78	1.35
World History															
1. Development of Modern Political Thought	13	0.66	1.56	0.62	1.39	0.63	1.56	0.58	1.50	0.66	1.57	0.67	1.59	0.65	1.48
2. Industrial Expansion and Imperialism	10	0.70	1.31	0.65	1.11	0.69	1.32	0.61	1.25	0.69	1.35	0.70	1.36	0.68	1.23
3. Causes and Effects of World War I	14	0.77	1.61	0.74	1.41	0.74	1.63	0.72	1.56	0.76	1.64	0.75	1.67	0.76	1.51
4. Causes and Effects of World War II	13	0.77	1.51	0.74	1.30	0.74	1.54	0.71	1.45	0.75	1.54	0.76	1.57	0.76	1.41
5. International Developments in the Post-World War II Era	10	0.74	1.32	0.71	1.14	0.73	1.34	0.69	1.27	0.73	1.35	0.73	1.38	0.74	1.24
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.71	1.31	0.73	1.10	0.69	1.33	0.67	1.27	0.71	1.35	0.71	1.37	0.72	1.22
2. Industrialization and the U.S. role as a World Power	13	0.71	1.52	0.70	1.33	0.68	1.53	0.65	1.46	0.71	1.54	0.72	1.56	0.71	1.44
3. United States between the World Wars	12	0.72	1.48	0.69	1.33	0.71	1.50	0.65	1.46	0.72	1.51	0.73	1.50	0.71	1.40
4. World War II and Foreign Affairs	12	0.71	1.48	0.66	1.34	0.70	1.49	0.67	1.43	0.71	1.50	0.71	1.53	0.70	1.42
5. Post-World War II Domestic Affairs	13	0.75	1.52	0.71	1.37	0.74	1.52	0.69	1.46	0.74	1.54	0.77	1.52	0.75	1.44

Table 8.B.37 Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity-for-Not Economically Disadvantaged															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 2															
1. Number Sense: Place Value, Addition, and Subtraction	15	0.81	1.39	0.72	1.08	0.79	1.35	0.74	1.24	0.79	1.39	0.81	1.43	0.75	1.28
2. Number Sense: Multiplication, Division, and Fractions	23	0.84	1.72	0.79	1.33	0.84	1.66	0.81	1.53	0.83	1.69	0.85	1.76	0.81	1.53
3. Algebra and Functions	6	0.60	0.89	0.56	0.64	0.60	0.86	0.58	0.76	0.60	0.89	0.62	0.92	0.58	0.78
4. Measurement and Geometry	14	0.68	1.27	0.64	0.99	0.68	1.22	0.64	1.12	0.67	1.26	0.72	1.33	0.63	1.12
5. Statistics, Data Analysis, and Probability	7	0.55	0.98	0.48	0.83	0.51	0.97	0.51	0.91	0.56	0.97	0.61	1.00	0.52	0.90
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.76	1.37	0.67	1.01	0.72	1.33	0.68	1.20	0.75	1.35	0.77	1.40	0.71	1.21
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.84	1.45	0.80	0.97	0.82	1.37	0.81	1.21	0.83	1.40	0.85	1.46	0.82	1.29
3. Algebra and Functions	12	0.78	1.15	0.70	0.76	0.74	1.10	0.71	0.96	0.76	1.13	0.78	1.20	0.74	0.96
4. Measurement and Geometry	16	0.74	1.39	0.71	1.01	0.73	1.33	0.72	1.21	0.74	1.35	0.77	1.42	0.72	1.20
5. Statistics, Data Analysis and Probability	5	0.53	0.68	0.38	0.50	0.43	0.66	0.42	0.59	0.47	0.68	0.53	0.72	0.44	0.56
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.79	1.40	0.71	0.97	0.78	1.30	0.70	1.19	0.76	1.36	0.79	1.44	0.74	1.19
2. Number Sense: Operations and Factoring	14	0.82	1.31	0.75	0.79	0.81	1.17	0.77	1.03	0.81	1.22	0.83	1.29	0.79	1.10
3. Algebra and Functions	18	0.87	1.40	0.77	0.89	0.85	1.28	0.80	1.12	0.85	1.33	0.87	1.39	0.82	1.17
4. Measurement and Geometry	12	0.74	1.35	0.67	1.06	0.71	1.32	0.68	1.21	0.70	1.32	0.73	1.37	0.69	1.22
5. Statistics, Data Analysis, and Probability	4	0.44	0.72	0.36	0.53	0.42	0.69	0.37	0.64	0.40	0.70	0.45	0.73	0.41	0.62
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.74	1.42	0.76	1.10	0.76	1.38	0.75	1.28	0.75	1.39	0.76	1.42	0.75	1.32
2. Number Sense: Operations with Fractions and Decimals	17	0.83	1.67	0.80	1.18	0.82	1.61	0.80	1.46	0.82	1.63	0.82	1.68	0.82	1.52
3. Algebra and Functions	17	0.80	1.58	0.76	1.16	0.79	1.50	0.76	1.36	0.79	1.52	0.80	1.57	0.78	1.42
4. Measurement and Geometry	15	0.80	1.54	0.79	1.19	0.80	1.51	0.78	1.40	0.79	1.52	0.79	1.56	0.79	1.42
5. Statistics, Data Analysis, and Probability	4	0.61	0.68	0.51	0.45	0.52	0.67	0.53	0.56	0.54	0.67	0.56	0.71	0.56	0.57
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.77	1.60	0.76	1.25	0.77	1.57	0.77	1.47	0.77	1.60	0.78	1.62	0.76	1.50
2. Number Sense: Operations and Problem Solving with Fractions	10	0.70	1.28	0.67	0.97	0.69	1.26	0.67	1.16	0.69	1.27	0.69	1.30	0.69	1.17
3. Algebra and Functions	19	0.83	1.66	0.82	1.19	0.84	1.62	0.82	1.50	0.83	1.67	0.84	1.74	0.82	1.48
4. Measurement and Geometry	10	0.70	1.34	0.72	1.08	0.72	1.32	0.70	1.26	0.70	1.34	0.69	1.38	0.70	1.26
5. Statistics, Data Analysis, and Probability	11	0.76	1.33	0.73	1.06	0.76	1.30	0.73	1.24	0.75	1.32	0.76	1.35	0.74	1.21

Subscore Reliabilities and SEM for Mathematics by <i>Primary Ethnicity-for-Not Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 7															
1. Number Sense: Rational Numbers	14	0.71	1.61	0.76	1.31	0.75	1.57	0.74	1.49	0.74	1.59	0.73	1.62	0.73	1.50
2. Number Sense: Exponent, Powers and Roots	8	0.67	1.24	0.69	1.06	0.65	1.25	0.67	1.19	0.66	1.25	0.67	1.25	0.66	1.21
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.61	1.39	0.62	1.16	0.61	1.36	0.60	1.30	0.61	1.39	0.63	1.41	0.60	1.32
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.73	1.67	0.75	1.36	0.71	1.64	0.72	1.55	0.73	1.66	0.73	1.70	0.73	1.54
5. Measurement and Geometry	13	0.71	1.55	0.72	1.27	0.69	1.51	0.68	1.43	0.69	1.55	0.69	1.58	0.70	1.44
6. Statistics, Data Analysis, and Probability	5	0.56	0.90	0.56	0.73	0.54	0.88	0.53	0.81	0.57	0.89	0.56	0.92	0.56	0.83
General Mathematics															
1. Number Sense: Rational Numbers	14	0.76	1.63	0.79	1.48	0.75	1.60	0.76	1.56	0.75	1.63	0.74	1.64	0.76	1.60
2. Number Sense: Exponent, Powers and Roots	10	0.66	1.40	0.75	1.33	0.63	1.42	0.69	1.39	0.64	1.41	0.65	1.40	0.68	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.65	1.47	0.68	1.34	0.67	1.44	0.62	1.40	0.66	1.46	0.69	1.47	0.67	1.41
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.67	1.38	0.68	1.27	0.66	1.38	0.66	1.31	0.65	1.39	0.65	1.41	0.66	1.33
5. Measurement and Geometry	11	0.66	1.51	0.70	1.47	0.63	1.52	0.64	1.52	0.62	1.53	0.60	1.52	0.67	1.51
6. Statistics, Data Analysis, and Probability	9	0.66	1.30	0.68	1.19	0.66	1.26	0.64	1.24	0.65	1.29	0.66	1.31	0.68	1.23
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.74	1.80	0.77	1.49	0.75	1.78	0.74	1.71	0.74	1.81	0.74	1.82	0.75	1.72
2. Graphing and Systems of Linear Equations	14	0.73	1.69	0.82	1.44	0.74	1.69	0.77	1.64	0.72	1.70	0.70	1.70	0.78	1.65
3. Quadratics and Polynomials	21	0.82	2.02	0.87	1.69	0.84	1.99	0.84	1.94	0.82	2.03	0.81	2.03	0.84	1.96
4. Functions and Rational Expressions	13	0.60	1.62	0.80	1.47	0.66	1.61	0.70	1.61	0.61	1.61	0.60	1.60	0.70	1.60
Geometry															
1. Logic and Geometric Proofs	23	0.80	2.10	0.84	1.80	0.79	2.12	0.80	2.04	0.79	2.13	0.78	2.15	0.81	2.01
2. Volume and Area Formulas	11	0.69	1.45	0.76	1.20	0.69	1.45	0.72	1.39	0.67	1.47	0.63	1.48	0.71	1.39
3. Angle Relationships, Constructions, and Lines	16	0.73	1.73	0.80	1.48	0.72	1.75	0.74	1.67	0.71	1.76	0.70	1.77	0.75	1.67
4. Trigonometry	15	0.77	1.68	0.80	1.41	0.76	1.70	0.77	1.62	0.76	1.71	0.74	1.73	0.78	1.62
Algebra II															
1. Polynomials and Rational Expressions	19	0.80	1.80	0.82	1.49	0.79	1.82	0.79	1.75	0.80	1.85	0.80	1.89	0.79	1.77
2. Quadratics, Conics, and Complex Numbers	16	0.67	1.83	0.80	1.63	0.69	1.82	0.72	1.80	0.67	1.83	0.64	1.83	0.72	1.80
3. Exponents and Logarithms	16	0.76	1.77	0.81	1.52	0.75	1.77	0.76	1.73	0.74	1.79	0.74	1.80	0.77	1.73
4. Series, Combinatorics, and Probability and Statistics	14	0.69	1.66	0.78	1.55	0.69	1.66	0.72	1.65	0.68	1.66	0.66	1.65	0.72	1.64

Subscore Reliabilities and SEM for Mathematics by <i>Primary Ethnicity-for-Not Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Summative High School Mathematics															
1. Algebra I	18	0.74	1.73	0.73	1.33	0.77	1.68	0.74	1.65	0.75	1.73	0.74	1.79	0.75	1.61
2. Geometry	19	0.78	1.72	0.74	1.42	0.77	1.75	0.75	1.71	0.77	1.79	0.78	1.86	0.76	1.64
3. Algebra II	23	0.84	1.95	0.82	1.58	0.83	1.95	0.82	1.91	0.82	1.99	0.83	2.04	0.83	1.86
4. Probability and Statistics	5	0.47	0.92	0.47	0.83	0.51	0.94	0.46	0.95	0.47	0.96	0.49	0.98	0.49	0.88
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.69	1.71	0.75	1.63	0.76	1.68	0.69	1.67	0.68	1.71	0.67	1.73	0.70	1.68
2. Algebra I: Graphing	9	0.65	1.33	0.73	1.30	0.60	1.35	0.62	1.35	0.53	1.37	0.58	1.34	0.62	1.35
3. Algebra I: Quadratics and Polynomials	14	0.66	1.68	0.80	1.59	0.78	1.59	0.79	1.57	0.69	1.66	0.69	1.66	0.72	1.65
4. Algebra I: Functions and Relations Expressions	7	0.51	1.12	0.72	1.08	0.56	1.07	0.59	1.13	0.48	1.12	0.53	1.09	0.58	1.11
5. Geometry	20	0.36	2.06	0.80	1.97	0.63	1.99	0.68	2.03	0.52	2.03	0.53	1.98	0.64	2.04
Integrated Mathematics 2															
1. Algebra I	20	0.05	2.22	0.82	1.93	0.72	2.11	0.79	1.99	0.72	2.06	0.75	2.04	0.73	2.05
2. Geometry: Logic and Geometric Proofs	22	0.68	2.21	0.82	2.05	0.79	2.07	0.73	2.15	0.71	2.14	0.70	2.14	0.76	2.12
3. Geometry: Angle Relationships, Construction and Lines	8	–	–	0.59	1.19	0.37	1.27	0.60	1.18	0.45	1.25	0.48	1.25	0.54	1.22
4. Trigonometry	10	0.51	1.51	0.73	1.38	0.62	1.44	0.63	1.43	0.61	1.43	0.69	1.38	0.63	1.42
5. Algebra II: Probability and Statistics	5	0.01	0.98	0.53	0.96	0.16	0.89	0.59	0.93	0.35	0.95	0.50	0.92	0.43	0.95
Integrated Mathematics 3															
1. Geometry	5	–	–	0.75	0.75	–	–	0.37	1.05	0.49	0.99	0.60	0.99	0.61	0.86
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.88	1.71	–	–	0.89	1.79	0.83	1.88	0.66	1.94	0.83	1.86
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	–	–	0.77	1.79	–	–	0.70	1.82	0.57	1.85	0.39	1.83	0.71	1.83
4. Algebra II: Exponents and Logarithms	16	–	–	0.82	1.66	–	–	0.81	1.74	0.78	1.80	0.55	1.82	0.80	1.75
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.71	1.28	–	–	0.68	1.29	0.64	1.31	0.28	1.37	0.61	1.33

Table 8.B.38 Subscore Reliabilities and SEM for Science by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for Science by <i>Primary Ethnicity-for-Not Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.65	1.34	0.65	1.04	0.64	1.34	0.58	1.23	0.62	1.35	0.62	1.38	0.60	1.18
2. Physical Science (Grade 4)	8	0.58	1.10	0.61	0.87	0.60	1.11	0.57	1.02	0.59	1.11	0.60	1.15	0.57	0.97
3. Life Science (Grade 5)	13	0.71	1.41	0.67	1.16	0.73	1.39	0.64	1.31	0.69	1.40	0.71	1.45	0.65	1.26
4. Life Science (Grade 4)	9	0.68	1.18	0.67	0.94	0.67	1.19	0.62	1.11	0.66	1.19	0.68	1.23	0.63	1.05
5. Earth Science (Grade 5)	11	0.63	1.35	0.55	1.15	0.61	1.34	0.52	1.26	0.60	1.35	0.64	1.37	0.55	1.23
6. Earth Science (Grade 4)	8	0.67	1.11	0.65	0.83	0.67	1.09	0.58	1.00	0.64	1.11	0.66	1.15	0.62	0.96
Grade 8 Science															
1. Motion	8	0.52	1.24	0.50	1.02	0.52	1.22	0.45	1.18	0.47	1.25	0.47	1.26	0.48	1.16
2. Forces, Density, and Buoyancy	13	0.76	1.41	0.71	1.09	0.75	1.40	0.69	1.29	0.73	1.44	0.74	1.48	0.73	1.27
3. Structure of Matter and Periodic Table	16	0.80	1.56	0.77	1.19	0.79	1.54	0.75	1.40	0.79	1.58	0.80	1.61	0.77	1.39
4. Earth in the Solar System	7	0.59	1.02	0.50	0.83	0.55	1.02	0.47	0.93	0.57	1.02	0.59	1.05	0.52	0.92
5. Reactions and the Chemistry of Living Systems	10	0.62	1.38	0.64	1.16	0.61	1.38	0.58	1.32	0.61	1.39	0.62	1.40	0.62	1.31
6. Investigation and Experimentation	6	0.59	0.87	0.51	0.59	0.56	0.86	0.50	0.75	0.57	0.88	0.59	0.91	0.56	0.73
Grade 10 Life Science															
1. Cell Biology	10	0.66	1.36	0.68	1.17	0.64	1.38	0.63	1.30	0.64	1.39	0.62	1.40	0.65	1.29
2. Genetics	12	0.70	1.47	0.70	1.32	0.69	1.48	0.65	1.41	0.69	1.49	0.69	1.50	0.70	1.40
3. Physiology	10	0.74	1.24	0.69	1.05	0.71	1.29	0.65	1.18	0.71	1.30	0.71	1.33	0.71	1.14
4. Ecology	11	0.73	1.33	0.69	1.12	0.71	1.38	0.66	1.27	0.73	1.38	0.72	1.42	0.71	1.21
5. Evolution	11	0.75	1.32	0.70	1.14	0.74	1.37	0.69	1.24	0.75	1.37	0.74	1.40	0.74	1.21
6. Investigation and Experimentation	6	0.68	0.88	0.56	0.71	0.67	0.91	0.56	0.80	0.67	0.92	0.69	0.95	0.66	0.79
Biology															
1. Cell Biology	9	0.62	1.28	0.65	1.04	0.59	1.30	0.58	1.21	0.60	1.31	0.60	1.33	0.63	1.19
2. Genetics	18	0.79	1.79	0.79	1.52	0.78	1.81	0.75	1.72	0.78	1.82	0.78	1.85	0.78	1.69
3. Ecology and Evolution	16	0.79	1.69	0.77	1.47	0.77	1.74	0.72	1.67	0.77	1.75	0.76	1.78	0.77	1.60
4. Physiology	11	0.79	1.22	0.74	1.01	0.77	1.29	0.69	1.17	0.77	1.30	0.78	1.33	0.76	1.12
5. Investigation and Experimentation	6	0.62	0.98	0.53	0.85	0.60	1.01	0.53	0.94	0.61	1.02	0.60	1.04	0.59	0.91
Chemistry															
1. Atomic and Molecular Structure	8	0.39	1.23	0.46	1.12	0.37	1.24	0.40	1.21	0.40	1.24	0.41	1.26	0.39	1.20
2. Chemical Bonds, Biochemistry	9	0.53	1.27	0.58	1.11	0.56	1.32	0.53	1.26	0.55	1.33	0.57	1.35	0.54	1.22
3. Kinetics, Thermodynamics	14	0.69	1.64	0.71	1.47	0.68	1.71	0.64	1.67	0.66	1.72	0.65	1.74	0.67	1.59
4. Chemical Reactions	13	0.71	1.60	0.75	1.46	0.69	1.63	0.68	1.60	0.68	1.63	0.67	1.64	0.72	1.56
5. Conservation of Matter and Stoichiometry	10	0.69	1.37	0.74	1.15	0.68	1.40	0.70	1.34	0.68	1.41	0.66	1.43	0.71	1.32
6. Investigation and Experimentation	6	0.63	0.88	0.59	0.71	0.64	0.94	0.58	0.87	0.63	0.96	0.63	1.00	0.59	0.81
Earth Science															
1. Astronomy and Cosmology	12	0.69	1.50	0.66	1.46	0.64	1.54	0.62	1.48	0.67	1.53	0.68	1.56	0.67	1.45
2. Solid Earth	14	0.71	1.66	0.65	1.62	0.65	1.70	0.59	1.64	0.67	1.69	0.67	1.72	0.66	1.63
3. The Earth's Energy	28	0.86	2.30	0.86	2.19	0.84	2.36	0.84	2.26	0.84	2.36	0.84	2.39	0.86	2.22
4. Investigation and Experimentation	6	0.66	1.02	0.61	0.95	0.58	1.05	0.55	0.99	0.60	1.05	0.62	1.06	0.63	0.97

Subscore Reliabilities and SEM for Science by <i>Primary Ethnicity-for-Not Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Physics															
1. Motion and Forces	12	0.70	1.44	0.69	1.30	0.68	1.49	0.67	1.46	0.67	1.51	0.69	1.54	0.67	1.38
2. Conservation of Energy and Momentum	12	0.75	1.46	0.72	1.27	0.71	1.49	0.69	1.44	0.73	1.50	0.72	1.53	0.73	1.38
3. Heat and Thermodynamics	9	0.69	1.26	0.66	1.13	0.63	1.32	0.62	1.26	0.66	1.30	0.65	1.33	0.65	1.19
4. Waves	10	0.67	1.33	0.60	1.24	0.60	1.38	0.57	1.33	0.64	1.38	0.62	1.41	0.61	1.29
5. Electric and Magnetic Phenomena	11	0.59	1.51	0.62	1.37	0.62	1.49	0.58	1.47	0.60	1.52	0.59	1.53	0.61	1.46
6. Investigation and Experimentation	6	0.57	1.02	0.47	0.94	0.55	1.05	0.41	1.04	0.49	1.08	0.53	1.09	0.47	0.98
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.60	1.42	0.65	1.32	0.68	1.41	0.54	1.43	0.63	1.43	0.60	1.45	0.63	1.33
2. Chemistry	15	0.52	1.80	0.65	1.73	0.64	1.77	0.53	1.79	0.55	1.80	0.56	1.79	0.60	1.76
3. Earth Sciences	17	0.74	1.82	0.78	1.68	0.79	1.83	0.73	1.80	0.76	1.85	0.76	1.86	0.76	1.74
4. Physics	12	0.50	1.61	0.59	1.57	0.51	1.62	0.47	1.61	0.48	1.61	0.46	1.61	0.53	1.60
5. Investigation and Experimentation	6	0.67	1.01	0.63	0.93	0.60	1.08	0.60	1.01	0.59	1.08	0.60	1.08	0.64	0.97
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	–	–	0.70	1.46	–	–	0.59	1.73	0.59	1.77	0.55	1.79	0.70	1.70
2. Chemistry	6	–	–	0.59	0.95	–	–	0.35	1.16	0.31	1.15	0.07	1.16	0.54	1.12
3. Earth Sciences	15	–	–	0.72	1.35	–	–	0.65	1.76	0.73	1.74	0.65	1.79	0.78	1.59
4. Physics	18	–	–	0.75	1.80	–	–	0.57	1.95	0.56	1.90	0.43	1.90	0.73	1.90
5. Investigation and Experimentation	6	–	–	0.52	0.88	–	–	0.45	1.09	0.39	1.14	0.38	1.13	0.51	1.05
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.74	1.63	–	–	–	–	0.73	1.79	0.74	1.84	0.79	1.68
2. Chemistry	23	–	–	0.72	2.25	–	–	–	–	0.77	2.14	0.81	2.14	0.78	2.19
3. Earth Sciences	7	–	–	0.59	1.05	–	–	–	–	0.55	1.21	0.54	1.21	0.64	1.12
4. Physics	8	–	–	0.10	1.33	–	–	–	–	0.42	1.29	0.49	1.30	0.49	1.31
5. Investigation and Experimentation	6	–	–	0.55	0.98	–	–	–	–	0.46	1.11	0.63	1.05	0.53	1.05
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	0.67	1.50	–	–	0.75	1.52
2. Chemistry	10	–	–	–	–	–	–	–	–	0.38	1.50	–	–	0.49	1.49
3. Earth Sciences	15	–	–	–	–	–	–	–	–	0.62	1.82	–	–	0.81	1.69
4. Physics	16	–	–	–	–	–	–	–	–	0.56	1.77	–	–	0.71	1.84
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.32	1.16	–	–	0.29	1.10

Table 8.B.39 Subscore Reliabilities and SEM for Grade-specific CSTs by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for Grade-specific CSTs by Primary Ethnicity-for-Not Economically Disadvantaged															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Algebra I – 8															
1. Number Properties, Operations, and Linear Equations	17	0.70	1.74	0.71	1.46	0.76	1.71	0.72	1.67	0.73	1.76	0.75	1.78	0.71	1.66
2. Graphing and Systems of Linear Equations	14	0.74	1.68	0.79	1.44	0.75	1.66	0.76	1.62	0.74	1.68	0.73	1.70	0.76	1.62
3. Quadratics and Polynomials	21	0.82	1.98	0.84	1.67	0.85	1.93	0.82	1.89	0.83	1.98	0.82	2.00	0.83	1.90
4. Functions and Rational Expressions	13	0.67	1.62	0.76	1.48	0.70	1.61	0.69	1.62	0.66	1.62	0.67	1.62	0.70	1.60
Geometry – 9															
1. Logic and Geometric Proofs	23	0.79	1.97	0.77	1.79	0.77	2.03	0.76	1.98	0.78	2.05	0.78	2.09	0.74	1.91
2. Volume and Area Formulas	11	0.69	1.37	0.68	1.19	0.63	1.42	0.68	1.34	0.68	1.41	0.66	1.44	0.66	1.32
3. Angle Relationships, Constructions, and Lines	16	0.70	1.65	0.72	1.48	0.66	1.70	0.70	1.62	0.70	1.70	0.70	1.72	0.68	1.59
4. Trigonometry	15	0.75	1.58	0.73	1.40	0.76	1.61	0.72	1.56	0.75	1.65	0.75	1.69	0.72	1.54
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.78	1.75	0.77	1.51	0.78	1.76	0.77	1.70	0.78	1.79	0.80	1.84	0.76	1.71
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.81	0.75	1.67	0.70	1.80	0.71	1.79	0.68	1.82	0.67	1.83	0.70	1.78
3. Exponents and Logarithms	16	0.75	1.73	0.76	1.55	0.73	1.75	0.74	1.69	0.74	1.76	0.75	1.78	0.74	1.70
4. Series, Combinatorics, and Probability and Statistics	14	0.71	1.65	0.73	1.58	0.70	1.65	0.70	1.65	0.69	1.66	0.69	1.64	0.70	1.64
Summative High School Mathematics – 11															
1. Algebra I	18	0.73	1.76	0.74	1.38	0.77	1.71	0.73	1.69	0.74	1.75	0.73	1.81	0.75	1.64
2. Geometry	19	0.77	1.75	0.75	1.46	0.77	1.77	0.75	1.74	0.77	1.82	0.77	1.88	0.76	1.67
3. Algebra II	23	0.84	1.98	0.83	1.64	0.83	1.98	0.82	1.94	0.82	2.01	0.82	2.06	0.83	1.89
4. Probability and Statistics	5	0.50	0.92	0.48	0.85	0.52	0.94	0.45	0.96	0.47	0.97	0.47	0.99	0.49	0.89
World History – 10															
1. Development of Modern Political Thought	13	0.64	1.56	0.60	1.41	0.60	1.56	0.56	1.51	0.64	1.57	0.65	1.59	0.63	1.48
2. Industrial Expansion and Imperialism	10	0.70	1.30	0.65	1.12	0.67	1.33	0.60	1.25	0.68	1.34	0.69	1.36	0.66	1.23
3. Causes and Effects of World War I	14	0.76	1.61	0.74	1.42	0.73	1.64	0.72	1.56	0.75	1.64	0.74	1.67	0.75	1.52
4. Causes and Effects of World War II	13	0.76	1.50	0.74	1.31	0.73	1.54	0.70	1.46	0.74	1.54	0.74	1.57	0.75	1.41
5. International Developments in the Post-World War II Era	10	0.74	1.32	0.71	1.15	0.72	1.35	0.68	1.28	0.72	1.35	0.72	1.38	0.73	1.25

Table 8.B.40 Subscore Reliabilities and SEM for ELA by Primary Ethnicity-for-Economically Disadvantaged

Subscore Reliabilities and SEM for ELA by <i>Primary Ethnicity-for-Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 2															
1. Word Analysis and Vocabulary Development	22	0.85	1.98	0.85	1.78	0.84	1.90	0.83	1.76	0.85	1.97	0.85	1.95	0.85	1.90
2. Reading Comprehension	15	0.77	1.67	0.77	1.55	0.75	1.65	0.75	1.54	0.76	1.68	0.77	1.68	0.79	1.60
3. Literary Response and Analysis	6	0.70	0.94	0.65	0.87	0.64	0.92	0.61	0.85	0.66	0.97	0.67	0.96	0.68	0.89
4. Written and Oral Language Conventions	14	0.80	1.58	0.81	1.40	0.79	1.51	0.79	1.39	0.80	1.56	0.80	1.56	0.81	1.52
5. Writing Strategies	8	0.66	1.25	0.69	1.17	0.66	1.23	0.67	1.19	0.66	1.24	0.67	1.24	0.71	1.20
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.78	1.86	0.80	1.68	0.76	1.81	0.77	1.69	0.78	1.87	0.80	1.85	0.79	1.77
2. Reading Comprehension	15	0.74	1.67	0.76	1.58	0.72	1.67	0.72	1.59	0.74	1.68	0.75	1.68	0.76	1.59
3. Literary Response and Analysis	8	0.58	1.11	0.57	1.05	0.53	1.09	0.54	1.05	0.57	1.11	0.59	1.11	0.59	1.04
4. Written and Oral Language Conventions	13	0.69	1.57	0.73	1.45	0.70	1.53	0.70	1.48	0.70	1.54	0.71	1.56	0.71	1.53
5. Writing Strategies	9	0.59	1.37	0.64	1.31	0.56	1.37	0.62	1.31	0.58	1.37	0.58	1.37	0.61	1.35
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.83	1.71	0.85	1.52	0.82	1.68	0.80	1.50	0.84	1.72	0.84	1.71	0.84	1.59
2. Reading Comprehension	15	0.76	1.70	0.79	1.60	0.74	1.70	0.75	1.62	0.76	1.69	0.75	1.71	0.77	1.64
3. Literary Response and Analysis	9	0.64	1.34	0.66	1.25	0.62	1.33	0.62	1.27	0.62	1.35	0.63	1.35	0.64	1.29
4. Written and Oral Language Conventions	18	0.78	1.84	0.78	1.67	0.78	1.78	0.75	1.68	0.77	1.82	0.78	1.83	0.78	1.76
5. Writing Strategies	15	0.70	1.75	0.75	1.68	0.68	1.76	0.72	1.69	0.69	1.75	0.69	1.75	0.73	1.72
Grade 5															
1. Word Analysis and Vocabulary Development	14	0.73	1.52	0.75	1.39	0.70	1.50	0.69	1.40	0.71	1.52	0.73	1.52	0.73	1.44
2. Reading Comprehension	16	0.80	1.70	0.81	1.54	0.77	1.69	0.78	1.57	0.78	1.69	0.80	1.70	0.80	1.61
3. Literary Response and Analysis	12	0.70	1.50	0.72	1.40	0.66	1.51	0.67	1.42	0.69	1.51	0.70	1.50	0.69	1.41
4. Written and Oral Language Conventions	17	0.76	1.75	0.76	1.53	0.73	1.69	0.72	1.55	0.74	1.74	0.76	1.75	0.75	1.69
5. Writing Strategies	16	0.73	1.78	0.77	1.66	0.71	1.76	0.73	1.69	0.73	1.76	0.74	1.77	0.74	1.72
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.74	1.50	0.77	1.38	0.73	1.49	0.72	1.39	0.72	1.52	0.75	1.52	0.75	1.41
2. Reading Comprehension	17	0.67	1.89	0.71	1.80	0.64	1.90	0.68	1.83	0.66	1.89	0.66	1.90	0.69	1.84
3. Literary Response and Analysis	12	0.65	1.45	0.68	1.38	0.63	1.46	0.62	1.37	0.64	1.47	0.66	1.46	0.67	1.39
4. Written and Oral Language Conventions	16	0.74	1.73	0.76	1.53	0.74	1.68	0.72	1.57	0.74	1.71	0.75	1.73	0.76	1.65
5. Writing Strategies	17	0.74	1.85	0.78	1.74	0.73	1.85	0.75	1.77	0.73	1.85	0.73	1.86	0.76	1.79
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.68	1.43	0.70	1.30	0.68	1.42	0.64	1.30	0.68	1.40	0.69	1.43	0.70	1.35
2. Reading Comprehension	18	0.78	1.78	0.79	1.60	0.78	1.76	0.76	1.61	0.78	1.76	0.80	1.79	0.80	1.68
3. Literary Response and Analysis	13	0.68	1.55	0.70	1.43	0.67	1.54	0.65	1.45	0.67	1.55	0.68	1.56	0.68	1.49
4. Written and Oral Language Conventions	16	0.68	1.77	0.72	1.61	0.68	1.74	0.66	1.64	0.64	1.77	0.67	1.77	0.69	1.72
5. Writing Strategies	17	0.71	1.84	0.78	1.74	0.71	1.84	0.73	1.78	0.70	1.84	0.70	1.85	0.74	1.80

Subscore Reliabilities and SEM for ELA by Primary Ethnicity-for-Economically Disadvantaged															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 8															
1. Word Analysis and Vocabulary Development	9	0.58	1.28	0.66	1.21	0.55	1.28	0.53	1.23	0.55	1.28	0.56	1.29	0.61	1.23
2. Reading Comprehension	18	0.79	1.79	0.80	1.66	0.76	1.81	0.75	1.69	0.77	1.81	0.78	1.83	0.78	1.71
3. Literary Response and Analysis	15	0.73	1.70	0.77	1.58	0.71	1.71	0.73	1.62	0.72	1.72	0.72	1.73	0.75	1.63
4. Written and Oral Language Conventions	16	0.76	1.74	0.78	1.60	0.74	1.74	0.74	1.64	0.74	1.75	0.75	1.76	0.77	1.68
5. Writing Strategies	17	0.77	1.83	0.78	1.73	0.75	1.83	0.74	1.75	0.74	1.84	0.76	1.85	0.78	1.78
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.57	1.27	0.61	1.22	0.50	1.29	0.53	1.24	0.52	1.27	0.55	1.28	0.61	1.24
2. Reading Comprehension	18	0.81	1.83	0.83	1.65	0.79	1.84	0.80	1.67	0.79	1.85	0.79	1.87	0.82	1.73
3. Literary Response and Analysis	16	0.73	1.73	0.75	1.65	0.71	1.75	0.70	1.67	0.71	1.75	0.72	1.75	0.75	1.67
4. Written and Oral Language Conventions	13	0.72	1.62	0.73	1.52	0.72	1.62	0.69	1.54	0.69	1.63	0.71	1.64	0.75	1.55
5. Writing Strategies	20	0.73	2.01	0.74	1.92	0.72	2.00	0.69	1.93	0.71	2.01	0.72	2.01	0.75	1.97
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.61	1.24	0.63	1.17	0.59	1.24	0.58	1.17	0.58	1.24	0.59	1.24	0.63	1.20
2. Reading Comprehension	18	0.82	1.83	0.82	1.66	0.82	1.82	0.79	1.70	0.81	1.82	0.81	1.85	0.83	1.75
3. Literary Response and Analysis	16	0.71	1.81	0.71	1.73	0.67	1.83	0.66	1.76	0.67	1.83	0.68	1.83	0.73	1.77
4. Written and Oral Language Conventions	13	0.73	1.56	0.70	1.43	0.74	1.53	0.66	1.44	0.71	1.54	0.73	1.57	0.75	1.50
5. Writing Strategies	20	0.79	1.96	0.82	1.83	0.79	1.96	0.78	1.87	0.78	1.95	0.79	1.98	0.81	1.90
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.60	1.22	0.61	1.16	0.59	1.23	0.52	1.14	0.61	1.18	0.60	1.25	0.61	1.18
2. Reading Comprehension	19	0.79	1.93	0.80	1.83	0.78	1.95	0.77	1.85	0.78	1.94	0.79	1.95	0.81	1.87
3. Literary Response and Analysis	17	0.73	1.83	0.77	1.73	0.72	1.84	0.71	1.75	0.72	1.83	0.72	1.86	0.76	1.77
4. Written and Oral Language Conventions	9	0.50	1.32	0.58	1.26	0.46	1.34	0.49	1.28	0.48	1.33	0.48	1.34	0.55	1.29
5. Writing Strategies	22	0.83	2.07	0.82	1.96	0.81	2.09	0.80	1.99	0.81	2.08	0.83	2.09	0.85	2.00

Table 8.B.41 Subscore Reliabilities and SEM for History–Social Science by Primary Ethnicity-for-Economically Disadvantaged

Subscore Reliabilities and SEM for History–Social Science by <i>Primary Ethnicity-for-Economically Disadvantaged</i>																
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White		
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	
Grade 8																
1. World History and Geography: Ancient Civilizations	16	0.65	1.75	0.74	1.66	0.68	1.74	0.70	1.69	0.66	1.74	0.67	1.77	0.69	1.72	
2. Late Antiquity and the Middle Ages	14	0.75	1.65	0.77	1.48	0.73	1.64	0.73	1.53	0.74	1.65	0.75	1.65	0.76	1.59	
3. Renaissance/Reformation	10	0.58	1.46	0.63	1.37	0.55	1.45	0.56	1.39	0.57	1.46	0.59	1.46	0.60	1.43	
4. U.S. Constitution and the Early Republic	22	0.82	2.08	0.82	1.94	0.80	2.09	0.80	1.98	0.80	2.08	0.80	2.11	0.83	2.02	
5. Civil War and Its Aftermath	13	0.76	1.59	0.80	1.45	0.76	1.59	0.75	1.51	0.75	1.60	0.77	1.59	0.79	1.53	
World History																
1. Development of Modern Political Thought	13	0.65	1.62	0.64	1.53	0.63	1.62	0.59	1.56	0.63	1.62	0.65	1.63	0.67	1.58	
2. Industrial Expansion and Imperialism	10	0.67	1.40	0.68	1.29	0.65	1.41	0.64	1.32	0.67	1.40	0.67	1.41	0.70	1.35	
3. Causes and Effects of World War I	14	0.73	1.69	0.75	1.58	0.71	1.70	0.73	1.63	0.72	1.69	0.70	1.71	0.76	1.64	
4. Causes and Effects of World War II	13	0.73	1.60	0.75	1.48	0.72	1.61	0.72	1.53	0.73	1.60	0.71	1.62	0.76	1.55	
5. International Developments in the Post-World War II Era	10	0.70	1.40	0.73	1.29	0.71	1.39	0.71	1.33	0.70	1.40	0.68	1.42	0.74	1.36	
Grade 11 (U.S. History)																
1. Foundations of American Political and Social Thought	10	0.67	1.41	0.72	1.29	0.64	1.42	0.68	1.34	0.68	1.41	0.66	1.42	0.71	1.36	
2. Industrialization and the U.S. role as a World Power	13	0.69	1.59	0.72	1.49	0.68	1.60	0.67	1.51	0.69	1.59	0.68	1.61	0.72	1.55	
3. United States between the World Wars	12	0.70	1.56	0.70	1.47	0.69	1.56	0.67	1.50	0.69	1.55	0.70	1.55	0.73	1.51	
4. World War II and Foreign Affairs	12	0.70	1.55	0.71	1.44	0.70	1.54	0.67	1.48	0.70	1.54	0.68	1.57	0.72	1.51	
5. Post-World War II Domestic Affairs	13	0.75	1.58	0.74	1.50	0.73	1.58	0.69	1.52	0.72	1.59	0.74	1.58	0.77	1.55	

Table 8.B.42 Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity-for-Economically Disadvantaged

Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity-for-Economically Disadvantaged															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 2															
1. Number Sense: Place Value, Addition, and Subtraction	15	0.80	1.54	0.80	1.31	0.81	1.48	0.79	1.36	0.81	1.51	0.82	1.54	0.80	1.45
2. Number Sense: Multiplication, Division, and Fractions	23	0.85	1.87	0.84	1.63	0.84	1.82	0.84	1.68	0.84	1.84	0.85	1.91	0.84	1.76
3. Algebra and Functions	6	0.59	0.99	0.60	0.84	0.59	0.96	0.59	0.86	0.59	0.98	0.60	1.00	0.61	0.93
4. Measurement and Geometry	14	0.71	1.39	0.71	1.22	0.71	1.36	0.69	1.25	0.69	1.38	0.72	1.45	0.69	1.31
5. Statistics, Data Analysis, and Probability	7	0.60	1.05	0.57	0.94	0.58	1.01	0.54	0.96	0.58	1.01	0.61	1.05	0.58	1.00
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.51	0.75	1.26	0.75	1.44	0.71	1.32	0.77	1.46	0.79	1.52	0.77	1.39
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.84	1.59	0.84	1.25	0.82	1.53	0.83	1.35	0.84	1.52	0.83	1.59	0.83	1.50
3. Algebra and Functions	12	0.77	1.32	0.75	1.04	0.75	1.28	0.75	1.11	0.76	1.28	0.78	1.35	0.78	1.19
4. Measurement and Geometry	16	0.76	1.51	0.75	1.29	0.73	1.47	0.75	1.34	0.75	1.48	0.76	1.53	0.76	1.40
5. Statistics, Data Analysis and Probability	5	0.49	0.79	0.47	0.66	0.50	0.78	0.45	0.68	0.48	0.78	0.54	0.81	0.52	0.71
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.80	1.54	0.78	1.26	0.78	1.49	0.75	1.32	0.79	1.52	0.80	1.59	0.79	1.44
2. Number Sense: Operations and Factoring	14	0.82	1.42	0.82	1.07	0.83	1.33	0.81	1.16	0.82	1.35	0.82	1.44	0.82	1.34
3. Algebra and Functions	18	0.87	1.55	0.85	1.18	0.86	1.45	0.83	1.26	0.86	1.49	0.87	1.57	0.86	1.44
4. Measurement and Geometry	12	0.70	1.42	0.72	1.26	0.71	1.41	0.69	1.30	0.70	1.40	0.71	1.46	0.71	1.36
5. Statistics, Data Analysis, and Probability	4	0.44	0.77	0.39	0.68	0.40	0.75	0.34	0.70	0.39	0.76	0.45	0.78	0.47	0.72
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.73	1.47	0.78	1.29	0.73	1.45	0.76	1.36	0.75	1.43	0.74	1.47	0.75	1.43
2. Number Sense: Operations with Fractions and Decimals	17	0.82	1.76	0.83	1.47	0.81	1.71	0.82	1.60	0.82	1.71	0.81	1.77	0.82	1.71
3. Algebra and Functions	17	0.79	1.67	0.79	1.41	0.78	1.62	0.79	1.48	0.79	1.61	0.80	1.68	0.79	1.59
4. Measurement and Geometry	15	0.77	1.62	0.81	1.43	0.77	1.60	0.79	1.50	0.78	1.59	0.77	1.63	0.79	1.57
5. Statistics, Data Analysis, and Probability	4	0.53	0.78	0.50	0.62	0.52	0.73	0.49	0.67	0.52	0.74	0.53	0.79	0.57	0.70
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.73	1.69	0.79	1.47	0.75	1.64	0.77	1.56	0.76	1.65	0.74	1.69	0.76	1.64
2. Number Sense: Operations and Problem Solving with Fractions	10	0.67	1.37	0.70	1.18	0.67	1.33	0.69	1.24	0.68	1.35	0.67	1.37	0.69	1.31
3. Algebra and Functions	19	0.82	1.81	0.85	1.53	0.82	1.78	0.83	1.64	0.82	1.80	0.82	1.85	0.83	1.70
4. Measurement and Geometry	10	0.64	1.40	0.72	1.27	0.65	1.40	0.69	1.33	0.67	1.39	0.63	1.42	0.68	1.36
5. Statistics, Data Analysis, and Probability	11	0.72	1.41	0.77	1.26	0.75	1.39	0.74	1.33	0.73	1.40	0.72	1.42	0.76	1.34

Subscore Reliabilities and SEM for Mathematics by <i>Primary Ethnicity-for-Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 7															
1. Number Sense: Rational Numbers	14	0.70	1.66	0.77	1.50	0.70	1.65	0.74	1.57	0.72	1.64	0.70	1.66	0.72	1.62
2. Number Sense: Exponent, Powers and Roots	8	0.62	1.27	0.69	1.19	0.64	1.27	0.66	1.24	0.65	1.26	0.64	1.26	0.64	1.26
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.59	1.44	0.64	1.32	0.62	1.42	0.62	1.36	0.60	1.43	0.60	1.44	0.61	1.41
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.72	1.74	0.76	1.56	0.73	1.71	0.72	1.64	0.72	1.72	0.69	1.76	0.73	1.68
5. Measurement and Geometry	13	0.67	1.61	0.72	1.46	0.67	1.60	0.68	1.51	0.67	1.60	0.66	1.62	0.69	1.57
6. Statistics, Data Analysis, and Probability	5	0.53	0.97	0.58	0.83	0.57	0.93	0.55	0.87	0.57	0.93	0.55	0.97	0.57	0.92
General Mathematics															
1. Number Sense: Rational Numbers	14	0.74	1.65	0.77	1.58	0.75	1.62	0.75	1.60	0.72	1.65	0.71	1.65	0.75	1.65
2. Number Sense: Exponent, Powers and Roots	10	0.61	1.41	0.70	1.38	0.65	1.40	0.67	1.40	0.60	1.41	0.59	1.40	0.64	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.67	1.49	0.67	1.44	0.66	1.48	0.63	1.45	0.65	1.49	0.67	1.50	0.68	1.47
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.62	1.42	0.65	1.37	0.60	1.43	0.64	1.38	0.62	1.43	0.61	1.44	0.66	1.39
5. Measurement and Geometry	11	0.60	1.51	0.65	1.51	0.57	1.53	0.62	1.52	0.57	1.52	0.54	1.50	0.65	1.52
6. Statistics, Data Analysis, and Probability	9	0.66	1.32	0.62	1.28	0.66	1.28	0.61	1.28	0.61	1.32	0.62	1.33	0.67	1.30
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.72	1.84	0.78	1.69	0.72	1.82	0.74	1.75	0.72	1.83	0.70	1.85	0.74	1.81
2. Graphing and Systems of Linear Equations	14	0.65	1.71	0.79	1.61	0.69	1.71	0.76	1.67	0.68	1.71	0.63	1.71	0.72	1.70
3. Quadratics and Polynomials	21	0.78	2.04	0.86	1.89	0.80	2.04	0.84	1.97	0.80	2.04	0.76	2.05	0.81	2.03
4. Functions and Rational Expressions	13	0.50	1.60	0.75	1.59	0.56	1.62	0.67	1.62	0.54	1.61	0.48	1.60	0.58	1.61
Geometry															
1. Logic and Geometric Proofs	23	0.76	2.17	0.83	2.03	0.76	2.17	0.79	2.11	0.76	2.17	0.73	2.18	0.79	2.13
2. Volume and Area Formulas	11	0.59	1.50	0.74	1.39	0.63	1.48	0.70	1.44	0.60	1.49	0.53	1.50	0.66	1.47
3. Angle Relationships, Constructions, and Lines	16	0.67	1.79	0.78	1.67	0.68	1.78	0.72	1.74	0.67	1.79	0.62	1.80	0.72	1.75
4. Trigonometry	15	0.70	1.75	0.80	1.61	0.73	1.74	0.76	1.69	0.72	1.75	0.67	1.76	0.76	1.70
Algebra II															
1. Polynomials and Rational Expressions	19	0.80	1.87	0.83	1.66	0.80	1.87	0.80	1.80	0.80	1.88	0.79	1.92	0.79	1.84
2. Quadratics, Conics, and Complex Numbers	16	0.67	1.83	0.78	1.74	0.62	1.84	0.72	1.81	0.64	1.83	0.59	1.83	0.69	1.82
3. Exponents and Logarithms	16	0.72	1.81	0.80	1.68	0.73	1.80	0.77	1.75	0.73	1.80	0.70	1.81	0.75	1.78
4. Series, Combinatorics, and Probability and Statistics	14	0.66	1.66	0.75	1.63	0.62	1.65	0.71	1.65	0.64	1.65	0.58	1.64	0.69	1.66

Subscore Reliabilities and SEM for Mathematics by <i>Primary Ethnicity-for-Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Summative High School Mathematics															
1. Algebra I	18	0.77	1.76	0.76	1.54	0.76	1.77	0.73	1.72	0.75	1.78	0.75	1.86	0.76	1.71
2. Geometry	19	0.81	1.82	0.78	1.63	0.81	1.87	0.78	1.79	0.78	1.88	0.78	1.95	0.79	1.77
3. Algebra II	23	0.83	2.04	0.83	1.80	0.82	2.06	0.82	1.99	0.82	2.06	0.82	2.12	0.83	1.98
4. Probability and Statistics	5	0.53	0.96	0.49	0.92	0.46	0.98	0.44	0.99	0.45	0.99	0.48	1.00	0.51	0.94
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.67	1.72	0.76	1.66	0.62	1.73	0.72	1.69	0.66	1.73	0.64	1.75	0.68	1.71
2. Algebra I: Graphing	9	0.62	1.35	0.65	1.35	0.66	1.35	0.61	1.36	0.51	1.37	0.51	1.36	0.61	1.35
3. Algebra I: Quadratics and Polynomials	14	0.73	1.64	0.75	1.64	0.65	1.69	0.76	1.63	0.67	1.67	0.64	1.67	0.71	1.65
4. Algebra I: Functions and Relations Expressions	7	0.44	1.15	0.67	1.08	0.47	1.15	0.44	1.12	0.42	1.12	0.41	1.10	0.50	1.12
5. Geometry	20	0.44	2.06	0.74	1.99	0.45	1.98	0.65	2.01	0.48	2.01	0.41	1.99	0.57	2.04
Integrated Mathematics 2															
1. Algebra I	20	0.27	2.15	0.79	2.00	0.78	2.07	0.85	1.93	0.73	2.06	0.75	2.04	0.70	2.06
2. Geometry: Logic and Geometric Proofs	22	0.39	2.19	0.74	2.13	0.66	2.20	0.77	2.10	0.67	2.15	0.65	2.11	0.73	2.14
3. Geometry: Angle Relationships, Construction and Lines	8	—	—	0.55	1.26	0.44	1.37	0.53	1.26	0.43	1.27	0.40	1.29	0.34	1.26
4. Trigonometry	10	0.64	1.36	0.69	1.39	0.78	1.36	0.71	1.39	0.58	1.44	0.48	1.44	0.58	1.43
5. Algebra II: Probability and Statistics	5	0.21	0.86	0.35	0.92	0.71	0.87	0.61	0.88	0.31	0.94	0.08	0.96	0.45	0.94
Integrated Mathematics 3															
1. Geometry	5	—	—	0.56	0.97	—	—	—	—	0.65	0.93	0.28	1.02	0.58	0.92
2. Algebra II: Polynomials and Relations Expressions	19	—	—	0.89	1.72	—	—	—	—	0.78	1.94	0.70	1.89	0.85	1.83
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	—	—	0.69	1.83	—	—	—	—	0.57	1.83	0.42	1.75	0.59	1.88
4. Algebra II: Exponents and Logarithms	16	—	—	0.84	1.73	—	—	—	—	0.73	1.80	0.68	1.75	0.84	1.65
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	—	—	0.74	1.27	—	—	—	—	0.51	1.36	0.27	1.25	0.24	1.32

Table 8.B.43 Subscore Reliabilities and SEM for Science by Primary Ethnicity-for-Economically Disadvantaged

Subscore Reliabilities and SEM for Science by <i>Primary Ethnicity-for-Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.61	1.46	0.67	1.33	0.57	1.47	0.59	1.36	0.59	1.48	0.60	1.48	0.62	1.38
2. Physical Science (Grade 4)	8	0.58	1.22	0.64	1.11	0.57	1.23	0.57	1.13	0.58	1.22	0.58	1.23	0.60	1.13
3. Life Science (Grade 5)	13	0.71	1.52	0.72	1.41	0.65	1.55	0.67	1.43	0.69	1.53	0.69	1.56	0.70	1.44
4. Life Science (Grade 4)	9	0.68	1.28	0.71	1.18	0.63	1.32	0.65	1.23	0.65	1.31	0.66	1.32	0.66	1.22
5. Earth Science (Grade 5)	11	0.65	1.43	0.65	1.33	0.63	1.44	0.57	1.36	0.60	1.44	0.64	1.45	0.63	1.37
6. Earth Science (Grade 4)	8	0.63	1.22	0.69	1.08	0.65	1.21	0.61	1.12	0.63	1.22	0.64	1.24	0.65	1.14
Grade 8 Science															
1. Motion	8	0.48	1.29	0.54	1.19	0.46	1.28	0.47	1.23	0.45	1.29	0.44	1.30	0.47	1.26
2. Forces, Density, and Buoyancy	13	0.74	1.53	0.75	1.36	0.71	1.52	0.71	1.40	0.71	1.53	0.71	1.56	0.74	1.45
3. Structure of Matter and Periodic Table	16	0.79	1.70	0.80	1.49	0.79	1.68	0.77	1.53	0.78	1.70	0.79	1.72	0.80	1.60
4. Earth in the Solar System	7	0.62	1.08	0.58	0.99	0.54	1.11	0.50	1.00	0.57	1.09	0.58	1.12	0.60	1.03
5. Reactions and the Chemistry of Living Systems	10	0.60	1.44	0.64	1.35	0.57	1.44	0.57	1.38	0.57	1.44	0.58	1.44	0.62	1.40
6. Investigation and Experimentation	6	0.61	0.97	0.57	0.82	0.56	0.96	0.54	0.85	0.56	0.97	0.58	1.00	0.59	0.90
Grade 10 Life Science															
1. Cell Biology	10	0.60	1.43	0.69	1.32	0.57	1.44	0.63	1.36	0.59	1.42	0.56	1.44	0.64	1.39
2. Genetics	12	0.69	1.53	0.70	1.44	0.62	1.55	0.65	1.47	0.66	1.53	0.66	1.54	0.71	1.49
3. Physiology	10	0.69	1.36	0.71	1.26	0.65	1.40	0.66	1.29	0.68	1.38	0.67	1.39	0.74	1.29
4. Ecology	11	0.73	1.44	0.73	1.33	0.68	1.48	0.68	1.37	0.70	1.46	0.69	1.48	0.74	1.37
5. Evolution	11	0.74	1.42	0.74	1.33	0.71	1.46	0.72	1.34	0.71	1.44	0.70	1.47	0.76	1.36
6. Investigation and Experimentation	6	0.65	0.99	0.61	0.86	0.68	0.98	0.60	0.89	0.64	0.99	0.66	1.01	0.70	0.92
Biology															
1. Cell Biology	9	0.54	1.36	0.64	1.23	0.55	1.37	0.57	1.28	0.56	1.37	0.55	1.38	0.62	1.31
2. Genetics	18	0.75	1.88	0.79	1.73	0.74	1.88	0.76	1.79	0.74	1.87	0.75	1.89	0.78	1.83
3. Ecology and Evolution	16	0.75	1.80	0.77	1.70	0.71	1.83	0.72	1.75	0.73	1.82	0.72	1.83	0.78	1.75
4. Physiology	11	0.76	1.37	0.77	1.24	0.75	1.41	0.73	1.27	0.75	1.39	0.76	1.41	0.78	1.28
5. Investigation and Experimentation	6	0.59	1.06	0.59	0.99	0.55	1.08	0.56	1.00	0.57	1.07	0.55	1.08	0.62	1.02
Chemistry															
1. Atomic and Molecular Structure	8	0.36	1.26	0.44	1.21	0.36	1.27	0.40	1.24	0.40	1.27	0.40	1.29	0.40	1.24
2. Chemical Bonds, Biochemistry	9	0.55	1.36	0.56	1.26	0.53	1.38	0.53	1.31	0.53	1.37	0.53	1.39	0.55	1.30
3. Kinetics, Thermodynamics	14	0.64	1.75	0.68	1.66	0.61	1.76	0.62	1.72	0.64	1.75	0.61	1.76	0.67	1.68
4. Chemical Reactions	13	0.67	1.63	0.71	1.60	0.62	1.66	0.67	1.63	0.63	1.65	0.60	1.65	0.69	1.62
5. Conservation of Matter and Stoichiometry	10	0.64	1.44	0.73	1.30	0.65	1.44	0.68	1.38	0.64	1.44	0.60	1.45	0.69	1.39
6. Investigation and Experimentation	6	0.62	1.00	0.62	0.90	0.61	1.05	0.60	0.95	0.61	1.03	0.61	1.07	0.61	0.92
Earth Science															
1. Astronomy and Cosmology	12	0.66	1.57	0.67	1.53	0.65	1.58	0.61	1.53	0.65	1.57	0.65	1.59	0.68	1.52
2. Solid Earth	14	0.69	1.70	0.65	1.69	0.62	1.73	0.63	1.67	0.65	1.72	0.63	1.74	0.69	1.68
3. The Earth's Energy	28	0.84	2.39	0.85	2.34	0.81	2.42	0.83	2.34	0.81	2.42	0.80	2.43	0.86	2.34
4. Investigation and Experimentation	6	0.60	1.08	0.59	1.04	0.54	1.10	0.55	1.03	0.57	1.09	0.55	1.10	0.63	1.04

Subscore Reliabilities and SEM for Science by <i>Primary Ethnicity-for-Economically Disadvantaged</i>															
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Physics															
1. Motion and Forces	12	0.68	1.54	0.70	1.45	0.67	1.55	0.67	1.52	0.65	1.56	0.64	1.57	0.68	1.48
2. Conservation of Energy and Momentum	12	0.75	1.51	0.74	1.41	0.71	1.54	0.72	1.50	0.71	1.54	0.69	1.56	0.75	1.48
3. Heat and Thermodynamics	9	0.68	1.32	0.65	1.27	0.65	1.34	0.61	1.33	0.64	1.34	0.61	1.36	0.67	1.28
4. Waves	10	0.73	1.35	0.61	1.34	0.64	1.43	0.61	1.37	0.62	1.42	0.60	1.45	0.65	1.37
5. Electric and Magnetic Phenomena	11	0.59	1.54	0.64	1.44	0.62	1.51	0.59	1.50	0.58	1.53	0.54	1.54	0.61	1.51
6. Investigation and Experimentation	6	0.52	1.10	0.48	1.04	0.51	1.11	0.46	1.09	0.47	1.12	0.46	1.13	0.50	1.06
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.61	1.45	0.66	1.39	0.58	1.46	0.60	1.41	0.58	1.46	0.56	1.47	0.65	1.41
2. Chemistry	15	0.51	1.79	0.64	1.77	0.52	1.80	0.57	1.79	0.52	1.80	0.50	1.79	0.59	1.79
3. Earth Sciences	17	0.71	1.89	0.77	1.80	0.71	1.90	0.72	1.83	0.73	1.88	0.69	1.90	0.78	1.83
4. Physics	12	0.41	1.62	0.53	1.62	0.41	1.63	0.50	1.61	0.44	1.61	0.42	1.60	0.50	1.61
5. Investigation and Experimentation	6	0.50	1.11	0.62	1.02	0.52	1.12	0.59	1.04	0.54	1.10	0.52	1.11	0.63	1.05
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.50	1.77	0.59	1.74	0.03	1.88	0.67	1.74	0.62	1.75	0.56	1.77	0.64	1.73
2. Chemistry	6	—	—	0.43	1.15	0.16	1.12	0.64	1.04	0.33	1.14	—	—	0.31	1.15
3. Earth Sciences	15	0.71	1.78	0.80	1.68	0.54	1.83	0.71	1.73	0.71	1.76	0.62	1.78	0.70	1.76
4. Physics	18	0.38	1.94	0.69	1.94	0.31	1.85	0.43	1.89	0.56	1.93	0.35	1.87	0.55	1.92
5. Investigation and Experimentation	6	0.26	0.96	0.67	1.03	0.18	1.11	0.62	1.07	0.40	1.13	0.34	1.10	0.41	1.13
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	—	—	0.70	1.81	—	—	—	—	0.67	1.83	0.55	1.87	0.74	1.78
2. Chemistry	23	—	—	0.81	2.17	—	—	—	—	0.52	2.19	0.27	2.16	0.73	2.20
3. Earth Sciences	7	—	—	0.55	1.23	—	—	—	—	0.50	1.21	0.67	1.14	0.56	1.19
4. Physics	8	—	—	0.46	1.32	—	—	—	—	0.26	1.29	—	—	0.38	1.34
5. Investigation and Experimentation	6	—	—	0.39	1.14	—	—	—	—	0.44	1.12	0.52	1.10	0.41	1.09
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	—	—	—	—	—	—	—	—	0.49	1.68	—	—	0.42	1.65
2. Chemistry	10	—	—	—	—	—	—	—	—	0.01	1.44	—	—	—	—
3. Earth Sciences	15	—	—	—	—	—	—	—	—	0.31	1.84	—	—	0.70	1.72
4. Physics	16	—	—	—	—	—	—	—	—	0.32	1.70	—	—	0.30	1.81
5. Investigation and Experimentation	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 8.B.44 Subscore Reliabilities and SEM for Grade-specific CSTs by Primary Ethnicity-for-Economically Disadvantaged

Subscore Reliabilities and SEM for Grade-specific CSTs by <i>Primary Ethnicity-for-Economically Disadvantaged</i>																
Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White		
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	
Algebra I – 8																
1. Number Properties, Operations, and Linear Equations	17	0.74	1.81	0.74	1.63	0.72	1.80	0.73	1.72	0.72	1.81	0.72	1.84	0.73	1.77	
2. Graphing and Systems of Linear Equations	14	0.69	1.72	0.79	1.58	0.73	1.70	0.75	1.66	0.72	1.70	0.67	1.72	0.74	1.69	
3. Quadratics and Polynomials	21	0.81	2.04	0.85	1.84	0.82	2.01	0.84	1.93	0.82	2.02	0.80	2.04	0.82	2.00	
4. Functions and Rational Expressions	13	0.59	1.62	0.74	1.58	0.63	1.63	0.67	1.63	0.61	1.62	0.56	1.62	0.63	1.63	
Geometry – 9																
1. Logic and Geometric Proofs	23	0.75	2.15	0.78	1.99	0.75	2.13	0.76	2.07	0.77	2.13	0.77	2.15	0.77	2.04	
2. Volume and Area Formulas	11	0.63	1.47	0.69	1.35	0.67	1.46	0.68	1.40	0.65	1.46	0.62	1.48	0.67	1.41	
3. Angle Relationships, Constructions, and Lines	16	0.70	1.74	0.73	1.63	0.68	1.74	0.70	1.71	0.69	1.75	0.68	1.78	0.70	1.69	
4. Trigonometry	15	0.72	1.72	0.75	1.56	0.73	1.72	0.74	1.65	0.74	1.71	0.71	1.75	0.75	1.64	
Algebra II – 10																
1. Polynomials and Rational Expressions	19	0.79	1.86	0.80	1.62	0.78	1.82	0.79	1.75	0.80	1.83	0.80	1.89	0.78	1.79	
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.82	0.75	1.74	0.65	1.83	0.73	1.79	0.67	1.82	0.63	1.83	0.70	1.81	
3. Exponents and Logarithms	16	0.73	1.80	0.77	1.66	0.75	1.77	0.76	1.73	0.74	1.78	0.73	1.81	0.74	1.76	
4. Series, Combinatorics, and Probability and Statistics	14	0.67	1.68	0.73	1.63	0.63	1.66	0.69	1.65	0.67	1.65	0.63	1.64	0.69	1.66	
Summative High School Mathematics – 11																
1. Algebra I	18	0.78	1.78	0.76	1.58	0.75	1.77	0.74	1.74	0.74	1.80	0.74	1.87	0.75	1.74	
2. Geometry	19	0.82	1.82	0.78	1.67	0.81	1.87	0.78	1.81	0.77	1.90	0.77	1.96	0.78	1.79	
3. Algebra II	23	0.83	2.06	0.83	1.85	0.82	2.06	0.82	2.01	0.82	2.07	0.81	2.12	0.83	2.00	
4. Probability and Statistics	5	0.53	0.97	0.49	0.93	0.45	0.99	0.43	1.00	0.44	1.00	0.46	1.00	0.50	0.95	
World History – 10																
1. Development of Modern Political Thought	13	0.65	1.62	0.62	1.54	0.62	1.62	0.57	1.57	0.62	1.62	0.63	1.63	0.66	1.58	
2. Industrial Expansion and Imperialism	10	0.67	1.39	0.67	1.30	0.63	1.41	0.63	1.32	0.66	1.40	0.66	1.41	0.70	1.35	
3. Causes and Effects of World War I	14	0.73	1.68	0.74	1.59	0.71	1.70	0.72	1.63	0.72	1.69	0.70	1.71	0.75	1.64	
4. Causes and Effects of World War II	13	0.74	1.59	0.74	1.50	0.71	1.61	0.72	1.54	0.72	1.60	0.71	1.62	0.75	1.55	
5. International Developments in the Post-World War II Era	10	0.70	1.40	0.71	1.30	0.70	1.40	0.70	1.33	0.69	1.40	0.67	1.42	0.73	1.36	

Table 8.B.45 Reliability of Classification for ELA, Grade Two

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.05	0.02	0.00	0.01	0.00	0.08
	21 – 31	0.01	0.09	0.03	0.00	0.00	0.12
	32 – 45	0.00	0.01	0.21	0.02	0.00	0.23
	46 – 55	0.00	0.01	0.04	0.21	0.03	0.29
All-forms Average	56 – 65	0.00	0.00	0.00	0.04	0.23	0.27
Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93							
Decision Consistency	0 – 20	0.05	0.02	0.00	0.01	0.00	0.08
	21 – 31	0.01	0.08	0.03	0.00	0.00	0.13
	32 – 45	0.00	0.02	0.18	0.03	0.00	0.23
	46 – 55	0.00	0.01	0.05	0.18	0.05	0.29
Alternate Form	56 – 65	0.00	0.00	0.00	0.05	0.22	0.27
Estimated Proportion Consistently Classified: Total = 0.72, Proficient & Above = 0.90							

Table 8.B.46 Reliability of Classification for ELA, Grade Three

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 24	0.06	0.02	0.00	0.00	0.00	0.08
	25 – 35	0.01	0.12	0.03	0.00	0.00	0.16
	36 – 47	0.00	0.03	0.23	0.04	0.00	0.29
	48 – 56	0.00	0.00	0.04	0.21	0.03	0.29
All-forms Average	57 – 65	0.00	0.00	0.00	0.04	0.14	0.18
Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92							
Decision Consistency	0 – 24	0.06	0.02	0.00	0.00	0.00	0.08
	25 – 35	0.02	0.10	0.04	0.00	0.00	0.16
	36 – 47	0.00	0.04	0.20	0.05	0.00	0.29
	48 – 56	0.00	0.00	0.05	0.18	0.05	0.29
Alternate Form	57 – 65	0.00	0.00	0.00	0.04	0.13	0.18
Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89							

Table 8.B.47 Reliability of Classification for ELA, Grade Four (Reading only)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.03	0.01	0.00	0.00	0.00	0.04
	21 – 29	0.01	0.05	0.03	0.01	0.00	0.09
	30 – 46	0.00	0.01	0.21	0.03	0.00	0.24
	47 – 58	0.00	0.00	0.03	0.21	0.03	0.27
All-forms Average	59 – 75	0.00	0.00	0.00	0.04	0.30	0.36
Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93							
Decision Consistency	0 – 20	0.03	0.01	0.00	0.00	0.00	0.04
	21 – 29	0.01	0.04	0.03	0.01	0.00	0.09
	30 – 46	0.00	0.02	0.19	0.04	0.00	0.24
	47 – 58	0.00	0.00	0.05	0.18	0.04	0.27
Alternate Form	59 – 75	0.00	0.00	0.01	0.06	0.29	0.36
Estimated Proportion Consistently Classified: Total = 0.73, Proficient & Above = 0.90							

Table 8.B.48 Reliability of Classification for ELA, Grade Four (Reading and Writing)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 23	0.02	0.01	0.00	0.00	0.00	0.03
	24 – 33	0.01	0.04	0.04	0.01	0.00	0.09
	34 – 50	0.00	0.01	0.17	0.04	0.00	0.23
	51 – 63	0.00	0.00	0.04	0.19	0.04	0.27
All-forms Average	64 – 83	0.00	0.00	0.01	0.07	0.31	0.38
Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.90							
Decision Consistency	0 – 23	0.02	0.01	0.00	0.00	0.00	0.03
	24 – 33	0.01	0.03	0.03	0.01	0.00	0.09
	34 – 50	0.00	0.03	0.14	0.06	0.00	0.23
	51 – 63	0.00	0.00	0.06	0.15	0.06	0.27
Alternate Form	64 – 83	0.00	0.00	0.01	0.07	0.29	0.38
Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.86							

Table 8.B.49 Reliability of Classification for ELA, Grade Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 25	0.04	0.01	0.00	0.00	0.00	0.06
	26 – 35	0.01	0.06	0.03	0.00	0.00	0.10
	36 – 50	0.00	0.01	0.21	0.03	0.00	0.25
	51 – 61	0.00	0.00	0.04	0.22	0.03	0.29
All-forms Average	62 – 75	0.00	0.00	0.00	0.04	0.26	0.31
Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.92							
Decision Consistency	0 – 25	0.04	0.01	0.00	0.00	0.00	0.06
	26 – 35	0.01	0.05	0.03	0.00	0.00	0.10
	36 – 50	0.00	0.02	0.18	0.04	0.00	0.25
	51 – 61	0.00	0.00	0.05	0.19	0.05	0.29
Alternate Form	62 – 75	0.00	0.00	0.00	0.05	0.25	0.31
Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.90							

Table 8.B.50 Reliability of Classification for ELA, Grade Six

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 22	0.03	0.02	0.00	0.00	0.00	0.04
	23 – 32	0.01	0.07	0.03	0.00	0.00	0.11
	33 – 48	0.00	0.02	0.24	0.03	0.00	0.29
	49 – 59	0.00	0.00	0.04	0.20	0.04	0.28
All-forms Average	60 – 75	0.00	0.00	0.00	0.04	0.24	0.27
Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92							
Decision Consistency	0 – 22	0.02	0.02	0.00	0.00	0.00	0.04
	23 – 32	0.02	0.06	0.03	0.00	0.00	0.11
	33 – 48	0.00	0.03	0.21	0.05	0.00	0.29
	49 – 59	0.00	0.00	0.05	0.17	0.05	0.28
Alternate Form	60 – 75	0.00	0.00	0.00	0.05	0.23	0.27
Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89							

Table 8.B.51 Reliability of Classification for ELA, Grade Seven (Reading only)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 25	0.04	0.02	0.00	0.00	0.00	0.06
	26 – 35	0.01	0.07	0.03	0.00	0.00	0.11
	36 – 49	0.00	0.02	0.21	0.04	0.00	0.27
All-forms Average	50 – 61	0.00	0.00	0.04	0.25	0.03	0.33
	62 – 75	0.00	0.00	0.00	0.04	0.20	0.23
Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92							
Decision Consistency	0 – 25	0.04	0.02	0.00	0.00	0.00	0.06
	26 – 35	0.02	0.06	0.03	0.00	0.00	0.11
	36 – 49	0.00	0.03	0.19	0.05	0.00	0.27
Alternate Form	50 – 61	0.00	0.00	0.06	0.22	0.05	0.33
	62 – 75	0.00	0.00	0.00	0.05	0.19	0.23
Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89							

Table 8.B.52 Reliability of Classification for ELA, Grade Seven (Reading and Writing)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 30	0.03	0.02	0.00	0.00	0.00	0.05
	31 – 41	0.01	0.06	0.04	0.00	0.00	0.11
	42 – 55	0.00	0.03	0.18	0.05	0.00	0.26
All-forms Average	56 – 68	0.00	0.00	0.05	0.24	0.04	0.34
	69 – 83	0.00	0.00	0.00	0.05	0.19	0.25
Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.89							
Decision Consistency	0 – 30	0.03	0.02	0.00	0.00	0.00	0.05
	31 – 41	0.02	0.05	0.04	0.00	0.00	0.11
	42 – 55	0.00	0.04	0.14	0.07	0.00	0.26
Alternate Form	56 – 68	0.00	0.00	0.07	0.20	0.07	0.34
	69 – 83	0.00	0.00	0.00	0.06	0.18	0.25
Estimated Proportion Consistently Classified: Total = 0.60, Proficient & Above = 0.85							

Table 8.B.53 Reliability of Classification for ELA, Grade Eight

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 24	0.05	0.02	0.00	0.00	0.00	0.07
	25 – 33	0.01	0.06	0.03	0.00	0.00	0.11
	34 – 48	0.00	0.01	0.22	0.03	0.00	0.26
All-forms Average	49 – 59	0.00	0.00	0.04	0.21	0.03	0.27
	60 – 75	0.00	0.00	0.01	0.04	0.25	0.30
Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.92							
Decision Consistency	0 – 24	0.04	0.02	0.00	0.00	0.00	0.07
	25 – 33	0.02	0.05	0.03	0.00	0.00	0.11
	34 – 48	0.00	0.02	0.19	0.04	0.00	0.26
Alternate Form	49 – 59	0.00	0.00	0.05	0.18	0.04	0.27
	60 – 75	0.00	0.00	0.01	0.05	0.24	0.30
Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.89							

Table 8.B.54 Reliability of Classification for ELA, Grade Nine

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 23	0.05	0.02	0.00	0.00	0.00	0.07
	24 – 32	0.01	0.08	0.03	0.00	0.00	0.11
	33 – 47	0.00	0.02	0.22	0.03	0.00	0.26
	48 – 58	0.00	0.00	0.04	0.20	0.04	0.27
All-forms Average	59 – 75	0.00	0.00	0.00	0.03	0.25	0.28
Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93							
Decision Consistency	0 – 23	0.05	0.02	0.00	0.00	0.00	0.07
	24 – 32	0.02	0.06	0.03	0.00	0.00	0.11
	33 – 47	0.00	0.03	0.19	0.04	0.00	0.26
	48 – 58	0.00	0.00	0.05	0.17	0.05	0.27
Alternate Form	59 – 75	0.00	0.00	0.00	0.04	0.24	0.28
Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.90							

Table 8.B.55 Reliability of Classification for ELA, Grade Ten

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 24	0.06	0.02	0.00	0.00	0.00	0.08
	25 – 36	0.01	0.10	0.03	0.00	0.00	0.14
	37 – 52	0.00	0.02	0.26	0.03	0.00	0.30
	53 – 62	0.00	0.00	0.04	0.19	0.03	0.27
All-forms Average	63 – 75	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 – 24	0.05	0.02	0.00	0.00	0.00	0.08
	25 – 36	0.02	0.09	0.04	0.00	0.00	0.14
	37 – 52	0.00	0.03	0.23	0.04	0.00	0.30
	53 – 62	0.00	0.00	0.06	0.16	0.04	0.27
Alternate Form	63 – 75	0.00	0.00	0.00	0.04	0.17	0.21
Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89							

Table 8.B.56 Reliability of Classification for ELA, Grade Eleven

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 27	0.09	0.03	0.01	0.00	0.00	0.12
	28 – 38	0.01	0.11	0.03	0.00	0.00	0.14
	39 – 52	0.00	0.02	0.24	0.03	0.00	0.28
	53 – 61	0.00	0.00	0.04	0.17	0.03	0.24
All-forms Average	62 – 75	0.00	0.00	0.00	0.04	0.17	0.21
Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92							
Decision Consistency	0 – 27	0.08	0.03	0.01	0.00	0.00	0.12
	28 – 38	0.02	0.09	0.03	0.00	0.00	0.14
	39 – 52	0.00	0.03	0.21	0.04	0.00	0.28
	53 – 61	0.00	0.00	0.06	0.14	0.04	0.24
Alternate Form	62 – 75	0.00	0.00	0.00	0.04	0.17	0.21
Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89							

Table 8.B.57 Reliability of Classification for History–Social Science, Grade Eight

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 27	0.10	0.03	0.00	0.00	0.00	0.13
	28 – 35	0.02	0.07	0.03	0.00	0.00	0.12
	36 – 48	0.00	0.02	0.19	0.03	0.00	0.24
All-forms Average	49 – 58	0.00	0.00	0.04	0.16	0.03	0.23
	59 – 75	0.00	0.00	0.00	0.03	0.24	0.27
Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.93							
Decision Consistency	0 – 27	0.09	0.03	0.01	0.00	0.00	0.13
	28 – 35	0.03	0.06	0.03	0.00	0.00	0.12
	36 – 48	0.00	0.04	0.16	0.04	0.00	0.24
Alternate Form	49 – 58	0.00	0.00	0.05	0.13	0.05	0.23
	59 – 75	0.00	0.00	0.00	0.04	0.23	0.27
Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.90							

Table 8.B.58 Reliability of Classification for World History

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 24	0.16	0.03	0.00	0.00	0.00	0.19
	25 – 30	0.02	0.07	0.03	0.00	0.00	0.12
	31 – 40	0.00	0.03	0.18	0.03	0.00	0.24
All-forms Average	41 – 48	0.00	0.00	0.04	0.15	0.03	0.21
	49 – 60	0.00	0.00	0.00	0.04	0.19	0.23
Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92							
Decision Consistency	0 – 24	0.15	0.03	0.01	0.00	0.00	0.19
	25 – 30	0.03	0.05	0.04	0.00	0.00	0.12
	31 – 40	0.01	0.04	0.15	0.05	0.00	0.24
Alternate Form	41 – 48	0.00	0.00	0.05	0.12	0.04	0.21
	49 – 60	0.00	0.00	0.00	0.04	0.18	0.23
Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.90							

Table 8.B.59 Reliability of Classification for History–Social Science, Grade Eleven

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 22	0.12	0.03	0.01	0.01	0.00	0.17
	23 – 29	0.01	0.08	0.03	0.00	0.00	0.12
	30 – 39	0.00	0.02	0.18	0.03	0.00	0.23
All-forms Average	40 – 48	0.00	0.00	0.05	0.19	0.03	0.27
	49 – 60	0.00	0.00	0.00	0.04	0.17	0.21
Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.91							
Decision Consistency	0 – 22	0.12	0.04	0.01	0.01	0.00	0.17
	23 – 29	0.02	0.06	0.04	0.00	0.00	0.12
	30 – 39	0.00	0.04	0.15	0.04	0.00	0.23
Alternate Form	40 – 48	0.00	0.01	0.06	0.16	0.04	0.27
	49 – 60	0.00	0.00	0.00	0.05	0.16	0.21
Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.88							

Table 8.B.60 Reliability of Classification for Mathematics, Grade Two

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 24	0.03	0.01	0.00	0.00	0.00	0.04
	25 – 38	0.00	0.11	0.02	0.00	0.00	0.13
	39 – 47	0.00	0.02	0.13	0.03	0.00	0.17
	48 – 56	0.00	0.00	0.04	0.22	0.03	0.30
All-forms Average	57 – 65	0.00	0.00	0.00	0.05	0.31	0.36
Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93							
Decision Consistency	0 – 24	0.03	0.01	0.00	0.00	0.00	0.04
	25 – 38	0.01	0.09	0.03	0.00	0.00	0.13
	39 – 47	0.00	0.03	0.10	0.04	0.00	0.17
	48 – 56	0.00	0.00	0.05	0.19	0.05	0.30
Alternate Form	57 – 65	0.00	0.00	0.00	0.06	0.30	0.36
Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.90							

Table 8.B.61 Reliability of Classification for Mathematics, Grade Three

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 23	0.02	0.01	0.00	0.00	0.00	0.02
	24 – 37	0.00	0.08	0.02	0.00	0.00	0.11
	38 – 48	0.00	0.01	0.15	0.03	0.00	0.19
	49 – 57	0.00	0.00	0.03	0.21	0.03	0.27
All-forms Average	58 – 65	0.00	0.00	0.00	0.04	0.36	0.41
Estimated Proportion Correctly Classified: Total = 0.81, Proficient & Above = 0.94							
Decision Consistency	0 – 23	0.01	0.01	0.00	0.00	0.00	0.02
	24 – 37	0.01	0.07	0.03	0.00	0.00	0.11
	38 – 48	0.00	0.02	0.12	0.04	0.00	0.19
	49 – 57	0.00	0.00	0.04	0.18	0.05	0.27
Alternate Form	58 – 65	0.00	0.00	0.00	0.06	0.35	0.41
Estimated Proportion Consistently Classified: Total = 0.74, Proficient & Above = 0.91							

Table 8.B.62 Reliability of Classification for Mathematics, Grade Four

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.01	0.01	0.00	0.00	0.00	0.02
	21 – 35	0.00	0.07	0.02	0.00	0.00	0.10
	36 – 47	0.00	0.01	0.14	0.02	0.00	0.17
	48 – 56	0.00	0.00	0.03	0.20	0.03	0.26
All-forms Average	57 – 65	0.00	0.00	0.00	0.05	0.39	0.45
Estimated Proportion Correctly Classified: Total = 0.82, Proficient & Above = 0.94							
Decision Consistency	0 – 20	0.01	0.01	0.00	0.00	0.00	0.02
	21 – 35	0.01	0.07	0.03	0.00	0.00	0.10
	36 – 47	0.00	0.02	0.12	0.03	0.00	0.17
	48 – 56	0.00	0.00	0.04	0.17	0.05	0.26
Alternate Form	57 – 65	0.00	0.00	0.00	0.06	0.38	0.45
Estimated Proportion Consistently Classified: Total = 0.74, Proficient & Above = 0.91							

Table 8.B.63 Reliability of Classification for Mathematics, Grade Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.02	0.01	0.00	0.00	0.00	0.04
	21 – 30	0.01	0.09	0.03	0.00	0.00	0.13
	31 – 41	0.00	0.02	0.15	0.03	0.00	0.20
All-forms Average	42 – 53	0.00	0.00	0.03	0.23	0.03	0.29
	54 – 65	0.00	0.00	0.00	0.04	0.30	0.34
	Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93						
Decision Consistency	0 – 20	0.02	0.01	0.00	0.00	0.00	0.04
	21 – 30	0.02	0.07	0.03	0.00	0.00	0.13
	31 – 41	0.00	0.03	0.13	0.04	0.00	0.20
Alternate Form	42 – 53	0.00	0.00	0.04	0.20	0.04	0.29
	54 – 65	0.00	0.00	0.00	0.05	0.29	0.34
	Estimated Proportion Consistently Classified: Total = 0.72, Proficient & Above = 0.91						

Table 8.B.64 Reliability of Classification for Mathematics, Grade Six

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 19	0.03	0.02	0.00	0.00	0.00	0.05
	20 – 30	0.01	0.12	0.03	0.00	0.00	0.17
	31 – 42	0.00	0.03	0.19	0.03	0.00	0.25
All-forms Average	43 – 54	0.00	0.00	0.04	0.23	0.03	0.29
	55 – 65	0.00	0.00	0.00	0.03	0.20	0.24
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93						
Decision Consistency	0 – 19	0.03	0.02	0.00	0.00	0.00	0.05
	20 – 30	0.02	0.10	0.04	0.00	0.00	0.17
	31 – 42	0.00	0.04	0.16	0.05	0.00	0.25
Alternate Form	43 – 54	0.00	0.00	0.05	0.20	0.04	0.29
	55 – 65	0.00	0.00	0.00	0.04	0.20	0.24
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.90						

Table 8.B.65 Reliability of Classification for Mathematics, Grade Seven

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 18	0.03	0.02	0.00	0.00	0.00	0.05
	19 – 28	0.01	0.13	0.04	0.00	0.00	0.17
	29 – 40	0.00	0.03	0.22	0.04	0.00	0.28
All-forms Average	41 – 53	0.00	0.00	0.04	0.26	0.02	0.32
	54 – 65	0.00	0.00	0.00	0.03	0.15	0.18
	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	0.05
	19 – 28	0.02	0.11	0.04	0.00	0.00	0.17
	29 – 40	0.00	0.04	0.19	0.05	0.00	0.28
Alternate Form	41 – 53	0.00	0.00	0.05	0.23	0.04	0.32
	54 – 65	0.00	0.00	0.00	0.04	0.14	0.18
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89						

Table 8.B.66 Reliability of Classification for General Mathematics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 19	0.10	0.04	0.00	0.00	0.00	0.15
	20 – 29	0.03	0.19	0.04	0.00	0.00	0.27
	30 – 41	0.00	0.04	0.23	0.03	0.00	0.30
	42 – 53	0.00	0.00	0.04	0.17	0.01	0.22
All-forms Average	54 – 65	0.00	0.00	0.00	0.02	0.04	0.06
Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93							
Decision Consistency	0 – 19	0.09	0.05	0.00	0.00	0.00	0.15
	20 – 29	0.05	0.16	0.06	0.00	0.00	0.27
	30 – 41	0.00	0.06	0.19	0.05	0.00	0.30
	42 – 53	0.00	0.00	0.05	0.15	0.02	0.22
Alternate Form	54 – 65	0.00	0.00	0.00	0.02	0.04	0.06
Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.90							

Table 8.B.67 Reliability of Classification for Algebra I

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 18	0.12	0.02	0.00	0.00	0.00	0.14
	19 – 27	0.04	0.17	0.07	0.02	0.01	0.30
	28 – 37	0.00	0.02	0.18	0.03	0.00	0.24
	38 – 51	0.00	0.00	0.02	0.21	0.00	0.22
All-forms Average	52 – 65	0.00	0.00	0.01	0.03	0.06	0.10
Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.91							
Decision Consistency	0 – 18	0.11	0.03	0.00	0.00	0.00	0.14
	19 – 27	0.05	0.14	0.08	0.02	0.01	0.30
	28 – 37	0.00	0.04	0.15	0.05	0.00	0.24
	38 – 51	0.00	0.00	0.03	0.18	0.01	0.22
Alternate Form	52 – 65	0.00	0.00	0.01	0.03	0.06	0.10
Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.88							

Table 8.B.68 Reliability of Classification for Geometry

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 19	0.08	0.04	0.00	0.00	0.00	0.12
	20 – 31	0.03	0.24	0.04	0.00	0.00	0.31
	32 – 43	0.00	0.04	0.21	0.02	0.00	0.27
	44 – 55	0.00	0.00	0.03	0.17	0.01	0.22
All-forms Average	56 – 65	0.00	0.00	0.00	0.02	0.07	0.09
Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.94							
Decision Consistency	0 – 19	0.07	0.05	0.00	0.00	0.00	0.12
	20 – 31	0.05	0.20	0.06	0.00	0.00	0.31
	32 – 43	0.00	0.05	0.18	0.04	0.00	0.27
	44 – 55	0.00	0.00	0.04	0.15	0.02	0.22
Alternate Form	56 – 65	0.00	0.00	0.00	0.02	0.07	0.09
Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.91							

Table 8.B.69 Reliability of Classification for Algebra II

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 21	0.11	0.04	0.00	0.00	0.00	0.15
	22 – 30	0.03	0.16	0.04	0.00	0.00	0.23
	31 – 41	0.00	0.04	0.20	0.03	0.00	0.28
All-forms Average	42 – 52	0.00	0.00	0.04	0.16	0.02	0.21
	53 – 65	0.00	0.00	0.00	0.02	0.10	0.12
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.93						
Decision Consistency	0 – 21	0.10	0.05	0.00	0.00	0.00	0.15
	22 – 30	0.05	0.13	0.05	0.00	0.00	0.23
	31 – 41	0.00	0.06	0.17	0.05	0.00	0.28
Alternate Form	42 – 52	0.00	0.00	0.05	0.14	0.03	0.21
	53 – 65	0.00	0.00	0.00	0.03	0.09	0.12
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.90						

Table 8.B.70 Reliability of Classification for Summative High School Mathematics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 23	0.03	0.01	0.00	0.00	0.00	0.04
	24 – 38	0.01	0.14	0.03	0.00	0.00	0.18
	39 – 48	0.00	0.02	0.17	0.03	0.00	0.23
All-forms Average	49 – 58	0.00	0.00	0.05	0.27	0.03	0.35
	59 – 65	0.00	0.00	0.00	0.04	0.16	0.20
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.91						
Decision Consistency	0 – 23	0.03	0.01	0.00	0.00	0.00	0.04
	24 – 38	0.01	0.13	0.04	0.00	0.00	0.18
	39 – 48	0.00	0.04	0.14	0.05	0.00	0.23
Alternate Form	49 – 58	0.00	0.00	0.06	0.23	0.05	0.35
	59 – 65	0.00	0.00	0.00	0.05	0.15	0.20
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.88						

Table 8.B.71 Reliability of Classification for Integrated Mathematics 1

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 19	0.16	0.05	0.00	0.00	0.00	0.21
	20 – 28	0.04	0.26	0.08	0.01	0.00	0.39
	29 – 38	0.00	0.03	0.21	0.01	0.00	0.25
All-forms Average	39 – 51	0.00	0.00	0.03	0.09	0.00	0.12
	52 – 65	0.00	0.00	0.01	0.01	0.00	0.02
	Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.93						
Decision Consistency	0 – 19	0.15	0.06	0.00	0.00	0.00	0.21
	20 – 28	0.07	0.21	0.09	0.02	0.00	0.39
	29 – 38	0.00	0.05	0.17	0.03	0.00	0.25
Alternate Form	39 – 51	0.00	0.00	0.04	0.09	0.00	0.12
	52 – 65	0.00	0.00	0.01	0.01	0.00	0.02
	Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.91						

Table 8.B.72 Reliability of Classification for Integrated Mathematics 2

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 16	0.03	0.06	0.00	0.00	0.00	0.09
	17 – 24	0.02	0.19	0.05	0.00	0.00	0.26
	25 – 35	0.00	0.06	0.26	0.04	0.00	0.36
	36 – 49	0.00	0.00	0.05	0.18	0.01	0.24
All-forms Average	50 – 65	0.00	0.00	0.00	0.02	0.04	0.05
Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.92							
Decision Consistency	0 – 16	0.04	0.05	0.01	0.00	0.00	0.09
	17 – 24	0.04	0.15	0.07	0.00	0.00	0.26
	25 – 35	0.01	0.08	0.22	0.06	0.00	0.36
	36 – 49	0.00	0.00	0.06	0.16	0.02	0.24
Alternate Form	50 – 65	0.00	0.00	0.00	0.02	0.04	0.05
Estimated Proportion Consistently Classified: Total = 0.60, Proficient & Above = 0.88							

Table 8.B.73 Reliability of Classification for Integrated Mathematics 3

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 18	0.15	0.05	0.00	0.00	0.00	0.20
	19 – 26	0.04	0.15	0.04	0.00	0.00	0.24
	27 – 36	0.00	0.04	0.17	0.03	0.00	0.23
	37 – 49	0.00	0.00	0.04	0.17	0.02	0.23
All-forms Average	50 – 65	0.00	0.00	0.00	0.02	0.08	0.10
Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.93							
Decision Consistency	0 – 18	0.14	0.06	0.01	0.00	0.00	0.20
	19 – 26	0.06	0.12	0.06	0.00	0.00	0.24
	27 – 36	0.00	0.05	0.14	0.04	0.00	0.23
	37 – 49	0.00	0.00	0.05	0.15	0.03	0.23
Alternate Form	50 – 65	0.00	0.00	0.00	0.02	0.08	0.10
Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.90							

Table 8.B.74 Reliability of Classification for Science, Grade Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 22	0.04	0.02	0.00	0.00	0.00	0.07
	23 – 30	0.01	0.07	0.03	0.00	0.00	0.11
	31 – 41	0.00	0.02	0.18	0.04	0.00	0.25
	42 – 51	0.00	0.00	0.04	0.25	0.04	0.33
All-forms Average	52 – 60	0.00	0.00	0.00	0.04	0.21	0.25
Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92							
Decision Consistency	0 – 22	0.04	0.02	0.00	0.00	0.00	0.07
	23 – 30	0.02	0.06	0.03	0.00	0.00	0.11
	31 – 41	0.00	0.03	0.16	0.05	0.00	0.25
	42 – 51	0.00	0.00	0.06	0.21	0.06	0.33
Alternate Form	52 – 60	0.00	0.00	0.00	0.05	0.20	0.25
Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.89							

Table 8.B.75 Reliability of Classification for Science, Grade Eight

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 23	0.06	0.02	0.00	0.00	0.00	0.09
	24 – 30	0.01	0.06	0.03	0.00	0.00	0.10
	31 – 38	0.00	0.02	0.12	0.04	0.00	0.18
	39 – 45	0.00	0.00	0.04	0.13	0.04	0.21
All-forms Average	46 – 60	0.00	0.00	0.00	0.04	0.38	0.42
Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92							
Decision Consistency	0 – 23	0.06	0.02	0.00	0.00	0.00	0.09
	24 – 30	0.02	0.05	0.03	0.00	0.00	0.10
	31 – 38	0.00	0.03	0.09	0.05	0.00	0.18
	39 – 45	0.00	0.00	0.05	0.10	0.06	0.21
Alternate Form	46 – 60	0.00	0.00	0.00	0.05	0.36	0.42
Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89							

Table 8.B.76 Reliability of Classification for Life Science (Grade 10)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 21	0.09	0.03	0.01	0.00	0.00	0.12
	22 – 28	0.01	0.07	0.03	0.00	0.00	0.11
	29 – 40	0.00	0.02	0.22	0.03	0.00	0.26
	41 – 48	0.00	0.00	0.04	0.16	0.03	0.24
All-forms Average	49 – 60	0.00	0.00	0.00	0.04	0.21	0.26
Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.91							
Decision Consistency	0 – 21	0.08	0.03	0.01	0.00	0.00	0.12
	22 – 28	0.02	0.05	0.04	0.00	0.00	0.11
	29 – 40	0.00	0.03	0.19	0.04	0.00	0.26
	41 – 48	0.00	0.00	0.06	0.13	0.05	0.24
Alternate Form	49 – 60	0.00	0.00	0.01	0.05	0.21	0.26
Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.88							

Table 8.B.77 Reliability of Classification for Biology

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 19	0.07	0.03	0.00	0.00	0.00	0.10
	20 – 26	0.02	0.08	0.03	0.00	0.00	0.13
	27 – 39	0.00	0.02	0.23	0.03	0.00	0.29
	40 – 48	0.00	0.00	0.04	0.17	0.03	0.25
All-forms Average	49 – 60	0.00	0.00	0.00	0.03	0.21	0.24
Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92							
Decision Consistency	0 – 19	0.06	0.03	0.00	0.00	0.00	0.10
	20 – 26	0.03	0.06	0.04	0.00	0.00	0.13
	27 – 39	0.00	0.04	0.20	0.05	0.00	0.29
	40 – 48	0.00	0.00	0.05	0.15	0.05	0.25
Alternate Form	49 – 60	0.00	0.00	0.00	0.04	0.20	0.24
Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.90							

Table 8.B.78 Reliability of Classification for Chemistry

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.06	0.03	0.00	0.00	0.00	0.09
	21 – 27	0.02	0.09	0.04	0.00	0.00	0.14
	28 – 41	0.00	0.03	0.32	0.04	0.00	0.39
	42 – 50	0.00	0.00	0.05	0.18	0.02	0.24
All-forms Average	51 – 60	0.00	0.00	0.00	0.03	0.10	0.14
Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92							
Decision Consistency	0 – 20	0.06	0.03	0.01	0.00	0.00	0.09
	21 – 27	0.03	0.07	0.05	0.00	0.00	0.14
	28 – 41	0.00	0.05	0.28	0.06	0.00	0.39
	42 – 50	0.00	0.00	0.06	0.15	0.04	0.24
Alternate Form	51 – 60	0.00	0.00	0.00	0.03	0.10	0.14
Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.88							

Table 8.B.79 Reliability of Classification for Earth Science

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.12	0.03	0.00	0.00	0.00	0.15
	21 – 26	0.02	0.08	0.03	0.00	0.00	0.13
	27 – 40	0.00	0.03	0.29	0.03	0.00	0.36
	41 – 49	0.00	0.00	0.04	0.17	0.02	0.23
All-forms Average	50 – 60	0.00	0.00	0.00	0.03	0.09	0.12
Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92							
Decision Consistency	0 – 20	0.11	0.04	0.01	0.00	0.00	0.15
	21 – 26	0.03	0.06	0.04	0.00	0.00	0.13
	27 – 40	0.01	0.04	0.26	0.05	0.00	0.36
	41 – 49	0.00	0.00	0.05	0.14	0.04	0.23
Alternate Form	50 – 60	0.00	0.00	0.00	0.03	0.09	0.12
Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.90							

Table 8.B.80 Reliability of Classification for Physics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 18	0.04	0.02	0.00	0.00	0.00	0.07
	19 – 24	0.01	0.05	0.03	0.00	0.00	0.09
	25 – 38	0.00	0.02	0.26	0.04	0.00	0.31
	39 – 48	0.00	0.00	0.04	0.22	0.04	0.31
All-forms Average	49 – 60	0.00	0.00	0.00	0.04	0.18	0.22
Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.91							
Decision Consistency	0 – 18	0.04	0.02	0.01	0.00	0.00	0.07
	19 – 24	0.02	0.04	0.03	0.00	0.00	0.09
	25 – 38	0.00	0.03	0.23	0.05	0.00	0.31
	39 – 48	0.00	0.00	0.06	0.19	0.05	0.31
Alternate Form	49 – 60	0.00	0.00	0.00	0.05	0.17	0.22
Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.88							

Table 8.B.81 Reliability of Classification for Integrated/Coordinated Science 1

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.15	0.04	0.01	0.00	0.00	0.21
	21 – 26	0.03	0.10	0.04	0.00	0.00	0.17
	27 – 40	0.00	0.05	0.35	0.03	0.00	0.43
All-forms Average	41 – 49	0.00	0.00	0.04	0.12	0.01	0.17
	50 – 60	0.00	0.00	0.00	0.02	0.01	0.03
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.93						
Decision Consistency	0 – 20	0.14	0.05	0.01	0.00	0.00	0.21
	21 – 26	0.04	0.07	0.05	0.00	0.00	0.17
	27 – 40	0.01	0.06	0.31	0.05	0.00	0.43
Alternate Form	41 – 49	0.00	0.00	0.05	0.10	0.02	0.17
	50 – 60	0.00	0.00	0.00	0.02	0.02	0.03
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.90						

Table 8.B.82 Reliability of Classification for Integrated/Coordinated Science 2

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 19	0.15	0.05	0.00	0.00	0.00	0.20
	20 – 25	0.05	0.13	0.05	0.00	0.00	0.22
	26 – 39	0.00	0.05	0.30	0.02	0.00	0.39
All-forms Average	40 – 48	0.00	0.00	0.03	0.09	0.01	0.13
	49 – 60	0.00	0.00	0.00	0.02	0.04	0.06
	Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.94						
Decision Consistency	0 – 19	0.13	0.06	0.01	0.00	0.00	0.20
	20 – 25	0.06	0.10	0.06	0.00	0.00	0.22
	26 – 39	0.01	0.06	0.27	0.04	0.00	0.39
Alternate Form	40 – 48	0.00	0.00	0.04	0.08	0.01	0.13
	49 – 60	0.00	0.00	0.00	0.02	0.04	0.06
	Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.92						

Table 8.B.83 Reliability of Classification for Integrated/Coordinated Science 3

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 17	0.15	0.04	0.00	0.00	0.00	0.19
	18 – 23	0.04	0.13	0.07	0.02	0.00	0.26
	24 – 38	0.00	0.02	0.37	0.00	0.00	0.39
All-forms Average	39 – 47	0.00	0.00	0.03	0.08	0.00	0.11
	48 – 60	0.00	0.01	0.01	0.02	0.01	0.05
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency	0 – 17	0.15	0.04	0.01	0.00	0.00	0.19
	18 – 23	0.06	0.10	0.08	0.01	0.00	0.26
	24 – 38	0.00	0.04	0.32	0.02	0.00	0.39
Alternate Form	39 – 47	0.00	0.00	0.04	0.07	0.00	0.11
	48 – 60	0.00	0.01	0.01	0.02	0.02	0.05
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.90						

Table 8.B.84 Reliability of Classification for Integrated/Coordinated Science 4

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 20	0.35	0.07	0.01	0.00	0.00	0.42
	21 – 26	0.06	0.13	0.04	0.00	0.00	0.24
	27 – 40	0.00	0.04	0.22	0.01	0.00	0.27
	41 – 49	0.00	0.00	0.02	0.04	0.00	0.06
All-forms Average	50 – 60	0.00	0.00	0.00	0.00	0.00	0.01
Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.97							
Decision Consistency	0 – 20	0.32	0.08	0.02	0.00	0.00	0.42
	21 – 26	0.08	0.10	0.06	0.00	0.00	0.24
	27 – 40	0.01	0.05	0.20	0.02	0.00	0.27
	41 – 49	0.00	0.00	0.02	0.03	0.01	0.06
Alternate Form	50 – 60	0.00	0.00	0.00	0.00	0.00	0.01
Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.96							

Table 8.B.85 Reliability of Classification for Algebra I – Grade 8

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 18	0.04	0.04	0.00	0.00	0.00	0.07
	19 – 27	0.02	0.16	0.04	0.00	0.00	0.22
	28 – 37	0.00	0.04	0.17	0.03	0.00	0.24
	38 – 51	0.00	0.00	0.04	0.24	0.02	0.30
All-forms Average	52 – 65	0.00	0.00	0.00	0.03	0.14	0.17
Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.93							
Decision Consistency	0 – 18	0.04	0.04	0.00	0.00	0.00	0.07
	19 – 27	0.04	0.13	0.05	0.00	0.00	0.22
	28 – 37	0.00	0.05	0.14	0.05	0.00	0.24
	38 – 51	0.00	0.00	0.05	0.22	0.03	0.30
Alternate Form	52 – 65	0.00	0.00	0.00	0.03	0.13	0.17
Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90							

Table 8.B.86 Reliability of Classification for Geometry – Grade 9

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 19	0.02	0.02	0.00	0.00	0.00	0.04
	20 – 31	0.01	0.14	0.04	0.00	0.00	0.18
	32 – 43	0.00	0.03	0.22	0.04	0.00	0.29
	44 – 55	0.00	0.00	0.04	0.27	0.03	0.35
All-forms Average	56 – 65	0.00	0.00	0.00	0.03	0.11	0.14
Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.91							
Decision Consistency	0 – 19	0.02	0.02	0.00	0.00	0.00	0.04
	20 – 31	0.02	0.12	0.04	0.00	0.00	0.18
	32 – 43	0.00	0.04	0.19	0.06	0.00	0.29
	44 – 55	0.00	0.00	0.06	0.24	0.04	0.35
Alternate Form	56 – 65	0.00	0.00	0.00	0.04	0.10	0.14
Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.88							

Table 8.B.87 Reliability of Classification for Algebra II – Grade 10

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 21	0.06	0.03	0.00	0.00	0.00	0.09
	22 – 30	0.02	0.13	0.04	0.00	0.00	0.19
	31 – 41	0.00	0.04	0.23	0.04	0.00	0.30
All-forms Average	42 – 52	0.00	0.00	0.04	0.21	0.02	0.28
	53 – 65	0.00	0.00	0.00	0.03	0.12	0.15
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency	0 – 21	0.05	0.03	0.00	0.00	0.00	0.09
	22 – 30	0.03	0.11	0.05	0.00	0.00	0.19
	31 – 41	0.00	0.05	0.19	0.06	0.00	0.30
Alternate Form	42 – 52	0.00	0.00	0.06	0.19	0.03	0.28
	53 – 65	0.00	0.00	0.00	0.03	0.11	0.15
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.89						

Table 8.B.88 Reliability of Classification for Summative High School Mathematics – Grade 11

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 23	0.03	0.02	0.00	0.00	0.00	0.05
	24 – 38	0.01	0.17	0.03	0.00	0.00	0.21
	39 – 48	0.00	0.03	0.18	0.04	0.00	0.25
All-forms Average	49 – 58	0.00	0.00	0.04	0.26	0.03	0.33
	59 – 65	0.00	0.00	0.00	0.04	0.13	0.17
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency	0 – 23	0.03	0.02	0.00	0.00	0.00	0.05
	24 – 38	0.02	0.15	0.04	0.00	0.00	0.21
	39 – 48	0.00	0.04	0.15	0.05	0.00	0.25
Alternate Form	49 – 58	0.00	0.00	0.05	0.23	0.05	0.33
	59 – 65	0.00	0.00	0.00	0.04	0.12	0.17
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.89 Reliability of Classification for World History – Grade 10

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy	0 – 24	0.15	0.03	0.00	0.00	0.00	0.18
	25 – 30	0.02	0.07	0.03	0.00	0.00	0.12
	31 – 40	0.00	0.03	0.18	0.04	0.00	0.25
All-forms Average	41 – 48	0.00	0.00	0.04	0.15	0.03	0.22
	49 – 60	0.00	0.00	0.00	0.03	0.19	0.23
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency	0 – 24	0.14	0.03	0.01	0.00	0.00	0.18
	25 – 30	0.03	0.05	0.04	0.00	0.00	0.12
	31 – 40	0.01	0.04	0.15	0.05	0.00	0.25
Alternate Form	41 – 48	0.00	0.00	0.05	0.13	0.04	0.22
	49 – 60	0.00	0.00	0.00	0.04	0.18	0.23
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.90						

Table 8.B.90 Interrater Agreement Analyses for ELA for Writing, Grade Four

		Rater 1								Total
		1	%	2	%	3	%	4	%	
Rater 2	1	1,714	4.03	766	1.80	186	0.44	16	0.04	2,682
	2	839	1.97	8,871	20.84	3,107	7.30	308	0.72	13,125
	3	224	0.53	3,263	7.67	14,495	34.06	2,433	5.72	20,415
	4	31	0.07	291	0.68	2,467	5.80	3,549	8.34	6,338
Total		2,808	6.60	13,191	30.99	20,255	47.59	6,306	14.82	42,560

Percent Exact= 67.27%

Percent Adjacent= 30.25%

Percent Exact+Adjacent= 97.52%

Kappa= 0.50

Weighted Kappa= 0.58

Table 8.B.91 Interrater Agreement Analyses for ELA for Writing, Grade Seven

		Rater 1								Total
		1	%	2	%	3	%	4	%	
Rater 2	1	186	0.43	93	0.22	17	0.04	1	0.00	297
	2	109	0.25	2,497	5.80	1,565	3.64	110	0.26	4,281
	3	20	0.05	1,719	3.99	13,547	31.47	4,579	10.64	19,865
	4	1	0.00	136	0.32	4,506	10.47	13,964	32.44	18,607
Total		316	0.73	4,445	10.33	19,635	45.61	18,654	43.33	43,050

Percent Exact= = 70.14%

Percent Adjacent= 29.20%

Percent Exact+Adjacent= 99.34%

Kappa= 0.50

Weighted Kappa= 0.56

Table 8.B.92 Descriptive Statistics for the Ratings by the Two Raters, Grade Four

Grades	N*	Rater 1		Rater 2		Pearson Correlation
		Mean	Std	Mean	Std	
4	42,560	2.71	0.80	2.71	0.79	0.68

* Number of students who received valid ratings of 1–4

Table 8.B.93 Descriptive Statistics for the Ratings by the Two Raters, Grade Seven

Grades	N*	Rater 1		Rater 2		Pearson Correlation
		Mean	Std	Mean	Std	
7	43,050	3.32	0.68	3.32	0.68	0.66

* Number of students who received valid ratings of 1–4

Table 8.B.94 Generalizability Analyses for Grade Four Essay—[(Person: Essay) x Rater]

Effect	Degrees of Freedom	Sum of Squares	Mean Squares	Estimated Variance Components	Percentage of Total Variance
E	1	40.21	40.21	0.03	6.88
P:E	42558	32475.60	0.76	0.30	60.89
R	1	0.35	0.35	0.00	0.04
ER	1	0.05	0.05	0.00	0.00
PR:E	42558	6789.61	0.16	0.16	32.19
Note: E=Essay Prompt, P=Person and R=Rating				G-Coefficient= 0.79	

Table 8.B.95 Generalizability Analyses for Grade Seven Essay—[(Person: Essay) x Rater]

Effect	Degrees of Freedom	Sum of Squares	Mean Squares	Estimated Variance Components	Percentage of Total Variance
E	1	0.00	0.00	0.00	0.00
P:E	43048	32916.69	0.76	0.30	65.48
R	1	0.28	0.28	0.00	0.04
ER	1	0.10	0.10	0.00	0.00
PR:E	43048	6860.13	0.16	0.16	34.48
Note: E=Essay Prompt, P=Person and R=Rating				G-Coefficient= 0.79	

Appendix 8.C—Validity Analyses

Table 8.C.1 CST Content Area Correlations (Male)

Grade	CST	1.	2.					
2	1. English–Language Arts	234,049	0.79					
	2. Mathematics	233,443	234,654					
Grade	CST	1.	2.					
3	1. English–Language Arts	218,702	0.78					
	2. Mathematics	217,644	220,699					
Grade	CST	1.	2.					
4	1. English–Language Arts	215,372	0.75					
	2. Mathematics	214,583	218,489					
Grade	CST	1.	2.	3.				
5	1. English–Language Arts	217,649	0.74	0.81				
	2. Mathematics	216,628	220,306	0.72				
	3. Science	217,205	219,941	235,690				
Grade	CST	1.	2.					
6	1. English–Language Arts	216,855	0.79					
	2. Mathematics	215,471	218,190					
Grade	CST	1.	2.	3.				
7	1. English–Language Arts	218,525	0.76	0.61				
	2. Mathematics	198,091	200,280	N/A				
	3. Algebra I	18,863	0	18,886				
Grade	CST	1.	2.	3.	4.	5.	6.	7.
8	1. English–Language Arts	221,223	0.83	0.66	0.66	0.57	0.58	0.81
	2. History–Social Science	220,225	235,687	0.64	0.63	0.52	0.57	0.80
	3. General Mathematics	69,547	80,020	80,867	N/A	N/A	N/A	0.66
	4. Algebra I	135,488	136,019	0	136,367	N/A	N/A	0.70
	5. Geometry	13,135	13,141	0	0	13,145	N/A	0.61
	6. Algebra II	429	429	0	0	0	429	0.63
	7. Science	220,035	234,686	79,988	136,010	13,142	429	235,826

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	241,286	0.82	0.63	0.58	0.69	0.61	0.56	0.81	0.81	0.76	0.78
	2. World History	16,782	17,280	0.52	0.63	0.71	0.63	0.62	0.83	0.78	0.76	0.70
	3. General Mathematics	24,374	1,543	28,908	N/A	N/A	N/A	N/A	0.61	0.72	0.64	0.59
	4. Algebra I	130,519	6,820	0	132,911	N/A	N/A	N/A	0.63	0.63	0.55	0.70
	5. Geometry	65,616	6,094	0	0	65,803	N/A	N/A	0.71	0.83	0.66	0.76
	6. Algebra II	14,359	2,061	0	0	0	14,390	N/A	0.62	0.78	0.50	0.69
	7. Summ. H.S. Mathematics	481	77	0	0	0	0	482	0.61	0.69	0.58	0.58
	8. Biology	102,871	9,864	4,281	43,122	44,428	10,795	312	105,329	N/A	N/A	N/A
	9. Chemistry	2,862	787	44	506	1,281	969	59	0	2,909	N/A	N/A
	10. Earth Science	71,068	1,939	10,624	50,941	9,999	681	29	0	0	75,638	N/A
	11. Physics	6,888	470	36	2,557	3,154	989	61	0	0	0	6,979
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	235,003	0.77	0.53	0.63	0.57	0.56	0.81	0.79	0.71	0.73	0.76
	2. World History	207,258	215,559	0.48	0.55	0.50	0.46	0.77	0.76	0.66	0.72	0.71
	3. Algebra I	60,246	54,807	61,750	N/A	N/A	N/A	0.53	0.55	0.62	0.51	0.63
	4. Geometry	78,977	74,261	0	79,608	N/A	N/A	0.64	0.65	0.72	0.60	0.75
	5. Algebra II	58,107	53,675	0	0	58,279	N/A	0.57	0.62	0.69	0.44	0.69
	6. Summ. H.S. Mathematics	11,463	10,245	0	0	0	11,479	0.54	0.61	0.66	0.48	0.62
	7. Life Science	229,300	211,654	59,465	78,445	57,789	11,432	238,703	0.87	0.76	0.75	0.79
	8. Biology	116,735	113,858	36,487	49,947	19,622	2,681	119,255	121,225	N/A	N/A	N/A
	9. Chemistry	58,075	53,168	2,337	14,766	32,315	7,588	57,809	0	58,361	N/A	N/A
	10. Earth Science	16,207	15,756	8,298	4,734	1,082	88	16,811	0	0	17,462	N/A
	11. Physics	4,889	4,226	404	1,520	2,123	712	4,903	0	0	0	4,943
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	224,261	0.61	0.82	0.50	0.56	0.47	0.60	0.81	0.70	0.73	0.72
	2. World History	7,544	7,888	0.66	0.42	0.44	0.34	0.29	0.63	0.45	0.62	0.46
	3. History–Social Science	219,075	6,889	225,978	0.48	0.52	0.44	0.52	0.79	0.68	0.75	0.68
	4. Algebra I	28,977	2,566	28,320	29,793	N/A	N/A	N/A	0.52	0.59	0.48	0.65
	5. Geometry	40,686	1,466	40,367	0	41,183	N/A	N/A	0.58	0.64	0.54	0.71
	6. Algebra II	57,929	720	57,915	0	0	58,421	N/A	0.51	0.62	0.42	0.62
	7. Summ. H.S. Mathematics	54,904	339	54,727	0	0	0	55,010	0.64	0.73	0.45	0.68
	8. Biology	46,677	2,196	47,160	8,266	10,738	9,738	11,770	48,186	N/A	N/A	N/A
	9. Chemistry	62,742	689	62,868	1,721	9,549	28,469	18,970	0	63,301	N/A	N/A
	10. Earth Science	21,147	1,168	21,885	6,473	5,709	3,075	1,573	0	0	22,441	N/A
	11. Physics	28,117	236	28,158	477	2,065	7,377	17,022	0	0	0	28,320

Table 8.C.2 CST Content Area Correlations (Female)

Grade	CST	1.	2.					
2	1. English–Language Arts	224,518	0.78					
	2. Mathematics	224,036	224,647					
Grade	CST	1.	2.					
3	1. English–Language Arts	215,947	0.78					
	2. Mathematics	215,182	216,366					
Grade	CST	1.	2.					
4	1. English–Language Arts	214,326	0.75					
	2. Mathematics	213,674	215,234					
Grade	CST	1.	2.	3.				
5	1. English–Language Arts	216,377	0.73	0.81				
	2. Mathematics	215,606	217,133	0.71				
	3. Science	215,982	216,795	225,371				
Grade	CST	1.	2.					
6	1. English–Language Arts	214,197	0.79					
	2. Mathematics	213,220	214,398					
Grade	CST	1.	2.	3.				
7	1. English–Language Arts	216,771	0.76	0.62				
	2. Mathematics	198,511	199,431	N/A				
	3. Algebra I	17,071	0	17,073				
Grade	CST	1.	2.	3.	4.	5.	6.	7.
8	1. English–Language Arts	218,781	0.83	0.66	0.66	0.58	0.62	0.80
	2. History–Social Science	218,088	225,744	0.63	0.65	0.57	0.67	0.80
	3. General Mathematics	62,831	68,014	68,439	N/A	N/A	N/A	0.66
	4. Algebra I	141,587	141,677	0	141,969	N/A	N/A	0.71
	5. Geometry	12,091	12,090	0	0	12,104	N/A	0.64
	6. Algebra II	351	351	0	0	0	351	0.64
	7. Science	217,999	225,155	67,998	141,667	12,088	351	225,787

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	234,671	0.81	0.63	0.57	0.69	0.64	0.74	0.81	0.80	0.76	0.77
	2. World History	15,675	15,913	0.54	0.63	0.71	0.64	0.66	0.82	0.82	0.74	0.71
	3. General Mathematics	18,709	1,116	20,979	N/A	N/A	N/A	N/A	0.59	0.56	0.61	0.48
	4. Algebra I	123,063	5,723	0	124,317	N/A	N/A	N/A	0.62	0.63	0.56	0.68
	5. Geometry	74,053	6,576	0	0	74,180	N/A	N/A	0.71	0.82	0.66	0.77
	6. Algebra II	14,138	2,065	0	0	0	14,154	N/A	0.65	0.78	0.62	0.73
	7. Summ. H.S. Mathematics	307	49	0	0	0	0	309	0.62	0.89	0.71	0.49
	8. Biology	109,555	9,759	3,495	43,412	51,577	10,555	215	110,896	N/A	N/A	N/A
	9. Chemistry	2,624	545	29	376	1,243	952	18	0	2,647	N/A	N/A
	10. Earth Science	64,564	1,491	7,866	46,104	10,173	660	33	0	0	66,984	N/A
	11. Physics	7,292	560	29	2,565	3,620	987	19	0	0	0	7,360
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	229,863	0.76	0.50	0.62	0.55	0.56	0.80	0.79	0.71	0.73	0.75
	2. World History	206,260	210,815	0.46	0.56	0.53	0.53	0.76	0.75	0.68	0.71	0.71
	3. Algebra I	49,605	45,294	50,448	N/A	N/A	N/A	0.50	0.52	0.60	0.48	0.62
	4. Geometry	81,957	77,053	0	82,389	N/A	N/A	0.63	0.64	0.71	0.57	0.72
	5. Algebra II	66,865	61,956	0	0	66,996	N/A	0.57	0.62	0.69	0.45	0.70
	6. Summ. H.S. Mathematics	10,866	9,738	0	0	0	10,875	0.57	0.64	0.68	0.49	0.69
	7. Life Science	225,476	207,836	48,920	81,328	66,414	10,813	230,659	0.86	0.75	0.76	0.77
	8. Biology	112,109	108,241	30,753	50,437	21,384	2,574	113,045	114,629	N/A	N/A	N/A
	9. Chemistry	67,817	62,389	2,358	18,014	39,144	7,319	67,425	0	68,034	N/A	N/A
	10. Earth Science	13,289	12,663	6,255	4,278	1,099	72	13,568	0	0	13,946	N/A
	11. Physics	4,138	3,628	324	1,398	1,869	477	4,144	0	0	0	4,173
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	220,387	0.57	0.82	0.47	0.53	0.45	0.59	0.80	0.69	0.74	0.72
	2. World History	5,835	6,005	0.59	0.39	0.42	0.33	0.21	0.59	0.41	0.59	0.50
	3. History–Social Science	216,402	5,354	220,343	0.46	0.50	0.44	0.55	0.79	0.68	0.75	0.71
	4. Algebra I	22,162	1,684	21,675	22,588	N/A	N/A	N/A	0.48	0.54	0.46	0.59
	5. Geometry	38,177	1,173	37,864	0	38,512	N/A	N/A	0.56	0.59	0.53	0.62
	6. Algebra II	63,894	730	63,675	0	0	64,221	N/A	0.50	0.59	0.43	0.61
	7. Summ. H.S. Mathematics	61,676	328	61,449	0	0	0	61,776	0.65	0.74	0.53	0.70
	8. Biology	50,471	1,522	50,716	6,041	9,840	12,005	17,506	51,368	N/A	N/A	N/A
	9. Chemistry	69,359	703	69,278	1,773	10,221	32,355	20,676	0	69,783	N/A	N/A
	10. Earth Science	17,925	848	18,268	4,747	4,908	2,919	1,933	0	0	18,660	N/A
	11. Physics	24,157	188	24,125	380	1,758	6,643	14,387	0	0	0	24,278

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	164	–	0.65	0.53	0.89	–	–	0.84	–	0.78	–
	2. World History	8	15	–	–	–	–	–	–	–	–	–
	3. General Mathematics	27	2	49	N/A	N/A	N/A	N/A	–	–	0.76	–
	4. Algebra I	98	7	0	105	N/A	N/A	N/A	0.55	–	0.45	–
	5. Geometry	15	1	0	0	15	N/A	N/A	0.84	–	–	–
	6. Algebra II	5	0	0	0	0	5	N/A	–	–	–	–
	7. Summ. H.S. Mathematics	1	0	0	0	0	0	1	–	–	–	–
	8. Biology	56	4	9	34	11	5	0	61	N/A	N/A	N/A
	9. Chemistry	0	0	0	0	0	0	0	0	0	N/A	N/A
	10. Earth Science	48	5	22	36	3	0	0	0	0	85	N/A
	11. Physics	0	4	0	0	0	0	0	0	0	0	5
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	160	0.73	0.51	0.60	0.39	–	–	0.80	0.72	0.63	–
	2. World History	116	162	0.46	0.54	–	–	–	0.79	0.79	0.84	–
	3. Algebra I	57	49	61	N/A	N/A	N/A	0.39	0.42	–	–	–
	4. Geometry	44	41	0	44	N/A	N/A	0.59	0.58	–	–	–
	5. Algebra II	12	10	0	0	13	N/A	0.27	–	–	–	–
	6. Summ. H.S. Mathematics	1	0	0	0	0	1	–	–	–	–	–
	7. Life Science	135	128	53	41	11	1	187	0.78	0.74	0.70	–
	8. Biology	64	74	32	22	4	1	68	86	N/A	N/A	N/A
	9. Chemistry	19	15	2	7	6	0	18	0	20	N/A	N/A
	10. Earth Science	18	16	10	2	1	0	15	0	0	21	N/A
	11. Physics	1	1	0	1	0	0	1	0	0	0	1
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	140	0.35	0.74	0.63	0.53	0.48	–	0.53	0.80	0.86	–
	2. World History	12	14	0.82	–	–	–	–	–	–	–	–
	3. History–Social Science	126	11	138	0.50	0.38	0.28	–	0.79	0.65	0.79	–
	4. Algebra I	22	5	20	24	N/A	N/A	N/A	–	–	–	–
	5. Geometry	23	3	24	0	25	N/A	N/A	–	–	–	–
	6. Algebra II	22	0	22	0	0	23	N/A	–	0.78	–	–
	7. Summ. H.S. Mathematics	7	0	7	0	0	0	7	–	–	–	–
	8. Biology	23	3	23	7	7	4	0	28	N/A	N/A	N/A
	9. Chemistry	22	1	24	1	5	11	3	0	24	N/A	N/A
	10. Earth Science	19	6	19	2	4	3	0	0	0	22	N/A
	11. Physics	5	0	6	0	1	0	3	0	0	0	6

Table 8.C.4 CST Content Area Correlations (American Indian)

Grade	CST	1.	2.
2	1. English–Language Arts	2,847	0.76
	2. Mathematics	2,836	2,859
Grade	CST	1.	2.
3	1. English–Language Arts	2,761	0.76
	2. Mathematics	2,738	2,776
Grade	CST	1.	2.
4	1. English–Language Arts	2,635	0.73
	2. Mathematics	2,622	2,675
Grade	CST	1.	2.
5	1. English–Language Arts	2,808	0.71
	2. Mathematics	2,783	2,839
	3. Science	2,803	2,833
			3,052
Grade	CST	1.	2.
6	1. English–Language Arts	2,909	0.77
	2. Mathematics	2,887	2,921
Grade	CST	1.	2.
7	1. English–Language Arts	3,084	0.72
	2. Mathematics	2,919	2,953
	3. Algebra I	124	0
			124
Grade	CST	1.	2.
8	1. English–Language Arts	3,085	0.81
	2. History–Social Science	3,063	3,271
	3. General Mathematics	1,187	1,328
	4. Algebra I	1,759	1,766
	5. Geometry	81	81
	6. Algebra II	2	2
	7. Science	3,059	3,255
		1,329	1,329
		0.65	0.65
		0.65	0.65
		1,355	1,355
		0	0
		0	0
		81	81
		0	0
		0	0
		1,765	1,765
		81	81
		2	2
		3,274	3,274

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	3,864	0.72	0.62	0.58	0.72	0.53	–	0.79	0.71	0.74	0.76
	2. World History	156	162	0.66	0.56	0.71	–	–	0.78	–	0.69	–
	3. General Mathematics	758	36	841	N/A	N/A	N/A	N/A	0.67	–	0.66	–
	4. Algebra I	2,107	72	0	2,141	N/A	N/A	N/A	0.63	–	0.56	0.70
	5. Geometry	774	37	0	0	778	N/A	N/A	0.68	0.90	0.66	0.79
	6. Algebra II	117	8	0	0	0	117	N/A	0.63	–	0.55	–
	7. Summ. H. S. Mathematics	1	1	0	0	0	0	1	–	–	–	–
	8. Biology	1,252	62	61	574	534	80	0	1,278	N/A	N/A	N/A
	9. Chemistry	23	1	0	2	11	10	0	0	23	N/A	N/A
	10. Earth Science	1,284	37	270	904	130	11	0	0	0	1,362	N/A
	11. Physics	70	7	2	44	20	5	0	0	0	0	72
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	3,838	0.73	0.60	0.60	0.51	0.39	0.79	0.78	0.68	0.67	0.66
	2. World History	3,218	3,373	0.52	0.55	0.50	0.35	0.75	0.75	0.68	0.70	0.66
	3. Algebra I	1,131	1,010	1,164	N/A	N/A	N/A	0.54	0.58	0.67	0.48	–
	4. Geometry	1,150	1,099	0	1,157	N/A	N/A	0.65	0.64	0.76	0.58	0.80
	5. Algebra II	643	615	0	0	648	N/A	0.56	0.61	0.62	0.45	0.52
	6. Summ. H.S. Mathematics	89	80	0	0	0	89	0.51	0.68	0.66	–	–
	7. Life Science	3,710	3,284	1,106	1,133	638	89	3,896	0.86	0.76	0.75	0.64
	8. Biology	1,814	1,795	647	714	248	27	1,853	1,893	N/A	N/A	N/A
	9. Chemistry	601	576	20	186	330	54	594	0	602	N/A	N/A
	10. Earth Science	380	372	197	98	12	3	388	0	0	406	N/A
	11. Physics	45	37	6	14	21	2	46	0	0	0	46
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	3,395	0.66	0.79	0.47	0.55	0.51	0.59	0.80	0.64	0.72	0.67
	2. World History	157	164	0.65	0.52	0.55	0.28	–	0.69	–	0.45	–
	3. History–Social Science	3,305	141	3,426	0.45	0.52	0.49	0.52	0.79	0.68	0.72	0.69
	4. Algebra I	536	40	526	555	N/A	N/A	N/A	0.49	0.64	0.42	–
	5. Geometry	676	27	670	0	682	N/A	N/A	0.57	0.63	0.54	0.72
	6. Algebra II	779	11	779	0	0	783	N/A	0.56	0.62	0.54	0.66
	7. Summ. H.S. Mathematics	503	4	502	0	0	0	504	0.63	0.69	0.43	0.69
	8. Biology	626	37	635	133	147	122	113	651	N/A	N/A	N/A
	9. Chemistry	813	9	812	16	153	375	185	0	816	N/A	N/A
	10. Earth Science	358	23	371	120	85	51	20	0	0	381	N/A
	11. Physics	261	1	261	7	27	77	135	0	0	0	264

Table 8.C.5 CST Content Area Correlations (Asian American)

Grade	CST	1.	2.
2	1. English–Language Arts	39,513	0.75
	2. Mathematics	39,468	39,545
Grade	CST	1.	2.
3	1. English–Language Arts	37,933	0.73
	2. Mathematics	37,856	38,007
Grade	CST	1.	2.
4	1. English–Language Arts	37,797	0.69
	2. Mathematics	37,744	37,991
Grade	CST	1.	2.
5	1. English–Language Arts	39,922	0.71
	2. Mathematics	39,863	40,118
5	3. Science	39,896	40,079
			40,790
Grade	CST	1.	2.
6	1. English–Language Arts	37,204	0.76
	2. Mathematics	37,139	37,321
Grade	CST	1.	2.
7	1. English–Language Arts	37,525	0.73
	2. Mathematics	28,408	28,568
7	3. Algebra I	9,059	0
			9,064
Grade	CST	1.	2.
8	1. English–Language Arts	39,899	0.81
	2. History–Social Science	39,853	40,570
8	3. General Mathematics	5,227	5,697
	4. Algebra I	26,566	26,616
8	5. Geometry	7,648	7,648
	6. Algebra II	324	324
8	7. Science	39,842	40,520
			5,685
		26,622	7,647
		324	40,564

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	41,972	0.65	0.57	0.47	0.62	0.53	0.57	0.75	0.66	0.75	0.73
	2. World History	5,000	5,020	0.61	0.49	0.46	0.44	0.47	0.65	0.59	0.74	0.58
	3. General Mathematics	941	66	1,096	N/A	N/A	N/A	N/A	0.69	–	0.61	–
	4. Algebra I	11,331	679	0	11,462	N/A	N/A	N/A	0.58	0.52	0.51	0.64
	5. Geometry	20,522	2,540	0	0	20,547	N/A	N/A	0.67	0.68	0.58	0.75
	6. Algebra II	8,434	1,632	0	0	0	8,438	N/A	0.56	0.62	0.40	0.66
	7. Summ. H.S. Mathematics	387	68	0	0	0	0	388	0.48	0.65	0.56	0.49
	8. Biology	26,322	3,649	175	4,072	15,183	6,629	243	26,453	N/A	N/A	N/A
	9. Chemistry	1,037	177	1	42	367	564	56	0	1,038	N/A	N/A
	10. Earth Science	6,515	154	379	3,926	1,949	242	26	0	0	6,688	N/A
	11. Physics	1,955	168	6	287	1,076	531	47	0	0	0	1,962
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	42,634	0.73	0.32	0.51	0.49	0.51	0.78	0.80	0.65	0.73	0.72
	2. World History	37,501	37,848	0.37	0.48	0.47	0.47	0.74	0.75	0.63	0.72	0.72
	3. Algebra I	3,537	3,081	3,610	N/A	N/A	N/A	0.34	0.46	0.55	0.35	0.81
	4. Geometry	10,138	9,349	0	10,179	N/A	N/A	0.56	0.56	0.72	0.49	0.77
	5. Algebra II	19,560	17,384	0	0	19,581	N/A	0.53	0.57	0.68	0.33	0.64
	6. Summ. H.S. Mathematics	8,207	7,003	0	0	0	8,214	0.52	0.58	0.65	0.46	0.58
	7. Life Science	42,224	37,548	3,499	10,056	19,491	8,184	42,609	0.87	0.72	0.77	0.76
	8. Biology	15,777	14,685	2,068	6,036	5,519	1,775	15,819	15,964	N/A	N/A	N/A
	9. Chemistry	21,659	19,130	198	2,672	12,811	5,854	21,598	0	21,675	N/A	N/A
	10. Earth Science	1,179	1,124	433	458	174	31	1,213	0	0	1,239	N/A
	11. Physics	1,182	993	25	253	479	416	1,186	0	0	0	1,190
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	42,722	0.56	0.79	0.23	0.40	0.29	0.57	0.77	0.71	0.74	0.66
	2. World History	638	644	0.62	0.33	0.36	0.29	0.27	0.62	0.42	0.28	0.51
	3. History–Social Science	42,170	518	42,520	0.23	0.40	0.30	0.52	0.75	0.69	0.78	0.65
	4. Algebra I	1,525	120	1,447	1,547	N/A	N/A	N/A	0.40	0.59	0.27	0.52
	5. Geometry	3,462	143	3,415	0	3,498	N/A	N/A	0.46	0.65	0.46	0.72
	6. Algebra II	9,652	138	9,577	0	0	9,692	N/A	0.39	0.60	0.30	0.59
	7. Summ. H.S. Mathematics	25,741	140	25,642	0	0	0	25,770	0.62	0.73	0.48	0.68
	8. Biology	10,852	194	10,821	426	993	1,805	7,195	10,929	N/A	N/A	N/A
	9. Chemistry	14,939	127	14,909	138	1,010	4,923	8,460	0	14,995	N/A	N/A
	10. Earth Science	1,847	62	1,869	239	390	354	685	0	0	1,908	N/A
	11. Physics	9,230	50	9,207	27	174	1,327	7,513	0	0	0	9,251

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	2,681	0.78	0.69	0.57	0.67	0.63	–	0.80	0.78	0.74	0.74
	2. World History	172	174	0.72	0.52	0.75	0.68	–	0.81	–	0.82	–
	3. General Mathematics	227	13	249	N/A	N/A	N/A	N/A	0.71	–	0.61	–
	4. Algebra I	1,475	77	0	1,489	N/A	N/A	N/A	0.63	–	0.55	0.63
	5. Geometry	805	64	0	0	806	N/A	N/A	0.72	0.70	0.70	0.69
	6. Algebra II	119	15	0	0	0	119	N/A	0.57	0.67	–	–
	7. Summ. H.S. Mathematics	3	1	0	0	0	0	3	–	–	–	–
	8. Biology	1,118	98	35	466	522	88	3	1,133	N/A	N/A	N/A
	9. Chemistry	38	6	1	8	16	13	0	0	38	N/A	N/A
	10. Earth Science	817	18	97	587	125	4	0	0	0	836	N/A
	11. Physics	98	7	0	40	53	6	0	0	0	0	100
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	2,956	0.71	0.48	0.57	0.57	0.72	0.77	0.74	0.71	0.71	0.77
	2. World History	2,617	2,678	0.44	0.51	0.44	0.49	0.73	0.74	0.67	0.71	0.71
	3. Algebra I	718	666	730	N/A	N/A	N/A	0.50	0.47	0.61	0.54	–
	4. Geometry	1,140	1,060	0	1,150	N/A	N/A	0.58	0.60	0.75	0.62	0.77
	5. Algebra II	716	654	0	0	716	N/A	0.55	0.57	0.69	0.35	0.65
	6. Summ. H.S. Mathematics	73	67	0	0	0	73	0.69	0.67	0.71	–	–
	7. Life Science	2,882	2,629	701	1,131	713	70	2,950	0.85	0.75	0.73	0.76
	8. Biology	1,527	1,481	445	731	240	21	1,543	1,572	N/A	N/A	N/A
	9. Chemistry	702	655	26	205	404	46	701	0	706	N/A	N/A
	10. Earth Science	212	199	97	76	12	0	209	0	0	218	N/A
	11. Physics	69	49	7	28	29	1	68	0	0	0	69
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	2,737	0.35	0.78	0.55	0.48	0.47	0.62	0.79	0.69	0.66	0.71
	2. World History	83	84	0.44	0.28	0.52	–0.10	–	0.52	–	0.46	–
	3. History–Social Science	2,667	75	2,725	0.52	0.48	0.49	0.57	0.77	0.64	0.70	0.73
	4. Algebra I	300	26	287	305	N/A	N/A	N/A	0.54	0.45	0.55	–
	5. Geometry	589	12	579	0	593	N/A	N/A	0.55	0.56	0.42	0.69
	6. Algebra II	796	14	790	0	0	802	N/A	0.63	0.59	0.50	0.53
	7. Summ. H.S. Mathematics	579	8	579	0	0	0	581	0.65	0.71	0.53	0.72
	8. Biology	586	21	584	79	165	133	136	599	N/A	N/A	N/A
	9. Chemistry	852	10	851	23	165	392	214	0	858	N/A	N/A
	10. Earth Science	225	12	227	57	57	33	16	0	0	232	N/A
	11. Physics	290	3	290	4	29	101	148	0	0	0	293

Table 8.C.7 CST Content Area Correlations (Filipino)

Grade	CST	1.	2.
2	1. English–Language Arts	10,731	0.75
	2. Mathematics	10,713	10,740
Grade	CST	1.	2.
3	1. English–Language Arts	10,569	0.74
	2. Mathematics	10,539	10,583
Grade	CST	1.	2.
4	1. English–Language Arts	11,022	0.69
	2. Mathematics	11,001	11,074
Grade	CST	1.	2.
5	1. English–Language Arts	11,442	0.71
	2. Mathematics	11,412	11,479
5	3. Science	11,429	11,467
			11,734
Grade	CST	1.	2.
6	1. English–Language Arts	12,065	0.76
	2. Mathematics	12,043	12,105
Grade	CST	1.	2.
7	1. English–Language Arts	12,543	0.72
	2. Mathematics	10,778	10,816
7	3. Algebra I	1,738	0
			1,738
Grade	CST	1.	2.
8	1. English–Language Arts	12,663	0.77
	2. History–Social Science	12,643	12,854
8	3. General Mathematics	2,420	2,560
	4. Algebra I	8,971	8,978
8	5. Geometry	1,133	1,133
	6. Algebra II	43	43
8	7. Science	12,645	12,841
			2,561
			8,980
			1,133
			43
			12,857

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	13,484	0.68	0.66	0.56	0.66	0.52	0.77	0.74	0.76	0.72	0.71
	2. World History	1,081	1,087	0.60	0.52	0.57	0.56	–	0.72	0.80	0.74	0.63
	3. General Mathematics	438	25	497	N/A	N/A	N/A	N/A	0.53	–	0.63	–
	4. Algebra I	5,539	278	0	5,576	N/A	N/A	N/A	0.59	0.59	0.56	0.64
	5. Geometry	6,140	595	0	0	6,149	N/A	N/A	0.68	0.76	0.60	0.72
	6. Algebra II	1,205	176	0	0	0	1,206	N/A	0.59	0.74	0.51	0.69
	7. Summ. H.S. Mathematics	16	4	0	0	0	0	16	0.76	–	–	–
	8. Biology	7,405	742	93	2,122	4,208	955	13	7,445	N/A	N/A	N/A
	9. Chemistry	214	32	2	17	143	51	1	0	214	N/A	N/A
	10. Earth Science	2,768	52	188	1,845	668	51	0	0	0	2,828	N/A
	11. Physics	862	69	1	184	574	96	1	0	0	0	865
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	13,798	0.68	0.52	0.61	0.54	0.54	0.75	0.75	0.64	0.69	0.64
	2. World History	12,713	12,847	0.48	0.52	0.47	0.50	0.70	0.71	0.62	0.73	0.62
	3. Algebra I	1,759	1,613	1,776	N/A	N/A	N/A	0.54	0.56	0.60	0.51	0.48
	4. Geometry	4,943	4,676	0	4,961	N/A	N/A	0.62	0.63	0.72	0.53	0.73
	5. Algebra II	5,531	5,144	0	0	5,537	N/A	0.52	0.60	0.66	0.57	0.63
	6. Summ. H.S. Mathematics	938	836	0	0	0	938	0.54	0.58	0.67	–	0.64
	7. Life Science	13,644	12,722	1,726	4,914	5,505	929	13,791	0.85	0.71	0.79	0.65
	8. Biology	6,502	6,251	1,116	2,998	1,882	231	6,523	6,576	N/A	N/A	N/A
	9. Chemistry	5,382	4,967	132	1,321	3,235	618	5,346	0	5,394	N/A	N/A
	10. Earth Science	489	446	201	182	62	9	494	0	0	505	N/A
	11. Physics	330	294	13	95	175	44	328	0	0	0	331
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	13,268	0.56	0.76	0.54	0.54	0.49	0.56	0.75	0.67	0.68	0.66
	2. World History	198	204	0.64	0.53	0.50	0.34	–0.09	0.64	0.32	0.34	0.73
	3. History–Social Science	13,140	185	13,268	0.48	0.52	0.46	0.50	0.75	0.65	0.73	0.66
	4. Algebra I	726	51	712	736	N/A	N/A	N/A	0.55	0.67	0.40	0.59
	5. Geometry	1,806	49	1,797	0	1,820	N/A	N/A	0.55	0.60	0.56	0.79
	6. Algebra II	4,169	35	4,162	0	0	4,183	N/A	0.55	0.60	0.31	0.63
	7. Summ. H.S. Mathematics	5,394	17	5,388	0	0	0	5,401	0.60	0.72	0.50	0.67
	8. Biology	3,190	66	3,185	212	517	790	1,462	3,210	N/A	N/A	N/A
	9. Chemistry	5,031	38	5,029	85	594	2,152	1,965	0	5,045	N/A	N/A
	10. Earth Science	678	16	687	127	176	152	122	0	0	696	N/A
	11. Physics	2,066	12	2,067	17	98	528	1,361	0	0	0	2,073

Table 8.C.8 CST Content Area Correlations (Hispanic)

Grade	CST	1.	2.
2	1. English–Language Arts	244,499	0.76
	2. Mathematics	243,921	244,934
Grade	CST	1.	2.
3	1. English–Language Arts	229,198	0.76
	2. Mathematics	228,286	230,627
Grade	CST	1.	2.
4	1. English–Language Arts	224,263	0.73
	2. Mathematics	223,602	226,731
Grade	CST	1.	2.
5	1. English–Language Arts	223,413	0.70
	2. Mathematics	222,636	225,717
5	3. Science	223,020	225,388
			240,388
Grade	CST	1.	2.
6	1. English–Language Arts	220,900	0.75
	2. Mathematics	219,860	222,197
Grade	CST	1.	2.
7	1. English–Language Arts	220,493	0.72
	2. Mathematics	208,925	210,716
7	3. Algebra I	10,323	0
			10,337
Grade	CST	1.	2.
8	1. English–Language Arts	221,817	0.79
	2. History–Social Science	220,934	235,120
8	3. General Mathematics	74,774	84,451
	4. Algebra I	138,735	139,158
8	5. Geometry	5,818	5,824
	6. Algebra II	158	158
8	7. Science	220,772	234,259
			84,419
			139,149
			5,823
			158
			235,176

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	241,459	0.77	0.60	0.56	0.67	0.61	0.65	0.79	0.78	0.72	0.74
	2. World History	15,047	15,503	0.49	0.58	0.73	0.68	0.88	0.81	0.64	0.74	0.69
	3. General Mathematics	24,408	1,476	28,416	N/A	N/A	N/A	N/A	0.58	0.71	0.59	0.64
	4. Algebra I	147,278	7,186	0	149,534	N/A	N/A	N/A	0.60	0.56	0.52	0.68
	5. Geometry	56,068	5,040	0	0	56,235	N/A	N/A	0.70	0.83	0.66	0.76
	6. Algebra II	7,986	1,138	0	0	0	8,013	N/A	0.63	0.80	0.62	0.65
	7. Summ. H.S. Mathematics	152	21	0	0	0	0	153	0.66	0.91	0.80	0.79
	8. Biology	97,401	8,824	4,784	50,010	36,791	5,792	103	99,842	N/A	N/A	N/A
	9. Chemistry	2,351	896	55	650	1,080	557	11	0	2,405	N/A	N/A
	10. Earth Science	72,613	1,615	9,694	54,529	9,015	426	15	0	0	76,737	N/A
	11. Physics	5,385	343	28	2,611	2,224	446	14	0	0	0	5,461
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	228,204	0.72	0.52	0.61	0.56	0.58	0.78	0.76	0.69	0.68	0.73
	2. World History	202,271	210,028	0.45	0.54	0.50	0.52	0.74	0.73	0.65	0.69	0.69
	3. Algebra I	65,841	59,995	67,242	N/A	N/A	N/A	0.50	0.52	0.58	0.49	0.62
	4. Geometry	84,861	80,125	0	85,482	N/A	N/A	0.62	0.63	0.68	0.57	0.70
	5. Algebra II	47,089	44,112	0	0	47,242	N/A	0.57	0.60	0.66	0.46	0.71
	6. Summ. H.S. Mathematics	4,546	4,150	0	0	0	4,553	0.60	0.66	0.67	0.68	0.76
	7. Life Science	222,705	206,332	65,032	84,341	46,769	4,522	231,429	0.85	0.74	0.72	0.75
	8. Biology	120,412	118,037	40,327	53,552	17,186	1,288	122,729	124,656	N/A	N/A	N/A
	9. Chemistry	47,751	44,122	2,923	16,456	24,695	2,706	47,436	0	48,017	N/A	N/A
	10. Earth Science	15,786	15,364	8,381	4,667	872	29	16,377	0	0	16,940	N/A
	11. Physics	3,508	2,975	440	1,360	1,392	202	3,524	0	0	0	3,556
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	212,402	0.57	0.79	0.49	0.53	0.47	0.57	0.77	0.65	0.69	0.70
	2. World History	7,823	8,115	0.64	0.40	0.38	0.35	0.38	0.62	0.46	0.61	0.44
	3. History–Social Science	207,569	7,212	213,881	0.46	0.50	0.44	0.53	0.77	0.65	0.73	0.69
	4. Algebra I	31,671	2,613	30,991	32,395	N/A	N/A	N/A	0.49	0.52	0.46	0.66
	5. Geometry	45,594	1,589	45,233	0	46,076	N/A	N/A	0.57	0.58	0.51	0.65
	6. Algebra II	59,533	784	59,542	0	0	60,004	N/A	0.49	0.58	0.42	0.60
	7. Summ. H.S. Mathematics	35,323	240	35,216	0	0	0	35,385	0.62	0.69	0.52	0.68
	8. Biology	45,520	2,252	46,036	9,220	12,225	10,368	7,898	46,955	N/A	N/A	N/A
	9. Chemistry	61,601	768	61,744	2,220	11,552	30,410	13,228	0	62,179	N/A	N/A
	10. Earth Science	21,602	1,184	22,281	7,150	6,381	2,950	1,008	0	0	22,825	N/A
	11. Physics	19,629	202	19,681	540	2,166	6,878	9,118	0	0	0	19,805

Table 8.C.9 CST Content Area Correlations (African American)

Grade	CST	1.	2.					
2	1. English–Language Arts	27,731	0.78					
	2. Mathematics	27,588	27,789					
Grade	CST	1.	2.					
3	1. English–Language Arts	27,078	0.78					
	2. Mathematics	26,868	27,152					
Grade	CST	1.	2.					
4	1. English–Language Arts	26,930	0.75					
	2. Mathematics	26,744	27,076					
Grade	CST	1.	2.	3.				
5	1. English–Language Arts	27,577	0.72	0.79				
	2. Mathematics	27,339	27,674	0.70				
	3. Science	27,474	27,602	30,369				
Grade	CST	1.	2.					
6	1. English–Language Arts	27,889	0.77					
	2. Mathematics	27,611	27,894					
Grade	CST	1.	2.	3.				
7	1. English–Language Arts	28,690	0.74	0.62				
	2. Mathematics	27,121	27,368	N/A				
	3. Algebra I	1,215	0	1,216				
Grade	CST	1.	2.	3.	4.	5.	6.	7.
8	1. English–Language Arts	28,954	0.80	0.66	0.65	0.56	0.48	0.77
	2. History–Social Science	28,766	31,450	0.65	0.62	0.49	0.72	0.77
	3. General Mathematics	9,836	11,512	11,669	N/A	N/A	N/A	0.64
	4. Algebra I	17,885	17,948	0	18,014	N/A	N/A	0.68
	5. Geometry	696	697	0	0	699	N/A	0.56
	6. Algebra II	14	14	0	0	0	14	0.79
	7. Science	28,726	31,261	11,503	17,940	697	14	31,504

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	31,532	0.79	0.60	0.57	0.69	0.69	0.66	0.80	0.76	0.72	0.76
	2. World History	2,131	2,234	0.51	0.57	0.73	0.69	–	0.81	0.64	0.69	0.67
	3. General Mathematics	3,431	252	4,132	N/A	N/A	N/A	N/A	0.59	–	0.64	–
	4. Algebra I	19,483	1,066	0	19,876	N/A	N/A	N/A	0.62	0.44	0.55	0.62
	5. Geometry	6,391	600	0	0	6,431	N/A	N/A	0.71	0.76	0.68	0.75
	6. Algebra II	946	177	0	0	0	952	N/A	0.67	0.77	0.71	0.69
	7. Summ. H.S. Mathematics	16	2	0	0	0	0	17	0.68	–	–	–
	8. Biology	12,494	1,186	673	6,900	4,212	670	11	12,917	N/A	N/A	N/A
	9. Chemistry	265	100	7	63	107	89	0	0	278	N/A	N/A
	10. Earth Science	9,401	325	1,354	7,205	954	45	5	0	0	10,189	N/A
	11. Physics	1,081	88	5	609	395	59	0	0	0	0	1,114
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	31,238	0.74	0.53	0.61	0.61	0.62	0.78	0.76	0.72	0.71	0.75
	2. World History	26,932	28,353	0.48	0.56	0.57	0.54	0.74	0.74	0.70	0.71	0.72
	3. Algebra I	8,870	8,014	9,123	N/A	N/A	N/A	0.53	0.51	0.58	0.50	0.66
	4. Geometry	11,621	10,821	0	11,743	N/A	N/A	0.62	0.64	0.67	0.59	0.68
	5. Algebra II	5,835	5,366	0	0	5,866	N/A	0.62	0.64	0.71	0.58	0.70
	6. Summ. H.S. Mathematics	462	409	0	0	0	464	0.66	0.69	0.74	–	0.67
	7. Life Science	30,043	27,517	8,641	11,472	5,763	459	31,690	0.84	0.76	0.75	0.78
	8. Biology	15,942	15,656	5,321	7,146	2,059	133	16,267	16,734	N/A	N/A	N/A
	9. Chemistry	6,462	5,841	461	2,421	3,106	275	6,440	0	6,549	N/A	N/A
	10. Earth Science	2,176	2,068	1,191	586	100	4	2,220	0	0	2,332	N/A
	11. Physics	427	356	48	177	153	30	433	0	0	0	437
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	30,567	0.59	0.80	0.51	0.55	0.51	0.58	0.78	0.66	0.72	0.73
	2. World History	1,325	1,411	0.63	0.39	0.33	0.34	0.34	0.61	0.43	0.61	0.65
	3. History–Social Science	29,504	1,223	30,784	0.49	0.53	0.49	0.56	0.78	0.66	0.74	0.72
	4. Algebra I	4,178	446	4,055	4,359	N/A	N/A	N/A	0.52	0.56	0.48	0.59
	5. Geometry	6,602	272	6,518	0	6,707	N/A	N/A	0.57	0.58	0.53	0.66
	6. Algebra II	8,669	145	8,671	0	0	8,788	N/A	0.51	0.61	0.44	0.64
	7. Summ. H.S. Mathematics	4,554	48	4,539	0	0	0	4,576	0.59	0.71	0.47	0.69
	8. Biology	6,218	356	6,317	1,213	1,709	1,394	973	6,520	N/A	N/A	N/A
	9. Chemistry	9,265	152	9,286	292	1,879	4,616	1,769	0	9,415	N/A	N/A
	10. Earth Science	2,655	209	2,749	863	706	400	111	0	0	2,858	N/A
	11. Physics	2,719	32	2,740	69	400	945	1,126	0	0	0	2,764

Table 8.C.10 CST Content Area Correlations (White)

Grade	CST	1.	2.
2	1. English–Language Arts	116,969	0.74
	2. Mathematics	116,716	117,141
Grade	CST	1.	2.
3	1. English–Language Arts	112,002	0.73
	2. Mathematics	111,504	112,725
Grade	CST	1.	2.
4	1. English–Language Arts	112,272	0.71
	2. Mathematics	111,821	113,294
Grade	CST	1.	2.
5	1. English–Language Arts	115,182	0.71
	2. Mathematics	114,590	115,861
5	3. Science	114,913	115,647
			120,380
Grade	CST	1.	2.
6	1. English–Language Arts	116,119	0.76
	2. Mathematics	115,283	116,195
Grade	CST	1.	2.
7	1. English–Language Arts	119,628	0.73
	2. Mathematics	106,534	107,290
7	3. Algebra I	12,163	0
			12,168
Grade	CST	1.	2.
8	1. English–Language Arts	120,887	0.77
	2. History–Social Science	120,430	124,929
8	3. General Mathematics	35,025	38,160
	4. Algebra I	75,446	75,511
8	5. Geometry	8,974	8,972
	6. Algebra II	212	212
8	7. Science	120,370	124,525
			38,167
			75,501
			8,972
			212
			124,959

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	129,814	0.72	0.63	0.57	0.61	0.53	0.48	0.73	0.63	0.71	0.70
	2. World History	8,061	8,186	0.51	0.56	0.53	0.46	0.22	0.72	0.71	0.71	0.63
	3. General Mathematics	11,762	691	13,368	N/A	N/A	N/A	N/A	0.61	–	0.63	0.72
	4. Algebra I	60,805	2,887	0	61,506	N/A	N/A	N/A	0.59	0.71	0.53	0.66
	5. Geometry	45,606	3,479	0	0	45,668	N/A	N/A	0.64	0.72	0.59	0.70
	6. Algebra II	8,947	904	0	0	0	8,954	N/A	0.55	0.71	0.47	0.71
	7. Summ. H.S. Mathematics	192	22	0	0	0	0	192	0.57	–	0.71	0.69
	8. Biology	61,904	4,711	1,791	20,745	32,375	6,652	139	62,568	N/A	N/A	N/A
	9. Chemistry	1,454	113	4	94	762	581	8	0	1,456	N/A	N/A
	10. Earth Science	38,727	1,080	6,021	25,573	6,828	503	16	0	0	40,339	N/A
	11. Physics	4,078	263	22	1,183	2,066	726	14	0	0	0	4,108
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	132,595	0.69	0.53	0.58	0.51	0.49	0.75	0.75	0.60	0.70	0.66
	2. World History	119,993	122,754	0.47	0.50	0.45	0.44	0.73	0.72	0.60	0.72	0.63
	3. Algebra I	25,784	23,765	26,296	N/A	N/A	N/A	0.53	0.55	0.60	0.50	0.55
	4. Geometry	44,168	41,461	0	44,394	N/A	N/A	0.60	0.62	0.67	0.58	0.69
	5. Algebra II	42,994	39,973	0	0	43,068	N/A	0.52	0.58	0.65	0.43	0.63
	6. Summ. H.S. Mathematics	7,467	6,944	0	0	0	7,475	0.49	0.57	0.62	0.44	0.59
	7. Life Science	130,301	121,209	25,525	43,850	42,803	7,444	133,454	0.85	0.70	0.74	0.74
	8. Biology	62,426	59,983	15,951	27,382	13,109	1,684	63,108	63,914	N/A	N/A	N/A
	9. Chemistry	40,609	37,767	877	8,888	25,278	4,967	40,469	0	40,715	N/A	N/A
	10. Earth Science	8,720	8,353	3,805	2,783	905	80	8,923	0	0	9,186	N/A
	11. Physics	3,270	2,971	172	948	1,658	448	3,266	0	0	0	3,290
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	130,943	0.57	0.77	0.51	0.54	0.44	0.55	0.76	0.63	0.69	0.64
	2. World History	2,836	2,936	0.60	0.40	0.51	0.33	0.14	0.55	0.33	0.63	0.36
	3. History–Social Science	128,774	2,600	131,192	0.48	0.51	0.40	0.50	0.75	0.64	0.74	0.63
	4. Algebra I	11,216	855	11,025	11,472	N/A	N/A	N/A	0.52	0.57	0.47	0.59
	5. Geometry	18,771	480	18,692	0	18,950	N/A	N/A	0.54	0.63	0.55	0.69
	6. Algebra II	36,106	299	35,971	0	0	36,263	N/A	0.49	0.57	0.41	0.59
	7. Summ. H.S. Mathematics	42,095	196	41,930	0	0	0	42,173	0.60	0.70	0.47	0.65
	8. Biology	28,224	703	28,370	2,753	4,457	6,756	10,815	28,716	N/A	N/A	N/A
	9. Chemistry	37,316	258	37,242	675	4,096	16,919	13,106	0	37,477	N/A	N/A
	10. Earth Science	11,072	472	11,324	2,455	2,682	1,965	1,489	0	0	11,536	N/A
	11. Physics	17,012	119	16,974	165	853	3,900	11,375	0	0	0	17,078

Table 8.C.11 CST Content Area Correlations (Ethnicity unknown)

Grade	CST	1.	2.					
2	1. English–Language Arts	14,047	0.77					
	2. Mathematics	14,012	14,062					
Grade	CST	1.	2.					
3	1. English–Language Arts	12,887	0.76					
	2. Mathematics	12,819	12,978					
Grade	CST	1.	2.					
4	1. English–Language Arts	12,539	0.73					
	2. Mathematics	12,492	12,636					
Grade	CST	1.	2.	3.				
5	1. English–Language Arts	11,339	0.74	0.78				
	2. Mathematics	11,274	11,393	0.72				
	3. Science	11,311	11,365	11,886				
Grade	CST	1.	2.					
6	1. English–Language Arts	11,555	0.78					
	2. Mathematics	11,471	11,540					
Grade	CST	1.	2.	3.				
7	1. English–Language Arts	10,845	0.75	0.55				
	2. Mathematics	9,595	9,661	N/A				
	3. Algebra I	1,153	0	1,153				
Grade	CST	1.	2.	3.	4.	5.	6.	7.
8	1. English–Language Arts	10,124	0.81	0.68	0.66	0.46	0.76	0.79
	2. History–Social Science	10,060	10,586	0.67	0.64	0.47	0.78	0.81
	3. General Mathematics	3,166	3,524	3,559	N/A	N/A	N/A	0.68
	4. Algebra I	6,021	6,026	0	6,049	N/A	N/A	0.70
	5. Geometry	765	765	0	0	769	N/A	0.60
	6. Algebra II	25	25	0	0	0	25	0.74
	7. Science	10,052	10,530	3,517	6,026	766	25	10,683

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	11,315	0.76	0.67	0.59	0.66	0.54	0.44	0.78	0.70	0.74	0.74
	2. World History	817	842	0.54	0.69	0.58	0.60	–	0.79	–	0.77	0.65
	3. General Mathematics	1,145	102	1,337	N/A	N/A	N/A	N/A	0.58	–	0.62	–
	4. Algebra I	5,662	305	0	5,749	N/A	N/A	N/A	0.63	–	0.58	0.71
	5. Geometry	3,378	316	0	0	3,384	N/A	N/A	0.68	0.78	0.67	0.78
	6. Algebra II	748	76	0	0	0	750	N/A	0.59	0.70	0.63	0.72
	7. Summ. H.S. Mathematics	22	7	0	0	0	0	22	0.23	–	–	–
	8. Biology	4,586	355	173	1,679	2,191	489	15	4,650	N/A	N/A	N/A
	9. Chemistry	104	7	3	6	38	56	1	0	104	N/A	N/A
	10. Earth Science	3,555	154	509	2,512	506	59	0	0	0	3,728	N/A
	11. Physics	651	89	1	164	366	107	4	0	0	0	662
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	9,763	0.75	0.50	0.63	0.53	0.46	0.79	0.77	0.68	0.73	0.73
	2. World History	8,389	8,655	0.45	0.57	0.52	0.48	0.76	0.75	0.66	0.72	0.73
	3. Algebra I	2,268	2,006	2,318	N/A	N/A	N/A	0.50	0.53	0.64	0.43	0.73
	4. Geometry	2,957	2,764	0	2,975	N/A	N/A	0.63	0.68	0.74	0.51	0.87
	5. Algebra II	2,616	2,393	0	0	2,630	N/A	0.56	0.61	0.72	0.61	0.80
	6. Summ. H.S. Mathematics	548	494	0	0	0	549	0.48	0.62	0.63	–	0.54
	7. Life Science	9,402	8,377	2,208	2,917	2,532	549	9,730	0.86	0.73	0.74	0.76
	8. Biology	4,508	4,285	1,397	1,847	767	97	4,526	4,631	N/A	N/A	N/A
	9. Chemistry	2,745	2,514	60	638	1,606	387	2,668	0	2,757	N/A	N/A
	10. Earth Science	572	509	258	164	45	4	570	0	0	603	N/A
	11. Physics	197	180	17	44	85	46	197	0	0	0	198
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	8,754	0.62	0.81	0.50	0.55	0.41	0.57	0.79	0.68	0.73	0.71
	2. World History	331	349	0.69	0.52	0.60	0.54	0.46	0.66	0.46	0.47	–
	3. History–Social Science	8,474	300	8,663	0.48	0.56	0.41	0.52	0.79	0.68	0.75	0.71
	4. Algebra I	1,009	104	972	1,036	N/A	N/A	N/A	0.55	0.74	0.54	0.42
	5. Geometry	1,386	70	1,351	0	1,394	N/A	N/A	0.61	0.56	0.64	0.63
	6. Algebra II	2,141	24	2,120	0	0	2,150	N/A	0.45	0.59	0.31	0.54
	7. Summ. H.S. Mathematics	2,398	14	2,387	0	0	0	2,403	0.61	0.73	0.38	0.64
	8. Biology	1,955	92	1,951	278	372	379	684	2,002	N/A	N/A	N/A
	9. Chemistry	2,306	31	2,297	46	326	1,048	722	0	2,323	N/A	N/A
	10. Earth Science	654	44	664	211	144	92	55	0	0	687	N/A
	11. Physics	1,072	5	1,069	28	77	264	636	0	0	0	1,076

Table 8.C.12 CST Content Area Correlations (English Only)

Grade	CST	1.	2.					
2	1. English–Language Arts	260,067	0.77					
	2. Mathematics	259,343	260,448					
Grade	CST	1.	2.					
3	1. English–Language Arts	244,330	0.77					
	2. Mathematics	243,091	245,631					
Grade	CST	1.	2.					
4	1. English–Language Arts	240,443	0.75					
	2. Mathematics	239,425	242,544					
Grade	CST	1.	2.	3.				
5	1. English–Language Arts	243,250	0.74	0.79				
	2. Mathematics	241,918	244,730	0.72				
	3. Science	242,662	244,264	257,687				
Grade	CST	1.	2.					
6	1. English–Language Arts	243,962	0.78					
	2. Mathematics	242,212	244,320					
Grade	CST	1.	2.	3.				
7	1. English–Language Arts	248,427	0.75	0.59				
	2. Mathematics	224,756	226,481	N/A				
	3. Algebra I	21,635	0	21,646				
Grade	CST	1.	2.	3.	4.	5.	6.	7.
8	1. English–Language Arts	247,907	0.80	0.67	0.67	0.53	0.61	0.78
	2. History–Social Science	246,782	259,098	0.65	0.64	0.52	0.60	0.80
	3. General Mathematics	74,206	82,417	83,270	N/A	N/A	N/A	0.68
	4. Algebra I	155,248	155,527	0	155,936	N/A	N/A	0.70
	5. Geometry	15,076	15,079	0	0	15,091	N/A	0.61
	6. Algebra II	416	416	0	0	0	416	0.62
	7. Science	246,621	258,106	82,436	155,501	15,079	416	259,239

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	268,774	0.78	0.64	0.60	0.67	0.59	0.59	0.79	0.74	0.74	0.76
	2. World History	17,044	17,428	0.52	0.63	0.65	0.58	0.62	0.80	0.77	0.75	0.68
	3. General Mathematics	26,007	1,640	29,939	N/A	N/A	N/A	N/A	0.62	0.75	0.64	0.68
	4. Algebra I	138,988	6,628	0	140,968	N/A	N/A	N/A	0.63	0.66	0.56	0.69
	5. Geometry	80,967	6,565	0	0	81,132	N/A	N/A	0.69	0.77	0.64	0.75
	6. Algebra II	15,986	1,965	0	0	0	16,009	N/A	0.61	0.76	0.54	0.71
	7. Summ. H.S. Mathematics	360	63	0	0	0	0	361	0.61	0.73	0.79	0.50
	8. Biology	120,907	9,816	4,478	46,812	56,968	12,065	261	122,841	N/A	N/A	N/A
	9. Chemistry	2,745	378	20	272	1,367	1,045	34	0	2,767	N/A	N/A
	10. Earth Science	81,565	2,448	11,793	57,558	11,982	822	27	0	0	85,657	N/A
	11. Physics	8,051	567	39	2,903	3,828	1,161	17	0	0	0	8,145
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	265,426	0.73	0.55	0.62	0.55	0.52	0.79	0.77	0.67	0.71	0.72
	2. World History	236,037	243,256	0.49	0.55	0.49	0.47	0.76	0.75	0.65	0.73	0.68
	3. Algebra I	61,162	55,959	62,512	N/A	N/A	N/A	0.55	0.55	0.62	0.52	0.63
	4. Geometry	89,039	83,536	0	89,594	N/A	N/A	0.64	0.66	0.71	0.61	0.72
	5. Algebra II	73,525	68,247	0	0	73,708	N/A	0.56	0.62	0.68	0.48	0.65
	6. Summ. H.S. Mathematics	12,568	11,453	0	0	0	12,586	0.53	0.59	0.65	0.50	0.62
	7. Life Science	259,233	238,986	60,230	88,299	72,997	12,522	267,441	0.86	0.74	0.76	0.77
	8. Biology	127,358	123,239	37,562	54,995	22,885	2,693	129,107	131,262	N/A	N/A	N/A
	9. Chemistry	73,812	68,289	2,388	18,340	43,282	8,601	73,386	0	74,094	N/A	N/A
	10. Earth Science	17,904	17,179	8,538	5,412	1,431	108	18,355	0	0	19,005	N/A
	11. Physics	5,378	4,824	381	1,696	2,482	710	5,388	0	0	0	5,427
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	255,431	0.60	0.80	0.52	0.56	0.48	0.58	0.79	0.68	0.71	0.69
	2. World History	7,337	7,646	0.63	0.45	0.49	0.33	0.22	0.60	0.40	0.63	0.46
	3. History–Social Science	250,112	6,776	256,235	0.49	0.53	0.45	0.53	0.78	0.67	0.75	0.69
	4. Algebra I	28,102	2,428	27,544	28,865	N/A	N/A	N/A	0.52	0.60	0.49	0.63
	5. Geometry	42,470	1,243	42,163	0	42,923	N/A	N/A	0.59	0.63	0.55	0.68
	6. Algebra II	68,176	664	67,979	0	0	68,582	N/A	0.52	0.60	0.43	0.62
	7. Summ. H.S. Mathematics	69,122	363	68,861	0	0	0	69,249	0.63	0.73	0.48	0.68
	8. Biology	55,524	1,941	55,889	7,651	10,636	12,395	17,836	56,851	N/A	N/A	N/A
	9. Chemistry	71,992	631	71,930	1,698	10,076	33,186	22,295	0	72,451	N/A	N/A
	10. Earth Science	22,450	1,152	23,068	6,125	5,660	3,491	2,248	0	0	23,593	N/A
	11. Physics	30,012	210	30,016	414	2,085	7,548	18,597	0	0	0	30,194

Table 8.C.13 CST Content Area Correlations (Initially Fluent English Proficient)

Grade	CST	1.	2.
2	1. English–Language Arts	19,677	0.73
	2. Mathematics	19,648	19,665
Grade	CST	1.	2.
3	1. English–Language Arts	18,566	0.73
	2. Mathematics	18,540	18,589
Grade	CST	1.	2.
4	1. English–Language Arts	18,872	0.72
	2. Mathematics	18,844	18,934
Grade	CST	1.	2.
5	1. English–Language Arts	30,240	0.73
	2. Mathematics	30,191	30,332
	3. Science	30,205	30,309
			30,737
Grade	CST	1.	2.
6	1. English–Language Arts	33,277	0.79
	2. Mathematics	33,207	33,320
Grade	CST	1.	2.
7	1. English–Language Arts	36,616	0.76
	2. Mathematics	31,055	31,158
	3. Algebra I	5,465	0
			5,468
Grade	CST	1.	2.
8	1. English–Language Arts	32,851	0.80
	2. History–Social Science	32,771	33,207
	3. General Mathematics	6,222	6,494
	4. Algebra I	22,343	22,339
	5. Geometry	3,961	3,960
	6. Algebra II	147	147
	7. Science	32,765	33,148
		6,486	6,486
		22,348	22,348
		3,960	3,960
		147	147
		33,208	33,208

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	33,333	0.76	0.60	0.58	0.69	0.63	0.59	0.79	0.77	0.72	0.74
	2. World History	3,284	3,299	0.51	0.62	0.65	0.54	0.60	0.77	0.81	0.71	0.64
	3. General Mathematics	1,719	133	1,880	N/A	N/A	N/A	N/A	0.60	–	0.55	–
	4. Algebra I	14,145	831	0	14,238	N/A	N/A	N/A	0.60	0.67	0.54	0.67
	5. Geometry	12,800	1,587	0	0	12,820	N/A	N/A	0.72	0.80	0.64	0.74
	6. Algebra II	4,015	685	0	0	0	4,020	N/A	0.65	0.71	0.55	0.70
	7. Summ. H.S. Mathematics	207	24	0	0	0	0	208	0.44	0.73	0.47	0.56
	8. Biology	18,114	2,186	343	5,460	9,078	3,052	128	18,223	N/A	N/A	N/A
	9. Chemistry	701	175	3	70	281	317	30	0	706	N/A	N/A
	10. Earth Science	7,191	147	643	4,925	1,474	130	11	0	0	7,366	N/A
	11. Physics	1,256	110	4	269	646	286	32	0	0	0	1,260
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	39,397	0.72	0.51	0.61	0.58	0.56	0.78	0.77	0.69	0.66	0.72
	2. World History	35,470	35,932	0.46	0.53	0.52	0.52	0.74	0.73	0.66	0.67	0.71
	3. Algebra I	6,690	6,155	6,787	N/A	N/A	N/A	0.51	0.53	0.57	0.46	0.55
	4. Geometry	12,586	11,867	0	12,645	N/A	N/A	0.62	0.62	0.71	0.54	0.75
	5. Algebra II	13,826	12,573	0	0	13,844	N/A	0.60	0.63	0.72	0.50	0.71
	6. Summ. H.S. Mathematics	3,975	3,444	0	0	0	3,976	0.56	0.62	0.69	0.49	0.65
	7. Life Science	38,890	35,576	6,599	12,495	13,787	3,959	39,392	0.87	0.75	0.73	0.78
	8. Biology	18,013	17,106	4,215	7,717	4,238	960	18,098	18,274	N/A	N/A	N/A
	9. Chemistry	14,726	13,373	393	3,046	8,466	2,668	14,664	0	14,749	N/A	N/A
	10. Earth Science	1,921	1,819	918	633	172	23	1,940	0	0	1,987	N/A
	11. Physics	919	757	43	234	391	231	918	0	0	0	921
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	37,729	0.52	0.78	0.51	0.52	0.46	0.61	0.78	0.69	0.69	0.70
	2. World History	724	740	0.65	0.37	0.43	0.36	0.41	0.63	0.49	0.53	0.24
	3. History–Social Science	37,256	673	37,630	0.50	0.48	0.42	0.56	0.76	0.67	0.74	0.68
	4. Algebra I	3,070	202	3,036	3,118	N/A	N/A	N/A	0.52	0.55	0.51	0.68
	5. Geometry	5,485	148	5,450	0	5,522	N/A	N/A	0.58	0.59	0.49	0.67
	6. Algebra II	9,972	95	9,946	0	0	10,009	N/A	0.49	0.62	0.40	0.60
	7. Summ. H.S. Mathematics	14,770	72	14,731	0	0	0	14,790	0.68	0.76	0.48	0.72
	8. Biology	9,068	198	9,075	900	1,378	1,935	4,169	9,154	N/A	N/A	N/A
	9. Chemistry	12,556	115	12,546	270	1,663	4,993	4,976	0	12,607	N/A	N/A
	10. Earth Science	2,652	97	2,670	677	766	429	349	0	0	2,719	N/A
	11. Physics	5,817	35	5,806	77	268	1,286	4,017	0	0	0	5,836

Table 8.C.14 CST Content Area Correlations (English Learner)

Grade	CST	1.	2.						
2	1. English–Language Arts	169,213	0.77						
	2. Mathematics	168,889	169,573						
Grade	CST	1.	2.						
3	1. English–Language Arts	143,082	0.75						
	2. Mathematics	142,560	144,151						
Grade	CST	1.	2.						
4	1. English–Language Arts	119,735	0.68						
	2. Mathematics	119,367	121,575						
Grade	CST	1.	2.	3.					
5	1. English–Language Arts	95,939	0.62	0.74					
	2. Mathematics	95,582	97,749	0.60					
	3. Science	95,778	97,580	107,769					
Grade	CST	1.	2.						
6	1. English–Language Arts	75,263	0.66						
	2. Mathematics	74,818	76,358						
Grade	CST	1.	2.	3.					
7	1. English–Language Arts	65,302	0.62	0.64					
	2. Mathematics	64,102	65,214	N/A					
	3. Algebra I	742	0	749					
Grade	CST	1.	2.	3.	4.	5.	6.	7.	
8	1. English–Language Arts	62,820	0.69	0.51	0.53	0.56	–	0.66	
	2. History–Social Science	62,497	71,824	0.49	0.49	0.56	–	0.65	
	3. General Mathematics	31,419	37,984	38,295	N/A	N/A	N/A	0.51	
	4. Algebra I	30,310	30,627	0	30,732	N/A	N/A	0.61	
	5. Geometry	228	231	0	0	232	N/A	0.64	
	6. Algebra II	7	7	0	0	0	7	–	
	7. Science	62,413	71,422	37,934	30,627	231	7	71,822	

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	70,252	0.66	0.50	0.44	0.58	0.58	0.59	0.71	0.68	0.62	0.74
	2. World History	4,564	4,838	0.43	0.43	0.70	0.68	–	0.70	0.50	0.64	0.75
	3. General Mathematics	10,415	569	12,873	N/A	N/A	N/A	N/A	0.49	0.74	0.52	0.76
	4. Algebra I	48,598	2,657	0	49,896	N/A	N/A	N/A	0.53	0.52	0.43	0.65
	5. Geometry	8,167	1,093	0	0	8,243	N/A	N/A	0.68	0.80	0.56	0.78
	6. Algebra II	876	175	0	0	0	889	N/A	0.68	0.83	0.58	0.76
	7. Summ. H.S. Mathematics	30	4	0	0	0	0	30	0.78	–	–	–
	8. Biology	20,208	2,397	1,858	13,942	4,252	487	12	21,657	N/A	N/A	N/A
	9. Chemistry	638	339	39	283	224	89	3	0	669	N/A	N/A
	10. Earth Science	22,642	453	4,293	17,478	1,717	78	6	0	0	25,044	N/A
	11. Physics	1,201	86	12	800	329	51	2	0	0	0	1,248
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	61,954	0.65	0.38	0.46	0.45	0.55	0.68	0.65	0.66	0.60	0.65
	2. World History	52,231	56,746	0.37	0.45	0.49	0.60	0.64	0.64	0.66	0.61	0.66
	3. Algebra I	25,235	22,494	25,982	N/A	N/A	N/A	0.39	0.43	0.48	0.40	0.50
	4. Geometry	21,727	20,254	0	22,077	N/A	N/A	0.50	0.54	0.65	0.47	0.57
	5. Algebra II	5,430	4,780	0	0	5,492	N/A	0.49	0.57	0.71	0.36	0.75
	6. Summ. H.S. Mathematics	360	300	0	0	0	363	0.54	0.68	0.74	–	0.69
	7. Life Science	59,840	55,319	25,027	21,625	5,411	355	64,958	0.75	0.70	0.62	0.63
	8. Biology	34,493	34,399	14,819	14,475	2,523	125	36,143	36,948	N/A	N/A	N/A
	9. Chemistry	5,697	4,968	801	2,674	1,855	161	5,724	0	5,835	N/A	N/A
	10. Earth Science	5,594	5,569	3,302	1,446	196	10	5,998	0	0	6,246	N/A
	11. Physics	774	659	165	335	216	24	794	0	0	0	804
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	54,410	0.53	0.68	0.34	0.39	0.33	0.41	0.60	0.55	0.57	0.61
	2. World History	3,228	3,401	0.60	0.33	0.39	0.42	0.51	0.60	0.52	0.56	0.58
	3. History–Social Science	52,230	2,861	55,933	0.33	0.38	0.35	0.43	0.62	0.56	0.62	0.62
	4. Algebra I	12,684	1,095	12,299	13,027	N/A	N/A	N/A	0.42	0.42	0.37	0.45
	5. Geometry	14,301	769	14,135	0	14,551	N/A	N/A	0.47	0.54	0.45	0.61
	6. Algebra II	11,510	339	11,577	0	0	11,784	N/A	0.47	0.60	0.36	0.63
	7. Summ. H.S. Mathematics	2,703	76	2,670	0	0	0	2,723	0.64	0.72	0.21	0.73
	8. Biology	12,700	1,076	13,074	3,755	4,361	2,149	459	13,532	N/A	N/A	N/A
	9. Chemistry	11,013	256	11,211	666	2,895	5,355	1,217	0	11,362	N/A	N/A
	10. Earth Science	7,201	502	7,626	2,899	2,123	768	99	0	0	7,908	N/A
	11. Physics	2,583	90	2,628	189	567	1,140	524	0	0	0	2,679

Table 8.C.15 CST Content Area Correlations (Reclassified Fluent English Proficient)

Grade	CST	1.	2.
2	1. English–Language Arts	8,969	0.67
	2. Mathematics	8,963	8,973
Grade	CST	1.	2.
3	1. English–Language Arts	28,095	0.64
	2. Mathematics	28,068	28,085
Grade	CST	1.	2.
4	1. English–Language Arts	50,194	0.62
	2. Mathematics	50,168	50,212
Grade	CST	1.	2.
5	1. English–Language Arts	64,159	0.63
	2. Mathematics	64,110	64,183
	3. Science	64,108	64,145
			64,391
Grade	CST	1.	2.
6	1. English–Language Arts	78,100	0.72
	2. Mathematics	78,009	78,140
Grade	CST	1.	2.
7	1. English–Language Arts	84,432	0.67
	2. Mathematics	76,195	76,356
	3. Algebra I	8,077	0
			8,081
Grade	CST	1.	2.
8	1. English–Language Arts	95,814	0.74
	2. History–Social Science	95,662	96,517
	3. General Mathematics	20,213	20,700
	4. Algebra I	68,920	68,952
	5. Geometry	5,943	5,942
	6. Algebra II	209	209
	7. Science	95,638	96,394
			20,694
			68,951
			5,941
			209
			96,508

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	102,985	0.75	0.52	0.50	0.66	0.65	0.73	0.76	0.77	0.64	0.72
	2. World History	7,527	7,591	0.43	0.54	0.67	0.67	0.65	0.80	0.74	0.69	0.64
	3. General Mathematics	4,819	311	5,058	N/A	N/A	N/A	N/A	0.52	–0.24	0.55	–
	4. Algebra I	51,494	2,406	0	51,760	N/A	N/A	N/A	0.54	0.58	0.46	0.64
	5. Geometry	37,651	3,418	0	0	37,702	N/A	N/A	0.70	0.83	0.62	0.76
	6. Algebra II	7,609	1,300	0	0	0	7,615	N/A	0.67	0.83	0.59	0.70
	7. Summ. H.S. Mathematics	191	35	0	0	0	0	192	0.70	–	0.40	0.64
	8. Biology	53,027	5,214	1,092	20,207	25,661	5,741	126	53,322	N/A	N/A	N/A
	9. Chemistry	1,400	440	11	256	652	469	10	0	1,412	N/A	N/A
	10. Earth Science	24,009	370	1,700	16,938	4,979	310	18	0	0	24,315	N/A
	11. Physics	3,664	266	10	1,147	1,967	477	29	0	0	0	3,677
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	97,500	0.67	0.48	0.56	0.56	0.60	0.73	0.71	0.68	0.63	0.71
	2. World History	89,303	89,941	0.39	0.49	0.51	0.55	0.70	0.69	0.65	0.64	0.67
	3. Algebra I	16,552	15,313	16,697	N/A	N/A	N/A	0.45	0.47	0.54	0.44	0.60
	4. Geometry	37,410	35,504	0	37,505	N/A	N/A	0.58	0.59	0.67	0.51	0.75
	5. Algebra II	32,126	29,974	0	0	32,165	N/A	0.58	0.61	0.69	0.47	0.72
	6. Summ. H.S. Mathematics	5,423	4,783	0	0	0	5,426	0.61	0.68	0.70	0.60	0.75
	7. Life Science	96,268	89,147	16,334	37,186	31,948	5,406	96,977	0.84	0.74	0.70	0.74
	8. Biology	48,690	47,094	10,520	23,089	11,342	1,478	48,677	49,080	N/A	N/A	N/A
	9. Chemistry	31,591	28,869	1,108	8,696	17,825	3,474	31,397	0	31,649	N/A	N/A
	10. Earth Science	4,023	3,800	1,765	1,512	381	19	4,033	0	0	4,108	N/A
	11. Physics	1,947	1,607	138	651	899	223	1,938	0	0	0	1,955
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	96,617	0.48	0.74	0.47	0.48	0.42	0.58	0.74	0.63	0.63	0.66
	2. World History	2,068	2,082	0.59	0.34	0.31	0.33	0.18	0.57	0.38	0.53	0.48
	3. History–Social Science	95,458	1,912	96,055	0.42	0.45	0.41	0.54	0.74	0.63	0.70	0.66
	4. Algebra I	7,186	516	7,017	7,268	N/A	N/A	N/A	0.46	0.50	0.43	0.58
	5. Geometry	16,527	479	16,410	0	16,616	N/A	N/A	0.53	0.56	0.47	0.63
	6. Algebra II	32,065	346	31,988	0	0	32,166	N/A	0.46	0.57	0.38	0.59
	7. Summ. H.S. Mathematics	29,938	154	29,869	0	0	0	29,977	0.66	0.73	0.51	0.71
	8. Biology	19,764	498	19,741	1,979	4,177	5,244	6,803	19,915	N/A	N/A	N/A
	9. Chemistry	36,462	384	36,383	857	5,119	17,258	11,139	0	36,581	N/A	N/A
	10. Earth Science	6,720	266	6,730	1,493	2,062	1,296	808	0	0	6,821	N/A
	11. Physics	13,843	89	13,815	175	903	4,034	8,268	0	0	0	13,870

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	777	0.73	0.67	0.59	0.66	0.80	–	0.83	–	0.73	–
	2. World History	46	52	–	0.55	–	–	–	0.83	–	0.85	–
	3. General Mathematics	150	8	186	N/A	N/A	N/A	N/A	0.75	–	0.70	–
	4. Algebra I	455	28	0	471	N/A	N/A	N/A	0.63	–	0.58	–
	5. Geometry	99	8	0	0	101	N/A	N/A	0.84	–	0.64	–
	6. Algebra II	16	1	0	0	0	16	N/A	–	–	–	–
	7. Summ. H.S. Mathematics	1	0	0	0	0	0	1	–	–	–	–
	8. Biology	226	14	14	147	57	10	0	243	N/A	N/A	N/A
	9. Chemistry	2	0	0	1	0	1	0	0	2	N/A	N/A
	10. Earth Science	273	17	83	182	23	1	0	0	0	325	N/A
	11. Physics	8	5	0	3	4	1	0	0	0	0	14
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	749	0.71	0.37	0.57	0.63	–	–	0.76	0.73	0.68	–
	2. World History	593	661	0.39	0.58	0.56	–	–	0.71	0.73	0.73	–
	3. Algebra I	269	229	281	N/A	N/A	N/A	N/A	0.48	0.52	–	–
	4. Geometry	216	194	0	220	N/A	N/A	N/A	0.61	0.67	0.72	–
	5. Algebra II	77	67	0	0	79	N/A	N/A	0.56	0.59	0.60	–
	6. Summ. H.S. Mathematics	4	3	0	0	0	4	–	–	–	–	–
	7. Life Science	680	590	248	209	71	4	781	0.82	0.70	0.75	–
	8. Biology	354	335	156	130	22	0	343	376	N/A	N/A	N/A
	9. Chemistry	85	73	7	31	37	3	81	0	88	N/A	N/A
	10. Earth Science	72	68	40	11	2	0	68	0	0	83	N/A
	11. Physics	10	8	1	3	4	1	10	0	0	0	10
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	601	0.68	0.80	0.51	0.52	0.44	0.64	0.77	0.68	0.72	0.61
	2. World History	34	38	0.78	0.16	–	–	–	–	–	–	–
	3. History–Social Science	547	32	606	0.60	0.48	0.34	0.41	0.81	0.68	0.77	0.63
	4. Algebra I	119	14	119	127	N/A	N/A	N/A	0.55	–	0.49	–
	5. Geometry	103	3	97	0	108	N/A	N/A	0.69	0.85	–	–
	6. Algebra II	122	6	122	0	0	124	N/A	0.44	0.60	0.68	0.71
	7. Summ. H.S. Mathematics	54	2	52	0	0	0	54	–	0.66	–	–
	8. Biology	115	8	120	29	33	24	9	130	N/A	N/A	N/A
	9. Chemistry	100	7	100	4	22	43	22	0	107	N/A	N/A
	10. Earth Science	68	5	78	28	10	13	2	0	0	82	N/A
	11. Physics	24	0	24	2	1	12	6	0	0	0	25

Table 8.C.17 CST Content Area Correlations (Not Economically Disadvantaged)

Grade	CST	1.	2.
2	1. English–Language Arts	175,688	0.74
	2. Mathematics	175,399	175,895
Grade	CST	1.	2.
3	1. English–Language Arts	167,671	0.73
	2. Mathematics	167,028	168,294
Grade	CST	1.	2.
4	1. English–Language Arts	167,823	0.70
	2. Mathematics	167,306	169,003
Grade	CST	1.	2.
5	1. English–Language Arts	173,559	0.71
	2. Mathematics	172,857	174,350
5	3. Science	173,284	174,114
			179,719
Grade	CST	1.	2.
6	1. English–Language Arts	173,725	0.77
	2. Mathematics	172,785	173,937
Grade	CST	1.	2.
7	1. English–Language Arts	182,040	0.73
	2. Mathematics	157,586	158,517
7	3. Algebra I	23,391	0
			23,401
Grade	CST	1.	2.
8	1. English–Language Arts	187,848	0.79
	2. History–Social Science	187,306	192,791
8	3. General Mathematics	46,995	50,655
	4. Algebra I	120,553	120,691
8	5. Geometry	18,078	18,077
	6. Algebra II	577	577
8	7. Science	187,231	192,312
			50,639
8			120,697
			18,078
8			0
			18,088
8			N/A
			N/A
8			N/A
			N/A
8			0.52
			0.58
8			0.68
			0.68
8			0.59
			0.62
8			577
			577
8			192,819
			192,819

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	217,205	0.76	0.62	0.59	0.63	0.55	0.54	0.77	0.72	0.73	0.73
	2. World History	16,943	17,146	0.52	0.61	0.59	0.53	0.38	0.77	0.77	0.76	0.64
	3. General Mathematics	15,714	995	17,812	N/A	N/A	N/A	N/A	0.62	0.75	0.63	0.53
	4. Algebra I	99,036	5,571	0	100,156	N/A	N/A	N/A	0.62	0.67	0.55	0.67
	5. Geometry	78,686	7,420	0	0	78,802	N/A	N/A	0.67	0.76	0.60	0.74
	6. Algebra II	19,246	2,694	0	0	0	19,258	N/A	0.58	0.72	0.50	0.70
	7. Summ. H.S. Mathematics	578	90	0	0	0	0	580	0.51	0.70	0.60	0.55
	8. Biology	109,997	10,353	2,677	35,403	56,546	14,615	398	111,063	N/A	N/A	N/A
	9. Chemistry	3,148	470	23	272	1,487	1,287	65	0	3,159	N/A	N/A
	10. Earth Science	55,940	1,861	7,311	38,030	9,959	845	26	0	0	57,971	N/A
	11. Physics	7,544	553	28	2,005	3,974	1,415	63	0	0	0	7,597
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	218,399	0.71	0.53	0.60	0.52	0.50	0.77	0.77	0.65	0.70	0.70
	2. World History	195,803	199,686	0.48	0.52	0.47	0.47	0.74	0.74	0.63	0.72	0.68
	3. Algebra I	39,500	36,184	40,233	N/A	N/A	N/A	0.53	0.55	0.62	0.52	0.63
	4. Geometry	71,076	66,400	0	71,433	N/A	N/A	0.62	0.64	0.70	0.59	0.72
	5. Algebra II	73,547	67,519	0	0	73,672	N/A	0.54	0.59	0.68	0.44	0.65
	6. Summ. H.S. Mathematics	16,457	14,727	0	0	0	16,474	0.51	0.58	0.65	0.47	0.61
	7. Life Science	214,419	197,021	38,932	70,468	73,141	16,412	218,773	0.86	0.73	0.75	0.76
	8. Biology	99,154	94,507	24,360	43,087	21,993	3,588	99,847	101,194	N/A	N/A	N/A
	9. Chemistry	74,520	68,153	1,716	15,832	44,637	11,346	74,151	0	74,683	N/A	N/A
	10. Earth Science	12,380	11,854	5,457	4,116	1,242	110	12,632	0	0	13,025	N/A
	11. Physics	5,280	4,673	277	1,464	2,516	945	5,278	0	0	0	5,314
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	216,314	0.56	0.78	0.51	0.54	0.44	0.56	0.78	0.67	0.70	0.66
	2. World History	4,404	4,559	0.60	0.41	0.48	0.29	0.22	0.56	0.41	0.60	0.41
	3. History–Social Science	212,657	3,949	216,112	0.47	0.52	0.41	0.51	0.77	0.66	0.75	0.66
	4. Algebra I	17,731	1,255	17,359	18,139	N/A	N/A	N/A	0.51	0.57	0.47	0.57
	5. Geometry	31,588	819	31,331	0	31,880	N/A	N/A	0.57	0.62	0.54	0.68
	6. Algebra II	59,124	503	58,892	0	0	59,377	N/A	0.49	0.59	0.40	0.61
	7. Summ. H.S. Mathematics	75,745	358	75,469	0	0	0	75,864	0.63	0.73	0.46	0.68
	8. Biology	49,437	1,192	49,506	4,765	8,051	11,127	20,550	50,178	N/A	N/A	N/A
	9. Chemistry	65,105	465	65,006	1,246	7,756	28,404	23,927	0	65,409	N/A	N/A
	10. Earth Science	16,394	620	16,714	3,723	4,098	2,951	2,391	0	0	17,040	N/A
	11. Physics	30,628	186	30,579	305	1,583	6,805	20,825	0	0	0	30,748

Table 8.C.18 CST Content Area Correlations (Economically Disadvantaged)

Grade	CST	1.	2.					
2	1. English–Language Arts	282,054	0.76					
	2. Mathematics	281,257	282,564					
Grade	CST	1.	2.					
3	1. English–Language Arts	266,230	0.76					
	2. Mathematics	265,079	267,985					
Grade	CST	1.	2.					
4	1. English–Language Arts	261,328	0.73					
	2. Mathematics	260,407	264,153					
Grade	CST	1.	2.	3.				
5	1. English–Language Arts	259,878	0.70	0.78				
	2. Mathematics	258,795	262,487	0.67				
	3. Science	259,329	262,037	280,662				
Grade	CST	1.	2.					
6	1. English–Language Arts	256,753	0.75					
	2. Mathematics	255,343	258,072					
Grade	CST	1.	2.	3.				
7	1. English–Language Arts	252,422	0.72	0.59				
	2. Mathematics	238,221	240,389	N/A				
	3. Algebra I	12,521	0	12,536				
Grade	CST	1.	2.	3.	4.	5.	6.	7.
8	1. English–Language Arts	251,276	0.79	0.62	0.62	0.53	0.66	0.76
	2. History–Social Science	250,140	267,551	0.60	0.58	0.51	0.68	0.77
	3. General Mathematics	84,958	96,818	97,702	N/A	N/A	N/A	0.61
	4. Algebra I	156,124	156,606	0	157,007	N/A	N/A	0.66
	5. Geometry	7,126	7,132	0	0	7,136	N/A	0.61
	6. Algebra II	200	200	0	0	0	200	0.66
	7. Science	249,943	266,462	96,786	156,580	7,130	200	267,647

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	257,876	0.78	0.61	0.54	0.65	0.61	0.65	0.79	0.78	0.71	0.75
	2. World History	15,460	15,991	0.49	0.56	0.73	0.69	0.77	0.82	0.69	0.72	0.72
	3. General Mathematics	27,191	1,657	31,866	N/A	N/A	N/A	N/A	0.57	0.58	0.60	0.54
	4. Algebra I	154,035	6,941	0	156,548	N/A	N/A	N/A	0.59	0.57	0.51	0.68
	5. Geometry	60,865	5,241	0	0	61,062	N/A	N/A	0.69	0.83	0.65	0.77
	6. Algebra II	9,233	1,430	0	0	0	9,268	N/A	0.65	0.81	0.55	0.71
	7. Summ. H.S. Mathematics	209	35	0	0	0	0	210	0.74	0.84	0.68	0.31
	8. Biology	102,153	9,251	5,085	50,947	39,397	6,726	128	104,873	N/A	N/A	N/A
	9. Chemistry	2,336	862	50	608	1,037	634	12	0	2,395	N/A	N/A
	10. Earth Science	79,438	1,559	11,099	58,857	10,195	495	36	0	0	84,391	N/A
	11. Physics	6,602	474	37	3,099	2,788	557	17	0	0	0	6,706
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	245,643	0.73	0.50	0.59	0.54	0.57	0.78	0.76	0.69	0.69	0.73
	2. World History	217,093	226,004	0.45	0.53	0.50	0.51	0.74	0.73	0.66	0.69	0.69
	3. Algebra I	70,059	63,668	71,662	N/A	N/A	N/A	0.49	0.51	0.58	0.47	0.61
	4. Geometry	89,633	84,724	0	90,333	N/A	N/A	0.61	0.62	0.69	0.56	0.73
	5. Algebra II	51,333	48,040	0	0	51,510	N/A	0.56	0.59	0.67	0.43	0.71
	6. Summ. H.S. Mathematics	5,861	5,246	0	0	0	5,869	0.59	0.65	0.68	0.48	0.72
	7. Life Science	239,613	221,838	69,186	89,092	50,976	5,823	249,734	0.85	0.75	0.73	0.75
	8. Biology	129,325	127,247	42,726	57,159	18,989	1,666	132,092	134,274	N/A	N/A	N/A
	9. Chemistry	51,286	47,332	2,976	16,915	26,780	3,552	51,000	0	51,625	N/A	N/A
	10. Earth Science	17,039	16,492	9,055	4,879	936	50	17,672	0	0	18,294	N/A
	11. Physics	3,732	3,169	445	1,451	1,471	244	3,755	0	0	0	3,787
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	227,667	0.58	0.79	0.47	0.52	0.44	0.55	0.77	0.65	0.69	0.70
	2. World History	8,946	9,301	0.66	0.40	0.40	0.36	0.32	0.64	0.43	0.61	0.57
	3. History–Social Science	222,210	8,269	229,542	0.45	0.49	0.43	0.52	0.77	0.65	0.73	0.70
	4. Algebra I	33,287	2,987	32,517	34,110	N/A	N/A	N/A	0.49	0.56	0.46	0.66
	5. Geometry	47,173	1,815	46,806	0	47,707	N/A	N/A	0.56	0.60	0.51	0.66
	6. Algebra II	62,550	942	62,554	0	0	63,117	N/A	0.48	0.59	0.40	0.60
	7. Summ. H.S. Mathematics	40,767	305	40,641	0	0	0	40,853	0.62	0.71	0.50	0.68
	8. Biology	47,582	2,520	48,242	9,509	12,507	10,586	8,712	49,235	N/A	N/A	N/A
	9. Chemistry	66,886	919	67,029	2,241	11,990	32,372	15,696	0	67,561	N/A	N/A
	10. Earth Science	22,601	1,395	23,355	7,473	6,507	3,027	1,113	0	0	23,971	N/A
	11. Physics	21,615	237	21,674	549	2,238	7,201	10,574	0	0	0	21,816

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	1,040	0.67	0.72	0.58	0.71	0.41	–	0.85	–	0.72	0.82
	2. World History	62	71	–	0.55	–	–	–	0.79	–	0.71	–
	3. General Mathematics	205	9	258	N/A	N/A	N/A	N/A	0.78	–	0.68	–
	4. Algebra I	609	38	0	629	N/A	N/A	N/A	0.65	–	0.60	0.89
	5. Geometry	133	10	0	0	134	N/A	N/A	0.75	–	0.71	0.77
	6. Algebra II	23	2	0	0	0	23	N/A	0.61	–	–	–
	7. Summ. H.S. Mathematics	2	1	0	0	0	0	2	–	–	–	–
	8. Biology	332	23	23	218	73	14	1	350	N/A	N/A	N/A
	9. Chemistry	2	0	0	2	0	0	0	0	2	N/A	N/A
	10. Earth Science	302	15	102	194	21	1	0	0	0	345	N/A
	11. Physics	34	7	0	18	12	4	0	0	0	0	41
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	984	0.71	0.41	0.61	0.38	0.45	0.77	0.75	0.56	0.69	0.69
	2. World History	738	846	0.42	0.62	0.34	–	0.73	0.74	0.63	0.69	0.77
	3. Algebra I	349	298	364	N/A	N/A	N/A	0.47	0.52	–	0.56	–
	4. Geometry	269	231	0	275	N/A	N/A	0.63	0.70	0.81	0.59	–
	5. Algebra II	104	82	0	0	106	N/A	0.37	0.65	0.55	–	–
	6. Summ. H.S. Mathematics	12	10	0	0	0	12	0.53	–	–	–	–
	7. Life Science	879	759	320	254	97	11	1,042	0.81	0.68	0.74	0.87
	8. Biology	429	419	186	160	28	2	429	472	N/A	N/A	N/A
	9. Chemistry	105	87	5	40	48	9	101	0	107	N/A	N/A
	10. Earth Science	95	89	51	19	4	0	90	0	0	110	N/A
	11. Physics	16	13	6	4	5	0	15	0	0	0	16
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	807	0.71	0.77	0.44	0.63	0.42	0.53	0.75	0.75	0.74	0.70
	2. World History	41	47	0.79	0.15	–	–	–	–	–	–	–
	3. History–Social Science	736	36	805	0.47	0.53	0.38	0.36	0.78	0.72	0.72	0.73
	4. Algebra I	143	13	139	156	N/A	N/A	N/A	0.46	–	0.60	–
	5. Geometry	125	8	118	0	133	N/A	N/A	0.65	0.77	0.25	–
	6. Algebra II	171	5	166	0	0	171	N/A	0.41	0.68	0.34	0.56
	7. Summ. H.S. Mathematics	75	4	73	0	0	0	76	0.67	0.70	–	0.76
	8. Biology	152	9	151	40	27	34	14	169	N/A	N/A	N/A
	9. Chemistry	132	9	135	8	29	59	26	0	138	N/A	N/A
	10. Earth Science	96	7	103	26	16	19	2	0	0	112	N/A
	11. Physics	36	1	36	3	3	14	13	0	0	0	40

Table 8.C.20 CST Content Area Correlations (No Special Education Services)

Grade	CST	1.	2.
2	1. English–Language Arts	423,951	0.76
	2. Mathematics	423,067	423,680
Grade	CST	1.	2.
3	1. English–Language Arts	409,557	0.77
	2. Mathematics	408,863	409,251
Grade	CST	1.	2.
4	1. English–Language Arts	405,737	0.74
	2. Mathematics	405,273	405,552
Grade	CST	1.	2.
5	1. English–Language Arts	409,976	0.73
	2. Mathematics	409,551	409,754
5	3. Science	409,257	409,175
			409,462
Grade	CST	1.	2.
6	1. English–Language Arts	408,526	0.78
	2. Mathematics	408,024	408,293
Grade	CST	1.	2.
7	1. English–Language Arts	413,295	0.75
	2. Mathematics	377,116	377,523
7	3. Algebra I	35,449	0
			35,465
Grade	CST	1.	2.
8	1. English–Language Arts	418,542	0.81
	2. History–Social Science	417,087	417,663
8	3. General Mathematics	120,372	120,043
	4. Algebra I	269,090	268,777
8	5. Geometry	24,987	24,982
	6. Algebra II	769	769
8	7. Science	416,902	416,688
			119,919
8			268,764
			24,981
8			769
			417,445

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	449,719	0.79	0.62	0.57	0.68	0.61	0.62	0.80	0.79	0.73	0.76
	2. World History	30,273	30,459	0.52	0.62	0.69	0.63	0.61	0.82	0.79	0.75	0.69
	3. General Mathematics	35,617	2,013	36,003	N/A	N/A	N/A	N/A	0.57	0.65	0.60	0.45
	4. Algebra I	239,845	11,384	0	241,032	N/A	N/A	N/A	0.61	0.63	0.54	0.68
	5. Geometry	137,512	12,286	0	0	137,690	N/A	N/A	0.71	0.82	0.66	0.76
	6. Algebra II	28,259	4,089	0	0	0	28,282	N/A	0.64	0.78	0.56	0.71
	7. Summ. H.S. Mathematics	780	124	0	0	0	0	782	0.61	0.76	0.68	0.58
	8. Biology	205,692	18,549	5,816	82,203	94,700	21,187	522	206,184	N/A	N/A	N/A
	9. Chemistry	5,330	1,239	66	814	2,464	1,885	77	0	5,350	N/A	N/A
	10. Earth Science	126,745	2,955	13,125	91,188	19,781	1,323	61	0	0	127,335	N/A
	11. Physics	13,755	1,000	40	4,845	6,657	1,964	79	0	0	0	13,785
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	437,491	0.74	0.51	0.61	0.55	0.55	0.79	0.77	0.69	0.70	0.74
	2. World History	390,919	392,342	0.46	0.55	0.51	0.51	0.75	0.74	0.67	0.71	0.71
	3. Algebra I	99,432	89,720	100,240	N/A	N/A	N/A	0.51	0.53	0.60	0.48	0.62
	4. Geometry	154,057	144,699	0	154,535	N/A	N/A	0.63	0.64	0.71	0.58	0.73
	5. Algebra II	123,307	114,018	0	0	123,473	N/A	0.57	0.61	0.69	0.44	0.69
	6. Summ. H.S. Mathematics	22,199	19,858	0	0	0	22,218	0.56	0.63	0.67	0.44	0.66
	7. Life Science	428,964	386,980	97,115	152,571	122,462	22,111	430,628	0.86	0.76	0.75	0.78
	8. Biology	214,881	203,756	60,771	95,778	40,181	5,214	212,993	215,780	N/A	N/A	N/A
	9. Chemistry	124,011	113,675	4,441	31,958	70,839	14,834	123,158	0	124,229	N/A	N/A
	10. Earth Science	26,288	24,093	12,692	8,435	2,121	157	25,732	0	0	26,469	N/A
	11. Physics	8,731	7,569	677	2,781	3,933	1,183	8,693	0	0	0	8,750
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	417,737	0.57	0.80	0.48	0.53	0.45	0.58	0.79	0.68	0.71	0.70
	2. World History	12,054	12,175	0.63	0.40	0.42	0.33	0.26	0.61	0.42	0.61	0.46
	3. History–Social Science	409,946	10,894	411,649	0.46	0.51	0.43	0.54	0.78	0.67	0.74	0.69
	4. Algebra I	44,835	3,768	43,398	45,356	N/A	N/A	N/A	0.50	0.56	0.46	0.62
	5. Geometry	73,857	2,398	73,009	0	74,259	N/A	N/A	0.57	0.61	0.53	0.67
	6. Algebra II	118,082	1,382	117,389	0	0	118,372	N/A	0.49	0.60	0.40	0.61
	7. Summ. H.S. Mathematics	115,626	654	115,200	0	0	0	115,800	0.65	0.74	0.49	0.70
	8. Biology	91,529	3,249	90,694	12,553	19,183	21,002	29,107	92,002	N/A	N/A	N/A
	9. Chemistry	128,574	1,311	128,040	3,256	18,960	59,080	39,300	0	128,899	N/A	N/A
	10. Earth Science	35,549	1,764	35,114	9,826	9,896	5,695	3,455	0	0	35,819	N/A
	11. Physics	51,197	393	50,998	778	3,605	13,591	31,183	0	0	0	51,290

Table 8.C.21 CST Content Area Correlations (Special Education Services)

Grade	CST	1.	2.					
2	1. English–Language Arts	34,760	0.81					
	2. Mathematics	34,553	35,758					
Grade	CST	1.	2.					
3	1. English–Language Arts	25,106	0.80					
	2. Mathematics	24,069	27,470					
Grade	CST	1.	2.					
4	1. English–Language Arts	22,375	0.76					
	2. Mathematics	21,521	26,292					
Grade	CST	1.	2.	3.				
5	1. English–Language Arts	21,790	0.73	0.81				
	2. Mathematics	20,571	25,275	0.67				
	3. Science	21,671	25,155	47,879				
Grade	CST	1.	2.					
6	1. English–Language Arts	21,191	0.78					
	2. Mathematics	19,495	22,956					
Grade	CST	1.	2.	3.				
7	1. English–Language Arts	20,905	0.73	0.64				
	2. Mathematics	18,575	21,182	N/A				
	3. Algebra I	439	0	448				
Grade	CST	1.	2.	3.	4.	5.	6.	7.
8	1. English–Language Arts	21,501	0.80	0.61	0.66	0.59	0.83	0.77
	2. History–Social Science	21,263	42,939	0.57	0.63	0.61	0.85	0.67
	3. General Mathematics	12,031	27,474	28,072	N/A	N/A	N/A	0.53
	4. Algebra I	8,029	8,920	0	8,984	N/A	N/A	0.69
	5. Geometry	242	250	0	0	251	N/A	0.68
	6. Algebra II	11	11	0	0	0	11	0.83
	7. Science	21,166	42,329	27,520	8,912	250	11	43,277

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	26,286	0.75	0.59	0.55	0.77	0.77	–	0.83	0.81	0.74	0.77
	2. World History	2,184	2,716	0.49	0.52	0.77	0.87	–	0.81	0.52	0.69	0.86
	3. General Mathematics	7,480	639	13,550	N/A	N/A	N/A	N/A	0.57	–	0.58	0.38
	4. Algebra I	13,812	1,160	0	16,157	N/A	N/A	N/A	0.63	0.55	0.53	0.67
	5. Geometry	2,168	384	0	0	2,299	N/A	N/A	0.82	0.84	0.72	0.81
	6. Algebra II	243	36	0	0	0	266	N/A	0.78	0.82	0.75	0.70
	7. Summ. H.S. Mathematics	9	2	0	0	0	0	10	–	–	–	–
	8. Biology	6,764	1,067	1,891	4,317	1,312	167	5	9,830	N/A	N/A	N/A
	9. Chemistry	156	93	7	66	60	36	0	0	204	N/A	N/A
	10. Earth Science	8,891	474	5,247	5,853	391	18	1	0	0	14,960	N/A
	11. Physics	424	34	25	275	117	12	1	0	0	0	555
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	27,438	0.75	0.49	0.67	0.66	0.69	0.78	0.78	0.80	0.72	0.81
	2. World History	22,640	33,621	0.46	0.60	0.59	0.69	0.71	0.75	0.79	0.71	0.78
	3. Algebra I	10,456	10,378	11,958	N/A	N/A	N/A	0.49	0.52	0.55	0.51	0.56
	4. Geometry	6,914	6,640	0	7,489	N/A	N/A	0.68	0.68	0.75	0.68	0.81
	5. Algebra II	1,675	1,617	0	0	1,808	N/A	0.67	0.69	0.75	0.66	0.79
	6. Summ. H.S. Mathematics	130	124	0	0	0	136	0.69	0.75	0.64	–	–
	7. Life Science	25,859	32,092	11,269	7,226	1,745	134	38,253	0.80	0.83	0.69	0.83
	8. Biology	13,980	18,158	6,477	4,617	824	42	19,109	19,879	N/A	N/A	N/A
	9. Chemistry	1,897	1,887	256	827	624	72	2,084	0	2,175	N/A	N/A
	10. Earth Science	3,213	4,271	1,858	577	61	3	4,585	0	0	4,876	N/A
	11. Physics	297	286	51	138	59	6	355	0	0	0	367
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	26,980	0.60	0.79	0.44	0.56	0.54	0.64	0.76	0.71	0.70	0.79
	2. World History	1,328	1,709	0.58	0.38	0.53	0.25	0.62	0.49	0.45	0.58	0.62
	3. History–Social Science	25,599	1,342	34,588	0.42	0.54	0.51	0.61	0.75	0.71	0.72	0.79
	4. Algebra I	6,319	484	6,604	7,033	N/A	N/A	N/A	0.42	0.65	0.41	0.51
	5. Geometry	5,023	243	5,234	0	5,447	N/A	N/A	0.59	0.67	0.58	0.71
	6. Algebra II	3,763	67	4,218	0	0	4,288	N/A	0.59	0.67	0.44	0.71
	7. Summ. H.S. Mathematics	957	13	979	0	0	0	989	0.74	0.80	0.72	0.75
	8. Biology	5,626	464	7,150	1,757	1,398	744	168	7,517	N/A	N/A	N/A
	9. Chemistry	3,546	82	4,122	238	814	1,754	348	0	4,200	N/A	N/A
	10. Earth Science	3,533	254	5,019	1,393	722	300	51	0	0	5,263	N/A
	11. Physics	1,081	31	1,282	78	217	429	229	0	0	0	1,305

Table 8.C.22 CST Content Area Correlations (Special Education unknown)

Grade	CST	1.	2.
2	1. English–Language Arts	41	0.67
	2. Mathematics	40	45
Grade	CST	1.	2.
3	1. English–Language Arts	132	0.84
	2. Mathematics	34	496
Grade	CST	1.	2.
4	1. English–Language Arts	1,697	0.76
	2. Mathematics	1,573	1,991
Grade	CST	1.	2.
5	1. English–Language Arts	2,326	0.73
	2. Mathematics	2,175	2,475
5	3. Science	2,323	2,471
			3,815
Grade	CST	1.	2.
6	1. English–Language Arts	1,438	0.79
	2. Mathematics	1,273	1,444
Grade	CST	1.	2.
7	1. English–Language Arts	1,208	0.76
	2. Mathematics	1,016	1,113
7	3. Algebra I	48	0
			48
Grade	CST	1.	2.
8	1. English–Language Arts	75	0.77
	2. History–Social Science	74	964
8	3. General Mathematics	32	590
	4. Algebra I	4	48
8	5. Geometry	0	2
	6. Algebra II	0	0
8	7. Science	74	951
			615
8			0
			1,082

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
9	1. English–Language Arts	116	—	0.82	0.75	—	—	—	0.66	—	0.73	—
	2. World History	8	33	—	—	—	—	—	0.67	—	—	—
	3. General Mathematics	13	9	383	N/A	N/A	N/A	N/A	0.60	—	0.59	—
	4. Algebra I	23	6	0	144	N/A	N/A	N/A	0.42	—	0.60	—
	5. Geometry	4	1	0	0	9	N/A	N/A	—	—	—	—
	6. Algebra II	0	1	0	0	0	1	N/A	—	—	—	—
	7. Summ. H.S. Mathematics	0	0	0	0	0	0	0	—	—	—	—
	8. Biology	26	11	78	48	4	1	0	272	N/A	N/A	N/A
	9. Chemistry	0	0	0	2	0	0	0	0	2	N/A	N/A
	10. Earth Science	44	6	140	40	3	0	0	0	0	412	N/A
	11. Physics	1	0	0	2	0	0	0	0	0	0	4
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10	1. English–Language Arts	97	0.72	0.59	—	—	—	0.71	0.64	—	0.76	—
	2. World History	75	573	0.43	0.53	—	—	0.59	0.66	—	0.62	—
	3. Algebra I	20	52	61	N/A	N/A	N/A	0.63	0.15	—	0.84	—
	4. Geometry	7	16	0	17	N/A	N/A	0.64	0.55	—	—	—
	5. Algebra II	2	6	0	0	7	N/A	—	—	—	—	—
	6. Summ. H.S. Mathematics	1	1	0	0	0	1	—	—	—	—	—
	7. Life Science	88	546	54	17	7	1	668	0.65	—	0.76	—
	8. Biology	47	259	24	11	5	0	266	281	N/A	N/A	N/A
	9. Chemistry	3	10	0	2	2	1	10	0	11	N/A	N/A
	10. Earth Science	13	71	13	2	0	0	77	0	0	84	N/A
	11. Physics	0	0	0	0	0	0	0	0	0	0	0
Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
11	1. English–Language Arts	71	—	0.81	—	—	—	—	0.90	—	—	—
	2. World History	9	23	0.24	—	—	—	—	—	—	—	—
	3. History–Social Science	58	18	222	0.24	0.76	—	—	0.58	—	0.56	—
	4. Algebra I	7	3	13	16	N/A	N/A	N/A	—	—	—	—
	5. Geometry	6	1	12	0	14	N/A	N/A	—	—	—	—
	6. Algebra II	0	1	5	0	0	5	N/A	—	—	—	—
	7. Summ. H.S. Mathematics	4	0	4	0	0	0	4	—	—	—	—
	8. Biology	16	8	55	4	4	1	1	63	N/A	N/A	N/A
	9. Chemistry	3	0	8	1	1	1	1	0	9	N/A	N/A
	10. Earth Science	9	4	39	3	3	2	0	0	0	41	N/A
	11. Physics	1	0	9	1	2	0	0	0	0	0	9

Appendix 8.D—IRT Analyses

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

Op. Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	29	45%	33	51%	29	38%	32	43%	40	53%	39	51%	43	57%	33	44%	32	43%	30	40%
B	10	15%	11	17%	23	30%	13	17%	6	8%	10	13%	8	11%	11	15%	13	17%	10	13%
C	26	40%	21	32%	23	30%	30	40%	29	39%	27	36%	23	31%	30	40%	29	39%	34	45%
D	0	0%	0	0%	1	1%	0	0%	0	0%	0	0%	0	0%	1	1%	1	1%	1	1%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%	0	0%
Total	65	100%	65	100%	76	100%	75	100%	75	100%	76	100%	75	100%	75	100%	75	100%	75	100%

Table 8.D.2 IRT Model Data Fit Distribution for History–Social Science

Operational Items	Grade 8		World History		Grade 11	
Flag	N	Pct.	N	Pct.	N	Pct.
A	33	44%	26	43%	28	47%
B	12	16%	8	13%	5	8%
C	30	40%	26	43%	27	45%
D	0	0%	0	0%	0	0%
F	0	0%	0	0%	0	0%
Total	75	100%	60	100%	60	100%

Table 8.D.3 IRT Model Data Fit Distribution for Mathematics, Grades Two through Seven

Operational Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	46	71%	46	71%	38	58%	42	65%	30	46%	31	48%
B	7	11%	10	15%	9	14%	6	9%	12	18%	16	25%
C	12	18%	9	14%	18	28%	17	26%	23	35%	18	28%
D	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
F	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%

Table 8.D.4 IRT Model Data Fit Distribution for Mathematics End-of-Course Tests

Operational Items	General Math		Algebra I		Geometry		Algebra II		Summ. H.S. Math		Integrated Math 1		Integrated Math 2		Integrated Math 3	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	31	48%	20	31%	25	38%	34	52%	32	49%	27	42%	24	37%	16	25%
B	20	31%	6	9%	11	17%	19	29%	24	37%	18	28%	21	32%	15	23%
C	14	22%	39	60%	29	45%	12	18%	9	14%	18	28%	18	28%	31	48%
D	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	3%	3	5%
F	0	0%	0	0%	0	0%	0	0%	0	0%	2	3%	0	0%	0	0%
Total	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%

Table 8.D.5 IRT Model Data Fit Distribution for Science

Operational Items	Grade 5 Science		Grade 8 Science		Grade 10 Life Science		Biology		Chemistry		Earth Science		Physics	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	37	62%	29	48%	23	38%	23	38%	30	50%	31	52%	22	37%
B	7	12%	12	20%	10	17%	5	8%	15	25%	17	28%	29	48%
C	16	27%	18	30%	27	45%	32	53%	15	25%	12	20%	9	15%
D	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
F	0	0%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	60	100%	60	100%	60	100%	60	100%	60	100%	60	100%	60	100%

Table 8.D.6 IRT Model Data Fit Distribution for ELA (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.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	15	25%	11	18%	8	13%	8	13%	17	28%	9	15%	8	14%	11	18%	3	5%	6	10%
B	11	18%	17	28%	12	20%	16	27%	12	20%	15	25%	13	22%	14	23%	7	12%	11	18%
C	29	48%	32	53%	33	55%	31	52%	29	48%	30	51%	33	56%	31	52%	43	73%	33	55%
D	4	7%	0	0%	7	12%	3	5%	2	3%	2	3%	3	5%	2	3%	5	8%	4	7%
F	1	2%	0	0%	0	0%	2	3%	0	0%	3	5%	2	3%	2	3%	1	2%	6	10%
Total	60	100%	60	100%	60	100%	60	100%	60	100%	59	100%	59	100%	60	100%	59	100%	60	100%

Table 8.D.7 IRT Model Data Fit Distribution for History–Social Science (field-test items)

Field-test Items	Grade 8		World History		Grade 11	
Flag	N	Pct.	N	Pct.	N	Pct.
A	3	10%	8	27%	3	10%
B	1	3%	10	33%	6	20%
C	23	77%	6	20%	19	63%
D	3	10%	4	13%	2	7%
F	0	0%	2	7%	0	0%
Total	30	100%	30	100%	30	100%

Table 8.D.8 IRT Model Data Fit Distribution for Mathematics, Grades Two through Seven (field-test items)

Field-test Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	15	25%	10	17%	7	12%	11	18%	11	18%	6	10%
B	17	28%	14	23%	13	22%	13	22%	6	10%	11	18%
C	25	42%	32	53%	35	58%	30	50%	30	50%	36	60%
D	2	3%	4	7%	4	7%	3	5%	10	17%	3	5%
F	1	2%	0	0%	1	2%	3	5%	3	5%	4	7%
Total	60	100%	60	100%	60	100%	60	100%	60	100%	60	100%

Table 8.D.9 IRT Model Data Fit Distribution for Mathematics End-of-Course Tests (field-test items)

Field-test Items	General Math		Algebra I		Geometry		Algebra II		Summ. H.S. Math		Integrated Math 1		Integrated Math 2		Integrated Math 3	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	1	17%	4	13%	9	30%	11	37%	2	7%	3	50%	2	33%	1	17%
B	3	50%	14	47%	9	30%	7	23%	4	13%	1	17%	1	17%	0	0%
C	1	17%	5	17%	10	33%	10	33%	18	60%	1	17%	3	50%	3	50%
D	1	17%	4	13%	2	7%	1	3%	5	17%	1	17%	0	0%	1	17%
F	0	0%	3	10%	0	0%	1	3%	1	3%	0	0%	0	0%	1	17%
Total	6	100%	30	100%	30	100%	30	100%	30	100%	6	100%	6	100%	6	100%

Table 8.D.10 IRT Model Data Fit Distribution for Science (field-test items)

Field-test Items	Grade 5 Science		Grade 8 Science		Grade 10 Life Science		Biology		Chemistry		Earth Science		Physics	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	9	11%	8	10%	6	7%	6	7%	11	13%	12	14%	12	14%
B	22	26%	26	31%	13	15%	17	20%	14	17%	10	12%	19	23%
C	49	58%	45	54%	58	69%	58	69%	50	60%	51	61%	43	51%
D	2	2%	4	5%	5	6%	2	2%	7	8%	4	5%	6	7%
F	2	2%	1	1%	2	2%	1	1%	2	2%	7	8%	4	5%
Total	84	100%	84	100%	84	100%	84	100%	84	100%	84	100%	84	100%

Table 8.D.11 IRT *b*-values for ELA, Grade Two

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	22	−0.27	0.59	−1.55	0.93
Reading Comprehension	15	−0.09	0.64	−1.16	1.18
Literary Response and Analysis	6	−0.65	0.42	−1.02	0.07
Written Conventions	14	−0.16	0.66	−1.19	1.10
Writing Strategies	8	0.33	0.49	−0.18	1.32
All operational items	65	−0.17	0.64	−1.55	1.32
Field-test items	60	0.19	0.74	−1.49	1.84

Table 8.D.12 IRT *b*-values for ELA, Grade Three

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	20	−0.70	0.70	−1.88	0.24
Reading Comprehension	15	−0.31	0.70	−1.91	0.72
Literary Response and Analysis	8	−0.96	0.89	−2.07	0.69
Written Conventions	13	−0.13	0.93	−2.06	1.13
Writing Strategies	9	0.21	0.51	−0.61	1.30
All operational items	65	−0.40	0.84	−2.07	1.30
Field-test items	60	−0.11	0.73	−1.80	1.86

Table 8.D.13 IRT *b*-values for ELA, Grade Four

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	18	−0.42	0.54	−1.39	0.41
Reading Comprehension	15	0.34	0.72	−1.40	1.62
Literary Response and Analysis	9	0.16	0.41	−0.67	0.78
Written Conventions	18	−0.05	0.76	−1.93	1.68
Writing Strategies	15	0.54	0.60	−0.71	1.46
Writing Applications Score	1	−0.48	N/A	−0.48	−0.48
All operational multiple-choice items	75	0.08	0.73	−1.93	1.68
Field-test items	60	0.74	1.04	−1.83	3.25

Table 8.D.14 IRT *b*-values for ELA, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	14	−0.55	1.23	−3.37	1.52
Reading Comprehension	16	−0.19	0.76	−1.05	1.31
Literary Response and Analysis	12	−0.29	0.54	−1.42	0.60
Written Conventions	17	−0.38	0.80	−1.66	1.16
Writing Strategies	16	0.00	0.71	−1.69	1.01
All operational items	75	−0.28	0.86	−3.37	1.52
Field-test items	60	0.12	1.01	−2.01	3.40

Table 8.D.15 IRT *b*-values for ELA, Grade Six

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	13	−0.42	0.66	−1.39	0.71
Reading Comprehension	17	0.27	0.61	−0.77	1.16
Literary Response and Analysis	12	−0.14	1.00	−1.53	1.62
Written Conventions	16	−0.28	0.74	−1.68	1.47
Writing Strategies	17	0.20	0.65	−1.33	1.31
All operational items	75	−0.05	0.78	−1.68	1.62
Field-test items	60	−0.04	1.00	−2.52	2.50

Table 8.D.16 IRT *b*-values for ELA, Grade Seven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	11	−0.16	0.58	−0.95	0.95
Reading Comprehension	18	−0.11	0.85	−1.15	2.01
Literary Response and Analysis	13	−0.01	0.77	−0.86	1.51
Written Conventions	16	0.12	0.82	−1.19	1.23
Writing Strategies	17	0.52	0.82	−1.61	1.63
Writing Applications Score	1	−1.07	N/A	−1.07	−1.07
All operational multiple-choice items	75	0.09	0.83	−1.61	2.01
Field-test items	59	0.72	0.92	−1.62	3.06

Table 8.D.17 IRT *b*-values for ELA, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	9	−0.11	0.99	−1.54	1.28
Reading Comprehension	18	−0.27	0.83	−1.57	1.65
Literary Response and Analysis	15	−0.01	0.67	−1.24	1.37
Written Conventions	16	−0.03	0.73	−1.03	2.03
Writing Strategies	17	0.05	0.55	−1.03	1.05
All operational items	75	−0.08	0.75	−1.57	2.03
Field-test items	59	0.26	0.90	−1.77	3.16

Table 8.D.18 IRT *b*-values for ELA, Grade Nine

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	0.20	0.68	−0.73	1.07
Reading Comprehension	18	−0.36	0.42	−1.05	0.49
Literary Response and Analysis	16	−0.07	0.85	−1.38	1.89
Written Conventions	13	−0.10	0.31	−0.57	0.29
Writing Strategies	20	0.22	0.86	−1.69	1.68
All operational items	75	−0.04	0.71	−1.69	1.89
Field-test items	60	0.29	0.81	−1.27	2.68

Table 8.D.19 IRT *b*-values for ELA, Grade Ten

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	−0.29	0.72	−1.69	0.51
Reading Comprehension	18	−0.43	0.51	−1.85	0.13
Literary Response and Analysis	16	−0.09	0.56	−1.20	1.16
Written Conventions	13	−0.37	0.79	−1.62	1.10
Writing Strategies	20	−0.19	0.73	−1.56	1.23
All operational items	75	−0.27	0.67	−1.85	1.23
Field–test items	59	0.68	0.71	−1.15	2.72

Table 8.D.20 IRT *b*-values for ELA, Grade Eleven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	−0.67	0.59	−1.67	0.05
Reading Comprehension	19	−0.22	0.59	−1.33	0.81
Literary Response and Analysis	17	−0.29	0.66	−1.52	0.89
Written Conventions	9	−0.01	0.99	−1.54	1.78
Writing Strategies	22	−0.29	0.48	−1.42	0.54
All operational items	75	−0.28	0.66	−1.67	1.78
Field–test items	60	0.36	0.81	−1.52	1.97

Table 8.D.21 IRT *b*-values for History–Social Science, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
World History and Geography: Ancient Civ.	16	−0.11	1.01	−2.23	1.25
Late Antiquity and the Middle Ages	14	−0.17	0.58	−1.28	1.20
Renaissance/Reformation	10	0.04	0.42	−0.49	0.79
U.S. Constitution and the Early Republic	22	−0.17	0.54	−1.22	0.72
Civil War and Its Aftermath	13	−0.12	0.37	−0.76	0.47
All operational items	75	−0.12	0.65	−2.23	1.25
Field–test items	30	0.65	0.91	−1.40	2.43

Table 8.D.22 IRT *b*-values for World History

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Development of Modern Political Thought	13	−0.21	0.74	−1.58	1.41
Industrial Expansion and Imperialism	10	−0.34	0.49	−1.40	0.52
Causes and Effects of the First World War	14	−0.12	0.46	−1.49	0.51
Causes and Effects of the Second World War	13	−0.24	0.52	−1.17	0.51
International Developments in the Post–WW II Era	10	−0.13	0.48	−1.19	0.57
All operational items	60	−0.21	0.56	−1.58	1.41
Field–test items	30	0.53	0.89	−1.00	2.72

Table 8.D.23 IRT *b*-values for History–Social Science Grade Eleven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Foundations of Amer. Pol. and Social Thought	10	–0.31	0.51	–1.05	0.57
Industrialization and the U.S. Role as a World Power	13	–0.31	0.84	–2.23	1.06
United States Between the World Wars	12	–0.30	0.49	–0.99	0.68
World War II and Foreign Affairs	12	–0.29	0.58	–1.25	0.89
Post–World War II Domestic Issues	13	–0.26	0.65	–1.50	0.93
All operational items	60	–0.29	0.63	–2.23	1.06
Field–test items	30	0.33	0.79	–1.97	1.89

Table 8.D.24 IRT *b*-values for Mathematics, Grade Two

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Addition, and Subtraction	15	–0.76	0.82	–1.95	0.83
Multiplication, Division, and Fractions	23	–0.92	0.92	–2.61	1.13
Algebra and Functions	6	–0.74	0.79	–1.74	0.42
Measurement and Geometry	14	–1.21	0.90	–2.34	0.96
Statistics, Data Analysis, and Probability	7	–0.74	1.21	–2.46	1.13
All operational items	65	–0.91	0.93	–2.61	1.13
Field–test items	60	–0.67	1.25	–3.35	1.87

Table 8.D.25 IRT *b*-values for Mathematics, Grade Three

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Fractions, and Decimals	16	–0.81	1.03	–1.92	0.98
Addition, Subtraction, Multiplication, Division	16	–0.45	0.73	–1.66	0.62
Algebra and Functions	12	–0.79	0.57	–1.43	0.50
Measurement and Geometry	16	–0.86	0.92	–2.43	0.79
Statistics, Data Analysis, and Probability	5	–1.27	0.94	–2.94	–0.31
All operational items	65	–0.76	0.88	–2.94	0.98
Field–test items	60	–0.14	1.28	–2.73	2.34

Table 8.D.26 IRT *b*-values for Mathematics, Grade Four

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Decimals, Fractions, and Negative Numbers	17	–0.82	0.81	–1.82	1.31
Operations and Factoring	14	–0.73	0.67	–1.88	0.19
Algebra and Functions	18	–0.85	0.62	–1.83	0.60
Measurement and Geometry	12	–0.12	0.99	–1.71	2.05
Statistics, Data Analysis, and Probability	4	–0.72	1.13	–2.07	0.54
All operational items	65	–0.67	0.84	–2.07	2.05
Field–test items	60	0.23	0.98	–1.80	2.83

Table 8.D.27 IRT *b*-values for Mathematics, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Estimation, Percents, and Factoring	12	0.07	0.90	-1.60	1.64
Operations with Fractions and Decimals	17	-0.10	0.56	-0.92	1.22
Algebra and Functions	17	-0.50	1.05	-2.77	1.55
Measurement and Geometry	15	-0.00	1.01	-2.30	1.98
Statistics, Data Analysis, and Probability	4	-0.88	0.34	-1.18	-0.31
All operational items	65	-0.20	0.92	-2.77	1.98
Field-test items	60	0.44	1.12	-2.36	2.99

Table 8.D.28 IRT *b*-values for Mathematics, Grade Six

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Ratios, Proportions, Percentages, Neg. Fractions	15	-0.21	0.90	-2.35	1.06
Operations and Problem Solving with Fractions	10	-0.36	0.68	-0.98	1.50
Algebra and Functions	19	-0.49	0.86	-1.67	1.47
Measurement and Geometry	10	0.06	0.73	-1.10	1.61
Statistics, Data Analysis, and Probability	11	-0.22	0.86	-1.63	1.00
All operational items	65	-0.28	0.84	-2.35	1.61
Field-test items	60	0.14	1.12	-2.49	2.29

Table 8.D.29 IRT *b*-values for Mathematics, Grade Seven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	-0.11	0.65	-1.30	1.21
Exponents, Powers, and Roots	8	0.36	0.32	-0.20	0.84
Quant. Relationships and Evaluating Expressions	10	-0.05	0.54	-0.93	0.89
Multistep Problems, Graphing, and Functions	15	-0.10	0.64	-1.23	1.03
Measurement and Geometry	13	-0.04	0.75	-1.15	1.16
Statistics, Data Analysis, and Probability	5	-0.40	0.63	-1.04	0.54
All operational items	65	-0.05	0.65	-1.30	1.21
Field-test items	60	0.71	1.17	-1.13	4.12

Table 8.D.30 IRT *b*-values for General Mathematics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.11	0.64	-0.93	1.18
Exponents, Powers, and Roots	10	0.58	0.49	-0.41	1.18
Quant. Relationships and Evaluating Expressions	11	-0.23	0.51	-1.45	0.57
Multistep Problems, Graphing, and Functions	10	-0.16	0.55	-1.15	0.81
Measurement and Geometry	11	0.48	0.31	0.01	1.16
Statistics, Data Analysis, and Probability	9	-0.15	0.68	-1.14	0.82
All operational items	65	0.11	0.63	-1.45	1.18
Field-test items	6	0.46	0.48	-0.41	0.98

Table 8.D.31 IRT *b*-values for Algebra I

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Number Properties, Operations, and Linear Equations	17	−0.54	0.76	−2.38	0.58
Graphing and Systems of Linear Equations	14	0.01	0.34	−0.61	0.50
Quadratics and Polynomials	21	−0.05	0.55	−1.03	1.00
Functions and Rational Expressions	13	0.44	0.58	−0.44	1.61
All operational items	65	−0.07	0.67	−2.38	1.61
Field-test items	30	0.36	0.69	−1.39	1.56

Table 8.D.32 IRT *b*-values for Geometry

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Logic and Geometric Proofs	23	−0.81	0.69	−1.98	0.61
Volume and Area Formulas	11	−0.71	0.67	−1.72	0.49
Angle Relationships, Constructions, and Lines	16	−0.72	0.84	−1.99	0.66
Trigonometry	15	−0.81	0.59	−1.98	0.34
All operational items	65	−0.77	0.71	−1.99	0.66
Field-test items	30	−0.18	0.69	−1.61	1.03

Table 8.D.33 IRT *b*-values for Algebra II

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Polynomials and Rational Expressions	19	−0.94	0.73	−2.30	0.44
Quadratics, Conics, and Complex Numbers	16	−0.13	0.58	−1.44	0.64
Exponents and Logarithms	16	−0.49	0.55	−1.16	1.11
Series, Combinatorics, Probability and Statistics	14	−0.01	0.71	−1.36	1.07
All operational items	65	−0.43	0.75	−2.30	1.11
Field-test items	30	0.08	0.62	−0.99	1.61

Table 8.D.34 IRT *b*-values for Summative High School Mathematics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Algebra I	18	−1.02	0.58	−2.09	−0.17
Geometry	19	−0.92	0.62	−1.98	0.36
Algebra II	23	−0.72	0.70	−1.88	1.01
Probability and Statistics	5	−0.46	0.72	−1.36	0.43
All operational items	65	−0.84	0.67	−2.09	1.01
Field-test items	30	0.22	1.28	−2.02	3.22

Table 8.D.35 IRT *b*-values for Integrated Mathematics 1

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Number Properties, Operations, and Linear Equations	15	−0.67	0.70	−2.33	0.28
Graphing	9	0.05	0.42	−0.66	0.64
Quadratics and Polynomials	14	0.05	0.58	−1.01	0.92
Functions and Rational Expressions	7	0.61	0.66	−0.32	1.63
Geometry	20	0.45	0.51	−0.37	1.41
All operational items	65	0.07	0.74	−2.33	1.63
Field-test items	6	0.13	0.82	−1.50	1.07

Table 8.D.36 IRT *b*-values for Integrated Mathematics 2

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Algebra I	20	−0.43	0.44	−1.52	0.56
Logic and Geometric Proofs	22	−0.16	0.57	−0.88	0.99
Angle Relationships, Constructions, and Lines	8	−0.42	0.85	−1.34	1.08
Trigonometry	10	−0.16	0.49	−1.01	0.82
Algebra II: Probability and Statistics	5	0.54	0.59	−0.42	1.17
All operational items	65	−0.22	0.62	−1.52	1.17
Field-test items	6	0.22	0.62	−0.51	1.18

Table 8.D.37 IRT *b*-values for Integrated Mathematics 3

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Geometry	5	−0.92	0.34	−1.59	−0.68
Polynomials and Rational Expressions	19	−0.26	0.61	−1.36	0.84
Quadratics, Conics, and Complex Numbers	16	0.15	0.42	−0.72	0.97
Exponents and Logarithms	16	−0.20	0.43	−0.62	1.10
Series, Combinatorics, Probability and Statistics	9	0.32	0.51	−0.42	1.08
All operational items	65	−0.11	0.59	−1.59	1.10
Field-test items	6	0.27	0.37	−0.29	0.70

Table 8.D.38 IRT *b*-values for Science, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Physical Science 5	11	−0.62	0.48	−1.39	0.54
Physical Science 4	8	−0.70	0.57	−1.52	0.11
Life Science 5	13	−0.74	0.72	−1.89	0.44
Life Science 4	9	−0.52	0.53	−1.32	0.57
Earth Science 5	11	−0.57	0.74	−1.50	0.65
Earth Science 4	8	−0.64	0.41	−1.30	−0.10
All operational items	60	−0.63	0.61	−1.89	0.65
Field-test items	84	0.05	0.98	−2.20	2.71

Table 8.D.39 IRT *b*-values for Science, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion	8	0.02	0.72	-1.12	1.09
Forces, Density, and Buoyancy	13	-0.42	0.69	-1.41	0.87
Structure of Matter and Periodic Table	16	-0.42	0.55	-1.42	0.75
Earth in the Solar system	7	-0.58	0.81	-1.48	0.68
Reactions and the Chemistry of Living Systems	10	0.17	0.62	-1.22	1.06
Investigation and Experimentation	6	-0.98	0.81	-2.56	-0.14
All operational items	60	-0.34	0.75	-2.56	1.09
Field-test items	84	0.36	0.75	-1.24	3.25

Table 8.D.40 IRT *b*-values for Life Science (Grade 10)

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Cell Biology	10	0.05	0.71	-0.88	1.51
Genetics	12	0.07	0.86	-1.15	2.28
Physiology	10	-0.48	0.55	-1.25	0.57
Ecology	11	-0.46	0.43	-1.20	0.29
Evolution	11	-0.34	0.60	-1.05	0.81
Investigation and Experimentation	6	-0.83	0.58	-1.52	0.22
All operational items	60	-0.29	0.71	-1.52	2.28
Field-test items	84	0.37	0.87	-1.63	2.67

Table 8.D.41 IRT *b*-values for Biology

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Cell Biology	9	-0.38	0.62	-1.47	0.42
Genetics	18	-0.32	0.77	-1.94	1.12
Ecology and Evolution	16	-0.24	0.50	-1.14	1.09
Physiology	11	-0.83	0.56	-1.52	0.37
Investigation and Experimentation	6	-0.35	0.71	-1.07	1.12
All operational items	60	-0.40	0.67	-1.94	1.12
Field-test items	84	0.13	0.73	-1.54	2.43

Table 8.D.42 IRT *b*-values for Chemistry

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Atomic and Molecular Structure	8	-0.57	0.93	-2.43	0.28
Chemical Bonds, Biochemistry	9	-0.64	0.43	-1.36	-0.11
Kinetics, Thermodynamics	14	-0.33	0.29	-0.84	0.31
Chemical Reactions	13	0.05	0.52	-0.59	1.01
Conservation of Matter and Stoichiometry	10	-0.22	0.44	-0.92	0.52
Investigation and Experimentation	6	-1.07	0.48	-1.75	-0.30
All operational items	60	-0.38	0.62	-2.43	1.01
Field-test items	84	0.20	0.95	-2.56	2.01

Table 8.D.43 IRT *b*-values for Earth Science

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Astronomy and Cosmology	12	−0.18	0.44	−0.95	0.91
Solid Earth	14	−0.08	0.46	−0.94	0.51
The Earth's Energy	28	0.06	0.44	−0.75	1.13
Investigation and Experimentation	6	−0.18	0.41	−0.74	0.41
All operational items	60	−0.05	0.45	−0.95	1.13
Field-test items	84	0.64	0.81	−1.16	2.84

Table 8.D.44 IRT *b*-values for Physics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion and Forces	12	−0.24	0.63	−1.54	0.77
Conservation of Energy and Momentum	12	−0.24	0.52	−1.64	0.65
Heat and Thermodynamics	9	−0.23	0.46	−1.24	0.49
Waves	10	−0.25	0.59	−1.15	0.63
Electric and Magnetic Phenomena	11	0.11	0.53	−0.81	1.08
Investigation and Experimentation	6	−0.31	0.44	−0.86	0.48
All operational items	60	−0.18	0.56	−1.64	1.08
Field-test items	84	0.46	0.89	−2.22	2.65

Table 8.D.45 Distribution of IRT *b*-values for ELA

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
≥3.5										
3.0 – < 3.5										
2.5 – < 3.0										
2.0 – < 2.5						1	1			
1.5 – < 2.0			2	1	1	3	1	3		1
1.0 – < 1.5	3	2	4	4	6	7	5	5	3	
0.5 – < 1.0	6	6	15	8	12	13	8	7	3	9
0.0 – < 0.5	16	16	22	17	17	19	21	16	23	17
−0.5 – < 0.0	19	14	17	17	16	9	20	25	22	21
−1.0 – < −0.5	13	11	9	15	13	15	10	13	12	16
−1.5 – < −1.0	7	7	5	6	7	7	5	5	7	8
−2.0 – < −1.5	1	6	1	6	3	1	4	1	5	3
−2.5 – < −2.0		3								
−3.0 – < −2.5										
−3.5 – < −3.0				1						
< −3.5										
Total	65	65	75	75	75	75	75	75	75	75

Table 8.D.46 Distribution of IRT *b*-values for History–Social Science

IRT <i>b</i> -value	Grade 8	World History	Grade 11
≥ 3.5			
$3.0 - < 3.5$			
$2.5 - < 3.0$			
$2.0 - < 2.5$			
$1.5 - < 2.0$			
$1.0 - < 1.5$	3	1	1
$0.5 - < 1.0$	11	5	6
$0.0 - < 0.5$	15	18	10
$-0.5 - < 0.0$	30	21	18
$-1.0 - < -0.5$	9	9	18
$-1.5 - < -1.0$	4	5	6
$-2.0 - < -1.5$	2	1	
$-2.5 - < -2.0$	1		1
$-3.0 - < -2.5$			
$-3.5 - < -3.0$			
< -3.5			
Total	75	60	60

Table 8.D.47 Distribution of IRT *b*-values for Mathematics, Grades Two through Seven

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
≥ 3.5						
$3.0 - < 3.5$						
$2.5 - < 3.0$						
$2.0 - < 2.5$			1			
$1.5 - < 2.0$				4	2	
$1.0 - < 1.5$	2		1	1	4	3
$0.5 - < 1.0$	3	7	5	5	6	11
$0.0 - < 0.5$	9	8	5	17	13	17
$-0.5 - < 0.0$	7	9	16	16	12	18
$-1.0 - < -0.5$	9	15	13	10	15	9
$-1.5 - < -1.0$	15	13	9	6	9	7
$-2.0 - < -1.5$	14	10	14	4	3	
$-2.5 - < -2.0$	5	2	1	1	1	
$-3.0 - < -2.5$	1	1		1		
$-3.5 - < -3.0$						
< -3.5						
Total	65	65	65	65	65	65

Table 8.D.48 Distribution of IRT *b*-values for Mathematics End-of-Course CSTs

IRT <i>b</i> -value	General Math	Algebra I	Geometry	Algebra II	Summ. H.S. Math	Integrated Math 1	Integrated Math 2	Integrated Math 3
≥ 3.5								
$3.0 - < 3.5$								
$2.5 - < 3.0$								
$2.0 - < 2.5$								
$1.5 - < 2.0$		1				1		
$1.0 - < 1.5$	5	1		2	1	6	3	2
$0.5 - < 1.0$	15	8	5	6	1	12	7	8
$0.0 - < 0.5$	19	22	8	11	5	20	9	14
$-0.5 - < 0.0$	15	19	5	16	11	14	19	25
$-1.0 - < -0.5$	8	9	16	17	19	7	22	12
$-1.5 - < -1.0$	3	3	23	9	15	2	4	3
$-2.0 - < -1.5$		1	8	2	12	2	1	1
$-2.5 - < -2.0$		1		2	1	1		
$-3.0 - < -2.5$								
$-3.5 - < -3.0$								
< -3.5								
Total	65	65	65	65	65	65	65	65

Table 8.D.49 Distribution of IRT *b*-values for Science

IRT <i>b</i> -value	Grade 5	Grade 8	Life Science	Biology	Chemistry	Earth Science	Physics
≥ 3.5							
$3.0 - < 3.5$							
$2.5 - < 3.0$							
$2.0 - < 2.5$			1				
$1.5 - < 2.0$			1				
$1.0 - < 1.5$		2	1	3	1	1	1
$0.5 - < 1.0$	4	9	5	1	3	5	6
$0.0 - < 0.5$	3	8	7	11	12	20	13
$-0.5 - < 0.0$	18	17	22	18	23	26	27
$-1.0 - < -0.5$	17	13	14	16	14	8	7
$-1.5 - < -1.0$	15	10	8	8	3		4
$-2.0 - < -1.5$	3		1	3	3		2
$-2.5 - < -2.0$					1		
$-3.0 - < -2.5$		1					
$-3.5 - < -3.0$							
< -3.5							
Total	60	60	60	60	60	60	60

Table 8.D.50 Distribution of IRT *b*-values for ELA (field-test items)

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
≥ 3.5										
3.0 – < 3.5			1	1		1	1			
2.5 – < 3.0			1		1	1		1	1	
2.0 – < 2.5			5			4	1			
1.5 – < 2.0	2	1	6	3	4	6	1	3	6	4
1.0 – < 1.5	7	4	9	6	6	4	7	6	10	10
0.5 – < 1.0	10	7	15	12	3	17	13	11	26	13
0.0 – < 0.5	18	14	10	10	16	15	16	15	8	15
–0.5 – < 0.0	11	13	5	11	13	7	9	16	3	9
–1.0 – < –0.5	9	15	6	8	10	2	7	4	3	6
–1.5 – < –1.0	3	5	1	6	2	1	3	4	2	2
–2.0 – < –1.5		1	1	2	3	1	1			1
–2.5 – < –2.0				1	1					
–3.0 – < –2.5					1					
–3.5 – < –3.0										
< -3.5										
Total	60	60	60	60	60	59	59	60	59	60

Table 8.D.51 Distribution of IRT *b*-values for History–Social Science (field-test items)

IRT <i>b</i> -value	Grade 8	World History	Grade 11
≥ 3.5			
3.0 – < 3.5			
2.5 – < 3.0		1	
2.0 – < 2.5	2	1	
1.5 – < 2.0	4	3	2
1.0 – < 1.5	5	3	2
0.5 – < 1.0	6	6	10
0.0 – < 0.5	7	6	7
–0.5 – < 0.0	2	8	6
–1.0 – < –0.5	3	2	1
–1.5 – < –1.0	1		1
–2.0 – < –1.5			1
–2.5 – < –2.0			
–3.0 – < –2.5			
–3.5 – < –3.0			
< -3.5			
Total	30	30	30

Table 8.D.52 Distribution of IRT *b*-values for Mathematics, Grades Two through Seven (field-test items)

IRT <i>b</i> -value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
≥ 3.5						3
$3.0 - < 3.5$						1
$2.5 - < 3.0$			1	2		1
$2.0 - < 2.5$		4	3	2	1	3
$1.5 - < 2.0$	3	4	2	5	8	1
$1.0 - < 1.5$	4	6	4	8	7	9
$0.5 - < 1.0$	5	4	12	13	5	15
$0.0 - < 0.5$	6	7	15	10	14	10
$-0.5 - < 0.0$	7	12	9	10	7	10
$-1.0 - < -0.5$	10	8	6	3	8	5
$-1.5 - < -1.0$	9	6	6	4	5	2
$-2.0 - < -1.5$	7	3	2	1	3	
$-2.5 - < -2.0$	6	4		2	2	
$-3.0 - < -2.5$	2	2				
$-3.5 - < -3.0$	1					
< -3.5						
Total	60	60	60	60	60	60

Table 8.D.53 Distribution of IRT *b*-values for Mathematics End-of-Course CSTs (field-test items)

IRT <i>b</i> -value	General Math	Algebra I	Geometry	Algebra II	Summ. H.S. Math	Integrated Math 1	Integrated Math 2	Integrated Math 3
≥ 3.5								
$3.0 - < 3.5$					1			
$2.5 - < 3.0$					1			
$2.0 - < 2.5$					2			
$1.5 - < 2.0$		1		1	1			
$1.0 - < 1.5$		3	1	1	2	1	1	
$0.5 - < 1.0$	3	10	6	5	4	1	1	2
$0.0 - < 0.5$	2	9	6	9	2	2	2	2
$-0.5 - < 0.0$	1	4	7	8	8	1	1	2
$-1.0 - < -0.5$		1	6	6	5		1	
$-1.5 - < -1.0$		2	2		2			
$-2.0 - < -1.5$			2		1	1		
$-2.5 - < -2.0$					1			
$-3.0 - < -2.5$								
$-3.5 - < -3.0$								
< -3.5								
Total	6	30	30	30	30	6	6	6

Table 8.D.54 Distribution of IRT *b*-values for Science (field-test items)

IRT <i>b</i> -value	Grade 5	Grade 8	Life Science	Biology	Chemistry	Earth Science	Physics
≥ 3.5							
$3.0 - < 3.5$		1					
$2.5 - < 3.0$	2	1	1			1	1
$2.0 - < 2.5$	1	1		1	3	1	1
$1.5 - < 2.0$	1	1	5	2	5	7	7
$1.0 - < 1.5$	8	10	17	8	9	22	17
$0.5 - < 1.0$	11	18	17	14	16	18	16
$0.0 - < 0.5$	24	22	13	20	13	19	18
$-0.5 - < 0.0$	17	22	17	27	15	6	9
$-1.0 - < -0.5$	10	7	8	6	14	7	11
$-1.5 - < -1.0$	4	1	5	5	7	3	3
$-2.0 - < -1.5$	3		1	1	1		
$-2.5 - < -2.0$	3						1
$-3.0 - < -2.5$					1		
$-3.5 - < -3.0$							
< -3.5							
Total	84	84	84	84	84	84	84

Scaling and Post-Equating Results

Table 8.D.55 New Conversions for ELA, Grades Two and Three

Grade 2								Grade 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	8.0009	150	41	0.4132	333.0281	333	0	N/A	-12.3991	150	41	0.2270	321.9260	322
1	-4.5094	82.6247	150	42	0.4858	336.6877	337	1	-4.9073	45.1721	150	42	0.3028	326.2612	326
2	-3.7953	120.6391	150	43	0.5599	340.5146	341	2	-4.1859	83.2375	150	43	0.3798	330.2400	330
3	-3.3683	142.9330	150	44	0.6354	344.3582	344	3	-3.7518	108.2346	150	44	0.4584	334.4116	334
4	-3.0588	158.2869	158	45	0.7128	348.1785	348	4	-3.4352	125.8758	150	45	0.5386	338.9065	339
5	-2.8135	170.7017	171	46	0.7922	351.9920	352	5	-3.1830	139.7287	150	46	0.6207	342.9340	343
6	-2.6088	181.2509	181	47	0.8739	356.2123	356	6	-2.9713	151.2089	151	47	0.7051	347.4698	347
7	-2.4319	190.1855	190	48	0.9583	360.4963	360	7	-2.7875	161.1192	161	48	0.7921	352.4088	352
8	-2.2753	197.8846	198	49	1.0458	364.8388	365	8	-2.6242	169.7282	170	49	0.8821	357.1662	357
9	-2.1342	204.9472	205	50	1.1368	369.5384	370	9	-2.4764	177.6001	178	50	0.9755	362.2579	362
10	-2.0052	211.3989	211	51	1.2319	374.2578	374	10	-2.3408	184.9258	185	51	1.0730	367.3320	367
11	-1.8858	217.4465	217	52	1.3318	379.0729	379	11	-2.2150	191.6952	192	52	1.1751	372.5038	373
12	-1.7745	223.1574	223	53	1.4373	384.3531	384	12	-2.0973	197.9256	198	53	1.2828	378.6439	379
13	-1.6698	228.3265	228	54	1.5495	390.1281	390	13	-1.9863	203.7944	204	54	1.3971	384.5385	385
14	-1.5706	233.3475	233	55	1.6696	396.2497	396	14	-1.8809	209.4219	209	55	1.5193	391.0926	391
15	-1.4761	238.0174	238	56	1.7996	402.6022	403	15	-1.7804	214.8081	215	56	1.6512	397.9614	398
16	-1.3857	242.7214	243	57	1.9416	409.7702	410	16	-1.6841	220.2004	220	57	1.7952	405.7555	406
17	-1.2988	247.0679	247	58	2.0993	417.6484	418	17	-1.5914	225.2051	225	58	1.9546	414.3622	414
18	-1.2149	251.1571	251	59	2.2772	426.8045	427	18	-1.5018	230.0508	230	59	2.1344	423.8234	424
19	-1.1337	255.3222	255	60	2.4831	437.1946	437	19	-1.4149	234.4179	234	60	2.3421	434.9971	435
20	-1.0548	259.2811	259	61	2.7296	449.8221	450	20	-1.3305	238.9207	239	61	2.5902	448.5284	449
21	-0.9778	263.0888	263	62	3.0404	466.0251	466	21	-1.2482	243.3552	243	62	2.9027	465.3870	465
22	-0.9026	267.0150	267	63	3.4687	489.1450	489	22	-1.1678	247.4876	247	63	3.3325	488.4605	488
23	-0.8289	270.7242	271	64	4.1843	524.9595	525	23	-1.0890	251.8836	252	64	4.0497	526.9417	527
24	-0.7566	274.3448	274	65	N/A	578.9992	600	24	-1.0116	255.8076	256	65	N/A	594.9791	600
25	-0.6854	277.9512	278					25	-0.9354	260.1301	260				
26	-0.6151	281.5390	282					26	-0.8604	263.9623	264				
27	-0.5457	285.0355	285					27	-0.7863	267.8616	268				
28	-0.4769	288.1844	288					28	-0.7129	272.0256	272				
29	-0.4087	291.7335	292					29	-0.6402	276.0731	276				
30	-0.3409	295.2679	295					30	-0.5680	279.7923	280				
31	-0.2733	298.7871	299					31	-0.4962	283.3192	283				
32	-0.2059	301.8063	302					32	-0.4247	287.2196	287				
33	-0.1386	305.2782	305					33	-0.3534	291.1263	291				
34	-0.0712	308.7500	309					34	-0.2820	295.0380	295				
35	-0.0036	312.2056	312					35	-0.2106	298.9531	299				
36	0.0644	315.6448	316					36	-0.1389	302.5552	303				
37	0.1327	319.0671	319					37	-0.0670	306.2585	306				
38	0.2016	322.4721	322					38	0.0055	310.1759	310				
39	0.2713	325.8596	326					39	0.0785	314.0917	314				
40	0.3417	329.4120	329					40	0.1523	318.0043	318				

Note: Performance-level cut scores are highlighted.

Table 8.D.56 New Conversion for ELA, Grade Four (with and without essay)

Grade 4								Grade 4 (without essay)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0014	150	41	0.0266	320.8862	321	0	N/A	0.0014	150	41	0.2926	333.7759	334
1	-5.0862	56.9412	150	42	0.0830	323.7959	324	1	-4.4933	89.4201	150	42	0.3527	336.8416	337
2	-4.3099	99.6130	150	43	0.1395	326.4268	326	2	-3.7770	127.9759	150	43	0.4132	339.8910	340
3	-3.8318	125.7046	150	44	0.1960	329.2740	329	3	-3.3482	150.5067	151	44	0.4742	342.9238	343
4	-3.4808	143.8707	150	45	0.2526	332.0930	332	4	-3.0372	166.4070	166	45	0.5356	345.9394	346
5	-3.2018	158.0490	158	46	0.3094	335.1298	335	5	-2.7907	178.9073	179	46	0.5976	349.0108	349
6	-2.9696	169.9128	170	47	0.3664	338.0538	338	6	-2.5850	189.3592	189	47	0.6604	352.4147	352
7	-2.7702	180.0266	180	48	0.4238	340.6811	341	7	-2.4075	198.1898	198	48	0.7240	355.4048	355
8	-2.5951	188.9276	189	49	0.4815	343.6795	344	8	-2.2505	205.9547	206	49	0.7885	358.5892	359
9	-2.4386	196.7468	197	50	0.5397	346.6621	347	9	-2.1093	213.2048	213	50	0.8541	362.0502	362
10	-2.2967	203.8235	204	51	0.5985	349.6287	350	10	-1.9803	219.5591	220	51	0.9209	365.2126	365
11	-2.1668	210.2744	210	52	0.6578	352.5793	353	11	-1.8614	225.5124	226	52	0.9891	368.6137	369
12	-2.0466	216.3206	216	53	0.7179	355.5156	356	12	-1.7506	231.1710	231	53	1.0588	372.4865	372
13	-1.9346	222.0570	222	54	0.7787	358.4404	358	13	-1.6467	236.4879	236	54	1.1302	375.9185	376
14	-1.8294	227.2122	227	55	0.8405	361.7098	362	14	-1.5485	241.2263	241	55	1.2035	379.5031	380
15	-1.7302	232.4610	232	56	0.9033	364.7249	365	15	-1.4554	245.8522	246	56	1.2791	383.4247	383
16	-1.6360	237.1830	237	57	0.9672	368.0782	368	16	-1.3665	250.4749	250	57	1.3572	387.3216	387
17	-1.5463	241.8102	242	58	1.0323	371.0765	371	17	-1.2813	254.6330	255	58	1.4380	391.2254	391
18	-1.4604	245.8960	246	59	1.0989	374.4564	374	18	-1.1994	259.0225	259	59	1.5220	395.4461	395
19	-1.3780	250.1069	250	60	1.1670	377.8451	378	19	-1.1204	263.0053	263	60	1.6097	399.8351	400
20	-1.2986	253.9960	254	61	1.2368	381.5241	382	20	-1.0439	266.4741	266	61	1.7017	404.6036	405
21	-1.2218	257.8018	258	62	1.3087	385.0445	385	21	-0.9697	270.4129	270	62	1.7984	409.4533	409
22	-1.1475	261.6206	262	63	1.3827	388.8031	389	22	-0.8975	274.0493	274	63	1.9009	414.7361	415
23	-1.0754	265.3874	265	64	1.4591	392.6492	393	23	-0.8270	277.3412	277	64	2.0102	420.0677	420
24	-1.0051	268.8331	269	65	1.5382	396.5560	397	24	-0.7582	281.1094	281	65	2.1276	425.8979	426
25	-0.9366	272.3347	272	66	1.6205	400.8252	401	25	-0.6907	284.3796	284	66	2.2548	432.3084	432
26	-0.8697	275.5684	276	67	1.7062	405.1382	405	26	-0.6246	287.6422	288	67	2.3943	439.5665	440
27	-0.8042	279.2589	279	68	1.7959	409.5900	410	27	-0.5595	290.8966	291	68	2.5493	447.3858	447
28	-0.7399	282.4910	282	69	1.8902	414.2961	414	28	-0.4954	294.1434	294	69	2.7248	456.1292	456
29	-0.6768	285.7012	286	70	1.9898	419.2328	419	29	-0.4322	297.3787	297	70	2.9284	466.1228	466
30	-0.6147	288.4442	288	71	2.0955	424.6006	425	30	-0.3698	300.5949	301	71	3.1725	478.5970	479
31	-0.5536	291.6199	292	72	2.2085	430.2015	430	31	-0.3081	303.6806	304	72	3.4811	494.5536	495
32	-0.4932	294.8007	295	73	2.3301	436.2649	436	32	-0.2469	306.5236	307	73	3.9072	516.4735	516
33	-0.4336	297.6535	298	74	2.4622	443.1813	443	33	-0.1861	309.7161	310	74	4.6205	551.5540	552
34	-0.3746	300.6986	301	75	2.6072	450.7621	451	34	-0.1258	312.8798	313	75	N/A	607.4990	600
35	-0.3162	303.7387	304	76	2.7686	459.0188	459	35	-0.0658	315.8856	316				
36	-0.2583	306.5208	307	77	2.9513	468.8205	469	36	-0.0059	318.7185	319				
37	-0.2008	309.3462	309	78	3.1633	480.7749	481	37	0.0537	321.8588	322				
38	-0.1436	312.3119	312	79	3.4170	495.7942	496	38	0.1133	324.9069	325				
39	-0.0867	315.0221	315	80	3.7365	516.0658	516	39	0.1730	327.5974	328				
40	-0.0300	318.0989	318	81	4.1753	545.1113	545	40	0.2327	330.6943	331				
				82	4.9025	590.5218	591								
				83	N/A	643.4993	600								

Note: Performance-level cut scores are highlighted.

Table 8.D.57 New Conversions for ELA, Grades Five and Six

Grade 5								Grade 6							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	25.0010	150	41	-0.0413	318.1808	318	0	N/A	0.0011	150	41	0.1718	325.5061	326
1	-4.9845	67.1044	150	42	0.0205	321.0020	321	1	-4.6302	77.3830	150	42	0.2332	328.5523	329
2	-4.2500	102.6276	150	43	0.0827	324.0494	324	2	-3.9155	116.4635	150	43	0.2950	332.0441	332
3	-3.8067	128.5229	150	44	0.1454	327.2499	327	3	-3.4881	138.8783	150	44	0.3573	335.0266	335
4	-3.4837	144.2395	150	45	0.2085	330.4596	330	4	-3.1782	154.5881	155	45	0.4201	338.2858	338
5	-3.2274	157.5862	158	46	0.2723	333.6790	334	5	-2.9327	167.4787	167	46	0.4835	341.4240	341
6	-3.0133	168.7384	169	47	0.3367	336.9076	337	6	-2.7278	177.8182	178	47	0.5476	344.8023	345
7	-2.8287	178.1141	178	48	0.4020	340.1448	340	7	-2.5509	186.9784	187	48	0.6126	347.8181	348
8	-2.6656	186.3214	186	49	0.4682	343.3901	343	8	-2.3945	194.8277	195	49	0.6785	351.2094	351
9	-2.5189	193.7570	194	50	0.5356	346.6691	347	9	-2.2536	201.9163	202	50	0.7455	354.6327	355
10	-2.3851	200.4850	200	51	0.6041	350.4047	350	10	-2.1249	208.4793	208	51	0.8138	358.2624	358
11	-2.2618	206.6749	207	52	0.6740	353.7329	354	11	-2.0061	214.5655	215	52	0.8833	361.8602	362
12	-2.1471	212.6557	213	53	0.7454	357.3173	357	12	-1.8953	220.2544	220	53	0.9545	365.5622	366
13	-2.0396	217.9460	218	54	0.8185	360.9204	361	13	-1.7913	225.6360	226	54	1.0273	369.0463	369
14	-1.9382	222.9926	223	55	0.8936	364.8149	365	14	-1.6931	230.5873	231	55	1.1021	372.7258	373
15	-1.8419	227.8711	228	56	0.9709	368.7644	369	15	-1.5997	235.4673	235	56	1.1791	376.8723	377
16	-1.7501	232.5054	233	57	1.0506	372.7197	373	16	-1.5105	240.0199	240	57	1.2585	380.8349	381
17	-1.6622	236.8269	237	58	1.1332	376.6804	377	17	-1.4249	244.2035	244	58	1.3409	385.0259	385
18	-1.5778	240.9687	241	59	1.2190	381.0876	381	18	-1.3426	248.3668	248	59	1.4263	389.5556	390
19	-1.4963	245.3241	245	60	1.3084	385.7136	386	19	-1.2631	252.5098	253	60	1.5155	393.9666	394
20	-1.4174	249.1738	249	61	1.4021	390.3470	390	20	-1.1860	256.4240	256	61	1.6088	398.5923	399
21	-1.3409	252.8770	253	62	1.5006	395.0871	395	21	-1.1111	260.1512	260	62	1.7070	403.6876	404
22	-1.2665	256.5260	257	63	1.6048	400.2080	400	22	-1.0382	263.9928	264	63	1.8109	409.1410	409
23	-1.1939	260.1090	260	64	1.7158	405.7946	406		-0.9671	267.6486	268	64	1.9216	414.7490	415
24	-1.1230	263.7213	264	65	1.8349	411.7504	412	24	-0.8974	271.1110	271	65	2.0403	420.7283	421
25	-1.0536	267.2609	267	66	1.9639	418.2577	418	25	-0.8292	274.5882	275	66	2.1689	427.4073	427
26	-0.9854	270.6052	271	67	2.1051	425.3907	425	26	-0.7622	278.1923	278	67	2.3097	434.6316	435
27	-0.9184	274.0763	274	68	2.2619	433.3155	433	27	-0.6962	281.6118	282	68	2.4661	442.5439	443
28	-0.8525	277.2110	277	69	2.4392	441.9193	442	28	-0.6312	284.9069	285	69	2.6430	451.6083	452
29	-0.7874	280.5467	281	70	2.6444	452.3138	452	29	-0.5670	288.1824	288	70	2.8477	462.2086	462
30	-0.7231	283.9617	284	71	2.8902	464.7610	465	30	-0.5036	291.4082	291	71	3.0932	474.9185	475
31	-0.6595	287.0728	287	72	3.2006	480.3771	480	31	-0.4408	294.4578	294	72	3.4030	491.4409	491
32	-0.5965	290.1260	290	73	3.6284	502.9850	503	32	-0.3785	297.3892	297	73	3.8302	515.1166	515
33	-0.5340	293.1889	293	74	4.3437	541.0195	541		-0.3167	300.5908	301	74	4.5450	550.4978	550
34	-0.4719	296.2660	296	75	N/A	611.4990	600	34	-0.2552	303.7735	304	75	N/A	602.2691	600
35	-0.4101	299.3573	299					35	-0.1940	306.9370	307				
36	-0.3485	302.4625	302					36	-0.1330	310.0817	310				
37	-0.2871	305.5812	306					37	-0.0721	313.2050	313				
38	-0.2258	308.7127	309					38	-0.0113	316.3106	316				
39	-0.1644	311.8568	312					39	0.0496	319.3959	319				
40	-0.1030	315.0129	315					40	0.1106	322.4610	322				

Note: Performance-level cut scores are highlighted.

Table 8.D.58 New Conversions for ELA, Grade Seven (with and without essay)

Grade 7								Grade 7 (without essay)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	-40.1188	150	41	-0.0464	298.9801	299	0	N/A	0.0006	150	41	0.3148	317.0763	317
1	-4.6158	38.2372	150	42	0.0122	302.1667	302	1	-4.5039	43.7005	150	42	0.3773	320.5646	321
2	-3.9306	78.5721	150	43	0.0708	305.5420	306	2	-3.7895	85.0430	150	43	0.4400	324.3560	324
3	-3.5312	101.8857	150	44	0.1294	308.9776	309	3	-3.3623	109.7695	150	44	0.5033	327.8525	328
4	-3.2472	118.0637	150	45	0.1881	312.4026	312	4	-3.0527	127.4037	150	45	0.5671	331.3934	331
5	-3.0252	130.9377	150	46	0.2470	315.8167	316	5	-2.8073	141.2302	150	46	0.6315	335.1744	335
6	-2.8413	141.2684	150	47	0.3060	319.2193	319	6	-2.6025	152.7589	153	47	0.6967	338.7738	339
7	-2.6831	150.0443	150	48	0.3654	322.6103	323	7	-2.4257	162.8320	163	48	0.7627	342.4324	342
8	-2.5429	157.9198	158	49	0.4250	325.9894	326	8	-2.2693	171.6637	172	49	0.8297	346.2195	346
9	-2.4159	165.3359	165	50	0.4851	329.3566	329	9	-2.1284	179.6233	180	50	0.8978	350.1320	350
10	-2.2991	171.8187	172	51	0.5456	332.7116	333	10	-1.9997	186.8424	187	51	0.9671	354.0178	354
11	-2.1902	177.8523	178	52	0.6067	336.0543	336	11	-1.8807	193.5681	194	52	1.0378	357.8742	358
12	-2.0875	183.6380	184	53	0.6685	339.4006	339	12	-1.7699	199.9678	200	53	1.1101	361.7826	362
13	-1.9900	189.3991	189	54	0.7309	343.1756	343	13	-1.6657	205.7389	206	54	1.1841	365.9938	366
14	-1.8968	194.4964	194	55	0.7943	346.6336	347	14	-1.5672	211.2240	211	55	1.2601	370.3851	370
15	-1.8072	199.3753	199	56	0.8585	350.4389	350	15	-1.4736	216.5488	217	56	1.3383	374.7425	375
16	-1.7207	204.2216	204	57	0.9237	353.9496	354	16	-1.3841	221.6289	222	57	1.4189	379.2740	379
17	-1.6370	209.0236	209	58	0.9901	357.8701	358	17	-1.2982	226.4189	226	58	1.5024	384.0714	384
18	-1.5557	213.5514	214	59	1.0578	361.7735	362	18	-1.2155	231.2920	231	59	1.5892	388.9130	389
19	-1.4767	218.1345	218	60	1.1269	365.6602	366	19	-1.1356	235.6908	236	60	1.6796	394.0079	394
20	-1.3997	222.3605	222	61	1.1976	369.5296	370	20	-1.0581	240.0747	240	61	1.7742	399.3018	399
21	-1.3245	226.6571	227	62	1.2701	373.5822	374	21	-0.9828	244.3656	244	62	1.8737	404.9254	405
22	-1.2510	230.8497	231	63	1.3447	377.7439	378	22	-0.9094	248.2563	248	63	1.9789	410.6998	411
23	-1.1791	234.9528	235	64	1.4214	381.8833	382	23	-0.8377	252.2015	252	64	2.0909	416.7990	417
24	-1.1086	238.9347	239	65	1.5007	386.3113	386	24	-0.7675	256.3791	256	65	2.2111	423.7611	424
25	-1.0395	242.7152	243	66	1.5828	390.7202	391	25	-0.6987	260.2167	260	66	2.3412	431.0093	431
26	-0.9716	246.6787	247	67	1.6682	395.2173	395	26	-0.6310	264.1642	264	67	2.4834	438.9023	439
27	-0.9049	250.4662	250	68	1.7573	399.8881	400	27	-0.5644	267.7729	268	68	2.6413	447.7370	448
28	-0.8392	254.1978	254	69	1.8506	404.7264	405	28	-0.4988	271.3679	271	69	2.8196	457.7945	458
29	-0.7745	257.7114	258	70	1.9488	409.8436	410	29	-0.4339	274.9535	275	70	3.0260	469.5002	470
30	-0.7106	261.2300	261	71	2.0528	415.0998	415	30	-0.3698	278.5287	279	71	3.2731	483.7134	484
31	-0.6476	264.7512	265	72	2.1635	420.8216	421	31	-0.3062	282.0941	282	72	3.5846	501.7728	502
32	-0.5853	268.2736	268	73	2.2824	426.8913	427	32	-0.2432	285.6490	286	73	4.0137	526.9643	527
33	-0.5237	271.7937	272	74	2.4112	433.3514	433	33	-0.1806	289.1930	289	74	4.7298	565.8094	566
34	-0.4626	275.3111	275	75	2.5522	440.8219	441	34	-0.1183	292.7254	293	75	N/A	625.1589	600
35	-0.4021	278.8247	279	76	2.7088	448.7785	449	35	-0.0563	296.2454	296				
36	-0.3420	282.3324	282	77	2.8859	458.2614	458	36	0.0056	299.7527	300				
37	-0.2824	285.6008	286	78	3.0911	469.7875	470	37	0.0673	303.2465	303				
38	-0.2230	288.8375	289	79	3.3369	483.8639	484	38	0.1290	306.7265	307				
39	-0.1640	292.2527	292	80	3.6470	501.4616	501	39	0.1908	310.1918	310				
40	-0.1051	295.7294	296	81	4.0749	526.5303	527	40	0.2527	313.6420	314				
				82	4.7895	567.2663	567								
				83	N/A	628.5192	600								

Note: Performance-level cut scores are highlighted.

Table 8.D.59 New Conversions for ELA, Grades Eight and Nine

Grade 8								Grade 9							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	41	0.1235	323.8542	324	0	N/A	0.0007	150	41	0.1613	327.1037	327
1	-4.6379	53.4062	150	42	0.1841	327.5047	328	1	-4.5703	55.4137	150	42	0.2215	330.4793	330
2	-3.9241	96.1726	150	43	0.2451	330.7846	331	2	-3.8575	98.7697	150	43	0.2822	333.8412	334
3	-3.4977	120.6682	150	44	0.3065	334.1758	334	3	-3.4320	122.8498	150	44	0.3433	337.1891	337
4	-3.1888	138.0824	150	45	0.3685	337.7815	338	4	-3.1241	140.9443	150	45	0.4050	340.7083	341
5	-2.9443	151.8838	152	46	0.4312	341.1170	341	5	-2.8806	154.6975	155	46	0.4674	344.3208	344
6	-2.7404	163.1119	163	47	0.4946	344.5597	345	6	-2.6777	166.0185	166	47	0.5306	347.7157	348
7	-2.5645	173.1267	173	48	0.5589	348.3473	348	7	-2.5027	176.2233	176	48	0.5947	351.3814	351
8	-2.4091	181.8108	182	49	0.6242	351.9232	352	8	-2.3483	184.7512	185	49	0.6597	355.2498	355
9	-2.2692	189.6665	190	50	0.6906	355.4986	355	9	-2.2093	192.6440	193	50	0.7259	358.7623	359
10	-2.1416	196.9054	197	51	0.7583	359.4087	359	10	-2.0827	199.7634	200	51	0.7934	362.5081	363
11	-2.0238	203.3441	203	52	0.8273	363.5659	364	11	-1.9658	206.7276	207	52	0.8623	366.3806	366
12	-1.9141	209.6698	210	53	0.8980	367.4058	367	12	-1.8570	212.6570	213	53	0.9328	370.4724	370
13	-1.8112	215.3045	215	54	0.9704	371.3264	371	13	-1.7550	218.4620	218	54	1.0052	374.5741	375
14	-1.7140	220.9983	221	55	1.0449	375.6695	376	14	-1.6587	223.8821	224	55	1.0795	378.7827	379
15	-1.6216	226.1107	226	56	1.1216	379.9895	380	15	-1.5672	229.1749	229	56	1.1561	383.1579	383
16	-1.5335	230.9343	231	57	1.2008	384.3468	384	16	-1.4800	234.2107	234	57	1.2353	387.5484	388
17	-1.4490	235.7778	236	58	1.2829	388.9684	389	17	-1.3964	238.8119	239	58	1.3174	392.3877	392
18	-1.3677	240.2012	240	59	1.3683	393.8247	394	18	-1.3159	243.2802	243	59	1.4027	397.3392	397
19	-1.2893	244.6015	245	60	1.4575	398.7408	399	19	-1.2383	247.7272	248	60	1.4918	402.3460	402
20	-1.2133	248.9160	249	61	1.5509	403.9845	404	20	-1.1631	252.1540	252	61	1.5852	407.7499	408
21	-1.1395	253.0175	253	62	1.6493	409.4482	409	21	-1.0901	256.1580	256	62	1.6836	413.2055	413
22	-1.0677	256.9313	257	63	1.7535	415.3810	415	22	-1.0190	260.2241	260	63	1.7878	418.9416	419
23	-0.9976	260.8589	261	64	1.8645	421.7702	422	23	-0.9497	264.0205	264	64	1.8988	425.3752	425
24	-0.9290	264.8850	265	65	1.9838	428.2923	428	24	-0.8818	268.0137	268	65	2.0181	432.0680	432
25	-0.8618	268.7142	269	66	2.1131	435.4452	435	25	-0.8154	271.8145	272	66	2.1474	439.4616	439
26	-0.7958	272.4539	272	67	2.2547	443.5792	444	26	-0.7501	275.4187	275	67	2.2890	447.7033	448
27	-0.7309	275.9773	276	68	2.4121	452.3612	452	27	-0.6858	278.9985	279	68	2.4463	456.6885	457
28	-0.6669	279.4846	279	69	2.5901	462.3165	462	28	-0.6225	282.5650	283	69	2.6243	466.8714	467
29	-0.6038	282.9742	283	70	2.7962	473.9559	474	29	-0.5600	286.1161	286	70	2.8303	478.7409	479
30	-0.5414	286.4479	286	71	3.0433	487.9816	488	30	-0.4982	289.6532	290	71	3.0772	492.9418	493
31	-0.4796	289.9057	290	72	3.3550	505.9327	506	31	-0.4370	293.1768	293	72	3.3886	510.8745	511
32	-0.4183	293.3480	293	73	3.7843	530.5317	531	32	-0.3763	296.6868	297	73	3.8176	536.2377	536
33	-0.3575	296.7747	297	74	4.5016	570.0162	570	33	-0.3160	300.1157	300	74	4.5345	576.3713	576
34	-0.2970	300.1865	300	75	N/A	633.1989	600	34	-0.2561	303.2571	303	75	N/A	639.4489	600
35	-0.2368	303.5825	304					35	-0.1964	306.5662	307				
36	-0.1768	306.9638	307					36	-0.1368	310.0225	310				
37	-0.1168	310.3303	310					37	-0.0773	313.4648	313				
38	-0.0569	313.6821	314					38	-0.0179	316.8946	317				
39	0.0031	317.0192	317					39	0.0417	320.3115	320				
40	0.0632	320.3578	320					40	0.1014	323.7144	324				

Note: Performance-level cut scores are highlighted.

Table 8.D.60 New Conversions for ELA, Grades Ten and Eleven

Grade 10								Grade 11							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.4011	150	41	-0.0640	313.1247	313	0	N/A	0.0003	150	41	-0.0769	307.5244	308
1	-4.8180	59.4814	150	42	-0.0045	316.2593	316	1	-4.7945	24.8304	150	42	-0.0174	311.0342	311
2	-4.1037	98.5585	150	43	0.0553	319.4190	319	2	-4.0820	63.1265	150	43	0.0425	314.8732	315
3	-3.6768	123.8881	150	44	0.1156	322.5764	323	3	-3.6569	90.8686	150	44	0.1027	318.6273	319
4	-3.3674	141.0547	150	45	0.1764	325.7299	326	4	-3.3493	109.9578	150	45	0.1636	322.1931	322
5	-3.1224	153.9847	154	46	0.2377	328.8801	329	5	-3.1060	124.7895	150	46	0.2250	325.7206	326
6	-2.9182	164.4652	164	47	0.2998	332.0776	332	6	-2.9033	137.3738	150	47	0.2872	329.4307	329
7	-2.7419	173.7131	174	48	0.3626	335.4716	335	7	-2.7287	148.2971	150	48	0.3503	333.3101	333
8	-2.5861	181.9780	182	49	0.4264	338.8305	339	8	-2.5744	157.3298	157	49	0.4143	337.2766	337
9	-2.4459	189.3544	189	50	0.4913	342.1656	342	9	-2.4357	165.8731	166	50	0.4794	341.0641	341
10	-2.3180	195.9530	196	51	0.5573	345.5594	346	10	-2.3092	173.3555	173	51	0.5457	345.1558	345
11	-2.2000	202.1171	202	52	0.6247	349.0853	349	11	-2.1926	180.3576	180	52	0.6135	348.9258	349
12	-2.0901	207.8648	208	53	0.6936	352.7687	353	12	-2.0840	186.8684	187	53	0.6828	353.1353	353
13	-1.9870	213.2950	213	54	0.7642	356.1459	356	13	-1.9822	193.2701	193	54	0.7538	357.4456	357
14	-1.8897	218.4326	218	55	0.8367	359.9477	360	14	-1.8860	198.9342	199	55	0.8268	361.7697	362
15	-1.7972	223.1516	223	56	0.9114	364.0283	364	15	-1.7948	204.2232	204	56	0.9021	366.5576	367
16	-1.7090	227.6118	228	57	0.9885	367.7969	368	16	-1.7077	209.6195	210	57	0.9798	371.1258	371
17	-1.6245	232.0259	232	58	1.0685	371.9366	372	17	-1.6243	214.7460	215	58	1.0604	376.0488	376
18	-1.5433	236.4297	236	59	1.1516	376.2904	376	18	-1.5441	219.3530	219	59	1.1443	380.7084	381
19	-1.4649	240.6991	241	60	1.2383	380.7854	381	19	-1.4666	224.2584	224	60	1.2318	386.1164	386
20	-1.3890	244.5046	245	61	1.3293	385.7022	386	20	-1.3917	228.8389	229	61	1.3236	391.7164	392
21	-1.3153	248.3150	248	62	1.4251	390.6831	391	21	-1.3189	233.0703	233	62	1.4204	397.4396	397
22	-1.2436	252.1298	252	63	1.5266	396.0223	396	22	-1.2481	237.2982	237	63	1.5229	403.6880	404
23	-1.1738	255.7440	256	64	1.6348	401.6002	402	23	-1.1790	241.5212	242	64	1.6323	410.3644	410
24	-1.1055	259.3152	259	65	1.7512	407.3695	407	24	-1.1115	245.7409	246	65	1.7498	417.1684	417
25	-1.0385	262.6785	263	66	1.8773	414.1360	414	25	-1.0453	249.5877	250	66	1.8773	424.7304	425
26	-0.9729	266.0293	266	67	2.0157	421.2653	421	26	-0.9803	253.5087	254	67	2.0172	433.3582	433
27	-0.9084	269.4762	269	68	2.1696	429.4035	429	27	-0.9164	257.2763	257	68	2.1728	442.7651	443
28	-0.8448	272.7975	273	69	2.3440	438.6258	439	28	-0.8535	260.9672	261	69	2.3489	453.3571	453
29	-0.7822	275.9863	276	70	2.5463	449.1640	449	29	-0.7914	264.7778	265	70	2.5533	465.8142	466
30	-0.7203	279.1748	279	71	2.7892	461.8520	462	30	-0.7300	268.4283	268	71	2.7984	480.2933	480
31	-0.6590	282.3628	282	72	3.0967	478.2951	478	31	-0.6692	272.1290	272	72	3.1084	499.6365	500
32	-0.5983	285.5496	286	73	3.5216	501.3570	501	32	-0.6090	276.0028	276	73	3.5361	526.6340	527
33	-0.5382	288.7345	289	74	4.2339	539.9300	540	33	-0.5492	279.5034	280	74	4.2516	572.2128	572
34	-0.4784	291.9179	292	75	N/A	608.7990	600	34	-0.4898	283.0037	283	75	N/A	661.7838	600
35	-0.4189	294.9698	295					35	-0.4306	286.5040	287				
36	-0.3596	297.8308	298					36	-0.3716	290.0047	290				
37	-0.3005	300.9357	301					37	-0.3128	293.5055	294				
38	-0.2415	304.1101	304					38	-0.2539	297.0075	297				
39	-0.1824	307.2819	307					39	-0.1950	300.5110	301				
40	-0.1233	310.3169	310					40	-0.1361	304.0165	304				

Note: Performance-level cut scores are highlighted.

Table 8.D.61 New Conversions for History–Social Science, Grade Eight and World History

Grade 8								World History							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	41	0.0881	320.0468	320	0	N/A	0.0003	150	41	0.6168	351.4586	351
1	–4.6548	32.9849	150	42	0.1469	323.7357	324	1	–4.4472	35.9331	150	42	0.6996	356.9186	357
2	–3.9381	63.4395	150	43	0.2061	327.4421	327	2	–3.7302	69.5301	150	43	0.7850	362.2819	362
3	–3.5093	90.4929	150	44	0.2657	331.1658	331	3	–3.3006	100.3960	150	44	0.8733	368.0380	368
4	–3.1984	111.8936	150	45	0.3258	334.9062	335	4	–2.9885	119.4643	150	45	0.9650	374.0091	374
5	–2.9523	127.6692	150	46	0.3865	338.6880	339	5	–2.7406	135.7945	150	46	1.0606	380.0414	380
6	–2.7471	141.0811	150	47	0.4480	342.9298	343	6	–2.5334	149.4997	150	47	1.1610	386.4217	386
7	–2.5702	152.7001	153	48	0.5102	346.8538	347	7	–2.3541	160.7070	161	48	1.2669	393.3473	393
8	–2.4139	162.8983	163	49	0.5734	350.6869	351	8	–2.1952	170.9665	171	49	1.3793	400.3418	400
9	–2.2735	171.3695	171	50	0.6377	354.7523	355	9	–2.0518	180.4352	180	50	1.4997	408.1627	408
10	–2.1455	179.3543	179	51	0.7032	358.9397	359	10	–1.9205	189.0435	189	51	1.6298	416.8814	417
11	–2.0275	186.8890	187	52	0.7700	362.9727	363	11	–1.7989	196.5038	197	52	1.7719	425.6843	426
12	–1.9178	193.9813	194	53	0.8383	367.3193	367	12	–1.6853	203.6438	204	53	1.9295	435.6476	436
13	–1.8149	200.6097	201	54	0.9084	371.7523	372	13	–1.5784	210.5106	211	54	2.1075	447.1197	447
14	–1.7180	206.6771	207	55	0.9804	376.2009	376	14	–1.4770	217.0815	217	55	2.3134	460.5478	461
15	–1.6260	212.4621	212	56	1.0546	380.6644	381	15	–1.3803	223.3340	223	56	2.5598	476.4605	476
16	–1.5383	217.9797	218	57	1.1312	385.5125	386	16	–1.2877	229.2103	229	57	2.8706	496.0367	496
17	–1.4543	223.2385	223	58	1.2106	390.5772	391	17	–1.1986	235.1672	235	58	3.2989	524.5434	525
18	–1.3737	228.3100	228	59	1.2933	395.8687	396	18	–1.1124	240.7881	241	59	4.0146	572.9727	573
19	–1.2959	233.3050	233	60	1.3795	401.5201	402	19	–1.0289	246.0170	246	60	N/A	666.7195	600
20	–1.2207	238.2246	238	61	1.4700	407.1874	407	20	–0.9476	251.0858	251				
21	–1.1478	242.8165	243	62	1.5653	412.9799	413	21	–0.8682	256.2195	256				
22	–1.0769	247.0708	247	63	1.6663	419.1882	419	22	–0.7905	261.2966	261				
23	–1.0078	251.3050	251	64	1.7740	426.0875	426	23	–0.7142	266.0413	266				
24	–0.9402	255.5703	256	65	1.8898	433.4611	433	24	–0.6392	271.3314	271				
25	–0.8741	259.7398	260	66	2.0155	441.3115	441		–0.5651	275.5256	276				
26	–0.8093	263.7217	264	67	2.1534	450.1529	450	26	–0.4919	280.3544	280				
27	–0.7455	267.5931	268	68	2.3068	459.7579	460	27	–0.4194	285.2629	285				
28	–0.6828	271.4911	271	69	2.4806	470.6955	471	28	–0.3473	289.6903	290				
29	–0.6209	275.4130	275	70	2.6824	483.5928	484	29	–0.2756	294.0860	294				
30	–0.5598	279.3602	279	71	2.9249	499.0587	499	30	–0.2041	299.0541	299				
31	–0.4994	283.3152	283	72	3.2316	518.5128	519		–0.1326	303.6693	304				
32	–0.4395	287.0594	287	73	3.6558	547.5005	548	32	–0.0610	308.2170	308				
33	–0.3801	290.7266	291	74	4.3675	594.0708	594	33	0.0109	312.8153	313				
34	–0.3211	294.7142	295	75	N/A	661.2691	600	34	0.0832	317.4653	317				
35	–0.2624	298.2989	298					35	0.1562	322.1663	322				
36	–0.2039	301.8760	302					36	0.2298	326.9186	327				
37	–0.1455	305.4726	305					37	0.3045	331.7224	332				
38	–0.0872	309.0883	309					38	0.3802	336.5777	337				
39	–0.0289	312.7228	313					39	0.4574	341.4844	341				
40	0.0295	316.3747	316					40	0.5362	346.4461	346				

Note: Performance-level cut scores are highlighted.

Table 8.D.62 New Conversion for History–Social Science, Grade Eleven

Grade 11							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0003	150	41	0.5540	357.2733	357
1	–4.5671	36.4869	150	42	0.6386	362.4921	362
2	–3.8473	71.6613	150	43	0.7258	368.1111	368
3	–3.4152	102.2435	150	44	0.8160	373.9126	374
4	–3.1008	123.6283	150	45	0.9096	379.8685	380
5	–2.8511	139.0155	150	46	1.0072	386.2746	386
6	–2.6421	152.4053	152	47	1.1095	392.5013	393
7	–2.4613	164.1746	164	48	1.2173	399.6105	400
8	–2.3009	174.6463	175	49	1.3317	407.0974	407
9	–2.1561	183.9025	184	50	1.4541	414.6225	415
10	–2.0236	192.3350	192	51	1.5862	423.0467	423
11	–1.9008	200.0493	200	52	1.7303	432.3949	432
12	–1.7861	207.4918	207	53	1.8899	442.6668	443
13	–1.6780	214.7406	215	54	2.0699	454.3543	454
14	–1.5756	221.2210	221	55	2.2777	467.2630	467
15	–1.4779	227.2662	227	56	2.5260	483.6280	484
16	–1.3842	233.3783	233	57	2.8385	503.7995	504
17	–1.2940	239.1290	239	58	3.2687	532.2338	532
18	–1.2068	244.8091	245	59	3.9860	579.6901	580
19	–1.1222	250.2595	250	60	N/A	667.4795	600
20	–1.0398	255.4833	255				
21	–0.9594	260.5857	261				
22	–0.8805	265.4608	265				
23	–0.8031	270.7642	271				
24	–0.7269	275.5534	276				
25	–0.6517	279.8656	280				
26	–0.5773	284.8123	285				
27	–0.5035	289.8096	290				
28	–0.4302	294.2353	294				
29	–0.3571	298.6964	299				
30	–0.2842	303.8245	304				
31	–0.2114	308.3904	308				
32	–0.1383	312.9828	313				
33	–0.0650	317.6185	318				
34	0.0089	322.2969	322				
35	0.0833	327.0183	327				
36	0.1586	331.7815	332				
37	0.2348	336.5862	337				
38	0.3122	341.6649	342				
39	0.3911	346.9572	347				
40	0.4716	351.8843	352				

Note: Performance-level cut scores are highlighted.

Table 8.D.63 New Conversions for Mathematics, Grades Two and Three

Grade 2								Grade 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	41	-0.2903	312.3664	312	0	N/A	0.0000	150	41	-0.1391	313.9386	314
1	-5.4285	1.5827	150	42	-0.2101	317.5328	318	1	-5.2726	8.0148	150	42	-0.0610	318.6084	319
2	-4.7102	36.7691	150	43	-0.1283	322.7123	323	2	-4.5511	49.5229	150	43	0.0185	323.4906	323
3	-4.2791	63.8079	150	44	-0.0449	327.8948	328	3	-4.1172	76.2254	150	44	0.0996	328.4798	328
4	-3.9655	83.5670	150	45	0.0404	333.0784	333	4	-3.8011	95.5307	150	45	0.1826	333.4683	333
5	-3.7161	99.4508	150	46	0.1279	338.3199	338	5	-3.5496	110.8569	150	46	0.2676	338.4808	338
6	-3.5071	112.3341	150	47	0.2180	344.0879	344	6	-3.3388	123.5172	150	47	0.3550	343.4977	343
7	-3.3260	123.8576	150	48	0.3108	349.9059	350	7	-3.1560	134.5211	150	48	0.4451	348.8917	349
8	-3.1652	133.6042	150	49	0.4069	355.8816	356	8	-2.9938	144.1124	150	49	0.5383	354.5416	355
9	-3.0197	142.6536	150	50	0.5067	362.2372	362	9	-2.8472	152.9515	153	50	0.6351	360.2032	360
10	-2.8863	151.1049	151	51	0.6107	368.6564	369	10	-2.7128	160.9445	161	51	0.7360	366.2354	366
11	-2.7626	158.4469	158	52	0.7197	375.3011	375	11	-2.5883	168.1838	168	52	0.8417	372.7199	373
12	-2.6467	165.6240	166	53	0.8344	382.4668	382	12	-2.4718	175.2872	175	53	0.9530	379.3588	379
13	-2.5374	172.7740	173	54	0.9560	390.2354	390	13	-2.3620	181.9957	182	54	1.0710	386.3838	386
14	-2.4336	179.0717	179	55	1.0857	398.3373	398	14	-2.2578	187.9829	188	55	1.1970	394.0697	394
15	-2.3345	185.0569	185	56	1.2253	406.9289	407	15	-2.1584	193.8444	194	56	1.3328	402.2424	402
16	-2.2394	191.0495	191	57	1.3774	416.4588	416	16	-2.0631	199.6886	200	57	1.4807	410.9908	411
17	-2.1476	197.0147	197	58	1.5451	426.8642	427	17	-1.9714	205.3946	205	58	1.6441	420.6701	421
18	-2.0589	202.6556	203	59	1.7333	438.8109	439	18	-1.8827	210.5771	211	59	1.8279	431.6579	432
19	-1.9727	207.8077	208	60	1.9496	452.6850	453	19	-1.7966	215.3589	215	60	2.0396	444.3882	444
20	-1.8886	212.9012	213	61	2.2068	469.4670	469	20	-1.7129	220.4587	220	61	2.2918	459.8784	460
21	-1.8066	218.0708	218	62	2.5283	490.4652	490	21	-1.6312	225.1819	225	62	2.6083	479.0971	479
22	-1.7261	222.9344	223	63	2.9676	520.2417	520	22	-1.5512	230.3101	230	63	3.0423	505.6731	506
23	-1.6471	227.8147	228	64	3.6941	565.0825	565	23	-1.4727	234.9798	235	64	3.7631	550.1800	550
24	-1.5694	232.7088	233	65	N/A	632.1190	600	24	-1.3956	239.5926	240	65	N/A	633.7990	600
25	-1.4926	237.6207	238					25	-1.3195	243.6971	244				
26	-1.4168	242.5504	243					26	-1.2444	248.2140	248				
27	-1.3416	247.2070	247					27	-1.1701	252.8128	253				
28	-1.2670	251.8633	252					28	-1.0965	256.9792	257				
29	-1.1928	256.5162	257					29	-1.0233	261.4355	261				
30	-1.1189	260.9201	261					30	-0.9505	265.6313	266				
31	-1.0452	265.3133	265					31	-0.8780	270.0519	270				
32	-0.9716	270.0660	270					32	-0.8055	274.2882	274				
33	-0.8978	274.7336	275					33	-0.7331	278.6798	279				
34	-0.8239	279.2068	279					34	-0.6606	282.9515	283				
35	-0.7496	284.0408	284					35	-0.5878	287.3253	287				
36	-0.6750	288.7229	289					36	-0.5147	291.6292	292				
37	-0.5997	293.2283	293					37	-0.4411	295.9919	296				
38	-0.5237	297.7203	298					38	-0.3669	300.5798	301				
39	-0.4470	302.6718	303					39	-0.2919	304.9833	305				
40	-0.3692	307.3424	307					40	-0.2160	309.3481	309				

Note: Performance-level cut scores are highlighted.

Table 8.D.64 New Conversions for Mathematics, Grades Four and Five

Grade 4								Grade 5							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	2.3408	150	41	-0.0696	320.9461	321	0	N/A	0.0000	150	41	0.4325	348.7623	349
1	-5.1114	63.1062	150	42	0.0075	324.6618	325	1	-4.7860	6.8066	150	42	0.5100	354.2703	354
2	-4.3953	99.1602	150	43	0.0862	328.5300	329	2	-4.0558	43.7716	150	43	0.5890	359.6363	360
3	-3.9664	121.3772	150	44	0.1665	332.7111	333	3	-3.6140	75.4098	150	44	0.6696	364.6933	365
4	-3.6550	137.7559	150	45	0.2488	336.9130	337	4	-3.2907	98.0340	150	45	0.7520	370.2506	370
5	-3.4076	150.5685	151	46	0.3333	341.1107	341	5	-3.0326	115.9161	150	46	0.8365	375.8420	376
6	-3.2008	160.8745	161	47	0.4204	345.5378	346	6	-2.8158	130.7763	150	47	0.9234	381.6922	382
7	-3.0217	170.0166	170	48	0.5104	350.2405	350	7	-2.6276	143.6271	150	48	1.0131	387.9768	388
8	-2.8630	178.1948	178	49	0.6037	354.9428	355	8	-2.4604	154.9957	155	49	1.1060	394.2695	394
9	-2.7196	185.7957	186	50	0.7007	359.6413	360	9	-2.3093	165.1780	165	50	1.2026	400.6126	401
10	-2.5882	192.5088	193	51	0.8022	364.8468	365	10	-2.1707	174.4582	174	51	1.3034	407.2861	407
11	-2.4665	198.6435	199	52	0.9088	370.2842	370	11	-2.0424	183.1296	183	52	1.4091	414.3523	414
12	-2.3527	204.2982	204	53	1.0213	375.7435	376	12	-1.9224	191.1915	191	53	1.5206	421.7737	422
13	-2.2455	209.8528	210	54	1.1410	381.9532	382	13	-1.8094	198.6399	199	54	1.6389	429.5516	430
14	-2.1438	215.0265	215	55	1.2692	388.6192	389	14	-1.7023	205.7384	206	55	1.7654	437.8711	438
15	-2.0468	220.0928	220	56	1.4077	395.5351	396	15	-1.6003	212.8474	213	56	1.9020	447.2099	447
16	-1.9537	224.7801	225	57	1.5590	403.1731	403	16	-1.5026	219.4901	219	57	2.0509	457.1524	457
17	-1.8641	229.3643	229	58	1.7266	411.7346	412	17	-1.4086	225.5911	226	58	2.2156	468.1226	468
18	-1.7775	233.9466	234	59	1.9154	421.2151	421	18	-1.3180	231.8496	232	59	2.4009	480.5731	481
19	-1.6935	238.1515	238	60	2.1334	432.2302	432	19	-1.2302	237.7433	238	60	2.6145	495.0287	495
20	-1.6117	242.2490	242	61	2.3932	445.6272	446	20	-1.1449	243.4278	243	61	2.8689	512.2400	512
21	-1.5319	246.3542	246	62	2.7189	462.5377	463	21	-1.0617	248.8752	249	62	3.1881	533.7573	534
22	-1.4537	250.4483	250	63	3.1642	486.3432	486	22	-0.9805	254.5617	255	63	3.6251	563.7390	564
23	-1.3771	254.1894	254	64	3.8986	522.4659	522	23	-0.9010	259.8675	260	64	4.3498	612.1822	600
24	-1.3017	258.1795	258	65	N/A	575.5792	600	24	-0.8229	265.1349	265	65	N/A	691.2489	600
25	-1.2273	261.9064	262					25	-0.7461	270.2846	270				
26	-1.1539	265.5659	266					26	-0.6704	275.0905	275				
27	-1.0813	269.5713	270					27	-0.5956	280.2306	280				
28	-1.0092	273.3088	273					28	-0.5216	285.0406	285				
29	-0.9377	276.9501	277					29	-0.4482	290.2304	290				
30	-0.8664	280.5382	281					30	-0.3753	294.9544	295				
31	-0.7954	283.8246	284					31	-0.3027	299.7280	300				
32	-0.7245	287.3991	287					32	-0.2303	304.9975	305				
33	-0.6535	291.0590	291					33	-0.1581	309.7392	310				
34	-0.5824	294.7244	295					34	-0.0858	314.4697	314				
35	-0.5111	298.3944	298					35	-0.0133	319.2124	319				
36	-0.4393	302.0682	302					36	0.0595	323.9724	324				
37	-0.3670	305.7452	306					37	0.1327	328.8245	329				
38	-0.2940	309.4244	309					38	0.2064	334.1905	334				
39	-0.2202	313.1053	313					39	0.2809	338.9849	339				
40	-0.1455	316.9398	317					40	0.3562	343.7990	344				

Note: Performance-level cut scores are highlighted.

Table 8.D.65 New Conversions for Mathematics, Grades Six and Seven

Grade 6								Grade 7							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	41	0.3346	344.0857	344	0	N/A	0.0007	150	41	0.5432	352.0312	352
1	-4.7526	53.6293	150	42	0.4120	348.5721	349	1	-4.4057	53.4574	150	42	0.6159	356.2490	356
2	-4.0330	93.1814	150	43	0.4908	352.9844	353	2	-3.6904	95.7688	150	43	0.6898	360.7072	361
3	-3.6009	118.3448	150	44	0.5713	357.6533	358	3	-3.2623	122.0065	150	44	0.7652	365.2320	365
4	-3.2864	136.3670	150	45	0.6537	362.3914	362	4	-2.9517	140.8466	150	45	0.8424	369.6633	370
5	-3.0364	150.7533	151	46	0.7382	367.3120	367	5	-2.7053	155.9151	156	46	0.9216	374.4391	374
6	-2.8271	162.8475	163	47	0.8251	372.4007	372	6	-2.4994	168.4041	168	47	1.0031	379.4173	379
7	-2.6458	173.2612	173	48	0.9149	377.3270	377	7	-2.3215	178.9396	179	48	1.0872	384.5434	385
8	-2.4850	182.4828	182	49	1.0078	382.6226	383	8	-2.1639	188.5397	189	49	1.1743	389.5120	390
9	-2.3397	191.0056	191	50	1.1045	388.1186	388	9	-2.0217	197.3762	197	50	1.2649	395.0331	395
10	-2.2066	198.6743	199	51	1.2053	393.9750	394	10	-1.8917	205.3114	205	51	1.3596	400.9351	401
11	-2.0833	205.6412	206	52	1.3110	400.0276	400	11	-1.7713	212.5162	213	52	1.4590	406.8488	407
12	-1.9680	212.3683	212	53	1.4225	406.4221	406	12	-1.6590	219.1205	219	53	1.5639	413.0611	413
13	-1.8594	218.4926	218	54	1.5409	413.0286	413	13	-1.5533	225.3034	225	54	1.6755	419.9573	420
14	-1.7564	224.4706	224	55	1.6673	420.2014	420	14	-1.4532	231.3605	231	55	1.7950	426.7162	427
15	-1.6582	230.0805	230	56	1.8037	428.1040	428	15	-1.3579	237.2396	237	56	1.9242	434.5884	435
16	-1.5640	235.5127	236	57	1.9524	436.8573	437	16	-1.2666	242.8249	243	57	2.0656	443.3681	443
17	-1.4734	240.6298	241	58	2.1168	446.3180	446	17	-1.1789	248.1037	248	58	2.2223	452.4545	452
18	-1.3858	245.5011	246	59	2.3017	456.8260	457	18	-1.0942	253.0818	253	59	2.3994	463.2334	463
19	-1.3009	250.3705	250	60	2.5148	468.8764	469	19	-1.0122	257.9511	258	60	2.6043	475.7109	476
20	-1.2182	255.2279	255	61	2.7685	483.5954	484	20	-0.9325	262.8240	263	61	2.8497	490.1742	490
21	-1.1376	260.1398	260	62	3.0868	502.0860	502	21	-0.8548	267.7000	268	62	3.1595	509.3016	509
22	-1.0587	264.5142	265	63	3.5228	527.9374	528	22	-0.7789	272.3650	272	63	3.5866	534.6762	535
23	-0.9813	268.8048	269	64	4.2462	568.1994	568	23	-0.7046	276.7263	277	64	4.3010	577.5050	578
24	-0.9052	273.2079	273	65	N/A	630.3291	600	24	-0.6317	280.9975	281	65	N/A	648.9990	600
25	-0.8302	277.5208	278					25	-0.5598	285.2701	285				
26	-0.7562	281.9097	282					26	-0.4890	289.5416	290				
27	-0.6830	286.0013	286					27	-0.4191	293.8124	294				
28	-0.6104	290.1017	290					28	-0.3499	298.0822	298				
29	-0.5382	294.2105	294					29	-0.2812	302.3505	302				
30	-0.4665	298.3271	298					30	-0.2129	306.3494	306				
31	-0.3950	302.4509	302					31	-0.1450	310.3410	310				
32	-0.3236	306.5812	307					32	-0.0773	314.5389	315				
33	-0.2521	310.7176	311					33	-0.0096	318.5128	319				
34	-0.1806	314.8592	315					34	0.0580	322.4975	322				
35	-0.1088	319.0054	319					35	0.1259	326.6935	327				
36	-0.0366	323.1555	323					36	0.1940	330.9348	331				
37	0.0361	327.3088	327					37	0.2625	335.1705	335				
38	0.1094	331.4645	331					38	0.3316	339.1106	339				
39	0.1835	335.6216	336					39	0.4013	343.0493	343				
40	0.2585	339.7793	340					40	0.4718	347.5216	348				

Note: Performance-level cut scores are highlighted.

Table 8.D.66 New Conversions for General Mathematics and Algebra I

General Mathematics								Algebra I							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0003	150	41	0.6960	346.1335	346	0	N/A	-68.2504	150	41	0.5251	366.2556	366
1	-4.2399	48.1258	150	42	0.7681	350.9368	351	1	-4.4827	15.5911	150	42	0.5977	371.0605	371
2	-3.5243	88.4118	150	43	0.8416	355.2376	355	2	-3.7592	66.4078	150	43	0.6716	376.1325	376
3	-3.0961	115.2644	150	44	0.9166	359.6742	360	3	-3.3241	97.1504	150	44	0.7470	381.6504	382
4	-2.7853	134.3394	150	45	0.9933	364.4453	364	4	-3.0075	119.2571	150	45	0.8243	386.9480	387
5	-2.5389	149.4898	150	46	1.0720	368.9183	369	5	-2.7559	137.0501	150	46	0.9035	392.2626	392
6	-2.3331	162.2376	162	47	1.1530	373.8451	374	6	-2.5455	151.9613	152	47	0.9851	398.3038	398
7	-2.1552	172.9628	173	48	1.2367	378.9711	379	7	-2.3636	164.7182	165	48	1.0693	404.1140	404
8	-1.9977	182.3282	182	49	1.3234	384.3091	384	8	-2.2025	176.0293	176	49	1.1566	410.2027	410
9	-1.8557	191.2044	191	50	1.4135	389.4769	389	9	-2.0573	185.9226	186	50	1.2475	416.2817	416
10	-1.7258	199.4122	199	51	1.5077	395.2837	395	10	-1.9246	195.0825	195	51	1.3424	423.1230	423
11	-1.6058	206.7099	207	52	1.6067	401.4648	401	11	-1.8020	203.5538	204	52	1.4422	429.7530	430
12	-1.4937	213.4894	213	53	1.7112	407.6514	408	12	-1.6877	211.9099	212	53	1.5475	437.1379	437
13	-1.3883	219.7425	220	54	1.8222	414.4529	414	13	-1.5803	218.9782	219	54	1.6595	445.2893	445
14	-1.2885	225.5352	226	55	1.9413	421.5677	422	14	-1.4787	226.5865	227	55	1.7796	453.9323	454
15	-1.1935	231.3493	231	56	2.0700	429.0843	429	15	-1.3820	232.9126	233	56	1.9094	462.9288	463
16	-1.1026	237.1457	237	57	2.2109	437.9055	438	16	-1.2896	239.8346	240	57	2.0514	472.7296	473
17	-1.0153	242.4149	242	58	2.3671	447.2482	447	17	-1.2009	246.0504	246	58	2.2089	483.7104	484
18	-0.9310	247.6900	248	59	2.5437	457.8518	458	18	-1.1153	251.5872	252	59	2.3869	496.2901	496
19	-0.8494	252.4038	252	60	2.7481	470.4288	470	19	-1.0326	257.1221	257	60	2.5928	510.9362	511
20	-0.7701	257.1316	257	61	2.9931	485.0058	485	20	-0.9523	263.3199	263	61	2.8392	528.0147	528
21	-0.6929	261.8730	262	62	3.3023	504.0794	504	21	-0.8741	268.8164	269	62	3.1503	550.2511	550
22	-0.6175	266.6274	267	63	3.7287	529.5652	530	22	-0.7978	273.6294	274	63	3.5787	580.7713	581
23	-0.5436	271.3942	271	64	4.4426	573.0869	573	23	-0.7232	279.0733	279	64	4.2947	631.2716	600
24	-0.4711	275.6021	276	65	N/A	648.9995	600	24	-0.6499	283.9005	284	65	N/A	721.0744	600
25	-0.3997	279.7928	280					25	-0.5779	289.2918	289				
26	-0.3294	283.9932	284					26	-0.5069	294.1415	294				
27	-0.2599	288.2027	288					27	-0.4369	298.9023	299				
28	-0.1911	292.4208	292					28	-0.3675	303.6586	304				
29	-0.1229	296.6469	297					29	-0.2988	308.4114	308				
30	-0.0551	300.8807	301					30	-0.2306	313.1617	313				
31	0.0123	305.1219	305					31	-0.1627	317.9106	318				
32	0.0796	308.7738	309					32	-0.0950	322.6578	323				
33	0.1467	313.0236	313					33	-0.0274	327.4080	327				
34	0.2140	317.2717	317					34	0.0402	332.1580	332				
35	0.2813	320.9494	321					35	0.1080	336.9130	337				
36	0.3490	325.2204	325					36	0.1761	341.6707	342				
37	0.4170	329.4962	329					37	0.2445	346.4334	346				
38	0.4856	333.7766	334					38	0.3135	351.2021	351				
39	0.5549	337.9954	338					39	0.3832	355.9778	356				
40	0.6249	341.7498	342					40	0.4536	361.0622	361				

Note: Performance-level cut scores are highlighted.

Table 8.D.67 New Conversions for Geometry and Algebra II

Geometry								Algebra II							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	-44.9995	150	41	-0.1790	337.3944	337	0	N/A	-54.8295	150	41	0.1744	347.9823	348
1	-5.1504	37.7137	150	42	-0.1042	341.9664	342	1	-4.8810	15.9060	150	42	0.2497	352.7478	353
2	-4.4356	81.8743	150	43	-0.0279	346.5456	347	2	-4.1614	61.4226	150	43	0.3263	357.5326	358
3	-4.0080	108.0387	150	44	0.0500	351.1329	351	3	-3.7293	91.0753	150	44	0.4044	362.9521	363
4	-3.6978	126.9192	150	45	0.1298	355.7295	356	4	-3.4150	112.5198	150	45	0.4844	367.8006	368
5	-3.4518	141.6962	150	46	0.2116	360.8280	361	5	-3.1650	129.1886	150	46	0.5663	373.2712	373
6	-3.2464	154.4078	154	47	0.2958	366.0220	366	6	-2.9558	142.8611	150	47	0.6506	378.7465	379
7	-3.0688	164.9821	165	48	0.3829	371.2338	371	7	-2.7746	154.9816	155	48	0.7376	384.3715	384
8	-2.9115	174.5739	175	49	0.4730	376.4593	376	8	-2.6139	165.6471	166	49	0.8276	390.3677	390
9	-2.7696	182.7609	183	50	0.5667	382.1136	382	9	-2.4688	175.2487	175	50	0.9212	396.2583	396
10	-2.6398	190.8060	191	51	0.6646	387.9603	388	10	-2.3359	183.8106	184	51	1.0188	402.8912	403
11	-2.5197	198.1398	198	52	0.7673	393.8306	394	11	-2.2129	191.8411	192	52	1.1212	409.3309	409
12	-2.4075	204.7858	205	53	0.8756	400.0994	400	12	-2.0979	199.3028	199	53	1.2292	416.4880	416
13	-2.3019	210.8500	211	54	0.9906	406.9816	407	13	-1.9896	206.8013	207	54	1.3439	424.0512	424
14	-2.2019	216.8696	217	55	1.1137	414.4893	414	14	-1.8870	213.1996	213	55	1.4665	431.9635	432
15	-2.1065	222.7641	223	56	1.2467	422.2821	422	15	-1.7891	219.5093	220	56	1.5989	440.5960	441
16	-2.0152	228.1126	228	57	1.3918	430.8502	431	16	-1.6954	225.8477	226	57	1.7435	449.9488	450
17	-1.9274	233.3611	233	58	1.5524	440.7057	441	17	-1.6053	231.7164	232	58	1.9035	460.4608	460
18	-1.8425	238.1229	238	59	1.7334	451.5003	452	18	-1.5183	237.4704	237	59	2.0839	472.4184	472
19	-1.7602	243.3467	243	60	1.9423	463.8290	464	19	-1.4339	242.7839	243	60	2.2922	485.8132	486
20	-1.6802	248.0091	248	61	2.1919	479.0626	479	20	-1.3519	248.3905	248	61	2.5411	502.2472	502
21	-1.6022	252.6539	253	62	2.5057	498.2068	498	21	-1.2719	253.7730	254	62	2.8541	522.8345	523
22	-1.5259	257.2828	257	63	2.9371	524.0946	524	22	-1.1937	258.5347	259	63	3.2850	551.3338	551
23	-1.4510	261.8986	262	64	3.6555	568.2070	568	23	-1.1171	263.5217	264	64	4.0029	599.1092	599
24	-1.3775	265.9626	266	65	N/A	645.5995	600	24	-1.0419	268.7518	269	65	N/A	681.5695	600
25	-1.3050	270.4910	270					25	-0.9678	273.5782	274				
26	-1.2334	274.5883	275					26	-0.8946	278.1839	278				
27	-1.1627	279.0454	279					27	-0.8224	282.8035	283				
28	-1.0925	283.1848	283					28	-0.7508	287.4376	287				
29	-1.0228	287.1758	287					29	-0.6798	292.0828	292				
30	-0.9535	291.5262	292					30	-0.6092	296.7404	297				
31	-0.8844	295.7429	296					31	-0.5389	301.4098	301				
32	-0.8154	299.7229	300					32	-0.4688	306.0905	306				
33	-0.7464	303.7013	304					33	-0.3987	310.3063	310				
34	-0.6772	307.9189	308					34	-0.3286	314.8262	315				
35	-0.6078	312.2570	312					35	-0.2583	319.5377	320				
36	-0.5381	316.2357	316					36	-0.1877	324.2583	324				
37	-0.4678	320.3614	320					37	-0.1167	328.9877	329				
38	-0.3969	324.7991	325					38	-0.0451	333.7252	334				
39	-0.3253	328.8679	329					39	0.0272	338.4705	338				
40	-0.2527	333.3750	333					40	0.1003	343.2230	343				

Note: Performance-level cut scores are highlighted.

Table 8.D.68 New Conversions for Summative High School Mathematics and Integrated Mathematics 1

Summative High School Mathematics								Integrated Mathematics 1							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	-87.7995	150	41	-0.2576	311.2743	311	0	N/A	-77.6988	150	41	0.6803	362.3004	362
1	-5.1967	3.6633	150	42	-0.1840	315.8382	316	1	-4.4062	-7.9806	150	42	0.7541	367.8941	368
2	-4.4824	49.9261	150	43	-0.1091	320.4114	320	2	-3.6788	43.2155	150	43	0.8292	373.2026	373
3	-4.0554	77.2154	150	44	-0.0325	324.9958	325	3	-3.2401	78.2482	150	44	0.9059	378.8586	379
4	-3.7457	96.3646	150	45	0.0459	329.6096	330	4	-2.9200	102.3729	150	45	0.9843	384.7481	385
5	-3.5003	111.8051	150	46	0.1264	334.7977	335	5	-2.6651	120.6014	150	46	1.0647	390.3233	390
6	-3.2954	124.1595	150	47	0.2093	340.0035	340	6	-2.4517	136.0738	150	47	1.1474	396.3017	396
7	-3.1184	135.0287	150	48	0.2949	345.2308	345	7	-2.2669	149.4237	150	48	1.2328	402.5162	403
8	-2.9617	144.9297	150	49	0.3836	350.4799	350	8	-2.1031	161.1576	161	49	1.3212	408.7381	409
9	-2.8203	153.4492	153	50	0.4759	356.1950	356	9	-1.9554	171.6943	172	50	1.4131	415.3136	415
10	-2.6911	161.4296	161	51	0.5724	362.0846	362	10	-1.8202	181.2420	181	51	1.5091	422.5195	423
11	-2.5716	168.7413	169	52	0.6737	368.3899	368	11	-1.6952	190.1394	190	52	1.6099	429.7866	430
12	-2.4600	175.8511	176	53	0.7807	374.9444	375	12	-1.5786	198.7511	199	53	1.7162	437.2153	437
13	-2.3550	182.2763	182	54	0.8945	381.8807	382	13	-1.4690	206.3690	206	54	1.8292	445.3903	445
14	-2.2556	188.5847	189	55	1.0163	389.4530	389	14	-1.3653	214.1207	214	55	1.9501	454.1413	454
15	-2.1609	194.2152	194	56	1.1480	397.6852	398	15	-1.2666	221.1610	221	56	2.0808	463.6001	464
16	-2.0702	199.7754	200	57	1.2919	406.5957	407	16	-1.1722	227.9382	228	57	2.2237	473.9482	474
17	-1.9830	205.2846	205	58	1.4515	416.2139	416	17	-1.0816	234.4198	234	58	2.3820	485.5097	486
18	-1.8988	210.1594	210	59	1.6315	427.2030	427	18	-0.9942	240.5682	241	59	2.5607	498.1570	498
19	-1.8173	215.5460	216	60	1.8395	440.2760	440	19	-0.9097	246.7932	247	60	2.7673	512.8733	513
20	-1.7380	220.3783	220	61	2.0883	455.5586	456	20	-0.8276	252.8418	253	61	3.0145	530.8010	531
21	-1.6607	225.1281	225	62	2.4016	474.7629	475	21	-0.7477	258.4500	258	62	3.3260	554.0186	554
22	-1.5851	229.3575	229	63	2.8322	501.6464	502	22	-0.6697	264.1421	264	63	3.7548	586.7227	587
23	-1.5110	233.9225	234	64	3.5507	547.2062	547	23	-0.5934	269.8551	270	64	4.4712	637.2073	600
24	-1.4383	238.5928	239	65	N/A	630.7795	600	24	-0.5186	275.1163	275	65	N/A	714.6990	600
25	-1.3666	242.8578	243					25	-0.4450	280.8108	281				
26	-1.2959	247.2485	247					26	-0.3724	285.9017	286				
27	-1.2260	251.5620	252					27	-0.3008	290.9853	291				
28	-1.1567	255.8350	256					28	-0.2300	296.0626	296				
29	-1.0880	260.2125	260					29	-0.1598	301.1326	301				
30	-1.0196	264.2123	264					30	-0.0901	306.1946	306				
31	-0.9515	268.3086	268					31	-0.0208	311.2486	311				
32	-0.8835	272.8064	273					32	0.0483	316.2919	316				
33	-0.8155	276.7844	277					33	0.1173	321.3261	321				
34	-0.7475	280.7594	281					34	0.1863	326.3501	326				
35	-0.6792	285.2501	285					35	0.2555	331.3634	331				
36	-0.6105	289.3222	289					36	0.3248	336.4036	336				
37	-0.5414	293.7067	294					37	0.3946	341.6793	342				
38	-0.4717	297.8861	298					38	0.4649	347.0360	347				
39	-0.4013	302.1708	302					39	0.5358	352.0032	352				
40	-0.3300	306.7181	307					40	0.6076	357.0076	357				

Note: Performance-level cut scores are highlighted.

Table 8.D.69 New Conversions for Integrated Mathematics 2 and Integrated Mathematics 3

Integrated Mathematics 2								Integrated Mathematics 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	−60.2788	150	41	0.3745	373.2047	373	0	N/A	100.7238	150	41	0.4825	374.4408	374
1	−4.5522	38.4666	150	42	0.4478	378.0296	378	1	−4.5412	−12.3882	150	42	0.5566	380.0311	380
2	−3.8381	90.1807	150	43	0.5225	383.0126	383	2	−3.8208	42.4885	150	43	0.6322	386.0354	386
3	−3.4113	120.3093	150	44	0.5989	387.9742	388	3	−3.3882	77.2993	150	44	0.7092	391.6316	392
4	−3.1018	141.5056	150	45	0.6770	393.3042	393	4	−3.0736	102.2159	150	45	0.7881	397.7220	398
5	−2.8567	158.3211	158	46	0.7573	398.8313	399	5	−2.8236	121.6042	150	46	0.8690	404.0130	404
6	−2.6520	172.2849	172	47	0.8399	404.3456	404	6	−2.6145	137.7637	150	47	0.9522	410.5925	411
7	−2.4753	184.2033	184	48	0.9253	410.0696	410	7	−2.4336	151.9077	152	48	1.0381	416.9340	417
8	−2.3188	194.7329	195	49	1.0137	416.0951	416	8	−2.2733	164.2628	164	49	1.1270	423.7827	424
9	−2.1778	204.1689	204	50	1.1058	422.1509	422	9	−2.1287	175.4450	175	50	1.2194	430.9484	431
10	−2.0489	212.5960	213	51	1.2020	428.1964	428	10	−1.9964	185.6749	186	51	1.3160	438.1974	438
11	−1.9297	220.4050	220	52	1.3030	435.2982	435	11	−1.8740	194.8676	195	52	1.4173	445.9814	446
12	−1.8185	228.0534	228	53	1.4097	442.5209	443	12	−1.7597	203.7243	204	53	1.5242	454.2694	454
13	−1.7139	235.1036	235	54	1.5231	450.0451	450	13	−1.6522	212.2191	212	54	1.6378	462.9942	463
14	−1.6148	241.8034	242	55	1.6445	458.0388	458	14	−1.5504	219.8952	220	55	1.7593	472.3588	472
15	−1.5204	247.8146	248	56	1.7757	466.7965	467	15	−1.4535	227.5529	228	56	1.8905	482.4413	482
16	−1.4301	253.7139	254	57	1.9191	476.5728	477	16	−1.3607	234.2988	234	57	2.0339	493.4764	493
17	−1.3433	259.5563	260	58	2.0781	487.3521	487	17	−1.2715	241.3799	241	58	2.1928	505.4231	505
18	−1.2595	265.3454	265	59	2.2575	499.3726	499	18	−1.1854	247.8860	248	59	2.3720	519.3860	519
19	−1.1783	270.7453	271	60	2.4649	513.7716	514	19	−1.1020	254.3643	254	60	2.5791	535.8766	536
20	−1.0994	275.7795	276	61	2.7128	531.0181	531	20	−1.0210	260.5523	261	61	2.8267	555.5866	556
21	−1.0224	280.7164	281	62	3.0251	552.4185	552	21	−0.9421	266.2477	266	62	3.1387	580.7361	581
22	−0.9472	285.6147	286	63	3.4549	584.1514	584	22	−0.8650	271.9414	272	63	3.5680	616.4133	600
23	−0.8735	290.4766	290	64	4.1721	632.9773	600	23	−0.7894	277.6316	278	64	4.2847	670.5926	600
24	−0.8011	295.3025	295	65	N/A	699.9591	600	24	−0.7152	283.3188	283	65	N/A	753.3237	600
25	−0.7298	300.0950	300					25	−0.6422	288.9990	289				
26	−0.6595	304.8563	305					26	−0.5702	294.6729	295				
27	−0.5899	309.5827	310					27	−0.4990	300.2824	300				
28	−0.5210	314.2791	314					28	−0.4285	305.4147	305				
29	−0.4525	318.5536	319					29	−0.3586	310.8067	311				
30	−0.3845	322.9511	323					30	−0.2891	315.8702	316				
31	−0.3167	327.5237	328					31	−0.2199	321.2862	321				
32	−0.2490	332.1136	332					32	−0.1509	326.2874	326				
33	−0.1813	336.6802	337					33	−0.0819	331.7950	332				
34	−0.1136	341.2218	341					34	−0.0129	337.2908	337				
35	−0.0456	345.7405	346					35	0.0563	342.2154	342				
36	0.0228	350.2379	350					36	0.1258	347.6244	348				
37	0.0916	354.7139	355					37	0.1957	352.5095	353				
38	0.1611	359.1691	359					38	0.2662	358.0047	358				
39	0.2313	363.7780	364					39	0.3374	363.5030	364				
40	0.3023	368.5413	369					40	0.4094	368.9811	369				

Note: Performance-level cut scores are highlighted.

Table 8.D.70 New Conversions for Science, Grade Five

Grade 5							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	47.3185	150	41	0.2029	347.3761	347
1	-4.8731	68.5850	150	42	0.2872	352.2406	352
2	-4.1575	92.7447	150	43	0.3742	357.2572	357
3	-3.7292	120.2767	150	44	0.4641	362.4387	362
4	-3.4182	137.4990	150	45	0.5574	367.8157	368
5	-3.1715	152.2310	152	46	0.6547	373.4388	373
6	-2.9652	164.6427	165	47	0.7568	379.3322	379
7	-2.7868	174.6746	175	48	0.8643	385.5348	386
8	-2.6286	183.8436	184	49	0.9785	392.1030	392
9	-2.4858	192.2274	192	50	1.1005	399.1604	399
10	-2.3550	199.7851	200	51	1.2323	406.7798	407
11	-2.2339	206.7235	207	52	1.3762	415.0659	415
12	-2.1206	213.2817	213	53	1.5355	424.2590	424
13	-2.0139	219.4915	219	54	1.7151	434.6750	435
14	-1.9127	225.3330	225	55	1.9226	446.6033	447
15	-1.8161	230.8770	231	56	2.1706	461.0165	461
16	-1.7235	236.2228	236	57	2.4828	479.1848	479
17	-1.6343	241.3875	241	58	2.9125	503.9404	504
18	-1.5479	246.3892	246	59	3.6293	548.3933	548
19	-1.4641	251.2223	251	60	N/A	624.0193	600
20	-1.3825	255.9175	256				
21	-1.3027	260.5135	261				
22	-1.2246	265.0235	265				
23	-1.1478	269.4584	269				
24	-1.0721	273.8269	274				
25	-0.9974	278.1437	278				
26	-0.9235	282.4093	282				
27	-0.8501	286.6433	287				
28	-0.7772	290.8443	291				
29	-0.7046	295.0320	295				
30	-0.6321	299.2145	299				
31	-0.5595	303.3943	303				
32	-0.4868	307.5901	308				
33	-0.4138	311.8002	312				
34	-0.3403	316.0409	316				
35	-0.2661	320.3216	320				
36	-0.1912	324.6432	325				
37	-0.1152	329.0281	329				
38	-0.0380	333.4753	333				
39	0.0405	338.0064	338				
40	0.1208	342.6368	343				

Note: Performance-level cut scores are highlighted.

Table 8.D.71 New Conversions for Science, Grade Eight (paper-and-pencil version and braille version)

Grade 8								Science Grade 8 (Braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	-96.6361	150	41	0.5274	367.0081	367	0	N/A	-96.6361	150	41	0.6032	373.3626	373
1	-4.6998	-55.3964	150	42	0.6144	374.2955	374	1	-4.6652	-53.9658	150	42	0.6932	380.9088	381
2	-3.9761	-14.6840	150	43	0.7039	381.7952	382	2	-3.9407	-12.1034	150	43	0.7862	388.6991	389
3	-3.5404	23.7939	150	44	0.7963	389.5551	390	3	-3.5042	27.7526	150	44	0.8825	396.7851	397
4	-3.2228	50.7369	150	45	0.8921	397.6013	398	4	-3.1858	53.9611	150	45	0.9827	405.2095	405
5	-2.9699	73.0720	150	46	0.9919	405.9828	406	5	-2.9322	76.0468	150	46	1.0876	414.0108	414
6	-2.7580	91.0841	150	47	1.0964	414.7444	415	6	-2.7196	94.5931	150	47	1.1980	423.2565	423
7	-2.5742	106.3372	150	48	1.2063	423.9491	424	7	-2.5352	109.7310	150	48	1.3149	433.0555	433
8	-2.4110	120.2245	150	49	1.3228	433.7363	434	8	-2.3714	123.5016	150	49	1.4396	443.5521	444
9	-2.2635	132.8635	150	50	1.4472	444.1957	444	9	-2.2233	136.0828	150	50	1.5740	454.8417	455
10	-2.1283	144.0709	150	51	1.5813	455.4467	455	10	-2.0875	147.6508	150	51	1.7205	467.0981	467
11	-2.0029	154.5785	155	52	1.7274	467.6645	468	11	-1.9615	158.1181	158	52	1.8822	480.7055	481
12	-1.8855	164.4838	164	53	1.8888	481.2722	481	12	-1.8435	167.9877	168	53	2.0643	496.0491	496
13	-1.7749	173.8483	174	54	2.0706	496.5756	497	13	-1.7323	177.3452	177	54	2.2741	513.5805	514
14	-1.6698	182.6473	183	55	2.2802	514.0628	514	14	-1.6267	186.2526	186	55	2.5245	534.7716	535
15	-1.5695	191.0280	191	56	2.5302	535.2707	535	15	-1.5258	194.7614	195	56	2.8388	561.3395	561
16	-1.4733	199.1031	199	57	2.8443	561.7836	562	16	-1.4289	202.8681	203	57	3.2708	597.6100	598
17	-1.3805	206.9038	207	58	3.2760	598.1208	598	17	-1.3355	210.6836	211	58	3.9898	662.3948	600
18	-1.2908	214.4589	214	59	3.9948	662.8192	600	18	-1.2451	218.2630	218	59	N/A	742.1487	600
19	-1.2036	221.7958	222	60	N/A	742.1487	600	19	-1.1573	225.6371	226				
20	-1.1186	228.9100	229					20	-1.0717	232.8289	233				
21	-1.0356	235.8602	236					21	-0.9880	239.8571	240				
22	-0.9543	242.6815	243					22	-0.9059	246.7527	247				
23	-0.8743	249.3907	249					23	-0.8252	253.5321	254				
24	-0.7956	256.0023	256					24	-0.7456	260.2133	260				
25	-0.7178	262.5307	263					25	-0.6670	266.8061	267				
26	-0.6408	268.9887	269					26	-0.5892	273.3294	273				
27	-0.5645	275.3933	275					27	-0.5119	279.8129	280				
28	-0.4886	281.7635	282					28	-0.4351	286.2610	286				
29	-0.4131	288.1043	288					29	-0.3585	292.6853	293				
30	-0.3377	294.4289	294					30	-0.2819	299.1064	299				
31	-0.2623	300.7558	301					31	-0.2054	305.5257	306				
32	-0.1867	307.0871	307					32	-0.1285	311.9714	312				
33	-0.1109	313.4512	313					33	-0.0513	318.4476	318				
34	-0.0346	319.8514	320					34	0.0264	324.9786	325				
35	0.0423	326.3089	326					35	0.1050	331.5590	332				
36	0.1200	332.8246	333					36	0.1844	338.2259	338				
37	0.1987	339.4283	339					37	0.2650	344.9846	345				
38	0.2786	346.1280	346					38	0.3469	351.8560	352				
39	0.3598	352.9423	353					39	0.4303	358.8600	359				
40	0.4427	359.8968	360					40	0.5157	366.0258	366				

Note: Performance-level cut scores are highlighted.

Table 8.D.72 New Conversion for Life Science (Grade 10)

Grade 10 Life Science							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	44.7476	150	41	0.5446	353.9181	354
1	-4.5706	74.3333	150	42	0.6318	358.7758	359
2	-3.8549	105.5127	150	43	0.7218	363.8019	364
3	-3.4263	131.3921	150	44	0.8150	369.0020	369
4	-3.1151	149.4820	150	45	0.9120	374.4160	374
5	-2.8681	163.6138	164	46	1.0132	380.0683	380
6	-2.6616	174.9422	175	47	1.1195	385.9975	386
7	-2.4828	184.8997	185	48	1.2317	392.2506	392
8	-2.3243	193.7836	194	49	1.3510	398.8924	399
9	-2.1811	201.8237	202	50	1.4786	406.0095	406
10	-2.0499	209.1920	209	51	1.6165	413.7326	414
11	-1.9284	216.0204	216	52	1.7672	422.1615	422
12	-1.8147	222.3244	222	53	1.9340	431.4765	431
13	-1.7075	228.2893	228	54	2.1221	441.9509	442
14	-1.6058	233.9594	234	55	2.3390	453.9781	454
15	-1.5087	239.3808	239	56	2.5976	468.6177	469
16	-1.4155	244.5889	245	57	2.9219	487.0254	487
17	-1.3256	249.6093	250	58	3.3654	512.3056	512
18	-1.2387	254.4668	254	59	4.0981	554.3328	554
19	-1.1542	259.1825	259	60	N/A	602.3473	600
20	-1.0719	263.7762	264				
21	-0.9913	268.2642	268				
22	-0.9124	272.6641	273				
23	-0.8347	276.9945	277				
24	-0.7582	281.2640	281				
25	-0.6825	285.4834	285				
26	-0.6076	289.6621	290				
27	-0.5332	293.8116	294				
28	-0.4591	297.9401	298				
29	-0.3853	302.0573	302				
30	-0.3115	306.1730	306				
31	-0.2376	310.2951	310				
32	-0.1635	314.4317	314				
33	-0.0889	318.5884	319				
34	-0.0138	322.7792	323				
35	0.0621	327.0156	327				
36	0.1390	331.2997	331				
37	0.2169	335.6454	336				
38	0.2962	340.0704	340				
39	0.3771	344.5789	345				
40	0.4598	349.1911	349				

Note: Performance-level cut scores are highlighted.

Table 8.D.73 New Conversions for Biology (paper-and-pencil version and braille version)

Biology (paper-and-pencil)								Biology (Braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	41	0.4408	355.9402	356	0	N/A	0.0007	150	41	0.4987	358.6398	359
1	-4.7033	87.0640	150	42	0.5264	360.0572	360	1	-4.6915	88.0807	150	42	0.5876	363.1532	363
2	-3.9848	132.7559	150	43	0.6145	364.4939	364	2	-3.9724	133.4197	150	43	0.6796	367.6920	368
3	-3.5535	156.2041	156	44	0.7057	368.9550	369	3	-3.5407	156.8134	157	44	0.7750	372.5367	373
4	-3.2398	172.5723	173	45	0.8003	373.8691	374	4	-3.2265	173.1916	173	45	0.8744	377.3403	377
5	-2.9904	185.4157	185	46	0.8990	378.4451	378	5	-2.9765	186.2084	186	46	0.9786	382.3774	382
6	-2.7815	195.7912	196	47	1.0024	383.5890	384	6	-2.7672	196.5520	197	47	1.0883	388.0897	388
7	-2.6006	204.6279	205	48	1.1114	389.2695	389	7	-2.5857	205.3545	205	48	1.2046	393.8915	394
8	-2.4400	212.5166	213	49	1.2270	394.9692	395	8	-2.4246	213.2812	213	49	1.3290	399.8855	400
9	-2.2949	219.8175	220	50	1.3507	400.9598	401	9	-2.2789	220.5994	221	50	1.4631	406.5603	407
10	-2.1619	226.5414	227	51	1.4842	407.6100	408	10	-2.1453	227.3740	227	51	1.6094	413.9170	414
11	-2.0386	232.9437	233	52	1.6298	414.9219	415	11	-2.0214	233.8289	234	52	1.7711	421.9530	422
12	-1.9233	238.6211	239	53	1.7909	422.8931	423	12	-1.9055	239.5250	240	53	1.9532	431.1830	431
13	-1.8146	243.9510	244	54	1.9724	432.1584	432	13	-1.7961	244.8740	245	54	2.1635	441.5288	442
14	-1.7115	249.2263	249	55	2.1820	442.5184	443	14	-1.6923	250.2409	250	55	2.4143	454.3538	454
15	-1.6130	254.1274	254	56	2.4321	455.2487	455	15	-1.5932	255.0518	255	56	2.7294	470.2074	470
16	-1.5186	258.6090	259	57	2.7466	471.0629	471	16	-1.4980	259.6147	260	57	3.1622	492.3891	492
17	-1.4276	263.1331	263	58	3.1788	493.1694	493	17	-1.4063	264.2227	264	58	3.8824	529.1684	529
18	-1.3397	267.6299	268	59	3.8984	529.8023	530	18	-1.3176	268.6881	269	59	N/A	595.4996	600
19	-1.2542	271.7787	272	60	N/A	595.4996	600	19	-1.2313	272.9166	273				
20	-1.1710	275.9646	276					20	-1.1473	277.1847	277				
21	-1.0897	280.1890	280					21	-1.0651	281.3830	281				
22	-1.0101	284.0128	284					22	-0.9845	285.2485	285				
23	-0.9318	287.8346	288					23	-0.9054	289.1494	289				
24	-0.8548	291.6903	292					24	-0.8273	293.0857	293				
25	-0.7787	295.5794	296					25	-0.7502	296.9874	297				
26	-0.7034	299.1272	299					26	-0.6738	300.5642	301				
27	-0.6288	302.9574	303					27	-0.5980	304.5293	305				
28	-0.5546	306.5771	307					28	-0.5226	308.0953	308				
29	-0.4807	310.0951	310					29	-0.4475	311.7902	312				
30	-0.4070	314.0189	314					30	-0.3724	315.8173	316				
31	-0.3333	317.7161	318					31	-0.2972	319.4727	319				
32	-0.2594	321.3187	321					32	-0.2218	323.1573	323				
33	-0.1852	324.9489	325					33	-0.1460	326.8707	327				
34	-0.1105	328.6064	329					34	-0.0695	330.6126	331				
35	-0.0352	332.2910	332					35	0.0076	334.3823	334				
36	0.0409	336.0021	336					36	0.0858	338.1799	338				
37	0.1180	339.7737	340					37	0.1651	342.3622	342				
38	0.1963	344.0024	344					38	0.2457	346.3552	346				
39	0.2761	347.7904	348					39	0.3280	350.2314	350				
40	0.3574	351.7600	352					40	0.4122	354.6339	355				

Note: Performance-level cut scores are highlighted.

Table 8.D.74 New Conversion for Chemistry

Chemistry							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	51.9904	150	41	0.4628	349.2636	349
1	-4.6770	97.5798	150	42	0.5466	353.4658	353
2	-3.9547	130.9249	150	43	0.6329	357.6916	358
3	-3.5203	154.0295	154	44	0.7221	361.9410	362
4	-3.2038	169.9761	170	45	0.8148	366.6598	367
5	-2.9521	182.8890	183	46	0.9114	371.0067	371
6	-2.7413	192.8192	193	47	1.0127	376.3552	376
7	-2.5587	201.8104	202	48	1.1195	381.3494	381
8	-2.3968	209.8727	210	49	1.2328	386.9712	387
9	-2.2506	216.9564	217	50	1.3541	393.0155	393
10	-2.1167	223.3877	223	51	1.4851	399.3741	399
11	-1.9928	229.7478	230	52	1.6281	406.3867	406
12	-1.8770	235.4118	235	53	1.7866	414.0618	414
13	-1.7679	240.6974	241	54	1.9654	422.8999	423
14	-1.6645	245.6178	246	55	2.1721	432.7865	433
15	-1.5660	250.5398	251	56	2.4193	445.1544	445
16	-1.4716	255.1719	255	57	2.7306	460.4585	460
17	-1.3808	259.4213	259	58	3.1597	482.0104	482
18	-1.2931	263.5350	264	59	3.8759	518.4151	518
19	-1.2080	267.6764	268	60	N/A	584.6196	600
20	-1.1252	271.8440	272				
21	-1.0444	275.8618	276				
22	-0.9654	279.6133	280				
23	-0.8878	283.3877	283				
24	-0.8114	287.1846	287				
25	-0.7362	290.8946	291				
26	-0.6618	294.3552	294				
27	-0.5880	298.1264	298				
28	-0.5148	301.5264	302				
29	-0.4420	305.0324	305				
30	-0.3694	308.8746	309				
31	-0.2968	312.3328	312				
32	-0.2241	315.8104	316				
33	-0.1512	319.3075	319				
34	-0.0778	322.8242	323				
35	-0.0039	326.3604	326				
36	0.0708	330.0703	330				
37	0.1465	333.9824	334				
38	0.2233	337.5782	338				
39	0.3014	341.4187	341				
40	0.3811	345.3193	345				

Note: Performance-level cut scores are highlighted.

Table 8.D.75 New Conversions for Earth Science (paper-and-pencil version and braille version)

Earth Science (paper-and-pencil)								Earth Science (Braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	51.0104	150	41	0.7588	350.8310	351	0	N/A	51.0104	150	41	0.8159	353.7205	354
1	-4.2200	104.9896	150	42	0.8405	354.9492	355	1	-4.2045	105.8126	150	42	0.9009	357.9189	358
2	-3.5069	138.8360	150	43	0.9248	359.0788	359	2	-3.4911	139.7996	150	43	0.9887	362.1284	362
3	-3.0810	160.5440	161	44	1.0120	363.2192	363	3	-3.0648	161.4248	161	44	1.0800	366.6881	367
4	-2.7725	176.0018	176	45	1.1026	367.8371	368	4	-2.7559	176.8542	177	45	1.1752	371.4457	371
5	-2.5282	188.2468	188	46	1.1972	372.5163	373	5	-2.5111	189.1121	189	46	1.2750	376.2144	376
6	-2.3244	198.5413	199	47	1.2965	377.2456	377	6	-2.3068	199.4202	199	47	1.3804	381.4506	381
7	-2.1483	207.2523	207	48	1.4012	382.4665	382	7	-2.1303	208.0887	208	48	1.4923	386.7782	387
8	-1.9925	214.7481	215	49	1.5126	387.8000	388	8	-1.9740	215.6548	216	49	1.6120	392.6885	393
9	-1.8521	221.7732	222	50	1.6318	393.6990	394	9	-1.8331	222.6728	223	50	1.7415	399.1821	399
10	-1.7237	228.0475	228	51	1.7607	400.1640	400	10	-1.7042	228.9832	229	51	1.8829	406.2583	406
11	-1.6049	233.9293	234	52	1.9016	407.1946	407	11	-1.5849	234.8872	235	52	2.0398	413.9207	414
12	-1.4941	239.3925	239	53	2.0581	414.7953	415	12	-1.4735	240.4460	240	53	2.2170	422.6203	423
13	-1.3897	244.8786	245	54	2.2347	423.5157	424	13	-1.3686	245.9478	246	54	2.4220	432.7848	433
14	-1.2908	249.5804	250	55	2.4392	433.6098	434	14	-1.2691	250.6216	251	55	2.6674	445.0552	445
15	-1.1966	254.1922	254	56	2.6842	445.8755	446	15	-1.1743	255.3173	255	56	2.9771	460.2143	460
16	-1.1063	258.8247	259	57	2.9935	460.9485	461	16	-1.0834	260.0340	260	57	3.4042	481.4855	481
17	-1.0194	263.1542	263	58	3.4202	482.1823	482	17	-0.9958	264.3200	264	58	4.1185	516.9449	517
18	-0.9354	267.0602	267	59	4.1341	517.5163	518	18	-0.9112	268.1661	268	59	N/A	579.7196	600
19	-0.8540	271.0980	271	60	N/A	579.7196	600	19	-0.8290	272.4216	272				
20	-0.7747	275.0813	275					20	-0.7490	276.3293	276				
21	-0.6973	278.8729	279					21	-0.6708	280.1933	280				
22	-0.6215	282.6818	283					22	-0.5942	284.0762	284				
23	-0.5471	286.2875	286					23	-0.5189	287.5717	288				
24	-0.4738	289.8621	290					24	-0.4448	291.4047	291				
25	-0.4015	293.5190	294					25	-0.3715	294.9349	295				
26	-0.3299	296.9124	297					26	-0.2990	298.3951	298				
27	-0.2590	300.5167	301					27	-0.2270	302.2882	302				
28	-0.1885	304.2341	304					28	-0.1554	305.8516	306				
29	-0.1183	307.6721	308					29	-0.0840	309.3584	309				
30	-0.0483	311.1235	311					30	-0.0127	312.8795	313				
31	0.0218	314.5908	315					31	0.0586	316.4155	316				
32	0.0921	318.0718	318					32	0.1303	319.9658	320				
33	0.1626	321.5663	322					33	0.2023	323.5303	324				
34	0.2336	325.0743	325					34	0.2749	327.1085	327				
35	0.3053	328.5955	329					35	0.3483	330.7000	331				
36	0.3777	332.1296	332					36	0.4226	334.3046	334				
37	0.4511	335.6760	336					37	0.4981	337.9215	338				
38	0.5257	339.2342	339					38	0.5749	341.6877	342				
39	0.6017	343.1210	343					39	0.6533	345.6831	346				
40	0.6793	346.8779	347					40	0.7335	349.5337	350				

Note: Performance-level cut scores are highlighted.

Table 8.D.76 New Conversion for Physics

Physics							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	51.4129	150	41	0.6367	359.3858	359
1	-4.4296	111.1009	150	42	0.7196	363.4499	363
2	-3.7126	146.2701	150	43	0.8051	367.8298	368
3	-3.2830	167.2824	167	44	0.8936	372.2045	372
4	-2.9710	182.4454	182	45	0.9854	376.5735	377
5	-2.7232	194.6758	195	46	1.0812	381.0958	381
6	-2.5160	204.9470	205	47	1.1817	386.0912	386
7	-2.3368	213.7274	214	48	1.2876	391.4069	391
8	-2.1779	221.1245	221	49	1.4001	396.8582	397
9	-2.0345	228.4385	228	50	1.5205	402.7738	403
10	-1.9033	234.8034	235	51	1.6506	409.1491	409
11	-1.7817	240.6697	241	52	1.7927	416.1035	416
12	-1.6682	246.0964	246	53	1.9501	423.9735	424
13	-1.5612	251.4571	251	54	2.1280	432.7586	433
14	-1.4599	256.3897	256	55	2.3336	442.7093	443
15	-1.3632	261.2444	261	56	2.5797	454.9976	455
16	-1.2706	265.6822	266	57	2.8900	470.2767	470
17	-1.1814	270.1194	270	58	3.3177	491.2674	491
18	-1.0952	274.4613	274	59	4.0327	526.0379	526
19	-1.0116	278.4031	278	60	N/A	582.7871	600
20	-0.9303	282.3439	282				
21	-0.8509	286.2836	286				
22	-0.7731	290.2227	290				
23	-0.6968	294.0412	294				
24	-0.6217	297.6079	298				
25	-0.5475	301.4154	301				
26	-0.4742	304.8571	305				
27	-0.4016	308.4330	308				
28	-0.3294	312.2243	312				
29	-0.2576	315.6623	316				
30	-0.1859	319.0989	319				
31	-0.1143	322.5341	323				
32	-0.0426	325.9677	326				
33	0.0295	329.5551	330				
34	0.1019	333.3177	333				
35	0.1750	336.7462	337				
36	0.2489	340.3348	340				
37	0.3237	344.0844	344				
38	0.3996	347.6712	348				
39	0.4769	351.5783	352				
40	0.5559	355.4845	355				

Note: Performance-level cut scores are highlighted.

Table 8.D.77 New Conversions for Integrated/Coordinated Science 1 (paper-and-pencil version and braille version)

Integrated/Coordinated Science 1 (paper-and-pencil)								Integrated/Coordinated Science 1 (Braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	41	0.5401	350.0000	350	0	N/A	0.0000	150	41	0.5946	354.2679	354
1	-4.5508	106.2771	150	42	0.6235	353.9918	354	1	-4.5406	93.8523	150	42	0.6745	358.3168	358
2	-3.8323	140.6727	150	43	0.7094	358.1045	358	2	-3.8216	130.3135	150	43	0.7554	362.4219	362
3	-3.4015	161.2965	161	44	0.7982	362.3573	362	3	-3.2207	160.7832	161	44	0.8465	367.0405	367
4	-3.0884	176.2864	176	45	0.8905	366.7730	367	4	-2.9228	175.8937	176	45	0.9318	371.3680	371
5	-2.8397	188.1933	188	46	0.9867	371.3788	371	5	-2.6860	187.9020	188	46	1.0197	375.8228	376
6	-2.6317	198.1537	198	47	1.0875	376.2075	376	6	-2.4878	197.9519	198	47	1.1107	380.4386	380
7	-2.4516	206.7747	207	48	1.1820	380.7278	381	7	-2.3162	206.6543	207	48	1.2057	385.2574	385
8	-2.2919	214.4187	214	49	1.2807	385.4537	385	8	-2.1640	214.3741	214	49	1.3058	390.3331	390
9	-2.1478	221.3201	221	50	1.3848	390.4387	390	9	-2.0265	221.3470	221	50	1.4431	397.2934	397
10	-2.0158	227.6392	228	51	1.5270	397.2448	397	10	-1.9005	227.7345	228	51	1.5944	404.9675	405
11	-1.8935	233.4906	233	52	1.6837	404.7478	405	11	-1.7838	233.6521	234	52	1.7450	412.6052	413
12	-1.7793	238.9594	239	53	1.8587	413.1254	413	12	-1.6747	239.1853	239	53	1.9149	421.2204	421
13	-1.6717	244.1103	244	54	2.0370	421.6610	422	13	-1.5719	244.3994	244	54	2.1112	431.1782	431
14	-1.5697	248.9941	249	55	2.2431	431.5313	432	14	-1.4744	249.3456	249	55	2.3461	443.0891	443
15	-1.4724	253.6513	254	56	2.4899	443.3428	443	15	-1.3813	254.0646	254	56	2.6421	458.0968	458
16	-1.3792	258.1147	258	57	2.8009	458.2324	458	16	-1.2921	258.5896	259	57	3.0497	478.7683	479
17	-1.2894	262.4115	262	58	3.2295	478.7506	479	17	-1.2061	262.9482	263	58	3.7305	513.2927	513
18	-1.2027	266.5647	267	59	3.9456	513.0353	513	18	-1.1112	267.7628	268	59	N/A	1338.3502	600
19	-1.1185	270.5935	271	60	N/A	1281.6271	600	19	-1.0204	272.3675	272				
20	-1.0470	274.0185	274					20	-0.9333	276.7826	277				
21	-0.9758	277.4271	277					21	-0.8777	279.6051	280				
22	-0.8871	281.6708	282					22	-0.8203	282.5118	283				
23	-0.8015	285.7710	286					23	-0.7612	285.5098	286				
24	-0.7259	289.3925	289					24	-0.6932	288.9610	289				
25	-0.6512	292.9654	293					25	-0.6183	292.7574	293				
26	-0.5774	296.4985	296					26	-0.5497	296.2357	296				
27	-0.5043	300.0000	300					27	-0.4755	300.0000	300				
28	-0.4316	303.4779	303					28	-0.4017	303.7422	304				
29	-0.3593	306.9396	307					29	-0.3282	307.4705	307				
30	-0.2872	310.3925	310					30	-0.2548	311.1930	311				
31	-0.2151	313.8438	314					31	-0.1813	314.9179	315				
32	-0.1429	317.3008	317					32	-0.1077	318.6532	319				
33	-0.0704	320.7709	321					33	-0.0336	322.4072	322				
34	0.0025	324.2615	324					34	0.0409	326.1885	326				
35	0.0760	327.7804	328					35	0.1162	330.0060	330				
36	0.1503	331.3361	331					36	0.1924	333.8693	334				
37	0.2255	334.9371	335					37	0.2697	337.7885	338				
38	0.3018	338.5931	339					38	0.3483	341.7750	342				
39	0.3796	342.3143	342					39	0.4285	345.8409	346				
40	0.4589	346.1123	346					40	0.5105	350.0000	350				

Note: Performance-level cut scores are highlighted.

Table 8.D.78 New Conversions for Integrated/Coordinated Science 2 (paper-and-pencil version and braille version)

Integrated/Coordinated Science 2 (paper-and-pencil)								Integrated/Coordinated Science 2 (Braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	41	0.5716	353.9212	354	0	N/A	0.0000	150	41	0.6240	358.1800	358
1	-4.5229	108.4234	150	42	0.6552	357.9480	358	1	-4.4624	98.5534	150	42	0.7028	362.2038	362
2	-3.8045	143.0411	150	43	0.7413	362.0972	362	2	-3.6750	138.7411	150	43	0.7828	366.2835	366
3	-3.3738	163.7990	164	44	0.8303	366.3885	366	3	-3.1897	163.5156	164	44	0.8731	370.8975	371
4	-3.0606	178.8880	179	45	0.9228	370.8447	371	4	-2.8918	178.7187	179	45	0.9574	375.1988	375
5	-2.8119	190.8755	191	46	1.0193	375.4932	375	5	-2.6551	190.8017	191	46	1.0552	380.1877	380
6	-2.6037	200.9053	201	47	1.1204	380.3671	380	6	-2.4570	200.9157	201	47	1.1582	385.4461	385
7	-2.4236	209.5878	210	48	1.2271	385.5071	386	7	-2.2854	209.6750	210	48	1.2675	391.0259	391
8	-2.2638	217.2878	217	49	1.3403	390.9640	391	8	-2.1331	217.4466	217	49	1.3844	396.9935	397
9	-2.1195	224.2409	224	50	1.4615	396.8032	397	9	-1.9956	224.4676	224	50	1.5106	403.4357	403
10	-1.9873	230.6082	231	51	1.5924	403.1100	403	10	-1.8696	230.9002	231	51	1.6484	410.4700	410
11	-1.8650	236.5049	237	52	1.7354	409.9997	410	11	-1.7528	236.8604	237	52	1.8010	418.2603	418
12	-1.7506	242.0165	242	53	1.8938	417.6338	418	12	-1.6609	241.5510	242	53	1.9526	425.9972	426
13	-1.6429	247.2081	247	54	2.0725	426.2478	426	13	-1.5569	246.8591	247	54	2.1494	436.0444	436
14	-1.5407	252.1306	252	55	2.2792	436.2068	436	14	-1.4582	251.8947	252	55	2.3848	448.0588	448
15	-1.4433	256.8246	257	56	2.5264	448.1213	448	15	-1.3641	256.6992	257	56	2.6813	463.1918	463
16	-1.3500	261.3233	261	57	2.8380	463.1357	463	16	-1.2739	261.3065	261	57	3.0895	484.0271	484
17	-1.2601	265.6540	266	58	3.2672	483.8174	484	17	-1.1869	265.7442	266	58	3.7312	516.7814	517
18	-1.1732	269.8396	270	59	3.9840	518.3577	518	18	-1.1028	270.0359	270	59	N/A	1347.2003	600
19	-1.0890	273.8997	274	60	N/A	1290.1470	600	19	-1.0319	273.6584	274				
20	-1.0070	277.8512	278					20	-0.9516	277.7574	278				
21	-0.9269	281.7088	282					21	-0.8731	281.7616	282				
22	-0.8485	285.4854	285					22	-0.8045	285.2656	285				
23	-0.7716	289.1927	289					23	-0.7356	288.7798	289				
24	-0.6959	292.8413	293					24	-0.6597	292.6535	293				
25	-0.6212	296.4408	296					25	-0.5907	296.1767	296				
26	-0.5473	300.0000	300					26	-0.5158	300.0000	300				
27	-0.4741	303.5274	304					27	-0.4415	303.7924	304				
28	-0.4014	307.0310	307					28	-0.3676	307.5627	308				
29	-0.3291	310.5183	311					29	-0.2941	311.3192	311				
30	-0.2569	313.9969	314					30	-0.2206	315.0701	315				
31	-0.1847	317.4741	317					31	-0.1470	318.8236	319				
32	-0.1124	320.9572	321					32	-0.0733	322.5880	323				
33	-0.0399	324.4537	324					33	0.0008	326.3715	326				
34	0.0331	327.9712	328					34	0.0755	330.1830	330				
35	0.1067	331.5177	332					35	0.1509	334.0314	334				
36	0.1811	335.1015	335					36	0.2272	337.9265	338				
37	0.2564	338.7316	339					37	0.3046	341.8786	342				
38	0.3329	342.4175	342					38	0.3834	345.8989	346				
39	0.4108	346.1698	346					39	0.4637	350.0000	350				
40	0.4902	350.0000	350					40	0.5459	354.1957	354				

Note: Performance-level cut scores are highlighted.

Table 8.D.79 New Conversions for Integrated/Coordinated Science 3 and Integrated/Coordinated Science 4

Integrated/Coordinated Science 3								Integrated/Coordinated Science 4							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	41	0.6656	357.2916	357	0	N/A	0.0000	150	41	0.5133	350.0000	350
1	-4.3624	126.2815	150	42	0.7481	361.0821	361	1	-4.5645	108.3226	150	42	0.5975	354.0092	354
2	-3.6466	159.1703	159	43	0.8414	365.3723	365	2	-3.8479	142.4288	150	43	0.6843	358.1413	358
3	-3.2184	178.8463	179	44	0.9395	369.8789	370	3	-3.4189	162.8497	163	44	0.7741	362.4158	362
4	-2.9077	193.1191	193	45	1.0429	374.6284	375	4	-3.1074	177.6754	178	45	0.8761	367.2681	367
5	-2.6614	204.4367	204	46	1.1522	379.6526	380	5	-2.8601	189.4417	189	46	0.9840	372.4051	372
6	-2.4556	213.8900	214	47	1.2684	384.9901	385	6	-2.6535	199.2784	199	47	1.0987	377.8661	378
7	-2.2778	222.0612	222	48	1.3924	390.6883	391	7	-2.4747	207.7885	208	48	1.2213	383.6997	384
8	-2.1203	229.2981	229	49	1.4971	395.4965	395	8	-2.3162	215.3321	215	49	1.3530	389.9667	390
9	-1.9782	235.8254	236	50	1.6077	400.5803	401	9	-2.1731	222.1420	222	50	1.4954	396.7448	397
10	-1.8482	241.7969	242	51	1.7260	406.0126	406	10	-2.0421	228.3772	228	51	1.6198	402.6673	403
11	-1.7280	247.3223	247	52	1.8539	411.8921	412	11	-1.9208	234.1515	234	52	1.7542	409.0653	409
12	-1.6156	252.4832	252	53	1.9947	418.3573	418	12	-1.8074	239.5492	240	53	1.9017	416.0855	416
13	-1.5099	257.3415	257	54	2.1526	425.6117	426	13	-1.7005	244.6344	245	54	2.0668	423.9432	424
14	-1.4238	261.2983	261	55	2.3581	435.0551	435	14	-1.5992	249.4574	249	55	2.2566	432.9733	433
15	-1.3404	265.1275	265	56	2.6042	446.3622	446	15	-1.5025	254.0583	254	56	2.4828	443.7392	444
16	-1.2593	268.8552	269	57	2.9146	460.6239	461	16	-1.4098	258.4697	258	57	2.7957	458.6320	459
17	-1.1799	272.5030	273	58	3.3426	480.2881	480	17	-1.3338	262.0898	262	58	3.2262	479.1242	479
18	-1.1018	276.0889	276	59	4.0582	513.1646	513	18	-1.2589	265.6521	266	59	3.9444	513.3062	513
19	-1.0055	280.5170	281	60	N/A	1245.6088	600	19	-1.1850	269.1720	269	60	N/A	1277.4807	600
20	-0.9130	284.7648	285					20	-1.1116	272.6633	273				
21	-0.8241	288.8496	289					21	-1.0386	276.1378	276				
22	-0.7384	292.7862	293					22	-0.9475	280.4738	280				
23	-0.6557	296.5882	297					23	-0.8594	284.6678	285				
24	-0.5814	300.0000	300					24	-0.7740	288.7323	289				
25	-0.5081	303.3667	303					25	-0.6911	292.6785	293				
26	-0.4357	306.6967	307					26	-0.6105	296.5166	297				
27	-0.3638	309.9979	310					27	-0.5373	300.0000	300				
28	-0.2924	313.2778	313					28	-0.4645	303.4623	303				
29	-0.2213	316.5436	317					29	-0.3921	306.9109	307				
30	-0.1504	319.8023	320					30	-0.3197	310.3531	310				
31	-0.0795	323.0609	323					31	-0.2474	313.7963	314				
32	-0.0084	326.3263	326					32	-0.1749	317.2475	317				
33	0.0630	329.6054	330					33	-0.1021	320.7141	321				
34	0.1348	332.9055	333					34	-0.0287	324.2037	324				
35	0.2072	336.2341	336					35	0.0452	327.7239	328				
36	0.2805	339.5991	340					36	0.1200	331.2832	331				
37	0.3547	343.0089	343					37	0.1958	334.8902	335				
38	0.4301	346.4725	346					38	0.2728	338.5545	339				
39	0.5068	350.0000	350					39	0.3512	342.2863	342				
40	0.5853	353.6023	354					40	0.4313	346.0972	346				

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	White-American Indian	White-Asian	White-Pacific Islander	White-Filipino	White-Combined Asian	White-Hispanic	White-African American	English Only-English Learner	Nondisabled-Disabled	
ELA Grade 4	CSL20240.010	43	A+	A-	B+	A+	C+	B+	A+	B+	A+	A-	
ELA Grade 4	CSL50401.OSA	68	A+	A+	B+	B+	C+	B+	A+	A+	A+	A-	
ELA Grade 5	CSL10963.106	49	A-	A+	C+	B+	C+	C+	A+	A+	A-	A-	
ELA Grade 5	CSL50012.046	67	A+	A+	C+	C+	C+	C+	A+	B+	A-	A-	
ELA Grade 5	CSL00147.OSA	80	A+	A+	B+	B+	C+	B+	A+	A+	A-	A-	
ELA Grade 6	CSL20935.092	46	A+	A+	C+	B+	C+	C+	B+	B+	A+	A-	
ELA Grade 7	CSR106454.153	35	C-	A+	A-	A-	A-	A-	A-	A-	A-	A-	
ELA Grade 7	CSL20919.091	51	A-	A+	B+	A+	C+	B+	A+	A+	A+	A+	
ELA Grade 7	CSW30051.OSA	essay	C+	A-	A+	A+	A+	A+	A-	A-	C-	C-	
ELA Grade 8	CSR60315.222	13	A-	A-	B-	B-	C-	B-	A-	B-	A-	A+	
ELA Grade 8	CSL60357.075	63	A+	A+	C+	B+	C+	C+	A+	A+	A+	A-	
ELA Grade 8	CSR13434.102	80	A+	A+	B+	B+	C+	B+	B+	A+	A+	A-	
ELA Grade 8	CSL00214.OSA	81	A+	A+	B+	A+	C+	B+	A+	A+	A+	A-	
ELA Grade 9	CSL20623.016	50	A+	A-	C-	A-	C-	C-	A-	A-	A-	A-	
ELA Grade 9	CSL20772.075	77	A+	A-	C+	A+	C+	C+	A+	A+	A+	A-	
ELA Grade 10	CSL60195.OSA	70	C+	A+	B+	A+	A+	A+	A+	A+	A+	A-	
ELA Grade 11	CSR40240.041	16	A+	A+	A+	A+	A+	A+	C+	A+	C+	A-	
ELA Grade 11	CSL60125.OSA	72	A+	A-	B-	A-	C-	B-	A-	A-	A-	A-	
History-SS Grade 8	CSF10147	1	B-	A-	A-	A-	A-	A-	A-	C-	A-	A-	
History-SS Grade 8	CSV20860	81	A+	A-	A-	B-	C-	B-	A-	A-	A-	A-	
World History	CSV21336	65	A-	A-	C+	A+	A+	B+	A+	A+	A+	A+	
History-SS Grade 11	CSV40186	9	A-	A+	C+	A+	B+	C+	A-	A-	A-	A-	
History-SS Grade 11	CSV20591	61	A+	A+	C-	A-	B-	B-	A-	A+	A-	A-	
Math Grade 3	CSM10132	65	A+	A+	B+	A+	C+	B+	A+	A+	A-	A-	
High School Math	CST60063	69	A-	A-	C-	B-	C-	C-	B-	A-	B-	A+	
Integrated Math 2	CSA20118	3	A+	‡	C+	‡	A+	B+	A+	B+	B+	A+	
Integrated Math 2	CSA70067	8	A-	‡	A+	‡	C+	B+	A+	A+	A-	A-	
Biology	CSB20142	13	C+	A+	A-	A+	A-	A-	A+	A+	A+	A+	
Physics	CSP80021	1	C-	A+	A-	A-	A-	A-	A-	B-	A-	A-	
Int/Coord Science 2	CSB60114	37	A+	‡	C+	‡	A+	B+	A+	A+	A-	A-	
Int/Coord Science 2	CSY20066	53	A-	‡	C-	‡	A-	B-	A-	B-	A-	A-	
Int/Coord Science 2	CSP60147	62	A+	‡	C-	‡	A-	B-	A-	A-	A+	A-	

* Items exhibiting significant DIF are those flagged as C+ or C- for any of the subgroups in the DIF analyses.

‡ Minimum sample size for DIF analysis was 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	White-American Indian	White-Asian	White-Pacific Islander	White-Filipino	White-Combined Asian	White-Hispanic	White-African American	English Only-English Learner	Nondisabled-Disabled
ELA Grade 2	CSR70465.252	1	45	A-	A-	A-	C-	A-	A-	B-	B-	B-	A-
ELA Grade 2	CSR70160.289	3	47	A-	A-	A-	B-	C-	B-	B-	B-	A-	A+
ELA Grade 2	CSR70159.289	3	49	A+	A-	B+	A-	C+	B+	A+	A+	A+	A+
ELA Grade 2	CSL80004.120	7	44	A+	A+	C+	A-	B+	B+	A-	A+	A+	A+
ELA Grade 2	CSL80040.133	10	47	A+	A+	B+	A+	C+	C+	A+	A+	A-	A-
ELA Grade 3	CSR80122.321	3	45	A+	A-	B+	B+	C+	B+	A+	A+	A+	A-
ELA Grade 3	CSL80074.132	6	41	A-	A+	A-	C-	B-	A-	B-	B-	A-	A+
ELA Grade 3	CSR70370.290	7	45	A-	A-	B-	C-	C-	C-	B-	A-	B-	A+
ELA Grade 3	CSL80050.121	9	40	A+	A-	A+	A+	C+	A+	A+	A+	A+	A-
ELA Grade 3	CSL80044.121	10	40	A+	A-	B+	A+	C+	B+	A+	A+	A+	A-
ELA Grade 4	CSR80177.293	1	32	C-	A-	A-	A-	A-	A-	A-	B-	A+	A+
ELA Grade 4	CSR70262.233	3	34	A-	A-	C-	A-	B-	C-	C-	A-	C-	A+
ELA Grade 4	CSR80219.292	6	30	C-	A-	A+	A-	A+	A+	A-	A-	A-	A+
ELA Grade 4	CSL70153.102	7	34	A+	A-	B-	B-	C-	B-	B-	B-	B-	A+
ELA Grade 4	CSL70152.102	8	31	A-	A-	C-	B-	B-	C-	C-	B-	C-	A+
ELA Grade 4	CSL70145.102	8	33	A+	A-	C+	A+	C+	C+	A+	A+	A-	A-
ELA Grade 4	CSL80117.128	9	32	A+	A+	C+	B+	C+	C+	A+	B+	A+	A-
ELA Grade 5	CSR70526.236	1	42	A-	A-	A+	A-	A-	A+	B-	A+	C-	A+
ELA Grade 5	CSR80306.324	3	38	A-	A-	C-	A-	C-	C-	B-	A-	C-	A+
ELA Grade 5	CSL80170.134	9	40	A-	A-	A-	A-	A-	A-	B-	A+	C-	A+
ELA Grade 5	CSL80163.134	9	41	C+	A-	C+	B+	C+	C+	A+	C+	A+	B-
ELA Grade 6	CSR70162.244	2	37	A-	B-	C-	B-	C-	C-	B-	A-	A-	A-
ELA Grade 6	CSR80410.317	4	34	A-	A-	C-	A-	C-	C-	A-	A-	B-	A-
ELA Grade 6	CSL70473.087	8	34	A+	A-	A-	C-	B-	B-	A-	A-	A-	A+
ELA Grade 6	CSL70021.086	9	35	A+	A+	C+	A+	B+	B+	A+	A+	A-	A-
ELA Grade 7	CSR80380.308	1	36	A+	A+	A-	A-	C-	B-	A-	A-	A-	A+
ELA Grade 7	CSL80242.135	7	38	A+	A+	C+	A+	A+	B+	A+	A+	A+	A-
ELA Grade 8	CSR80275.328	5	45	B+	A-	B-	A-	C-	C-	A-	B-	A+	A+
ELA Grade 8	CSR80277.328	6	45	B-	A+	A+	A-	A-	A-	B-	A-	C-	A-
ELA Grade 8	CSL80198.122	7	43	A+	A-	C-	B-	C-	C-	A-	B-	A-	A-
ELA Grade 8	CSL80193.122	8	41	B-	A-	C+	A+	B+	B+	A-	A+	A-	A+
ELA Grade 8	CSL80208.136	9	41	B+	A-	C+	B+	C+	C+	A+	B+	A-	B-
ELA Grade 8	CSL80210.136	10	43	A-	A+	C-	A-	B-	C-	C-	A-	C-	A+
ELA Grade 9	CSR80248.327	4	42	B-	A-	A-	A-	A+	A-	C-	B-	A-	A+
ELA Grade 9	CSL80094.131	8	41	B-	A-	B-	B-	B-	B-	C-	B-	B-	A+
ELA Grade 10	CSR80244.314	5	39	A+	A-	A-	A-	C-	A-	A-	B-	A-	A+
ELA Grade 10	CSR80233.314	5	43	A-	A-	C+	A+	C+	C+	A-	A+	A+	A+

Field-test Items Exhibiting Significant DIF*

Test	Item Number	Form	Item Seq. No.	Male-Female	White-American Indian	White-Asian	White-Pacific Islander	White-Filipino	White-Combined Asian	White-Hispanic	White-African American	English Only-English Learner	Nondisabled-Disabled
ELA Grade 10	CSL80150.130	10	39	A-	A-	A-	A-	A-	A-	A-	A-	C-	A-
ELA Grade 11	CSR80002.319	2	46	A+	A-	A+	A+	A+	A+	C+	A-	B+	A-
History-SS Grade 8	CSV22823	4	33	A+	A+	A-	A-	A-	A-	A-	A-	C-	A-
Math Grade 3	CSM80262	1	66	A+	B-	B-	B-	A-	B-	B-	B-	C-	A-
Math Grade 3	CSM80342	9	34	A-	A-	A-	C-	B-	A-	B-	C-	B-	A-
Math Grade 3	CSM80352	9	48	A-	A-	A-	C-	A-	A-	A-	A-	A-	A+
Math Grade 5	CSM80032	1	51	B-	A-	A-	B-	A-	A-	B-	C-	A-	A+
Math Grade 5	CSM70163	2	67	C-	B-	B-	B-	B-	B-	C-	C-	B-	A+
Math Grade 5	CSM80047	5	32	A-	A-	A-	B-	A-	A-	B-	C-	B-	A-
Math Grade 6	CSM80211	5	47	A+	A+	C+	A+	B+	B+	B+	A+	A+	A-
Math Grade 6	CSM80205	7	27	A-	A-	B-	C-	B-	B-	C-	B-	C-	A+
Algebra II	CST80034	3	57	A-	A-	B-	A-	B-	B-	A-	B-	C-	A-
High School Math	CSG80002	4	20	A+	A-	A-	A+	A-	A-	A-	A-	C-	A+
High School Math	CSA80032	5	19	A-	A-	A-	B-	B-	A-	B-	B-	C-	A-
High School Math	CSG80042	5	40	A-	A+	A-	A+	A+	A-	A-	A-	C-	B-
Science Grade 5	CSZ90200	10	8	A-	A-	B-	B-	C-	B-	A-	A-	A-	A+
Science Grade 8	CSZ90411	1	11	A+	A-	C+	A+	A+	B+	A+	A-	A-	A-
Science Grade 8	CSZ90461	14	61	C+	A+	A+	A+	A+	A+	A+	A+	A-	A-
Life Science	CSZ90020	3	11	A+	A-	A-	A-	C-	B-	B-	A-	A-	A+
Chemistry	CSC90080	1	20	C-	A+	A-	A-	A-	A-	A-	A-	A-	A+
Chemistry	CSC90038	9	36	A+	‡	A-	A+	A-	A-	B-	A-	C-	A-
Chemistry	CSC90042	10	38	A-	‡	A-	‡	A-	A-	A-	A-	C-	A-
Earth Science	CSY90072	13	31	A-	A-	C-	‡	C-	C-	C-	C-	A-	A+
Int/Coord Science 2	CSB90036	1	9	A+	‡	B-	‡	A+	A-	A-	C-	A-	A-

* Items exhibiting significant DIF are those flagged as C+ or C- for any of the subgroups in the DIF analyses.

‡ Minimum sample size for DIF analysis was not met.

Table 8.E.3 DIF Classifications for ELA, Grade Two Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	1	2	3	5	0	0	0	0	0	0	0	0	0	0	3	5
A-	35	54	37	57	34	52	31	48	27	42	31	48	33	51	35	54	32	49	32	49	30	46
A+	29	45	28	43	28	43	32	49	31	48	31	48	32	49	30	46	33	51	33	51	28	43
B+	1	2	0	0	3	5	1	2	4	6	3	5	0	0	0	0	0	0	0	0	4	6
C+	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	0	0	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	65	100	65	100

Table 8.E.4 DIF Classifications for ELA, Grade Three Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	3	5	2	3	4	6	3	5	2	3	2	3	1	2	0	0	6	9
A-	25	38	34	52	28	43	32	49	30	46	29	45	27	42	30	46	31	48	36	55	27	42
A+	38	58	31	48	29	45	31	48	26	40	28	43	35	54	33	51	31	48	29	45	25	38
B+	0	0	0	0	5	8	0	0	5	8	5	8	1	2	0	0	2	3	0	0	7	11
C+	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	0	0	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	65	100	65	100

Table 8.E.5 DIF Classifications for ELA, Grade Four Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	1	0	0	3	4	1	1	4	5	3	4	1	1	0	0	0	0	0	0	5	7
A-	33	43	35	46	30	39	35	46	32	42	31	41	40	53	37	49	36	47	38	50	33	43
A+	42	55	41	54	40	53	39	51	36	47	40	53	35	46	38	50	40	53	38	50	33	43
B+	0	0	0	0	3	4	1	1	2	3	2	3	0	0	1	1	0	0	0	0	3	4
C+	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100

Table 8.E.6 DIF Classifications for ELA, Grade Five Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	3	4	0	0	2	3	2	3	0	0	0	0	2	3	0	0	7	9
A-	32	43	37	49	37	49	41	55	40	53	37	49	34	45	40	53	34	45	36	48	36	48
A+	40	53	38	51	29	39	31	41	27	36	31	41	41	55	34	45	39	52	39	52	23	31
B+	1	1	0	0	4	5	2	3	3	4	3	4	0	0	1	1	0	0	0	0	6	8
C+	0	0	0	0	2	3	1	1	3	4	2	3	0	0	0	0	0	0	0	0	3	4
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 8.E.7 DIF Classifications for ELA, Grade Six Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	2	3	0	0	1	1	1	1	0	0	0	0	1	1	0	0	6	8
A-	36	48	34	45	37	49	38	51	35	47	37	49	39	52	40	53	34	45	38	51	29	39
A+	36	48	41	55	32	43	36	48	36	48	33	44	35	47	34	45	40	53	37	49	36	48
B+	1	1	0	0	3	4	1	1	2	3	3	4	1	1	1	1	0	0	0	0	3	4
C+	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 8.E.8 DIF Classifications for ELA, Grade Seven Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
B-	2	3	0	0	3	4	0	0	4	5	2	3	1	1	0	0	1	1	0	0	6	8
A-	33	43	35	46	33	43	35	46	35	46	35	46	33	43	32	42	33	43	39	51	28	37
A+	36	47	41	54	37	49	41	54	33	43	36	47	41	54	44	58	41	54	36	47	31	41
B+	3	4	0	0	3	4	0	0	3	4	3	4	1	1	0	0	0	0	0	0	8	11
C+	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100

Table 8.E.9 DIF Classifications for ELA, Grade Eight Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
B-	0	0	0	0	4	5	1	1	1	1	2	3	2	3	1	1	1	1	0	0	4	5
A-	35	47	36	48	32	43	38	51	36	48	34	45	33	44	31	41	37	49	36	48	32	43
A+	38	51	39	52	34	45	33	44	31	41	35	47	39	52	43	57	37	49	39	52	29	39
B+	2	3	0	0	4	5	3	4	3	4	3	4	1	1	0	0	0	0	0	0	6	8
C+	0	0	0	0	1	1	0	0	3	4	1	1	0	0	0	0	0	0	0	0	3	4
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 8.E.10 DIF Classifications for ELA, Grade Nine Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1
B-	2	3	0	0	6	8	0	0	3	4	1	1	0	0	0	0	1	1	0	0	10	13
A-	36	48	35	47	24	32	39	52	30	40	30	40	33	44	34	45	35	47	31	41	26	35
A+	37	49	40	53	42	56	35	47	39	52	41	55	42	56	41	55	39	52	44	59	36	48
B+	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1
C+	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 8.E.11 DIF Classifications for ELA, Grade Ten Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	1	0	0	3	4	0	0	3	4	2	3	0	0	0	0	2	3	0	0	7	9
A-	39	52	37	49	31	41	35	47	34	45	33	44	35	47	36	48	33	44	38	51	25	33
A+	34	45	38	51	40	53	40	53	37	49	40	53	40	53	39	52	40	53	37	49	41	55
B+	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
C+	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 8.E.12 DIF Classifications for ELA, Grade Eleven Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
B-	3	4	0	0	3	4	0	0	1	1	3	4	1	1	0	0	0	0	0	0	5	7
A-	31	41	35	47	33	44	36	48	38	51	37	49	37	49	38	51	35	47	28	37	32	43
A+	40	53	40	53	39	52	39	52	34	45	35	47	36	48	37	49	39	52	47	63	34	45
B+	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	1
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 8.E.13 DIF Classifications for History–Social Science, Grade Eight Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	2	3
B-	3	4	0	0	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	3	4
A-	32	43	35	47	37	49	34	45	40	53	35	47	40	53	33	44	32	43	36	48	30	40
A+	40	53	40	53	34	45	40	53	33	44	36	48	34	45	39	52	43	57	38	51	34	45
B+	0	0	0	0	4	5	0	0	1	1	3	4	1	1	1	1	0	0	0	0	6	8
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 8.E.14 DIF Classifications for World History Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
A-	26	43	31	52	33	55	33	55	31	52	34	57	28	47	34	57	22	37	28	47	30	50
A+	32	53	29	48	25	42	27	45	29	48	25	42	32	53	26	43	38	63	32	53	26	43
B+	1	2	0	0	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.15 DIF Classifications for History–Social Science Grade Eleven Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
B-	2	3	0	0	1	2	0	0	2	3	2	3	1	2	1	2	1	2	0	0	5	8
A-	26	43	30	50	23	38	30	50	26	43	23	38	26	43	31	52	28	47	28	47	21	35
A+	30	50	30	50	34	57	30	50	29	48	34	57	33	55	27	45	31	52	32	53	27	45
B+	2	3	0	0	0	0	0	0	3	5	0	0	0	0	1	2	0	0	0	0	5	8
C+	0	0	0	0	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.16 DIF Classifications for Mathematics, Grade Two Operational Items

DIF category	NonD-																					
	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Dis		Total	
	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
B-	0	0	0	0	1	2	2	3	2	3	0	0	2	3	1	2	2	3	0	0	4	6
A-	29	45	32	49	28	43	26	40	25	38	27	42	26	40	28	43	27	42	29	45	28	43
A+	36	55	33	51	36	55	35	54	36	55	38	58	37	57	36	55	36	55	36	55	30	46
B+	0	0	0	0	0	0	2	3	2	3	0	0	0	0	0	0	0	0	0	0	3	5
C+	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	0	0	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	65	100	65	100

Table 8.E.17 DIF Classifications for Mathematics, Grade Three Operational Items

DIF category	NonD-																					
	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Dis		Total	
	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
B-	3	5	0	0	0	0	0	0	2	3	0	0	0	0	1	2	1	2	0	0	5	8
A-	28	43	34	52	38	58	33	51	28	43	33	51	33	51	29	45	30	46	33	51	29	45
A+	34	52	31	48	26	40	31	48	33	51	31	48	31	48	32	49	34	52	32	49	26	40
B+	0	0	0	0	1	2	1	2	1	2	1	2	1	2	3	5	0	0	0	0	4	6
C+	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.18 DIF Classifications for Mathematics, Grade Four Operational Items

DIF category	NonD-																					
	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Dis		Total	
	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
B-	3	5	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2	0	0	4	6
A-	23	35	32	49	34	52	32	49	32	49	34	52	26	40	26	40	28	43	36	55	25	38
A+	39	60	33	51	31	48	31	48	32	49	31	48	38	58	38	58	36	55	29	45	34	52
B+	0	0	0	0	0	0	2	3	1	2	0	0	0	0	1	2	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.19 DIF Classifications for Mathematics, Grade Five Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	5
A-	29	45	26	40	31	48	33	51	33	51	35	54	32	49	33	51	33	51	33	51	31	48
A+	34	52	39	60	34	52	32	49	32	49	30	46	33	51	29	45	32	49	32	49	29	45
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.20 DIF Classifications for Mathematics, Grade Six Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	4	6	0	0	1	2	1	2	2	3	1	2	1	2	3	5	0	0	0	0	4	6
A-	27	42	37	57	29	45	32	49	28	43	31	48	27	42	29	45	34	52	35	54	24	37
A+	33	51	28	43	34	52	29	45	34	52	32	49	37	57	30	46	31	48	30	46	33	51
B+	1	2	0	0	1	2	3	5	1	2	1	2	0	0	3	5	0	0	0	0	4	6
C+	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	0	0	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	65	100	65	100

Table 8.E.21 DIF Classifications for Mathematics, Grade Seven Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	4	6	0	0	0	0	1	2	1	2	0	0	0	0	1	2	0	0	0	0	5	8
A-	25	38	31	48	31	48	31	48	28	43	32	49	27	42	30	46	31	48	34	52	24	37
A+	35	54	34	52	33	51	33	51	36	55	33	51	38	58	34	52	34	52	31	48	34	52
B+	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.22 DIF Classifications for General Mathematics Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	1	2	2	3	1	2	1	2	0	0	0	0	0	0	0	0	4	6
A-	26	40	30	46	32	49	28	43	29	45	30	46	33	51	32	49	29	45	36	55	25	38
A+	36	55	35	54	32	49	35	54	34	52	34	52	32	49	33	51	36	55	29	45	34	52
B+	1	2	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.23 DIF Classifications for Algebra I Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2
A-	28	43	29	45	30	46	28	43	29	45	26	40	29	45	24	37	18	28	22	34	26	40
A+	37	57	36	55	35	54	37	57	36	55	39	60	36	55	41	63	46	71	43	66	38	58
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.24 DIF Classifications for Geometry Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	2	3
A-	32	49	37	57	30	46	32	49	32	49	27	42	30	46	29	45	24	37	29	45	27	42
A+	33	51	28	43	35	54	33	51	33	51	38	58	35	54	36	55	39	60	36	55	36	55
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.25 DIF Classifications for Algebra II Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	2	3
A-	26	40	34	52	24	37	28	43	27	42	25	38	33	51	30	46	25	38	32	49	27	42
A+	39	60	31	48	41	63	37	57	38	58	40	62	32	49	35	54	38	58	33	51	36	55
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	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	65	100	65	100

Table 8.E.26 DIF Classifications for Summative High School Mathematics Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	1	2	0	0	1	2	1	2	0	0	0	0	0	0	0	0	1	2
B-	2	3	0	0	0	0	3	5	0	0	0	0	2	3	2	3	5	8	0	0	8	12
A-	25	38	33	51	25	38	27	42	22	34	23	35	29	45	30	46	26	40	33	51	18	28
A+	37	57	32	49	39	60	34	52	42	65	41	63	33	51	33	51	32	49	32	49	35	54
B+	1	2	0	0	0	0	1	2	0	0	0	0	1	2	0	0	2	3	0	0	3	5
C+	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	0	0	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	65	100	65	100

Table 8.E.27 DIF Classifications for Integrated Mathematics 1 Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	3	5	0	0	1	2	1	2	0	0	1	2	1	2	0	0	5	8
A-	30	46	0	0	22	34	0	0	34	52	28	43	30	46	22	34	26	40	26	40	23	35
A+	35	54	0	0	39	60	0	0	27	42	35	54	35	54	42	65	38	58	38	58	32	49
B+	0	0	0	0	1	2	0	0	3	5	1	2	0	0	0	0	0	0	1	2	5	8
C+	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	65	100	0	0	65	100	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	65	100	65	100

Table 8.E.28 DIF Classifications for Integrated Mathematics 2 Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	3	5	0	0	5	8	1	2	0	0	4	6	1	2	0	0	9	14
A-	27	42	0	0	32	49	0	0	28	43	35	54	30	46	32	49	31	48	33	51	25	38
A+	36	55	0	0	27	42	0	0	28	43	27	42	35	54	26	40	32	49	31	48	22	34
B+	0	0	0	0	2	3	0	0	3	5	2	3	0	0	3	5	1	2	1	2	7	11
C+	0	0	0	0	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	3
Small N	0	0	65	100	0	0	65	100	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	65	100	65	100

Table 8.E.29 DIF Classifications for Integrated Mathematics 3 Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	5	8
A-	27	42	0	0	0	0	0	0	0	0	0	0	29	45	0	0	0	0	0	0	25	38
A+	35	54	0	0	0	0	0	0	0	0	0	0	30	46	0	0	0	0	0	0	31	48
B+	1	2	0	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	4	6
C+	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	65	100	65	100	65	100	65	100	65	100	0	0	65	100	65	100	65	100	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 8.E.30 DIF Classifications for Science, Grade Five Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2
A-	31	52	24	40	28	47	29	48	32	53	30	50	31	52	32	53	29	48	25	42	28	47
A+	28	47	36	60	30	50	31	52	28	47	29	48	29	48	28	47	30	50	35	58	29	48
B+	1	2	0	0	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.31 DIF Classifications for Science, Grade Eight Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2
A-	27	45	28	47	32	53	28	47	32	53	30	50	30	50	29	48	23	38	25	42	26	43
A+	32	53	32	53	26	43	32	53	28	47	29	48	30	50	31	52	36	60	35	58	30	50
B+	1	2	0	0	2	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	5
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.32 DIF Classifications for Grade Ten Life Science Operational Items

DIF category	NonD-																					
	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Dis		Total	
	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
B-	0	0	0	0	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	3
A-	33	55	27	45	33	55	29	48	24	40	33	55	29	48	30	50	28	47	29	48	31	52
A+	25	42	33	55	25	42	31	52	35	58	27	45	31	52	30	50	32	53	31	52	25	42
B+	2	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.33 DIF Classifications for Biology Operational Items

DIF category	NonD-																					
	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Dis		Total	
	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
B-	0	0	0	0	3	5	1	2	2	3	2	3	0	0	0	0	0	0	0	0	3	5
A-	28	47	24	40	24	40	32	53	25	42	25	42	32	53	27	45	29	48	29	48	28	47
A+	29	48	36	60	32	53	27	45	33	55	33	55	28	47	33	55	31	52	31	52	25	42
B+	2	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5
C+	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.34 DIF Classifications for Chemistry Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2
A-	30	50	27	45	28	47	27	45	22	37	27	45	24	40	28	47	28	47	30	50	25	42
A+	30	50	33	55	32	53	33	55	38	63	33	55	36	60	32	53	31	52	30	50	34	57
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.35 DIF Classifications for Earth Science Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
A-	28	47	29	48	30	50	29	48	29	48	28	47	28	47	27	45	29	48	29	48	28	47
A+	29	48	31	52	28	47	30	50	31	52	32	53	32	53	33	55	31	52	31	52	26	43
B+	2	3	0	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	4	7
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.36 DIF Classifications for Physics Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
B-	1	2	0	0	1	2	0	0	0	0	0	0	0	0	1	2	1	2	0	0	3	5
A-	28	47	29	48	28	47	30	50	30	50	28	47	31	52	24	40	29	48	32	53	25	42
A+	28	47	30	50	31	52	29	48	30	50	32	53	29	48	35	58	30	50	27	45	26	43
B+	2	3	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	2	5	8
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.37 DIF Classifications for Integrated/Coordinated Science 1 Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	1	2	1	2	2	3	1	2	0	0	0	0	0	0	0	0	3	5
A-	29	48	31	52	26	43	28	47	26	43	26	43	29	48	29	48	30	50	29	48	27	45
A+	31	52	29	48	32	53	30	50	32	53	32	53	31	52	31	52	30	50	31	52	28	47
B+	0	0	0	0	1	2	1	2	0	0	1	2	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.38 DIF Classifications for Integrated/Coordinated Science 2 Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
B-	3	5	0	0	4	7	0	0	5	8	5	8	0	0	2	3	1	2	0	0	9	15
A-	26	43	0	0	24	40	0	0	26	43	24	40	35	58	28	47	30	50	30	50	16	27
A+	29	48	0	0	23	38	0	0	22	37	24	40	25	42	27	45	29	48	30	50	21	35
B+	2	3	0	0	6	10	0	0	7	12	7	12	0	0	3	5	0	0	0	0	11	18
C+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	60	100	0	0	60	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.39 DIF Classifications for Integrated/Coordinated Science 3 Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	0	4	7	0	0	6	10
A-	29	48	0	0	0	0	0	0	0	0	0	0	25	42	0	0	23	38	0	0	20	33
A+	30	50	0	0	0	0	0	0	0	0	0	0	32	53	0	0	31	52	0	0	31	52
B+	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	3	5
C+	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	60	100	60	100	60	100	60	100	60	100	0	0	60	100	0	0	60	100	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.40 DIF Classifications for Integrated/Coordinated Science 4 Operational Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.41 DIF Classifications for ELA, Grade Two Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	2	3
B-	0	0	2	3	0	0	4	7	4	7	1	2	3	5	2	3	3	5	0	0	8	13
A-	26	43	36	60	28	47	38	63	26	43	28	47	37	62	32	53	32	53	43	72	25	42
A+	34	57	22	37	27	45	17	28	26	43	27	45	20	33	26	43	25	42	17	28	20	33
B+	0	0	0	0	4	7	0	0	1	2	3	5	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	1	2	0	0	2	3	1	2	0	0	0	0	0	0	0	0	3	5
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.42 DIF Classifications for ELA, Grade Three Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	2	3	1	2	1	2	0	0	0	0	0	0	0	0	2	3
B-	0	0	3	5	3	5	5	8	7	12	2	3	3	5	2	3	2	3	0	0	12	20
A-	29	48	39	65	26	43	29	48	28	47	28	47	35	58	38	63	38	63	26	43	24	40
A+	31	52	18	30	27	45	22	37	20	33	26	43	22	37	20	33	20	33	34	57	15	25
B+	0	0	0	0	4	7	2	3	1	2	3	5	0	0	0	0	0	0	0	0	4	7
C+	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	0	0	0	0	3	5
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.43 DIF Classifications for ELA, Grade Four Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	2	3	0	0	2	3	0	0	1	2	2	3	2	3	0	0	2	3	0	0	5	8
B-	0	0	2	3	2	3	3	5	5	8	2	3	2	3	4	7	3	5	0	0	8	13
A-	27	45	40	67	27	45	37	62	29	48	27	45	35	58	34	57	38	63	31	52	23	38
A+	31	52	18	30	26	43	19	32	22	37	26	43	21	35	21	35	17	28	29	48	21	35
B+	0	0	0	0	1	2	1	2	1	2	1	2	0	0	1	2	0	0	0	0	1	2
C+	0	0	0	0	2	3	0	0	2	3	2	3	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.44 DIF Classifications for ELA, Grade Five Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	1	2	0	0	1	2	1	2	0	0	0	0	3	5	0	0	3	5
B-	2	3	1	2	2	3	8	13	7	12	3	5	7	12	5	8	3	5	1	2	17	28
A-	36	60	40	67	31	52	37	62	28	47	33	55	36	60	37	62	43	72	30	50	22	37
A+	21	35	19	32	22	37	14	23	19	32	19	32	17	28	16	27	11	18	29	48	13	22
B+	0	0	0	0	3	5	1	2	4	7	3	5	0	0	1	2	0	0	0	0	4	7
C+	1	2	0	0	1	2	0	0	1	2	1	2	0	0	1	2	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.45 DIF Classifications for ELA, Grade Six Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	2	3	1	2	2	3	2	3	0	0	0	0	0	0	0	0	3	5
B-	0	0	1	2	2	3	4	7	2	3	1	2	1	2	0	0	4	7	0	0	8	13
A-	21	35	39	65	27	45	38	63	29	48	29	48	31	52	46	77	44	73	44	73	24	40
A+	39	65	20	33	28	47	16	27	25	42	27	45	27	45	14	23	12	20	16	27	21	35
B+	0	0	0	0	0	0	1	2	2	3	1	2	1	2	0	0	0	0	0	0	3	5
C+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.46 DIF Classifications for ELA, Grade Seven Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	2
B-	0	0	0	0	1	2	1	2	1	2	1	2	0	0	0	0	2	3	0	0	4	7
A-	16	27	23	39	24	41	31	53	27	46	23	39	32	54	36	61	36	61	32	54	25	42
A+	41	69	36	61	32	54	26	44	30	51	34	58	27	46	23	39	21	36	27	46	25	42
B+	2	3	0	0	1	2	1	2	0	0	1	2	0	0	0	0	0	0	0	0	3	5
C+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100

Table 8.E.47 DIF Classifications for ELA, Grade Eight Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	2	3	0	0	2	3	3	5	1	2	0	0	2	3	0	0	4	7
B-	2	3	0	0	1	2	4	7	1	2	0	0	1	2	4	7	2	3	1	2	5	8
A-	21	36	34	58	18	31	28	47	21	36	21	36	20	34	20	34	38	64	44	75	22	37
A+	34	58	25	42	34	58	24	41	31	53	32	54	37	63	34	58	17	29	14	24	22	37
B+	2	3	0	0	2	3	3	5	3	5	2	3	0	0	1	2	0	0	0	0	4	7
C+	0	0	0	0	2	3	0	0	1	2	1	2	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100

Table 8.E.48 DIF Classifications for ELA, Grade Nine Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	2	3
B-	3	5	0	0	1	2	2	3	1	2	1	2	0	0	2	3	3	5	0	0	4	7
A-	20	33	31	52	21	35	26	43	21	35	20	33	32	53	33	55	43	72	30	50	22	37
A+	37	62	29	48	36	60	31	52	34	57	37	62	26	43	25	42	14	23	30	50	27	45
B+	0	0	0	0	2	3	1	2	4	7	2	3	0	0	0	0	0	0	0	0	5	8
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.49 DIF Classifications for ELA, Grade Ten Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2	0	0	2	3
B-	0	0	1	2	1	2	1	2	0	0	0	0	2	3	1	2	2	3	0	0	5	8
A-	18	31	37	63	28	47	35	59	31	53	32	54	43	73	42	71	39	66	30	51	26	44
A+	39	66	21	36	27	46	22	37	23	39	25	42	14	24	16	27	17	29	29	49	20	34
B+	2	3	0	0	2	3	1	2	3	5	1	2	0	0	0	0	0	0	0	0	5	8
C+	0	0	0	0	1	2	0	0	1	2	1	2	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100

Table 8.E.50 DIF Classifications for ELA, Grade Eleven Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	2	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2	0	0	3	5
A-	29	48	29	48	27	45	27	45	22	37	26	43	35	58	32	53	43	72	34	57	26	43
A+	30	50	30	50	31	52	33	55	36	60	32	53	24	40	28	47	15	25	26	43	26	43
B+	0	0	1	2	2	3	0	0	1	2	2	3	0	0	0	0	1	2	0	0	4	7
C+	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.51 DIF Classifications for History–Social Science, Grade Eight Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	1	3
B-	2	7	0	0	0	0	1	3	0	0	0	0	0	0	1	3	0	0	0	0	3	10
A-	15	50	20	67	13	43	16	53	11	37	14	47	21	70	20	67	19	63	16	53	14	47
A+	13	43	10	33	16	53	13	43	19	63	15	50	9	30	9	30	10	33	14	47	11	37
B+	0	0	0	0	1	3	0	0	0	0	1	3	0	0	0	0	0	0	0	0	1	3
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.52 DIF Classifications for World History Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3	1	3	0	0	1	3
A-	9	30	19	63	9	30	21	70	14	47	12	40	21	70	21	70	22	73	20	67	18	60
A+	21	70	11	37	21	70	9	30	16	53	18	60	8	27	8	27	7	23	10	33	11	37
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.53 DIF Classifications for History–Social Science Grade Eleven Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	3	0	0	0	0	1	3	0	0	0	0	1	3	0	0	0	0	0	0	2	7
A-	12	40	17	57	16	53	15	50	13	43	17	57	16	53	18	60	22	73	19	63	15	50
A+	17	57	13	43	13	43	14	47	16	53	13	43	12	40	11	37	8	27	11	37	10	33
B+	0	0	0	0	1	3	0	0	1	3	0	0	1	3	1	3	0	0	0	0	3	10
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.54 DIF Classifications for Mathematics, Grade Two Field-test Items

DIF category	NonD-Dis																				Total	
	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis			
	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
B-	2	3	1	2	0	0	1	2	1	2	0	0	0	0	2	3	0	0	0	0	6	10
A-	27	45	28	47	17	28	25	42	20	33	15	25	30	50	35	58	26	43	39	65	20	33
A+	31	52	31	52	43	72	32	53	36	60	45	75	30	50	23	38	34	57	21	35	30	50
B+	0	0	0	0	0	0	2	3	3	5	0	0	0	0	0	0	0	0	0	4	7	
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.55 DIF Classifications for Mathematics, Grade Three Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	2	3	0	0	0	0	0	0	1	2	1	2	0	0	3	5
B-	0	0	4	7	3	5	6	10	2	3	2	3	5	8	7	12	4	7	0	0	11	18
A-	37	62	33	55	14	23	28	47	26	43	19	32	32	53	31	52	33	55	41	68	18	30
A+	23	38	23	38	42	70	23	38	31	52	39	65	23	38	20	33	22	37	19	32	24	40
B+	0	0	0	0	1	2	1	2	1	2	0	0	0	0	1	2	0	0	0	0	4	7
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.56 DIF Classifications for Mathematics, Grade Four Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	3	0	0	0	0	3	5	2	3	0	0	0	0	1	2	1	2	0	0	6	10
A-	32	53	37	62	12	20	26	43	24	40	12	20	39	65	35	58	40	67	36	60	20	33
A+	26	43	22	37	45	75	30	50	34	57	48	80	21	35	24	40	19	32	24	40	29	48
B+	0	0	1	2	3	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	5	8
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.57 DIF Classifications for Mathematics, Grade Five Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	1	2	0	0	0	0	0	0	0	0	0	0	1	2	3	5	0	0	0	0	3	5
B-	4	7	2	3	1	2	9	15	2	3	1	2	6	10	5	8	7	12	0	0	13	22
A-	30	50	33	55	22	37	31	52	30	50	23	38	33	55	36	60	34	57	29	48	22	37
A+	25	42	25	42	36	60	20	33	26	43	36	60	20	33	16	27	19	32	31	52	19	32
B+	0	0	0	0	1	2	0	0	2	3	0	0	0	0	0	0	0	0	0	0	3	5
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.58 DIF Classifications for Mathematics, Grade Six Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	1	2	0	0	0	0	1	2	0	0	1	2	0	0	1	2
B-	1	2	0	0	2	3	6	10	2	3	3	5	1	2	3	5	1	2	0	0	8	13
A-	20	33	35	58	19	32	21	35	29	48	21	35	32	53	29	48	34	57	39	65	21	35
A+	38	63	25	42	37	62	32	53	28	47	35	58	25	42	28	47	24	40	21	35	27	45
B+	1	2	0	0	1	2	0	0	1	2	1	2	1	2	0	0	0	0	0	0	2	3
C+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.59 DIF Classifications for Mathematics, Grade Seven Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	2	3
A-	22	37	34	57	11	18	22	37	21	35	12	20	26	43	33	55	27	45	37	62	20	33
A+	38	63	26	43	45	75	34	57	37	62	46	77	34	57	27	45	31	52	23	38	29	48
B+	0	0	0	0	4	7	4	7	2	3	2	3	0	0	0	0	0	0	0	0	9	15
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.60 DIF Classifications for General Mathematics Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	2	33	2	33	2	33	0	0	1	17	1	17	1	17	2	33	4	67	3	50	1	17
A+	4	67	4	67	4	67	6	100	5	83	5	83	5	83	4	67	2	33	3	50	5	83
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.61 DIF Classifications for Algebra I Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	1	3
A-	14	47	19	63	10	33	15	50	13	43	10	33	19	63	22	73	18	60	16	53	16	53
A+	16	53	11	37	20	67	15	50	17	57	20	67	11	37	8	27	11	37	14	47	13	43
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.62 DIF Classifications for Geometry Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	1	3
A-	16	53	21	70	9	30	14	47	10	33	8	27	17	57	17	57	16	53	15	50	13	43
A+	14	47	9	30	21	70	16	53	20	67	22	73	13	43	13	43	13	43	15	50	16	53
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.63 DIF Classifications for Algebra II Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	1	3
B-	0	0	0	0	1	3	1	3	1	3	1	3	1	3	2	7	1	3	0	0	1	3
A-	11	37	21	70	14	47	17	57	12	40	15	50	15	50	21	70	17	57	17	57	14	47
A+	19	63	9	30	15	50	12	40	17	57	14	47	14	47	7	23	11	37	13	43	14	47
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.64 DIF Classifications for Summative High School Mathematics Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	0	0	3	10
B-	1	3	0	0	0	0	1	3	1	3	0	0	1	3	1	3	1	3	1	3	2	7
A-	17	57	20	67	9	30	15	50	16	53	10	33	23	77	21	70	13	43	15	50	15	50
A+	12	40	10	33	21	70	14	47	13	43	20	67	6	20	8	27	13	43	14	47	10	33
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.65 DIF Classifications for Integrated Mathematics 1 Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	0	0	1	17
A-	3	50	0	0	5	83	0	0	1	17	2	33	3	50	2	33	4	67	3	50	1	17
A+	3	50	0	0	1	17	0	0	4	67	4	67	3	50	4	67	1	17	3	50	3	50
B+	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	1	17
C+	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	6	100	0	0	6	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.66 DIF Classifications for Integrated Mathematics 2 Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	1	17
A-	4	67	0	0	4	67	0	0	4	67	4	67	3	50	2	33	5	83	2	33	2	33
A+	2	33	0	0	2	33	0	0	0	0	2	33	3	50	4	67	1	17	4	67	2	33
B+	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	1	17
C+	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	6	100	0	0	6	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.67 DIF Classifications for Integrated Mathematics 3 Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	1	17
A-	3	50	0	0	0	0	0	0	0	0	0	0	3	50	0	0	0	0	0	0	3	50
A+	3	50	0	0	0	0	0	0	0	0	0	0	2	33	0	0	0	0	0	0	2	33
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	100	6	100	6	100	6	100	6	100	0	0	6	100	6	100	6	100	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.68 DIF Classifications for Science, Grade Five Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
B-	3	4	2	2	2	2	7	8	2	2	2	2	1	1	3	4	2	2	0	0	15	18
A-	50	60	50	60	29	35	41	49	38	45	32	38	55	65	51	61	58	69	45	54	35	42
A+	27	32	32	38	51	61	34	40	43	51	49	58	28	33	30	36	24	29	39	46	28	33
B+	4	5	0	0	2	2	2	2	0	0	1	1	0	0	0	0	0	0	0	0	5	6
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 8.E.69 DIF Classifications for Science, Grade Eight Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	2	2	2	2	0	0	5	6	2	2	0	0	2	2	3	4	1	1	0	0	11	13
A-	39	46	53	63	32	38	41	49	39	46	32	38	60	71	53	63	63	75	45	54	43	51
A+	42	50	29	35	49	58	36	43	43	51	51	61	22	26	28	33	20	24	39	46	24	29
B+	0	0	0	0	2	2	2	2	0	0	1	1	0	0	0	0	0	0	0	0	4	5
C+	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 8.E.70 DIF Classifications for Grade Ten Life Science Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
B-	0	0	0	0	1	1	8	10	2	2	2	2	3	4	0	0	3	4	0	0	12	14
A-	35	42	53	63	30	36	48	57	48	57	34	40	53	63	58	69	54	64	53	63	42	50
A+	48	57	31	37	53	63	24	29	32	38	48	57	28	33	26	31	27	32	31	37	24	29
B+	1	1	0	0	0	0	4	5	1	1	0	0	0	0	0	0	0	0	0	0	5	6
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 8.E.71 DIF Classifications for Biology Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	1	2	2	1	1	2	2	0	0	1	1	1	1	1	1	0	0	0	0	7	8
A-	38	45	43	51	28	33	49	58	42	50	28	33	53	63	55	65	57	68	51	61	45	54
A+	44	52	39	46	51	61	32	38	42	50	53	63	30	36	28	33	27	32	33	39	27	32
B+	1	1	0	0	4	5	1	1	0	0	2	2	0	0	0	0	0	0	0	0	5	6
C+	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 8.E 72 DIF Classifications for Chemistry Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	3	4
B-	2	2	0	0	0	0	2	2	1	1	0	0	1	1	1	1	6	7	1	1	8	10
A-	41	49	13	15	49	58	16	19	42	50	43	51	59	70	55	65	53	63	42	50	44	52
A+	40	48	11	13	35	42	23	27	41	49	41	49	24	29	28	33	23	27	41	49	28	33
B+	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
C+	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	60	71	0	0	42	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 8.E.73 DIF Classifications for Earth Science Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	1	1
B-	1	1	2	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	5
A-	45	54	44	52	42	50	0	0	40	48	41	49	52	62	48	57	51	61	45	54	44	52
A+	37	44	37	44	38	45	0	0	41	49	40	48	31	37	34	40	33	39	39	46	31	37
B+	1	1	1	1	3	4	0	0	2	2	2	2	0	0	0	0	0	0	0	0	4	5
C+	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	0	0	0	0	84	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 8.E.74 DIF Classifications for Physics Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	3	4	0	0	1	1	0	0	3	4	1	1	1	1	5	6	3	4	6	7	19	23
A-	37	44	0	0	31	37	0	0	29	35	32	38	49	58	46	55	39	46	35	42	33	39
A+	40	48	0	0	45	54	0	0	45	54	47	56	34	40	32	38	41	49	31	37	21	25
B+	4	5	0	0	7	8	0	0	7	8	4	5	0	0	1	1	1	1	0	0	11	13
C+	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	84	100	0	0	84	100	0	0	0	0	0	0	0	0	0	0	12	14	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 8.E.75 DIF Classifications for Integrated/Coordinated Science 1 Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	3	50	5	83	3	50	6	100	1	17	3	50	3	50	5	83	4	67	5	83	4	67
A+	3	50	1	17	3	50	0	0	5	83	3	50	3	50	1	17	2	33	1	17	2	33
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.76 DIF Classifications for Integrated/Coordinated Science 2 Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	1	17
B-	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	3	50	0	0	2	33	0	0	3	50	4	67	4	67	2	33	4	67	4	67	3	50
A+	3	50	0	0	3	50	0	0	3	50	2	33	2	33	2	33	2	33	2	33	1	17
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	1	17
C+	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	6	100	0	0	6	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.77 DIF Classifications for Integrated/Coordinated Science 3 Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	3	50	0	0	0	0	0	0	0	0	0	0	3	50	0	0	3	50	0	0	5	83
A+	3	50	0	0	0	0	0	0	0	0	0	0	3	50	0	0	3	50	0	0	1	17
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	100	6	100	6	100	6	100	6	100	0	0	6	100	0	0	6	100	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.78 DIF Classifications for Integrated/Coordinated Science 4 Field-test Items

DIF category	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		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.
C-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	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 Office of Professional Standards Compliance at ETS publishes and maintains the *ETS Standards for Quality and Fairness*, which supports the OTI's goals and activities. The purposes of the *ETS Standards for Quality and Fairness* are to help ETS design, develop, and deliver technically sound, fair, and useful products and services; and to help the public and auditors evaluate those products and services.

In addition, each department at ETS that is involved in the testing cycle designs and implements an independent set of procedures to ensure the quality of their products. In the next sections, these procedures are described.

Quality Control of Item Development

The item development process for the CSTs is described in detail in Chapter 3, starting on page 188. The next sections highlight elements of the process devoted specifically to the quality control of item development.

Item Specifications

ETS maintains item development specifications for each CST 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 CST are written by item writers that have a thorough understanding of the California content standards. The item writers are carefully screened and selected by senior ETS content staff and approved by the CDE. Only those with strong content and teaching backgrounds are invited to participate in an extensive training program for item writers.

Internal Contractor Reviews

Once items have been written, ETS assessment specialists make sure that each item goes through an intensive internal review process. Every step of this process is designed to produce items that exceed industry standards for quality. It includes three rounds of content reviews, two rounds of editorial reviews, an internal fairness review, and a high-level review and approval by a content area director. A carefully designed and monitored workflow and detailed checklists help to ensure that all items meet the specifications for the process.

Content Review

ETS assessment specialists make sure that the test items and related materials comply with ETS's written guidelines for clarity, style, accuracy, and appropriateness and with approved item specifications.

The artwork and graphics for the items are created during the internal content review period so assessment specialists can evaluate the correctness and appropriateness of the art early in the item development process. ETS selects visuals that are relevant to the item content

and that are easily understood so students do not struggle to determine the purpose or meaning of the questions.

Editorial Review

Another step in the ETS internal review process involves a team of specially trained editors who check questions for clarity, correctness of language, grade-level appropriateness of language, adherence to style guidelines, and conformity to acceptable item-writing practices. The editorial review also includes rounds of copyediting and proofreading. ETS takes pride in the typographical integrity of the items presented to our clients and strives for error-free items beginning with the initial rounds of review.

Fairness Review

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

Assessment Director Review

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

Assessment Review Panel Review

The ARPs are panels that advise the CDE and ETS on areas related to item development for the CSTs. The ARPs are responsible for reviewing all newly developed items for alignment to the California content standards. The ARPs also review the items for accuracy of content, clarity of phrasing, and quality. See page 192 in Chapter 3 for additional information on the function of ARPs within the item-review process.

Statewide Pupil Assessment Review Panel Review

The SPAR panel is responsible for reviewing and approving the achievement tests that are to be used statewide for the testing of students in California public schools in grades two through eleven. The SPAR panel representatives ensure that the test items conform to the requirements of *EC* Section 60602. 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. See page 195 in Chapter 3 for additional information on the function of the SPAR panel within the item-review process.

Data Review of Field-tested Items

ETS field tests newly developed items to obtain statistical information about item performance. This information is used to evaluate items that are candidates for use in operational test forms. The items and item statistics are examined carefully at data review meetings, where content experts discuss items that have poor statistics and do not meet the psychometric criteria for item quality. The CDE defines the criteria for acceptable or unacceptable item statistics. These criteria ensure that the item (1) has an appropriate level of difficulty for the target population; (2) discriminates well between examinees that differ in ability; and (3) conforms well to the statistical model underlying the measurement of the intended constructs. The results of analyses for differential item functioning (DIF) are used to make judgments about the appropriateness of items for various subgroups.

The 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 California 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 California electronic item bank. The item bank database is maintained by a staff of application systems programmers, led by the Item Bank Manager, at ETS. All processes are logged; all change requests—including item bank updates for item availability status—are tracked; and all output and California item bank deliveries are quality-controlled for accuracy.

Quality of the item bank and secure transfer of the California item bank to the CDE is very important. The ETS internal item bank database resides on a server within the ETS firewall; access to the SQL Server database is strictly controlled by means of system administration. The electronic item banking application includes a login/password system to authorize access to the database or designated portions of the database. In addition, only users authorized to access the specific database are able to use the item bank. Users are authorized by a designated administrator at the CDE and at ETS.

ETS has extensive experience in accurate and secure data transfer of many types including CDs, secure remote hosting, secure Web access, and secure file transfer protocol (SFTP), which is the current method used to deliver the California electronic item bank to the CDE. In addition, all files posted on the SFTP site by the item bank staff are encrypted with a password.

The measures taken for ensuring the accuracy, confidentiality, and security of electronic files are as follows:

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

Quality Control of Test Form Development

The ETS Assessment Development group is committed to providing the highest quality product to the students of California and has in place a number of quality control (QC) checks to ensure that outcome. During the item development process, there are multiple senior reviews of items and passages, including one by the assessment director. Test forms certification is a formal quality control process established as a final checkpoint prior to printing. In it, content, editorial, and senior development staff review test forms for accuracy and clueing issues.

ETS also includes quality checks throughout preparation of the form planners. A form planner specifications document is developed by the test development team lead with input from ETS's item bank and statistics groups; this document is then reviewed by all team members who build forms at a training session specific to form planners before the form-building process starts. After trained content team members sign off on a form planner, a representative from the internal QC group reviews each file for accuracy against the specifications document. Assessment directors review and sign off on form planners prior to processing.

As processes are refined and enhanced, ETS will implement further QC checks as appropriate.

Quality Control of Test Materials

Collecting Test Materials

Once the tests are administered, school districts return scorable and nonscorable materials within five working days after the last selected testing day of each test administration period. School districts return the CST writing booklets within two working days after the makeup day for each administration. The freight return kits provided to the districts contain color-coded labels identifying scorable and nonscorable materials and labels with bar-coded information identifying the school and district. The school districts apply the appropriate labels and number the cartons prior to returning the materials to the processing center by means of their assigned carrier. The use of the color-coded labels streamlines the return process.

All scorable materials are delivered to the Pearson scanning and scoring facilities in Iowa City, Iowa. The nonscorable materials, including test booklets, are returned to the Security Processing Department in Pearson's Cedar Rapids, Iowa, facility. ETS and Pearson closely monitor the return of materials. The STAR Technical Assistance Center (TAC) at ETS monitors returns and notifies school districts that do not return their materials in a timely manner. STAR TAC contacts the district STAR coordinators and works with them to facilitate the return of the test materials.

Processing Test Materials

Upon receipt of the test materials, Pearson uses precise inventory and test processing systems, in addition to quality assurance procedures, to maintain an up-to-date accounting of all the testing materials within their facilities. The materials are removed carefully from the shipping cartons and examined for a number of conditions, including physical damage, shipping errors, and omissions. A visual inspection to compare the number of students recorded on the School and Grade Identification (SGID) sheets with the number of answer documents in the stack is also conducted.

Pearson's image scanning process captures security information electronically and compares scorable material quantities reported on the SGIDs to actual documents scanned. School districts are contacted by phone if there are any missing shipments or the quantity of materials returned appears to be less than expected.

Quality Control of Scanning

Before any STAR documents are scanned, Pearson conducts a complete check of the scanning system. ETS and Pearson create test decks for every test and form. Each test deck consists of approximately 25 answer documents marked to cover response ranges, demographic data, blanks, double marks, and other responses. Fictitious students are

created to verify that each marking possibility is processed correctly by the scanning program. The output file generated as a result of this activity is thoroughly checked against each answer document after each stage to verify that the scanner is capturing marks correctly. When the program output is confirmed to match the expected results, a scan program release form is signed and the scan program is placed in the production environment under configuration management.

The intensity levels of each scanner are constantly monitored for quality control purposes. Intensity diagnostics sheets are run before and during each batch to verify that the scanner is working properly. In the event that a scanner fails to properly pick up items on the diagnostic sheets, the scanner is recalibrated to work properly before being allowed to continue processing student documents.

Documents received in poor condition (torn, folded, or water-stained) that could not be fed through the high-speed scanners are either scanned using a flat-bed scanner or keyed into the system manually.

Post-scanning Edits

After scanning, there are three opportunities for demographic data to be edited:

- After scanning, by Pearson online editors
- After Pearson online editing, by district STAR coordinators (demographic edit)
- After paper reporting, by district STAR coordinators

Demographic edits completed by the Pearson editors and by the district STAR coordinators online are included in the data used for the paper reporting and for the technical reports.

Quality Control of Image Editing

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

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

1. Scan the set of test documents.
2. Verify that the images from the documents are saved correctly.
3. Verify that the appropriate problem and resolution text displays for each type of error.
4. Submit the post-edit program to assure that all errors have been corrected.

Pearson checks the post file against expected results to ensure the appropriate corrections are made. The post file will have all keyed corrections and any defaults from the edit specifications.

Quality Control of Answer Document Processing and Scoring

Accountability of Answer Documents

In addition to the quality control checks carried out in scanning and image editing, the following manual quality checks are conducted to verify that the answer documents are correctly attributed to the students, schools, districts, and subgroups:

- Grade counts are compared to the District Master File Sheets.
- Document counts are compared to the School Master File Sheets.
- Document counts are compared to the SGIDs.

Any discrepancies identified in the steps outlined above are followed up by Pearson staff with the school districts for resolution.

Processing of Answer Documents

Prior to processing operational answer sheets and executing subsequent data processing programs, ETS conducts an end-to-end test. As part of this test, ETS prepares approximately 700 test cases covering all tests and many scenarios designed to exercise particular business rule logic. ETS marks answer sheets for those 700 test cases. They are then scanned, scored, and aggregated. The results at various inspection points are checked by psychometricians and Data Quality Services staff. Additionally, a post-scan test file of approximately 50,000 records across the STAR Program is scored and aggregated to test a broader range of scoring and aggregation scenarios. These procedures assure that students and school districts get the correct scores when the actual scoring process is carried out.

Scoring and Reporting Specifications

ETS develops standardized scoring procedures and specifications so testing materials are processed and scored accurately. These documents include:

- General Reporting Specifications
- Form Planner Specifications
- Aggregation Rules
- "What If" . . . List
- Edit Specifications
- Reporting Cluster Names and Item Numbers
- CST and CMA Matching Criteria
- Matching Criteria for Multiple-choice and Writing Answer Documents

Each of these documents is explained in detail in Chapter 7, starting on page 262. 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.

Matching Information on CST Answer Documents

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.

All STAR answer documents contain uniquely numbered lithocodes that are both scannable and eye-readable. The lithocodes allow all pages of the document to be linked throughout processing, even after the documents have been slit into single sheets for scanning. For those students using more than one answer document, lithocodes link their demographics and responses within a document while matching criteria are used to create a single record for all of the student's documents. The documents are matched within grade using the matching criteria approved by the CDE.

Matching Multiple-choice and Writing Scores for ELA in Grades Four and Seven

The multiple-choice and writing sections of the ELA tests in grades four and seven are administered in separate sittings. The answer documents from each section are subsequently matched using the matching criteria approved by the CDE, and scores from each section are combined to yield a single ELA scale score. Student documents that cannot be matched based on the approved criteria are reported separately.

In addition, school districts receive an unmatched report with their reporting package listing grades four and seven students for whom there is a multiple-choice score but no writing score and grades four and seven students for whom there is a writing score but no multiple-choice score.

Storing Answer Documents

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

Quality Control of Psychometric Processes

Score Key Verification Procedures

ETS and Pearson take various necessary measures to ascertain that the scoring keys are applied to the student responses as expected and the student scores are computed accurately. Scoring keys, provided in the form planners, are produced by ETS and verified thoroughly by performing multiple quality control checks. The form planners contain the information about an assembled test form; other information in the form planner includes the test name, administration year, subscore identification, and standards and statistics associated with each item. The quality control checks that are performed before keys are finalized are listed on page 264 in Chapter 7.

Quality Control of Item Analyses, DIF, and the Equating Process

The psychometric analyses conducted at ETS undergo comprehensive quality checks by a team of psychometricians and data analysts. Detailed checklists are consulted by members of the team for each of the statistical procedures performed on each CST. Quality assurance checks also include a comparison of the current year's statistics to statistics from previous years. The results of preliminary classical item analyses that provide a check on scoring keys are also reviewed by a senior psychometrician. The items that are flagged for questionable statistical attributes are sent to test development staff for their review; their comments are reviewed by the psychometricians before items are approved to be included in the equating process.

The results of the equating process are reviewed by a psychometric manager in addition to the aforementioned team of psychometricians and data analysts. If the senior

psychometrician and the manager reach a consensus that an equating result does not conform to the norm, special binders are prepared for review by senior psychometric advisors at ETS, along with several pieces of informative analyses to facilitate the process.

A few additional checks are performed for each process, as described below:

Calibrations

During the calibration process, which is described in detail in Chapter 2 starting on page 14, checks are made to ascertain that the correct options for the analyses are selected. Checks are also made on the number of items, number of examinees with valid scores, IRT Rasch item difficulty estimates, standard errors for the Rasch item difficulty estimates, and the match of selected statistics to the results on the same statistics obtained during preliminary item analyses. Psychometricians also perform detailed reviews of plots and statistics to investigate if the model fits the data.

Scaling

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

- Correct-linking items are used;
- Stability analysis and subsequent removal of items from the linking set (if any) during the scaling evaluation process are implemented according to specification (see details in the “Evaluation of Scaling” section in Chapter 8, on page 391); and
- The scaling constants are correctly applied to transform the new item difficulty estimates on to the item bank scale.

Scoring Tables

Once the equating activities are complete and raw-to-scale scoring tables are generated, the psychometricians carry out quality control checks on each scoring table. Scoring tables are checked to verify the following:

- All raw scores are included in the tables;
- Scale scores increase as raw scores increase;
- The minimum reported scale score is 150 and maximum reported scale score is 600; and
- The cut points for the performance levels are correctly identified.

As a check on the reasonableness of the performance levels, psychometricians compare results from the current year with results from the past year at the cut points and the percentage of students in each performance level within the equating samples. After these quality control steps are completed and any differences are resolved, a senior psychometrician inspects the scoring tables as the final step in quality control before ETS delivers them to Pearson.

Score Verification Process

Pearson utilizes the raw-to-scale scoring tables to assign scale scores for each student. ETS verifies Pearson’s scale scores by independently generating the scale scores for students in a small number of school districts and comparing these scores with those generated by Pearson. The selection of districts is based on the availability of data for all schools included in those districts, known as “pilot districts”.

Year-to-Year Comparison Analyses

Year-to-year comparison analyses are conducted each year for quality control of the scoring procedure in general and as reasonableness checks for the CST results.

- The first set of year-to-year comparison analyses look at the tendencies and trends for the schools and school districts for which ETS has received complete or near-complete results by mid-June.
- The second set of year-to-year comparison analyses uses over 90 percent of the entire testing population to look at the tendencies and trends for the state as a whole as well as a few large districts.

The results of the year-to-year comparison analyses are provided to the CDE and their reasonableness is jointly discussed. Any anomalies in the results are investigated further, and scores are released only after explanations that satisfy both the CDE and ETS are obtained.

Offloads to Test Development

The statistics based on classical item analyses and the IRT analyses are obtained at two different times in the testing cycle. The first time, the statistics are obtained on the equating samples to ensure the quality of equating, and then on larger sample sizes to ensure the stability of the statistics that are to be used for future test assembly. Statistics used to generate DIF flags are also obtained from the larger samples and are provided to test development staff in specially designed Excel spreadsheets called “statistical offloads.” The offloads are thoroughly checked by the psychometric staff before their release for test development review.

Quality Control of Reporting

For the quality control of various STAR student and summary reports, four general areas are evaluated, including the following:

1. Comparing report formats to input sources from the CDE-approved samples
2. Validating and verifying the report data by querying the appropriate student data
3. Evaluating the production print execution performance by comparing the number of report copies, sequence of report order, and offset characteristics to the CDE’s requirements
4. Proofreading reports at the CDE, ETS, and Pearson prior to any school district mailings

All reports are required to include a single, accurate CDS code, a charter school number (if applicable), a school district name, and a school name. All elements conform to the CDE’s official CDS code and naming records. From the start of processing through scoring and reporting, the CDS Master File is used to verify and confirm accurate codes and names. The CDE Master File is provided by the CDE to ETS throughout the year as updates are available.

For students who use more than one answer document, the matching process, as described on page 603, provides for the creation of individual student records from which reports are created.

After the reports are validated against the CDE’s requirements, a set of reports for pilot districts are provided to the CDE and ETS for review and approval. Pearson sends paper reports on the actual report forms, folded as they are expected to look in production. The CDE and ETS review and sign off on the report package after a thorough review.

Upon the CDE’s approval of the reports generated from the pilot test, Pearson proceeds with the first production batch test. The first production batch is selected to validate a subset

of school districts that contain examples of key reporting characteristics representative of the state as a whole. The first production batch test incorporates CDE-selected school districts and provides the last check prior to generating all reports and mailing them to the districts.

Excluding Student Scores from Summary Reports

ETS provides specifications to the CDE that document when to exclude student scores from summary reports. These specifications include the logic for handling answer documents that, for example, indicate the student tested but marked no answers, was absent, was not tested due to parent/guardian request, or did not complete the test due to illness. The methods for handling other anomalies (for example, for a grade eight mathematics test where the specific mathematics test is unknown) are also covered in the specifications.

Reference

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

Chapter 10: Historical Comparisons

Base-year Comparisons

Historical comparisons of the CST results are routinely performed to identify the trends in examinee performance and test characteristics over time. Such comparisons were performed over a period of the three most recent years of administration—2009, 2010, and 2011—and the base year.

The indicators of examinee performance include the mean and standard deviation of scale scores, observed score ranges, and the percentage of examinees classified into proficient and advanced performance levels. Test characteristics are compared by looking at the mean proportion correct, overall reliability and SEM, as well as the mean IRT *b*-value for each CST.

The base year of each CST refers to the year in which the base score scale was established. Operational forms administered in the years following the base year are linked to the base year score scale using procedures described in Chapter 2.

The base years for the CSTs are presented in Table 10.1.

Table 10.1 Base Years for CSTs

Content Area	CST	Base Year
English– Language Arts	2	2003
	3	2003
	4	2003
	5	2003
	6	2003
	7	2003
	8	2003
	9	2003
	10	2003
	11	2003
History–Social Science	8	2003
	World History*	2002
	11	2002
Mathematics	2	2003
	3	2003
	4	2003
	5	2003
	6	2003
	7	2003
	General Mathematics	2002
	Algebra I	2002
	Geometry	2002
	Algebra II	2002
	Summative High School Mathematics	2002
	Integrated Mathematics 1	2003
	Integrated Mathematics 2	2003
	Integrated Mathematics 3	2003

Content Area	CST	Base Year
Science	5	2004
	8	2006
	10 Life Science	2006
	Biology	2002
	Chemistry	2002
	Earth Sciences	2002
	Physics	2002

* This test was administered as Grade 10 History–Social Science in 2002.

The base years differ over CSTs. Reasons for these differences and other relevant information are as follows:

- Prior to 2003, the CST scale scores had a range extending below 150 and above 600. To facilitate the comparisons of results obtained in the base year of 2002 to the scores obtained in recent years, the 2002 score scale was redefined so that it ranges from 150 to 600. In cases where the scale did not extend to 600, the perfect scores were adjusted to have a scale score of 600.
- Prior to 2003, the CSTs for ELA were comprised of 90 items including 15 items from the Stanford Achievement Test – 9th Edition (Stanford 9) and the STAR tests were administered in conjunction with the Stanford 9. In 2003, the Stanford 9 items were dropped and new test blueprints were established; therefore, 2003 has become the base year for these tests.
- Prior to 2003, a history–social science test was administered to students in grade nine that covered relevant content standards for grades four through eight. In 2002, several content revisions occurred for this CST and new blueprints were established. Since 2003, this test has been administered to students in grade eight; it covers relevant standards for grades six through eight. Therefore, the base year for this CST is 2003.
- In 2002, content revisions occurred for several mathematics CSTs to improve their measurement accuracy. For the affected tests, 2003 became their base year. These CSTs include the grade-level mathematics CSTs administered at grades two through seven and the end-of-course integrated CSTs administered to students in grades eight through eleven.
- The grade-level science CSTs were introduced in grade five in 2004 and in grades eight and ten in 2006. Thus, 2004 is the base year for the grade five science CST, and 2006 is the base year for the science CSTs in grades eight and ten.
- ETS employs special equating procedures for the CSTs for Integrated/Coordinated Science; therefore, base-year score scales and *b*-values are not provided for those CSTs. Student performance results for 2003 are provided for these tests because 2003 was the first year in which the special equating procedures were used.

Examinee Performance

Table 10.A.1 on page 611 contains the number of examinees assessed and the means and standard deviations of examinees' scale scores in the base year and in 2009, 2010, and 2011 for each CST. As noted in previous chapters, the CST reporting scales range from 150 to 600 for all content areas.

CST scale scores are used to classify student results into one of five performance levels: far below basic, below basic, basic, proficient, and advanced. The percentages of students qualifying for the proficient and advanced levels are presented in Table 10.A.2 on page 612;

please note that this information may differ slightly from information found on the CDE's STAR reporting Web page at <http://star.cde.ca.gov> due to differing dates on which data were accessed. The goal is for all students to achieve at or above the proficient level by 2014. This goal for all students is consistent with school growth targets for state accountability and the federal requirements under the Elementary and Secondary Education Act.

Table 10.A.3 through Table 10.A.16 show for each CST the distribution of scale scores observed in the base year and in 2009, 2010, and 2011. Frequency counts are provided for each scale score interval of 30. A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale score range. For all CSTs, a minimum score of 300 is required for a student to reach the basic level of performance and a minimum score of 350 is required for a student to reach the proficient level of performance.

Test Characteristics

The item and test analysis results of the CSTs over the past several years indicate that the CSTs meet the technical criteria established in professional standards for high-stakes tests. In addition, every year efforts are made to improve the technical quality of each CST. For example, in recent years, efforts have been made to field test more easy items for some CSTs where previous field testing resulted in over-abundance of very difficult items.

Table 10.B.1 and Table 10.B.2 in Appendix 10.B (which starts on page 622) present the average proportion correct values and the mean equated IRT *b*-values for the items in each CST based on the equating samples. The mean proportion correct is affected by both the difficulty of the items and the abilities of the students taking them. The mean equated IRT *b*-values reflect only average item difficulty. Please note that comparisons of mean *b*-values should only be made within a given test; they should not be compared across grade levels or content areas.

The IRT *b*-values are not presented for the CSTs for Integrated/Coordinated Science; these CSTs are composed of items from four "parent" science CSTs for Biology, Chemistry, Earth Science, and Physics. Special procedures are used to equate these CSTs by using independently scaled IRT *b*-values from the parent CSTs.

The average point-biserial correlations for the 38 CSTs are presented in Table 10.B.3. The reliabilities and standard errors of measurement (SEM) expressed in raw score units appear in Table 10.B.4. Like the average proportion correct, point-biserial correlations and reliabilities are affected by both item characteristics and student characteristics.

Appendix 10.A—Historical Comparisons Tables

Table 10.A.1 Number of Examinees Tested, Scale Score Means and Standard Deviations of CSTs Across Base Year, 2009, 2010, and 2011

Content Area	CST*	Number of Examinees (valid scores)				Scale Score Mean and Standard Deviation							
		Base	2009	2010	2011	Base		2009		2010		2011	
English– Language Arts	2	475,958	453,531	452,078	458,752	332	56	353	63	357	65	360	67
	3	481,246	445,073	437,450	434,795	324	61	340	63	342	63	345	62
	4	475,575	434,822	436,696	429,809	339	50	367	60	370	62	372	60
	5	473,745	437,865	431,294	434,092	332	47	356	57	359	54	362	58
	6	479,861	442,791	435,708	431,155	332	52	352	54	357	54	358	56
	7	477,359	454,848	440,521	435,408	330	52	354	58	356	61	360	61
	8	456,264	462,898	450,321	440,118	324	50	348	61	357	63	362	63
	9	470,879	505,273	488,206	476,121	333	55	350	60	354	60	358	62
	10	416,277	477,089	479,925	465,026	324	52	338	60	341	61	346	58
	11	357,365	445,066	449,140	444,788	321	61	332	68	337	67	342	65
History– Social Science	8	455,348	475,142	467,683	461,566	321	46	340	66	348	70	353	71
	World History	396,419	476,774	475,350	473,651	315	56	329	73	337	76	342	75
	11	340,923	435,734	442,015	446,459	328	60	338	74	341	73	345	73
Mathematics	2	478,715	453,949	452,806	459,483	357	77	377	81	382	86	382	85
	3	484,064	447,205	439,938	437,217	344	74	388	90	395	92	401	91
	4	483,007	437,860	440,352	433,835	344	67	383	77	390	79	392	78
	5	475,808	440,207	433,919	437,504	332	74	376	92	383	92	393	93
	6	481,069	443,190	436,749	432,693	331	62	354	75	361	75	365	78
	7	482,393	425,265	408,894	399,818	325	58	345	66	352	69	355	68
	General Mathematics	448,652	256,544	219,970	199,316	302	45	316	56	315	56	317	58
	Algebra I	422,233	753,193	746,242	736,345	312	58	320	71	324	72	327	73
	Geometry	240,503	397,650	408,572	407,012	317	62	313	68	317	66	320	68
	Algebra II	148,314	250,628	264,960	277,282	318	56	318	66	324	69	328	72
	Summ. H.S. Math	70,589	123,586	130,562	139,940	329	80	355	79	359	78	359	77
	Integrated Math 1	13,897	9,854	11,260	11,943	278	45	289	55	292	51	294	56
	Integrated Math 2	9,563	4,051	3,830	4,483	324	51	318	59	322	60	323	55
	Integrated Math 3	10,029	1,370	795	730	301	64	335	77	327	78	320	79
Science	5	483,931	438,606	432,500	435,933	318	44	354	66	362	71	367	70
	8	478,667	462,224	450,168	440,698	331	71	364	97	375	99	386	97
	10 Life Science	461,634	465,825	465,836	458,763	327	58	343	70	348	67	353	68
	Biology	298,475	533,716	544,737	551,808	333	48	343	58	347	58	352	62
	Chemistry	144,933	247,002	256,509	265,079	328	44	333	54	337	55	340	53
	Earth Science	80,096	225,419	217,760	215,259	314	43	324	47	328	49	331	50
	Physics	41,760	67,740	72,735	76,065	321	49	347	57	349	54	354	54
	Int/Coord Science 1	61,146	69,122	63,991	54,656	298	31	304	39	310	40	313	41
	Int/Coord Science 2	25,546	4,625	5,356	4,111	298	35	309	39	311	38	312	44
	Int/Coord Science 3	10,317	1,738	1,344	1,283	298	31	301	35	310	42	309	40
	Int/Coord Science 4	1,498	623	365	157	297	39	285	39	296	31	289	37

* Numbers indicate grade-level tests.

Table 10.A.2 Percentage of Proficient and Above and Percentage of Advanced Across Base Year, 2009, 2010, and 2011

Content Area	CST*	% Proficient and Above				% Advanced			
		Base	2009	2010	2011	Base	2009	2010	2011
English– Language Arts	2	37%	53%	53%	56%	12%	21%	24%	27%
	3	34%	44%	43%	46%	11%	17%	18%	18%
	4	40%	61%	63%	65%	16%	33%	36%	37%
	5	36%	54%	59%	60%	10%	24%	26%	31%
	6	36%	53%	55%	55%	13%	21%	25%	27%
	7	36%	54%	55%	58%	10%	22%	23%	24%
	8	31%	48%	54%	57%	9%	22%	29%	30%
	9	38%	50%	55%	55%	14%	23%	24%	28%
	10	34%	44%	45%	48%	11%	19%	22%	21%
	11	33%	40%	43%	45%	11%	18%	21%	21%
History–Social Science	8	27%	42%	47%	51%	6%	20%	25%	27%
	World History	24%	37%	41%	44%	8%	17%	20%	23%
	11	32%	44%	45%	48%	12%	20%	20%	21%
Mathematics	2	53%	63%	62%	66%	24%	32%	36%	36%
	3	45%	64%	65%	68%	19%	37%	38%	41%
	4	46%	66%	68%	71%	18%	40%	42%	45%
	5	35%	57%	61%	63%	10%	26%	29%	34%
	6	35%	49%	52%	53%	10%	21%	23%	24%
	7	30%	43%	48%	49%	7%	16%	18%	18%
	General Mathematics	17%	27%	27%	28%	1%	5%	5%	6%
	Algebra I	22%	29%	31%	33%	4%	8%	9%	10%
	Geometry	28%	27%	27%	30%	7%	8%	8%	9%
	Algebra II	27%	28%	31%	33%	6%	8%	11%	12%
	Summative H.S. Math	40%	50%	54%	54%	14%	18%	22%	20%
	Integrated Math 1	7%	11%	13%	15%	1%	2%	2%	2%
	Integrated Math 2	28%	25%	27%	29%	5%	7%	7%	5%
	Integrated Math 3	21%	37%	37%	32%	4%	13%	10%	10%
Science	5	24%	49%	56%	58%	3%	18%	25%	25%
	8	38%	56%	59%	64%	17%	32%	38%	42%
	10 Life Science	34%	44%	46%	50%	13%	22%	23%	26%
	Biology	35%	42%	46%	49%	10%	20%	21%	24%
	Chemistry	28%	35%	38%	38%	8%	13%	14%	14%
	Earth Science	21%	28%	33%	35%	4%	8%	9%	12%
	Physics	28%	46%	49%	52%	9%	22%	21%	22%
	Int/Coord Science 1	7%	13%	18%	20%	1%	2%	2%	3%
	Int/Coord Science 2	8%	14%	15%	19%	1%	4%	3%	6%
	Int/Coord Science 3	7%	9%	16%	16%	2%	2%	4%	5%
	Int/Coord Science 4	12%	7%	4%	6%	2%	1%	1%	1%

* Numbers indicate grade-level tests.

Table 10.A.3 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for ELA (Grades Two Through Four)

Observed Score Distributions	ELA Grade 2				ELA Grade 3				ELA Grade 4			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	240	1,618	2,129	2,588	308	979	1,364	1,010	66	952	1,122	1,551
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	139	1,813	3,138	2,274
510 – 539	887	3,875	5,132	6,274	1,311	2,861	3,504	3,041	377	3,286	N/A	3,656
480 – 509	1,813	6,238	7,874	9,623	2,685	5,185	5,567	5,492	1,842	4,695	13,611	11,127
450 – 479	7,314	18,247	21,688	26,360	4,312	7,265	7,824	7,588	6,601	22,610	21,214	24,892
420 – 449	19,751	36,454	40,831	31,465	21,378	31,946	32,560	33,198	22,955	53,194	52,828	41,786
390 – 419	49,410	55,541	58,483	79,364	43,618	53,720	40,472	54,643	43,316	69,086	79,293	75,770
360 – 389	71,250	82,540	81,685	79,848	62,872	67,815	71,021	69,925	84,007	83,537	76,706	85,180
330 – 359	94,531	88,333	83,444	68,355	84,558	83,030	88,543	86,401	98,630	79,610	71,612	71,797
300 – 329	83,370	67,934	58,847	60,788	85,966	67,518	77,791	67,985	102,071	53,874	54,543	57,429
270 – 299	81,964	46,023	45,606	46,585	74,260	60,090	54,395	55,285	79,811	37,345	40,578	37,377
240 – 269	53,950	36,357	39,015	36,034	59,332	44,459	33,274	32,005	33,745	21,842	18,619	15,788
210 – 239	10,723	10,022	6,946	11,042	36,770	17,744	18,915	15,218	1,887	2,897	3,297	1,146
180 – 209	681	336	384	412	3,579	2,384	2,063	2,861	86	63	113	27
150 – 179	74	13	14	14	297	77	157	143	42	18	22	9

Table 10.A.4 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for ELA (Grades Five through Seven)

Observed Score Distributions	ELA Grade 5				ELA Grade 6				ELA Grade 7			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	2	403	147	449	8	161	157	249	5	213	986	436
540 – 569	17	1,436	691	1,552	83	643	631	932	58	503	8	1,307
510 – 539	52	N/A	N/A	N/A	280	N/A	1,513	2,048	124	1,048	1,484	2,489
480 – 509	486	7,285	4,907	8,812	730	4,214	2,635	3,291	640	4,362	5,861	8,538
450 – 479	3,236	14,031	11,707	17,282	5,717	9,657	15,856	18,223	3,344	13,882	17,162	13,043
420 – 449	12,685	31,085	42,092	36,322	17,978	34,349	26,994	37,201	17,331	39,939	44,215	45,827
390 – 419	38,962	63,801	66,338	81,315	45,713	57,834	72,449	67,465	42,144	74,856	65,099	67,278
360 – 389	85,226	96,753	96,336	82,834	70,509	94,644	98,381	78,581	78,339	79,101	76,701	79,534
330 – 359	95,169	76,756	81,352	80,316	99,972	88,147	78,239	85,751	97,939	90,379	86,036	79,588
300 – 329	107,987	70,646	63,514	56,691	103,656	74,784	69,013	71,569	94,738	67,065	63,479	64,270
270 – 299	95,141	47,598	40,547	43,913	80,513	49,805	43,326	43,975	72,970	43,050	40,227	41,081
240 – 269	32,629	23,537	20,743	20,968	44,894	25,297	23,279	19,882	55,422	30,521	30,439	23,838
210 – 239	2,023	4,309	2,800	3,488	9,375	3,131	3,134	1,870	13,435	9,427	7,934	7,521
180 – 209	81	204	107	135	370	110	86	94	807	457	850	634
150 – 179	49	21	13	15	63	15	15	24	63	45	40	24

Table 10.A.5 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for ELA (Grades Eight and Nine)

Observed Score Distributions	ELA Grade 8				ELA Grade 9			
	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	2	197	291	1,143	12	383	291	907
540 – 569	29	754	1,195	N/A	N/A	N/A	N/A	N/A
510 – 539	101	1,537	2,684	2,062	244	2,409	724	4,523
480 – 509	670	6,647	4,595	9,061	1,303	6,393	4,358	4,263
450 – 479	3,569	18,353	23,769	25,192	3,851	11,454	17,461	20,112
420 – 449	12,529	34,811	46,629	46,329	25,959	46,697	41,812	41,146
390 – 419	29,574	52,224	63,207	61,023	44,345	71,580	80,153	75,115
360 – 389	63,374	76,091	79,036	76,627	83,004	82,261	88,278	84,237
330 – 359	101,910	91,824	75,416	80,529	81,584	90,976	82,696	88,585
300 – 329	90,505	77,730	67,544	61,838	85,135	76,600	72,615	68,507
270 – 299	85,870	55,890	46,458	42,078	73,465	61,886	56,875	48,426
240 – 269	50,819	35,683	31,616	28,239	61,789	44,360	34,188	31,796
210 – 239	15,975	10,368	7,263	5,682	9,313	9,813	8,239	8,031
180 – 209	1,263	760	547	280	736	413	447	413
150 – 179	74	29	71	35	139	48	69	60

Table 10.A.6 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for ELA (Grades Ten and Eleven)

Observed Score Distributions	ELA Grade 10				ELA Grade 11			
	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	4	217	255	238	7	678	157	664
540 – 569	30	N/A	N/A	898	30	N/A	797	N/A
510 – 539	101	929	1,061	N/A	127	1,452	1,804	1,486
480 – 509	233	1,979	2,521	2,188	956	6,583	3,041	6,913
450 – 479	2,771	8,354	10,440	9,445	2,949	11,723	17,438	12,380
420 – 449	12,778	33,283	28,083	36,884	13,930	23,811	26,734	26,949
390 – 419	31,520	57,749	63,876	62,488	36,133	47,296	53,431	57,424
360 – 389	67,587	71,586	88,260	87,993	46,449	59,196	66,445	73,254
330 – 359	75,621	93,688	83,611	84,644	64,409	74,990	70,135	75,330
300 – 329	78,075	79,827	78,847	77,466	56,885	64,609	72,744	73,264
270 – 299	73,872	55,347	51,677	49,163	49,299	62,573	50,448	46,939
240 – 269	63,352	55,096	49,247	40,781	48,982	56,036	47,703	41,220
210 – 239	9,598	17,506	20,779	11,854	32,029	30,489	33,148	25,266
180 – 209	637	1,433	1,194	924	4,785	5,271	4,824	3,417
150 – 179	98	95	74	60	395	359	291	282

Table 10.A.7 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for History–Social Science (Grade Eight, World History, and Grade Eleven)

Observed Score Distributions	History–Social Science Grade 8				World History				History–Social Science Grade 11			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	27	1,485	1,888	2,606	272	2,116	3,875	4,490	537	2,469	2,265	1,909
540 – 569	52	1,914	2,558	3,021	444	N/A	N/A	N/A	788	N/A	N/A	N/A
510 – 539	215	2,570	3,670	4,251	746	2,600	4,800	5,063	1,138	3,407	3,058	2,949
480 – 509	525	7,402	10,514	11,592	2,303	8,496	6,744	6,918	3,608	11,250	11,003	11,136
450 – 479	2,718	15,917	21,950	23,308	3,793	12,515	17,758	18,478	5,248	16,603	16,337	17,441
420 – 449	6,477	21,394	35,917	28,094	11,633	24,476	34,392	34,618	15,541	31,356	31,950	35,109
390 – 419	27,490	53,910	50,386	64,721	24,051	50,599	51,643	50,921	27,975	46,496	49,100	54,441
360 – 389	55,012	72,881	72,452	66,051	35,020	55,385	64,241	63,949	36,715	58,227	62,134	67,700
330 – 359	92,444	83,262	68,172	78,737	65,735	67,852	59,014	73,094	62,312	65,079	68,366	69,824
300 – 329	107,943	75,145	77,432	64,534	82,269	67,469	73,555	67,310	58,600	58,970	59,058	56,048
270 – 299	106,390	67,386	52,952	54,520	87,207	78,040	58,068	66,599	77,412	52,389	57,661	52,651
240 – 269	46,713	52,215	52,290	40,478	63,293	59,609	55,726	48,147	40,738	50,805	40,506	37,522
210 – 239	8,698	18,199	15,059	17,656	17,397	38,251	34,031	26,702	9,226	31,341	32,592	31,855
180 – 209	582	1,363	2,343	1,831	1,997	6,132	9,321	5,873	957	6,725	7,352	7,305
150 – 179	62	99	100	166	259	3,234	2,182	1,489	128	617	633	569

Table 10.A.8 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for Mathematics (Grades Two Through Four)

Observed Score Distributions	Mathematics Grade 2				Mathematics Grade 3				Mathematics Grade 4			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	3,738	3,858	7,088	6,174	1,937	13,532	16,752	20,680	2,426	11,940	14,698	13,182
540 – 569	8,415	9,670	14,218	12,909	4,873	18,809	21,337	25,838	N/A	N/A	N/A	N/A
510 – 539	N/A	14,763	18,881	17,656	N/A	20,366	21,791	N/A	5,756	19,489	21,753	21,387
480 – 509	12,573	18,046	21,133	20,532	17,600	20,652	21,038	26,266	N/A	22,656	23,646	25,145
450 – 479	32,641	40,744	43,106	44,114	11,424	40,096	38,395	47,207	20,478	22,925	23,868	25,579
420 – 449	37,323	40,385	40,459	43,332	40,292	36,293	34,161	58,650	27,937	43,307	64,988	70,100
390 – 419	57,377	73,542	54,449	75,135	44,193	48,456	59,712	47,145	63,690	71,032	69,177	56,874
360 – 389	69,650	60,194	71,145	58,206	71,908	66,643	62,927	61,515	74,616	76,643	62,916	78,612
330 – 359	72,800	58,563	53,273	55,131	79,857	53,836	51,242	46,669	83,703	60,483	59,730	48,970
300 – 329	67,476	58,144	47,297	46,744	69,963	56,123	47,367	46,901	72,451	47,605	44,988	42,084
270 – 299	55,778	32,709	37,840	36,659	65,285	37,230	35,166	29,919	57,578	33,761	30,839	30,779
240 – 269	35,573	24,778	21,760	21,084	45,186	19,539	17,302	16,649	49,060	21,569	18,717	14,871
210 – 239	17,584	12,510	15,671	13,832	22,633	12,442	9,194	7,309	23,003	5,931	4,614	5,884
180 – 209	6,386	5,083	5,383	6,397	7,633	2,859	3,021	2,147	2,079	498	398	332
150 – 179	1,401	960	1,103	1,578	1,280	329	533	322	230	21	20	36

Table 10.A.9 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for Mathematics (Grades Five through Seven)

Observed Score Distributions	Mathematics Grade 5				Mathematics Grade 6				Mathematics Grade 7			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	1,866	13,555	14,014	18,455	773	3,690	3,382	3,877	1,103	2,520	3,143	3,729
540 – 569	2,139	9,948	10,238	13,101	1,775	5,924	6,238	6,648	N/A	N/A	3,174	N/A
510 – 539	3,103	21,773	22,375	27,236	2,578	7,379	7,978	8,358	1,238	6,162	4,144	3,355
480 – 509	8,844	11,473	23,533	27,225	3,428	7,983	9,088	19,557	3,926	4,141	10,372	9,769
450 – 479	18,019	34,258	34,796	26,388	14,502	27,510	30,298	21,013	9,495	17,134	12,565	20,107
420 – 449	30,072	44,825	34,288	49,173	19,027	29,272	31,486	43,008	13,843	29,707	30,398	33,047
390 – 419	34,532	43,255	54,716	45,318	38,914	50,573	53,364	43,305	32,688	43,942	44,245	47,508
360 – 389	49,002	52,486	50,770	60,620	55,083	62,276	64,305	63,374	62,871	58,785	68,962	60,095
330 – 359	67,533	58,298	56,366	44,497	76,422	70,282	70,518	68,637	76,441	72,077	71,423	69,130
300 – 329	78,553	53,371	51,403	54,068	101,27	65,423	62,535	60,202	101,91	80,382	65,315	63,788
270 – 299	81,066	45,567	37,077	37,296	94,165	57,549	51,820	49,336	102,49	62,522	48,537	52,578
240 – 269	64,433	34,232	31,665	21,966	57,901	42,299	35,837	34,601	63,364	38,668	35,783	29,159
210 – 239	29,106	14,230	10,797	10,153	13,926	11,677	8,975	9,557	11,551	8,181	9,979	7,065
180 – 209	5,912	2,654	1,704	1,824	1,207	1,284	876	1,174	1,355	1,005	776	450
150 – 179	1,628	282	177	184	98	69	49	46	114	39	78	38

Table 10.A.10 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for General Mathematics, Algebra I, and Geometry

Observed Score Distributions	General Mathematics				Algebra I				Geometry			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	30	119	72	146	730	5,746	6,213	6,302	502	734	774	831
540 – 569	N/A	N/A	N/A	N/A	476	2,901	3,297	3,574	N/A	1,543	1,671	1,640
510 – 539	34	205	153	197	1,362	7,267	7,994	8,749	642	2,320	2,349	2,457
480 – 509	190	960	726	1,046	2,035	9,018	10,090	11,352	2,167	2,837	2,790	3,086
450 – 479	1,040	3,308	2,594	1,879	6,303	16,540	18,998	20,787	3,431	11,559	10,942	12,026
420 – 449	2,681	6,032	5,030	6,811	10,471	29,368	32,042	33,827	7,148	14,219	13,939	15,683
390 – 419	11,868	15,343	13,307	10,717	21,071	46,691	49,689	51,895	17,911	21,716	21,754	25,595
360 – 389	33,352	31,868	23,485	26,823	33,295	70,969	74,663	74,868	24,998	37,044	40,518	45,772
330 – 359	66,928	40,545	34,614	28,334	57,900	89,190	91,325	91,218	35,697	43,557	57,447	51,529
300 – 329	104,553	47,138	45,983	40,951	93,657	112,653	115,574	111,766	44,558	60,536	68,886	74,242
270 – 299	113,647	52,089	44,098	36,849	84,289	152,771	151,235	143,713	45,494	85,763	80,200	71,721
240 – 269	86,916	42,931	36,462	30,857	77,155	159,022	127,035	135,897	38,232	71,996	77,393	64,403
210 – 239	25,178	14,630	12,289	13,060	30,552	43,677	52,908	36,131	17,584	39,667	26,321	34,572
180 – 209	2,009	1,244	1,046	1,568	2,631	6,569	4,641	5,547	1,972	3,918	3,399	3,252
150 – 179	226	132	111	78	306	811	538	719	167	241	189	203

Table 10.A.11 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for Algebra II and Summative High School Mathematics

Observed Score Distributions	Algebra II				Summative High School Mathematics			
	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	1	834	1,173	1,890	200	1,154	1,257	1,348
540 – 569	18	802	1,122	1,497	562	2,383	2,449	2,616
510 – 539	134	976	1,406	1,809	N/A	N/A	N/A	N/A
480 – 509	806	2,644	3,772	4,613	2,047	3,160	3,250	3,684
450 – 479	2,328	5,220	4,802	8,609	1,440	7,589	8,216	9,468
420 – 449	3,770	6,910	12,357	10,722	5,383	8,307	13,511	10,404
390 – 419	9,383	15,707	20,218	22,705	6,229	16,762	13,652	16,060
360 – 389	16,379	26,773	25,697	28,328	8,138	15,672	20,741	23,886
330 – 359	21,288	36,347	37,071	39,707	11,928	20,397	18,084	23,101
300 – 329	31,089	44,293	49,872	51,036	10,321	16,040	19,506	17,468
270 – 299	35,689	46,499	44,289	43,676	7,470	15,647	13,922	14,641
240 – 269	19,598	40,328	39,620	40,072	5,780	9,333	9,410	9,972
210 – 239	7,036	18,997	19,411	18,940	6,187	5,069	4,693	5,715
180 – 209	751	3,947	3,823	3,420	3,778	1,817	1,623	1,386
150 – 179	44	351	327	258	1,126	256	248	191

Table 10.A.12 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for Integrated Mathematics 1, 2, and 3

Observed Score Distributions	Integrated Mathematics 1				Integrated Mathematics 2				Integrated Mathematics 3			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	11	24	7	26	4	9	16	7	10	13	6	4
540 – 569	7	6	4	13	14	3	9	2	28	14	1	2
510 – 539	15	36	12	22	16	20	21	18	27	13	8	7
480 – 509	14	25	15	42	45	28	24	23	94	17	16	13
450 – 479	40	55	56	61	103	47	75	71	137	62	18	23
420 – 449	67	105	120	168	265	158	105	119	191	79	50	32
390 – 419	170	229	283	385	615	223	179	243	494	102	72	63
360 – 389	418	385	637	642	1,087	383	365	464	749	149	86	65
330 – 359	910	916	941	1,335	1,638	650	672	847	1,176	230	96	89
300 – 329	1,880	1,504	2,042	2,043	2,566	764	793	1,119	1,474	213	123	108
270 – 299	3,258	2,488	3,003	2,969	1,973	860	836	881	1,959	192	108	97
240 – 269	4,729	2,443	2,674	2,708	1,075	671	598	548	2,525	173	111	125
210 – 239	2,045	1,415	1,144	1,215	154	225	123	128	936	102	76	80
180 – 209	306	202	285	294	5	9	14	13	209	8	20	17
150 – 179	27	21	37	20	3	1	0	0	20	3	4	5

Table 10.A.13 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for Science Grade Five, Grade Eight, and Grade Ten Life Science

Observed Score Distributions	Grade 5				Grade 8				Grade 10 Life Science			
	Base	2009	2010	2011	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	3	1,514	3,230	3,049	1,428	13,841	18,005	16,914	238	1,637	1,400	1,249
540 – 569	30	3,941	6,895	7,024	2,429	8,494	10,426	10,454	648	3,679	3,397	3,287
510 – 539	105	N/A	N/A	N/A	4,190	9,681	11,612	24,832	1,121	N/A	N/A	5,458
480 – 509	590	14,823	10,022	10,307	5,863	22,135	26,286	28,406	4,068	12,707	12,549	7,609
450 – 479	1,414	10,261	26,049	27,043	13,160	38,087	29,262	29,735	6,808	17,421	18,477	20,664
420 – 449	7,041	36,801	44,680	46,483	26,047	41,194	45,048	45,829	15,540	31,267	34,348	39,355
390 – 419	21,141	54,825	44,952	62,327	36,389	41,946	59,382	58,615	38,323	46,133	51,857	57,538
360 – 389	49,769	67,587	81,911	70,666	61,392	55,066	41,130	53,185	59,085	69,781	66,460	69,077
330 – 359	93,778	85,859	67,829	70,443	76,067	62,983	60,206	45,460	74,451	76,124	86,301	81,836
300 – 329	141,637	70,792	61,786	62,001	85,106	43,094	48,526	45,496	91,629	70,678	73,457	64,723
270 – 299	106,602	52,648	45,482	42,853	67,991	43,914	30,299	27,297	85,472	68,604	59,855	51,693
240 – 269	55,651	29,125	30,457	26,446	57,597	35,283	29,734	25,344	71,350	50,977	40,270	38,070
210 – 239	5,829	9,247	8,242	6,577	32,609	23,464	19,229	15,006	11,828	15,548	15,591	16,076
180 – 209	298	1,132	913	675	7,222	16,371	14,248	10,163	942	1,132	1,697	1,927
150 – 179	43	51	52	39	1,177	6,671	6,775	3,962	131	137	177	201

Table 10.A.14 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for Biology and Chemistry

Observed Score Distributions	Biology				Chemistry			
	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	116	1,412	1,463	2,397	58	414	738	715
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
510 – 539	296	3,111	3,601	5,161	194	1,069	1,589	1,581
480 – 509	605	4,655	5,426	7,416	343	1,768	N/A	2,464
450 – 479	4,176	12,921	15,577	19,932	1,124	2,483	5,671	3,005
420 – 449	8,273	25,927	32,657	38,571	2,962	10,888	8,014	12,177
390 – 419	23,001	56,142	54,875	59,472	8,384	20,142	27,119	22,156
360 – 389	46,191	91,664	107,146	108,487	16,327	37,102	32,888	42,194
330 – 359	63,010	104,877	110,403	96,508	32,963	47,307	56,173	62,188
300 – 329	75,800	96,745	91,438	90,505	43,117	52,193	57,075	56,289
270 – 299	56,802	93,076	73,455	78,247	31,085	48,626	41,958	42,516
240 – 269	19,192	39,764	44,746	38,381	7,878	19,970	22,271	17,971
210 – 239	931	3,282	3,726	6,496	475	4,736	2,922	1,767
180 – 209	74	120	199	204	18	292	84	51
150 – 179	8	20	25	31	5	12	7	5

Table 10.A.15 Observed Score Distributions of CSTs Across Base Year, 2009, 2010, and 2011 for Earth Science and Physics

Observed Score Distributions	Earth Science				Physics			
	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	0	24	41	70	14	132	108	157
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
510 – 539	13	123	164	285	56	334	328	403
480 – 509	44	310	427	684	87	557	498	691
450 – 479	82	525	818	1,249	378	1,750	1,599	2,084
420 – 449	723	4,207	5,255	7,338	1,064	3,903	3,769	4,945
390 – 419	3,236	16,109	18,123	16,766	2,796	8,171	8,905	10,620
360 – 389	9,151	30,263	30,796	32,361	4,605	12,606	14,500	14,163
330 – 359	14,570	47,769	45,336	46,260	7,444	13,352	15,633	18,610
300 – 329	17,607	50,727	50,484	48,056	9,342	11,798	14,166	12,051
270 – 299	21,654	46,885	42,583	38,051	9,552	10,889	8,861	8,940
240 – 269	12,070	24,301	20,812	20,321	6,003	3,941	4,004	3,146
210 – 239	909	4,029	2,856	3,681	400	294	351	246
180 – 209	32	134	53	119	18	13	11	6
150 – 179	5	13	12	18	1	0	2	3

Table 10.A.16 Observed Score Distributions of CSTs Across 2009, 2010, and 2011 for Integrated/Coordinated Science 1 and 2

Observed Score Distributions	Integrated/Coordinated Science 1				Integrated/Coordinated Science 2			
	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	0	6	3	8	0	0	0	0
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
510 – 539	0	17	15	13	0	2	2	2
480 – 509	0	14	27	N/A	0	3	2	8
450 – 479	9	42	39	84	4	12	12	12
420 – 449	31	259	322	324	38	45	28	60
390 – 419	332	1,369	1,139	1,323	270	102	119	173
360 – 389	1,727	4,158	5,713	5,082	997	268	399	315
330 – 359	7,452	11,179	12,755	12,092	3,294	777	915	640
300 – 329	18,481	19,173	17,742	15,267	6,926	1,414	1,673	1,152
270 – 299	21,017	20,049	16,176	12,051	8,906	1,247	1,459	1,180
240 – 269	11,376	11,215	8,723	6,903	4,557	713	715	514
210 – 239	675	1,544	1,302	1,442	543	42	31	53
180 – 209	42	92	30	63	9	0	1	1
150 – 179	4	5	5	4	2	0	0	1

Table 10.A.17 Observed Score Distributions of CSTs Across 2009, 2010, and 2011 for Integrated/Coordinated Science 3 and 4

Observed Score Distributions	Integrated/Coordinated Science 3				Integrated/Coordinated Science 4			
	Base	2009	2010	2011	Base	2009	2010	2011
570 – 600	0	0	1	0	0	0	0	0
540 – 569	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A
510 – 539	0	0	1	0	N/A	0	0	0
480 – 509	4	0	2	1	0	1	0	N/A
450 – 479	10	3	8	1	2	0	0	0
420 – 449	23	0	18	11	5	0	0	1
390 – 419	133	27	28	53	28	5	2	0
360 – 389	298	72	89	76	66	20	6	4
330 – 359	879	236	201	208	204	66	40	19
300 – 329	2,959	506	397	349	340	117	125	29
270 – 299	4,683	566	390	383	484	145	107	49
240 – 269	1,233	297	197	193	320	218	77	49
210 – 239	90	28	11	8	43	47	8	6
180 – 209	3	3	1	0	5	3	0	0
150 – 179	2	0	0	0	1	1	0	0

Appendix 10.B—Historical Comparisons Tables

Table 10.B.1 Mean Proportion Correct for Operational Test Items Across Base Year, 2009, 2010, and 2011

Content Area	CST*	Mean <i>p</i> -value			
		Base	2009	2010	2011
English– Language Arts	2	0.59	0.66	0.68	0.69
	3	0.61	0.67	0.68	0.68
	4	0.56	0.67	0.70	0.67
	5	0.53	0.68	0.67	0.69
	6	0.56	0.65	0.66	0.65
	7	0.56	0.63	0.65	0.67
	8	0.55	0.62	0.66	0.66
	9	0.55	0.60	0.63	0.64
	10	0.54	0.63	0.65	0.65
	11	0.54	0.60	0.63	0.64
History–Social Science	8	0.48	0.59	0.61	0.63
	World History	0.47	0.56	0.61	0.62
	11	0.51	0.60	0.61	0.62
Mathematics	2	0.74	0.76	0.76	0.77
	3	0.68	0.77	0.78	0.80
	4	0.68	0.77	0.78	0.79
	5	0.56	0.67	0.68	0.70
	6	0.56	0.63	0.65	0.66
	7	0.52	0.58	0.60	0.61
	General Mathematics	0.45	0.50	0.50	0.52
	Algebra I	0.45	0.48	0.49	0.50
	Geometry	0.55	0.53	0.53	0.55
	Algebra II	0.51	0.52	0.54	0.55
	Summ. High School Mathematics	0.66	0.71	0.72	0.73
	Integrated Mathematics 1	0.34	0.40	0.41	0.43
Science	Integrated Mathematics 2	0.43	0.45	0.46	0.46
	Integrated Mathematics 3	0.45	0.50	0.50	0.47
	5	0.47	0.67	0.69	0.70
	8	0.50	0.65	0.68	0.69
	10 Life Science	0.51	0.60	0.63	0.64
	Biology	0.53	0.58	0.61	0.63
	Chemistry	0.53	0.60	0.61	0.62
	Earth Science	0.49	0.54	0.55	0.58
	Physics	0.51	0.60	0.61	0.63
	Integrated/Coordinated Science 1	0.41	0.45	0.48	0.51
	Integrated/Coordinated Science 2	0.43	0.46	0.47	0.49
	Integrated/Coordinated Science 3	0.36	0.41	0.45	0.45
	Integrated/Coordinated Science 4	0.41	0.40	0.42	0.41

* Numbers indicate grade-level tests.

Table 10.B.2 Mean IRT *b*-values for Operational Test Items Across Base Year, 2009, 2010, and 2011

Content Area	CST*	Mean IRT <i>b</i> -value			
		Base	2009	2010	2011
English— Language Arts	2	−0.10	−0.15	−0.18	−0.17
	3	−0.35	−0.39	−0.44	−0.40
	4	0.09	−0.06	−0.14	0.08
	5	0.07	−0.29	−0.16	−0.28
	6	−0.04	−0.11	−0.09	−0.05
	7	0.17	0.21	0.14	0.09
	8	−0.11	−0.09	−0.18	−0.08
	9	−0.02	0.03	−0.07	−0.04
	10	−0.05	−0.29	−0.34	−0.27
	11	−0.09	−0.25	−0.28	−0.28
History—Social Science	8	0.18	−0.08	−0.09	−0.12
	World History	0.16	−0.04	−0.25	−0.21
	11	−0.01	−0.31	−0.27	−0.29
Mathematics	2	−1.00	−0.88	−0.90	−0.91
	3	−0.76	−0.74	−0.73	−0.76
	4	−0.70	−0.64	−0.64	−0.67
	5	−0.24	−0.23	−0.20	−0.20
	6	−0.26	−0.30	−0.30	−0.28
	7	−0.03	−0.02	−0.02	−0.05
	General Mathematics	0.18	0.20	0.17	0.11
	Algebra I	−0.04	−0.06	−0.08	−0.07
	Geometry	−0.81	−0.78	−0.75	−0.77
	Algebra II	−0.35	−0.42	−0.44	−0.43
	Summ. H. S. Mathematics	−0.92	−0.81	−0.81	−0.84
	Integrated Mathematics 1	0.28	0.11	0.10	0.07
	Integrated Mathematics 2	−0.06	−0.24	−0.22	−0.22
	Integrated Mathematics 3	−0.24	−0.07	−0.12	−0.11
Science	5	−0.19	−0.61	−0.64	−0.63
	8	0.10	−0.36	−0.42	−0.34
	10 Life Science	−0.04	−0.27	−0.31	−0.29
	Biology	−0.18	−0.28	−0.39	−0.40
	Chemistry	−0.17	−0.42	−0.40	−0.38
	Earth Science	0.06	−0.04	0.01	−0.05
	Physics	−0.21	−0.18	−0.16	−0.18
	Integrated/Coordinated Science 1	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 2	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 3	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 4	N/A	N/A	N/A	N/A

* Numbers indicate grade-level tests.

Table 10.B.3 Mean Point-Biserial Correlation for Operational Test Items Across Base Year, 2009, 2010, and 2011

Content Area	CST*	Mean Point-Biserial Correlation			
		Base	2009	2010	2011
English— Language Arts	2	0.43	0.46	0.46	0.48
	3	0.44	0.43	0.43	0.43
	4	0.41	0.44	0.45	0.45
	5	0.38	0.43	0.42	0.43
	6	0.40	0.41	0.41	0.42
	7	0.38	0.41	0.42	0.41
	8	0.37	0.42	0.43	0.43
	9	0.40	0.43	0.42	0.42
	10	0.41	0.45	0.45	0.44
	11	0.41	0.44	0.44	0.43
History—Social Science	8	0.32	0.41	0.43	0.43
	World History	0.37	0.44	0.45	0.44
	11	0.39	0.44	0.44	0.45
Mathematics	2	0.42	0.44	0.45	0.45
	3	0.43	0.45	0.45	0.45
	4	0.47	0.47	0.47	0.46
	5	0.41	0.46	0.45	0.46
	6	0.41	0.45	0.45	0.46
	7	0.39	0.42	0.43	0.42
	General Mathematics	0.32	0.38	0.38	0.39
	Algebra I	0.34	0.40	0.40	0.41
	Geometry	0.39	0.43	0.42	0.43
	Algebra II	0.35	0.39	0.40	0.41
	Summative H.S. Mathematics	0.46	0.44	0.43	0.43
	Integrated Mathematics 1	0.26	0.31	0.30	0.32
	Integrated Mathematics 2	0.32	0.36	0.36	0.34
	Integrated Mathematics 3	0.35	0.39	0.40	0.41
Science	5	0.33	0.42	0.43	0.43
	8	0.35	0.44	0.44	0.43
	10 Life Science	0.41	0.46	0.44	0.45
	Biology	0.39	0.44	0.44	0.45
	Chemistry	0.36	0.42	0.42	0.40
	Earth Science	0.38	0.39	0.41	0.41
	Physics	0.41	0.44	0.42	0.42
	Integrated/Coordinated Science 1	0.28	0.35	0.35	0.36
	Integrated/Coordinated Science 2	0.31	0.34	0.33	0.37
	Integrated/Coordinated Science 3	0.27	0.31	0.36	0.36
	Integrated/Coordinated Science 4	0.32	0.32	0.28	0.32

* Numbers indicate grade-level tests.

Table 10.B.4 Score Reliabilities (Cronbach's Alpha) and SEM of CSTs Across Base Year, 2009, 2010, and 2011

Content Area	CST*	Reliability				SEM			
		Base	2009	2010	2011	Base	2009	2010	2011
English– Language Arts	2	0.93	0.94	0.94	0.95	3.5	3.3	3.3	3.2
	3	0.93	0.93	0.93	0.93	3.5	3.3	3.3	3.3
	4	0.93	0.94	0.94	0.94	3.9	3.5	3.5	3.6
	5	0.92	0.94	0.93	0.94	3.9	3.5	3.6	3.5
	6	0.93	0.93	0.93	0.93	3.7	3.7	3.6	3.6
	7	0.92	0.93	0.94	0.93	3.9	3.7	3.6	3.6
	8	0.91	0.94	0.94	0.94	4.0	3.7	3.6	3.6
	9	0.93	0.94	0.94	0.94	3.8	3.8	3.7	3.7
	10	0.93	0.95	0.95	0.94	4.0	3.7	3.6	3.6
	11	0.93	0.94	0.94	0.94	3.9	3.7	3.7	3.7
History–Social Science	8	0.88	0.93	0.94	0.94	4.0	3.8	3.7	3.7
	World History	0.89	0.93	0.93	0.93	3.6	3.4	3.3	3.3
	11	0.90	0.93	0.93	0.93	3.5	3.3	3.3	3.3
Mathematics	2	0.92	0.93	0.94	0.94	3.2	3.0	2.9	2.9
	3	0.93	0.94	0.94	0.94	3.3	2.9	2.9	2.8
	4	0.94	0.94	0.94	0.94	3.3	2.9	2.9	2.8
	5	0.92	0.94	0.94	0.94	3.5	3.2	3.2	3.2
	6	0.92	0.94	0.94	0.94	3.6	3.4	3.3	3.3
	7	0.91	0.93	0.93	0.93	3.7	3.5	3.5	3.5
	General Mathematics	0.87	0.91	0.91	0.91	3.7	3.6	3.6	3.6
	Algebra I	0.88	0.92	0.92	0.92	3.7	3.6	3.6	3.6
	Geometry	0.91	0.93	0.93	0.93	3.6	3.5	3.5	3.5
	Algebra II	0.89	0.91	0.92	0.92	3.7	3.6	3.6	3.5
	Summ. H. S. Mathematics	0.94	0.93	0.93	0.93	3.3	3.2	3.2	3.2
	Integrated Mathematics 1	0.80	0.86	0.84	0.87	3.6	3.6	3.6	3.6
	Integrated Mathematics 2	0.87	0.90	0.90	0.88	3.6	3.6	3.6	3.7
	Integrated Mathematics 3	0.89	0.92	0.92	0.92	3.7	3.6	3.6	3.6
Science	5	0.86	0.92	0.93	0.92	3.6	3.3	3.2	3.2
	8	0.88	0.93	0.93	0.92	3.5	3.3	3.2	3.2
	10 Life Science	0.92	0.93	0.93	0.93	3.4	3.3	3.3	3.2
	Biology	0.91	0.93	0.93	0.93	3.5	3.4	3.3	3.3
	Chemistry	0.89	0.92	0.92	0.91	3.5	3.4	3.4	3.4
	Earth Science	0.90	0.91	0.91	0.92	3.6	3.5	3.5	3.5
	Physics	0.92	0.93	0.92	0.92	3.5	3.4	3.4	3.3
	Int/Coord Science 1	0.81	0.88	0.88	0.89	3.6	3.6	3.6	3.5
	Int/Coord Science 2	0.85	0.87	0.87	0.90	3.5	3.6	3.6	3.5
	Int/Coord Science 3	0.80	0.85	0.88	0.89	3.5	3.5	3.5	3.5
	Int/Coord Science 4	0.85	0.86	0.81	0.86	3.6	3.5	3.5	3.5

* Numbers indicate grade-level tests.