California Department of Education
Assessment Development and Administration Division

California Standards Tests
Technical Report
Spring 2012 Administration

Final Draft Submitted March 15, 2013

Educational Testing Service

Contract No. 5417

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Acronyms and Initialisms Used in the *CST Technical Report*

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

Chapter 1: Introduction

Background

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

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

During its 2012 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 2012, the CSTs included the following tests:

▪ 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)	▪ 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)

Intended Population

Each grade-level CST was administered to approximately 393,000 to 464,000 test-takers in 2012. Volumes for the EOC CSTs varied by content. There were more than 400,000 examinees for Algebra I (approximately 708,000), Biology (approximately 556,000), Geometry (approximately 406,000), and World History (approximately 467,000). 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) (outside source):

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

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

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

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

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

Testing Window

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

Significant STAR Developments in 2012

Release of Results Delayed to Investigate Psychometric Impact of Social Network Security Breaches

The spring 2012 security breach of multiple test questions through social networking Web sites raised serious concerns that required comprehensive investigations and additional statistical analyses. In recognizing the importance and the need to provide valid and reliable results to the state, districts, and schools, both the CDE and Educational Testing Service (ETS) took every precaution necessary, including extensive statistical analyses, to ensure that all test results maintained the highest levels of psychometric integrity.

A preliminary investigation of the scope and magnitude of the security breach was completed by the end of May that resulted in the list of exposed test questions (test items) that were found on social networking sites. This process was needed to determine whether the exposed test questions were operational items that contributed to students' test scores, and more importantly, were linking items used in statistical analyses to maintain comparability of scores obtained on different test forms administered from one year to the next.

After the list of exposed items was determined, ETS proceeded to conduct statistical analyses to determine whether any test questions affected by the security breach needed to be removed from scoring to maintain the validity of test results. An exhaustive review of statistical results did not provide evidence of performance changes that differed from that of nonexposed items. From a statistical perspective, results did not indicate the need to remove exposed items from scoring. However, to minimize the potential impact of exposed items, schools with confirmed item exposure were removed from statistical analyses.

Statistical analyses also included an assessment of the impact of removing exposed items from score linking analyses. Results showed that for most of the affected CSTs, scale scores and raw score performance cuts produced with exposed items retained or removed from analyses were very similar. In addition, for all tests, there was no change in the percent of students classified as proficient or above when exposed items were retained or removed from the analyses.

Extension of the STAR Testing Window

The STAR testing window was extended by 4 days, to 25 days: 12 instructional days before and 12 instructional days after the date on which 85 percent of each school's, track's, or program's instructional days had been completed (formerly 21 days, 10 instructional days before and 10 instructional days after 85 percent of instructional days had been completed) (5 CCR Section 855 [a] [1]).

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 local assessments, classroom tests, student grades, classroom work, and teacher recommendations in addition to the child's CST results (CDE, 2012; page 9). 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 2012 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 6,200,000 children and young adults in more than 9,800 schools. California aims to provide a world-class education for all students, from early childhood to adulthood. The Department of Education serves California by innovating and collaborating with educators, schools, parents, and community partners which together, as a team, prepares students to live, work, and thrive in a highly connected world.

Contractors

Educational Testing Service

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

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

Pearson

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

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

Overview of the Technical Report

This technical report addresses the characteristics of the CSTs administered in spring 2012. 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 2012.
- Chapter 5 presents the processes involved in the actual administration of the 2012 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 2012 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 of each test, which varies according to test.

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

References

California *Code of Regulations, Title 5,* Education, Division 1, Chapter 2, Subchapter 3.75, Article 2, § 855.

California Department of Education. (2012). *STAR Program information packet for school district and school staff*. Sacramento, CA. Downloaded from http://www.cde.ca.gov/ta/tg/sr/resources.asp

California Department of Education, EdSource, & the Fiscal Crisis Management Assistance Team. (2012). *Fiscal, demographic, and performance data on California's K–12 schools*. Sacramento, CA: Ed-Data. Downloaded from http://www.ed-data.k12.ca.us/App_Resx/EdDataClassic/fsTwoPanel.aspx?#!bottom=/_layouts/EdDataClassic/profile.asp?Tab=1&level=04&reportNumber=16

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 implement each of those processes. The chapter is organized to provide a brief description of each process followed by a summary of the associated specifications. More details about the specifications and the analyses associated with each process are described in other chapters that are referenced in the sections that follow.

Item Development

Item Formats

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

Item Specifications

The CST items are developed to measure California content standards adopted by the state in 1997 and 1998 and designed to conform to principles of item writing defined by ETS (ETS, 2002). ETS maintains and updates an item specifications document, otherwise known as “item writer guidelines,” for each 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 specifications, the item review process, and the item utilization plan are presented in Chapter 3, starting on page 190.

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), described in Chapter 3 starting on page 194, and the Statewide Pupil Assessment Review (SPAR) panel, described in Chapter 3 starting on page 197.

Once the ARP review is complete, the items are placed in the item bank along with the associated information obtained at the review sessions. Items that are accepted by the content experts are updated to a “field-test ready” status. ETS then delivers the items to the CDE by means of a delivery of the California electronic item bank. Items are subsequently field-tested to obtain information about item performance and item statistics that can be used to assemble operational forms. The CDE then reviews the item data and makes decisions about which items could be used operationally (see page 199 for more information about the CDE’s data review). Any additional updates to item content and statistics are based on data collected from the operational use of the items. However, only the latest content of the item is retained in the bank at any time, along with the administration data from every administration that has included the item.

Further details on item banking are presented on page 199 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. There are 65 operational items on the CSTs for ELA in grades two and three and 75 operational items in grades four through eleven. The CST grade-level and end-of-course mathematics tests are composed of 65 operational items and the CST grade-level and end-of-course science tests 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 202 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 are presented in Appendix 2.A on page 23.

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, adopted in 2002 by the SBE, 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 25.

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 previous operational test administrations and are then used to equate subsequent (new) test forms. After the linking items are approved, assessment specialists populate the rest of the test form.

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

Another consideration is the difficulty of each item. Test developers strive to ensure that there are some easy and some hard items and that there are a number of items in the middle range of difficulty. The detailed rules are presented in Chapter 4, which begins on page 202.

Psychometric Criteria

The staff assesses the projected test characteristics during the preliminary review of the assembled forms. The statistical targets used for the 2012 test development and the projected characteristics of the assembled forms are presented starting from page 203 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 204 in Chapter 4.

Test Administration

It is of utmost priority to administer the CSTs in an appropriate, consistent, secure, 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 249.

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 of the following processes are discussed in detail in Chapter 5, starting on page 249.

- 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 site coordinators, test examiners, proctors, and scribes. The responsibilities of each of the staff members are included in the *STAR District and Test Site Coordinator Manual* (CDE, 2012); see page 256 in Chapter 5 for more information.

Test Directions

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

***Directions for Administration* (*DFA*s)—**Manuals used by test examiners to administer the CSTs to students to be followed exactly so that all students have an equal opportunity to demonstrate their academic achievement (See page 255 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 256 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 256 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. Each student also must be allowed to use the accommodations and modifications that are specified in his or her IEP or Section 504 plan. These accommodations and/or modifications must match the one(s) used for classroom work throughout the year.

The purpose of test variations, accommodations, and modifications for the 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. Accommodations change the way the test is given but do not change what is tested. Modifications fundamentally change what is being tested and may interfere with the construct being measured. Scores for students tested with

modifications are counted as far below basic 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 on page 35 presents the 2012 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 CSTs in 2012.

Special Services Summaries

The percentage of students using various testing variations, accommodations, and modifications during the 2012 administration of the CSTs is presented in Appendix 2.D, which starts on page 38. 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 school 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 tasks. 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 ELA total test 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 starting on page 267 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 15. 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 content-area test, performance on the associated 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, which starts on page 265.

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 271 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 285 in Appendix 7.B.

Demographic Subgroup Scores

In Table 7.C.1 through Table 7.C.38 starting on page 289, 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 273 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 (IRT) (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 2012 item parameter estimates were placed on the reference scale using a set of linking items selected from the 2011 forms and readministered in 2012.

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 2012 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:

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

where,

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

n_g is the number of intervals/groups,

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

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

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

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

Based on established procedures, any linking items for which the WRMSD was greater than 0.125 were eliminated from the linking set. 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 (raw 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):

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

where,

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

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

For ELA in grades four and seven, ξ(θ) is based on a sum of multiple-choice and constructed response essay items; the relationship can be defined as:

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

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,

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

$P_{xj}(\theta)$ 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 scale using the reference form CST raw-score-to-scale-score conversion tables and linear interpolation.

Complete raw-to-scale score conversion tables for the 2012 CSTs are presented in Table 8.D.55 through Table 8.D.85 in Appendix 8.D, starting on page 551. The raw scores and corresponding transformed scale scores are listed in those tables.

For all of the 2012 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. Raw scores of zero and perfect raw scores were assigned scale scores of 150 and 600 respectively.

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

Table 2.1 Scale-Score Ranges for Performance Levels

Content Area	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

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced
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
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 end-of-course mathematics CSTs, 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 comprised 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. 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 operational items contained in a CST into braille. This situation requires that a new conversion table be developed for the resulting shortened test. To obtain this table, the shortened test is equated to the full-length operational test for the current year 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.

Table 2.3 shows the CSTs with braille versions that were equated using a shortened test in 2012 as well as the number of items that were removed from scoring because they could not be translated into braille.

Table 2.3 Shortened CST Braille Tests and the Number of Operational Items Removed

Content Area	Grade	# Items	Content Area	Grade	# Items
ELA	2	1	Science	8	2
ELA	4	4	ELA	9	1
Mathematics	4	1	Algebra I	EOC	1
Science	5	1	Geometry	EOC	3
ELA	6	2	Summative High School Mathematics	EOC	2
Mathematics	7	1	Earth Science	EOC	1
ELA	8	2	Integrated/Coordinated Science 2	EOC	1

Scaling the CSTs for Integrated/Coordinated Science

The CSTs for Integrated/Coordinated Science underwent major content revisions in 2003; as a result, 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 parent 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 parent 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 2.4 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 to achieve a below-basic classification in Biology is 20; the minimum number-correct score needed to achieve a basic classification is 26; and so forth.

Table 2.4 Performance-level Cut Points for Science End-of-Course CSTs

Performance Levels	Biology	Chemistry	Earth Science	Physics
Below Basic	20	22	22	18
Basic	26	29	28	25
Proficient	40	42	42	39
Advanced	49	51	51	48
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 2.5. 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 2.5 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	3.7997	6.2044	7.4173	3.5806	21
Basic	4.9670	8.1524	9.2852	5.0697	27
Proficient	7.6271	11.7938	13.5405	8.1558	41
Advanced	9.2337	14.3664	16.2581	10.2039	50
N items	11	17	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.83 through Table 8.D.85, which start on page 582.

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Appendix 2.A—CST Items and Estimated Time Chart

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 Item	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
English–Language Arts		**150**		**150**		**170**		**170**		**170**		**170**		**170**		**170**		**170**		**185**
Part 1	71	50	71	50	81	85	81	85	81	85	81	85	81	85	81	85	81	85	96[2]	85
Part 2		50		50		85		85		85		85		85		85		85		100[2]
Part 3–grades 2 & 3 only		50		50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Writing Applications	–	–	–	–	1	75[1]	–	–	–	–	1	75[1]	–	–	–	–	–	–	–	–
Mathematics		**150**		**150**		**150**		**150**		**150**		**150**[3]		**180**		**180**		**180**		**195**
Part 1	71	50	71	50	71	75	71	75	71	75	71[3]	75	71	90	71	90	71	90	86[2]	90
Part 2		50		50		75		75		75		75		90		90		90		105[2]
Part 3–grades 2 & 3 only		50		50	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
History–Social Science Grade-level		–		–		–		–		–		–		**130**		–		–		**110**
Part 1	–		–		–		–		–		–		81	65			–		66	55
Part 2														65						55
History–Social Science End-of-course[4]		–		–		–		–		–		–		–		**110**		**110**		**110**
Part 1	–		–		–		–		–		–		–		66	55	66	55	66	55
Part 2																55		55		55

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 Item	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		–		–		–		**140**		–		–		**120**		–		**120**		–
Part 1	–		–		–		66	70	–		–		66	60	–		66	60	–	
Part 2								70						60				60		
Science—End-of-course[5]		–		–		–		–		–		–		–		**120**		**120**		**120**
Part 1	–		–		–		–		–		–		–		66	60	66	60	66	60
Part 2																60		60		60

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 Early Assessment Program (EAP), a joint program of the CDE, the California State University, and the California Community Colleges. 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). Items and estimated times for the CST for Algebra I are listed under grades eight through eleven mathematics.

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

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

United States History–Social Science Standards Test

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

World History–Social Science Standards Test

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

Mathematics

Mathematics Standards Test (Grade Two)

Number Sense	
Place value, addition, and subtraction	15 items
Multiplication, division, and fractions	23 items
Algebra and Functions	6 items
Measurement and Geometry	14 items

Statistics, Data Analysis, and Probability	7 items
Mathematics Standards Test (Grade Three)	
Number Sense	
Place value, fractions, and decimals	16 items
Addition, subtraction, multiplication, and division	16 items
Algebra and Functions	12 items
Measurement and Geometry	16 items
Statistics, Data Analysis, and Probability	5 items
Mathematics Standards Test (Grade Four)	
Number Sense	
Decimals, fractions, and negative numbers	17 items
Operations and factoring	14 items
Algebra and Functions	18 items
Measurement and Geometry	12 items
Statistics, Data Analysis, and Probability	4 items
Mathematics Standards Test (Grade Five)	
Number Sense	
Estimation, percents, and factoring	12 items
Operations with fractions and decimals	17 items
Algebra and Functions	17 items
Measurement and Geometry	15 items
Statistics, Data Analysis, and Probability	4 items
Mathematics Standards Test (Grade Six)	
Number Sense	
Ratios, proportions, percentages, and negative fractions	15 items
Operations and problem solving with fractions	10 items
Algebra and Functions	19 items
Measurement and Geometry	10 items
Statistics, Data Analysis, and Probability	11 items
Mathematics Standards Test (Grade Seven)	
Number Sense	
Rational numbers	14 items
Exponents, powers, and roots	8 items
Algebra and Functions	
Quantitative relationships and evaluating expressions	10 items

Multistep problems, graphing, and functions	15 items
Measurement and Geometry	13 items
Statistics, Data Analysis, and Probability	5 items
General Mathematics Standards Test	
Number Sense	
Rational numbers	14 items
Exponents, powers, and roots	10 items
Algebra and Functions	
Quantitative relationships and evaluating expressions	11 items
Multistep problems, graphing, and functions	10 items
Measurement and Geometry	11 items
Statistics, Data Analysis, and Probability	9 items
Algebra I Standards Test	
Number Properties, Operations, and Linear Equations	
Standards: 1.0–5.0, 24.0–25.0	17 items
Graphing and Systems of Linear Equations	
Standards: 6.0–9.0	14 items
Quadratics and Polynomials	
Standards: 10.0, 11.0, 14.0, and 19.0–23.0	21 items
Functions and Rational Expressions	
Standards: 12.0, 13.0, and 15.0–18.0	13 items
Geometry Standards Test	
Logic and Geometric Proofs	
Standards: 1.0–7.0	23 items
Volume and Area Formulas	
Standards: 8.0–11.0	11 items
Angle Relationships, Constructions, and Lines	
Standards: 12.0–17.0	16 items
Trigonometry	
Standards: 18.0–22.0	15 items
Algebra II Standards Test	
Polynomials and Rational Expressions	
Standards: 1.0–4.0 and 7.0	19 items
Quadratics, Conics, and Complex Numbers	
Standards: 5.0, 6.0, 8.0–10.0, 16.0, and 17.0	16 items
Exponents and Logarithms	
Standards: 11.0–15.0	16 items
Series, Combinatorics, and Probability and Statistics	
Algebra II Standards: 18.0–25.0 Probability and Statistics Standards: 1.0, 2.0, and 7.0	14 items

Summative High School Mathematics Standards Test

Algebra I	18 items
Geometry	19 items
Algebra II	23 items
Probability and Statistics	5 items

High School Mathematics Standards Test (Integrated Mathematics 1)

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

High School Mathematics Standards Test (Integrated Mathematics 2)

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

High School Mathematics Standards Test (Integrated Mathematics 3)

Geometry	5 items
Algebra II	
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)

Physical Science	
Grade Five, Standards: 5PS1.a–i	11 items
Grade Four, Standards: 4PS1.a–g and 4IE6.a–f	8 items
Life Science	
Grade Five, Standards: 5LS2.a–g and 5IE6.a–i	13 items
Grade Four, Standards: 4LS2.a–c and 4LS3.a–d	9 items
Earth Science	
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)

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

Life Science Standards Test (Grade Ten)

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

Biology Standards Test

Cell Biology	
Standards: BI1.a–h	9 items
Genetics	
Standards: BI2.a–g, BI3.a–b, BI4.a–e, BI5.a–c	18 items
Ecology and Evolution	
Ecology, Standards: BI6.a–f Evolution, Standards: BI7a–d and BI8a–e	16 items
Physiology	
Standards: BI9.a–e, BI10.a–e	11 items
Investigation and Experimentation	
Standards: BIIE1.a–n	6 items

Chemistry Standards Test

Atomic and Molecular Structure	
Atomic and Molecular Structure, Standards: CH1.a–e Nuclear Processes, Standards: CH11.a–e	8 items
Chemical Bonds, Biochemistry	
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	15 items

Chemical Bonds, Standards: CH2.a–c Acids and Bases, Standards: CH5.a, c Chemical Thermodynamics, Standards: CH7.b–c	
Earth Sciences	
Dynamic Earth Processes, Standards: ES3.a–e Biogeochemical Cycles, Standards: ES7.a–c California Geology, Standards: ES9.b–c	17 items
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 Organic and Biochemistry, Standards: CH10.a–c	6 items
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 Evolution, Standards: BI7.a–d, BI8.c–d	16 items
Chemistry	
Conservation of Matter and Stoichiometry, Standards: CH3.b–e Gases and Their Properties, Standards: CH4.a–f Solutions, Standard: CH6.d Reaction Rates, Standards: CH8.a–c Chemical Equilibrium, Standards: CH9.a–b	23 items
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 Electric and Magnetic Phenomena, Standards: PH5.f–g	8 items
Investigation and Experimentation	
Standards: IE1.a–n	6 items

Science Standards Test (Integrated/Coordinated Science 4)

Biology/Life Sciences	
Genetics, Standards: BI5.a–b Physiology, Standards: BI9.a–e, BI10.a–e	13 items
Chemistry	
Chemical Bonds, Standards: CH2.d–e Acids and Bases, Standards: CH5.b.d Chemical Thermodynamics, Standards: CH7.a.d Nuclear Processes, Standards: CH11.a–e	10 items
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 California Geology, Standard: ES9.a	15 items
Physics	
Heat and Thermodynamics, Standards: PH3.a–e Waves, Standard: PH4.c Electric and Magnetic Phenomena, Standards: PH5.a–c	16 items
Investigation and Experimentation	
Standards: IE1.a–n	6 items

Appendix 2.C—2012 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 or test items enlarged (not duplicated) to a font size larger than that used on large print versions	2
Test over more than one day for a test or test part to be administered in a single sitting	2
Supervised breaks within a section of the test	2
Administration of the test at the most beneficial time of day to the student	2
Test administered at home or in hospital by a test examiner	2

1: Test Variation, 2: Accommodation, 3: Modification	
MCE or ASL to present test questions and answer options	2 Math, Science, History–Social Science
	3 ELA
	2 Writing Task
Test questions and answer options read aloud to student	2 Math, Science, History–Social Science
	3 ELA
	2 Writing Task
Calculator on the mathematics tests	3
Calculator on the science tests	3
Arithmetic table or formulas (not provided) on the mathematics tests	3
Dictionary	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 *or* 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

Notes:

1. To improve clarity of tables presented in this section, the columns with total number of students using each service are labeled with the particular grade or test name for which the services were utilized. For example, the column with a heading of "Grade 2" in Table 2.D.1 presents the number of students using various special services on the CST for ELA in grade two. The column with the heading of "Pct. Of Total" in the same table represents the percentage of students using a service, out of the total number of test-takers.
2. The total number of test-takers is the total of students listed under "*Any* 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 would occur 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	401	0.09%	210	0.05%
C: Dictated responses to a scribe	146	0.03%	55	0.01%
F: Used noninterfering assistive device	80	0.02%	38	0.01%
G: Used braille version of test	22	0.00%	17	0.00%
H: Used large-print version of test	184	0.04%	146	0.03%
J: Tested during more than one day	1,265	0.27%	668	0.15%
K: Had supervised breaks	4,867	1.05%	2,598	0.59%
L: Most beneficial time of day	2,175	0.47%	1,006	0.23%
M: Administered at home or in a hospital	54	0.01%	36	0.01%
N: Used a dictionary	5	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	62	0.01%	12	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	40	0.01%	20	0.00%
X: Used an unlisted accommodation	1,015	0.22%	557	0.13%
Y: Leave blank	246	0.05%	166	0.04%
Z: Examiner read test questions aloud	1,481	0.32%	643	0.15%
Accom. or Mod. is in Section 504 plan	257	0.06%	308	0.07%
Accom. or Mod. is in IEP	7,101	1.53%	3,615	0.82%
English Learner Test Variation A	607	0.13%	356	0.08%
English Learner Test Variation B	71	0.02%	117	0.03%
English Learner Test Variation C	218	0.05%	164	0.04%
Any Accom., Mod., or EL Variation	8,580	1.85%	4,693	1.06%
No Accom., Mod., or EL Variation	456,324	98.15%	436,889	98.94%
Students Not in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	57	0.01%	49	0.01%
C: Dictated responses to a scribe	23	0.01%	23	0.01%
F: Used noninterfering assistive device	15	0.00%	3	0.00%
G: Used braille version of test	2	0.00%	0	0.00%

Special Services Summary for ELA, Grades Two and Three				
H: Used large-print version of test	31	0.01%	37	0.01%
J: Tested during more than one day	214	0.05%	111	0.03%
K: Had supervised breaks	855	0.20%	487	0.12%
L: Most beneficial time of day	323	0.08%	167	0.04%
M: Administered at home or in a hospital	25	0.01%	25	0.01%
N: Used a dictionary	1	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	2	0.00%	2	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	8	0.00%	3	0.00%
X: Used an unlisted accommodation	168	0.04%	125	0.03%
Y: Leave blank	49	0.01%	35	0.01%
Z: Examiner read test questions aloud	238	0.06%	82	0.02%
Accom. or Mod. is in Section 504 plan	229	0.05%	294	0.07%
Accom. or Mod. is in IEP	1,059	0.25%	466	0.11%
English Learner Test Variation A	563	0.13%	347	0.08%
English Learner Test Variation B	39	0.01%	95	0.02%
English Learner Test Variation C	155	0.04%	137	0.03%
Any Accom., Mod., or EL Variation	2,112	0.49%	1,357	0.33%
No Accom., Mod., or EL Variation	426,026	99.51%	415,197	99.67%
Students in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	338	0.92%	157	0.63%
C: Dictated responses to a scribe	123	0.33%	32	0.13%
F: Used noninterfering assistive device	65	0.18%	34	0.14%
G: Used braille version of test	19	0.05%	16	0.06%
H: Used large-print version of test	146	0.40%	105	0.42%
J: Tested during more than one day	1,050	2.86%	555	2.22%
K: Had supervised breaks	4,006	10.90%	2,099	8.40%
L: Most beneficial time of day	1,849	5.03%	834	3.34%
M: Administered at home or in a hospital	29	0.08%	11	0.04%
N: Used a dictionary	4	0.01%	1	0.00%
O: Examiner presented using MCE or ASL	60	0.16%	10	0.04%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	32	0.09%	17	0.07%
X: Used an unlisted accommodation	845	2.30%	431	1.73%
Y: Leave blank	196	0.53%	131	0.52%
Z: Examiner read test questions aloud	1,242	3.38%	556	2.23%
Accom. or Mod. is in Section 504 plan	28	0.08%	14	0.06%
Accom. or Mod. is in IEP	6,024	16.40%	3,130	12.53%
English Learner Test Variation A	44	0.12%	9	0.04%
English Learner Test Variation B	32	0.09%	22	0.09%
English Learner Test Variation C	63	0.17%	27	0.11%

Special Services Summary for ELA, Grades Two and Three				
Any Accom., Mod., or EL Variation	6,450	17.56%	3,317	13.28%
No Accom., Mod., or EL Variation	30,287	82.44%	21,666	86.72%
English-Only Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	253	0.10%	155	0.06%
C: Dictated responses to a scribe	104	0.04%	34	0.01%
F: Used noninterfering assistive device	51	0.02%	24	0.01%
G: Used braille version of test	12	0.00%	12	0.00%
H: Used large-print version of test	111	0.04%	101	0.04%
J: Tested during more than one day	823	0.31%	492	0.20%
K: Had supervised breaks	2,961	1.12%	1,818	0.73%
L: Most beneficial time of day	1,354	0.51%	721	0.29%
M: Administered at home or in a hospital	39	0.01%	26	0.01%
N: Used a dictionary	3	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	38	0.01%	8	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	21	0.01%	13	0.01%
X: Used an unlisted accommodation	623	0.24%	382	0.15%
Y: Leave blank	155	0.06%	113	0.05%
Z: Examiner read test questions aloud	915	0.35%	410	0.16%
Accom. or Mod. is in Section 504 plan	196	0.07%	239	0.10%
Accom. or Mod. is in IEP	4,371	1.66%	2,491	1.00%
English Learner Test Variation A	17	0.01%	6	0.00%
English Learner Test Variation B	10	0.00%	6	0.00%
English Learner Test Variation C	18	0.01%	10	0.00%
Any Accom., Mod., or EL Variation	4,840	1.84%	2,883	1.16%
No Accom., Mod., or EL Variation	258,850	98.16%	246,416	98.84%
Initially Fluent English Proficient (I-FEP) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	6	0.03%	1	0.01%
C: Dictated responses to a scribe	4	0.02%	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	2	0.01%	3	0.02%
J: Tested during more than one day	14	0.07%	7	0.04%
K: Had supervised breaks	55	0.29%	35	0.18%
L: Most beneficial time of day	31	0.16%	11	0.06%
M: Administered at home or in a hospital	1	0.01%	1	0.01%
N: Used a dictionary	0	0.00%	1	0.01%
O: Examiner presented using MCE or ASL	2	0.01%	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	9	0.05%	11	0.06%
Y: Leave blank	1	0.01%	5	0.03%
Z: Examiner read test questions aloud	5	0.03%	10	0.05%

Special Services Summary for ELA, Grades Two and Three				
Accom. or Mod. is in Section 504 plan	4	0.02%	4	0.02%
Accom. or Mod. is in IEP	80	0.42%	54	0.27%
English Learner Test Variation A	1	0.01%	1	0.01%
English Learner Test Variation B	2	0.01%	0	0.00%
English Learner Test Variation C	2	0.01%	1	0.01%
Any Accom., Mod., or EL Variation	87	0.46%	64	0.32%
No Accom., Mod., or EL Variation	18,848	99.54%	19,906	99.68%
English Learner (EL) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	130	0.08%	43	0.03%
C: Dictated responses to a scribe	35	0.02%	14	0.01%
F: Used noninterfering assistive device	26	0.02%	13	0.01%
G: Used braille version of test	7	0.00%	4	0.00%
H: Used large-print version of test	62	0.04%	26	0.02%
J: Tested during more than one day	421	0.24%	158	0.11%
K: Had supervised breaks	1,819	1.05%	707	0.51%
L: Most beneficial time of day	777	0.45%	264	0.19%
M: Administered at home or in a hospital	14	0.01%	9	0.01%
N: Used a dictionary	2	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	20	0.01%	4	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	18	0.01%	6	0.00%
X: Used an unlisted accommodation	375	0.22%	156	0.11%
Y: Leave blank	89	0.05%	47	0.03%
Z: Examiner read test questions aloud	551	0.32%	213	0.15%
Accom. or Mod. is in Section 504 plan	51	0.03%	57	0.04%
Accom. or Mod. is in IEP	2,604	1.51%	1,016	0.74%
English Learner Test Variation A	586	0.34%	340	0.25%
English Learner Test Variation B	58	0.03%	111	0.08%
English Learner Test Variation C	195	0.11%	153	0.11%
Any Accom., Mod., or EL Variation	3,585	2.07%	1,666	1.21%
No Accom., Mod., or EL Variation	169,373	97.93%	136,270	98.79%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	3	0.03%	5	0.01%
C: Dictated responses to a scribe	0	0.00%	5	0.01%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille version of test	2	0.02%	0	0.00%
H: Used large-print version of test	0	0.00%	7	0.02%
J: Tested during more than one day	2	0.02%	5	0.01%
K: Had supervised breaks	18	0.21%	23	0.07%
L: Most beneficial time of day	4	0.05%	4	0.01%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%

Special Services Summary for ELA, Grades Two and Three				
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	4	0.05%	5	0.01%
Y: Leave blank	0	0.00%	1	0.00%
Z: Examiner read test questions aloud	6	0.07%	7	0.02%
Accom. or Mod. is in Section 504 plan	4	0.05%	5	0.01%
Accom. or Mod. is in IEP	21	0.24%	36	0.11%
English Learner Test Variation A	0	0.00%	5	0.01%
English Learner Test Variation B	0	0.00%	0	0.00%
English Learner Test Variation C	0	0.00%	0	0.00%
Any Accom., Mod., or EL Variation	27	0.31%	49	0.15%
No Accom., Mod., or EL Variation	8,621	99.69%	33,696	99.85%

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	472	0.11%
C: Dictated responses to a scribe	40	0.01%
D: Used word processing with tools off	201	0.05%
E: Dictated essay with conventions	53	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	164	0.04%
J: Tested during more than one day	559	0.13%
K: Had supervised breaks	2,672	0.62%
L: Most beneficial time of day	984	0.23%
M: Administered at home or in a hospital	43	0.01%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	12	0.00%
T: Used word processing with tools on	21	0.00%
U: Dictated essay without conventions	9	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	34	0.01%
X: Used an unlisted accommodation	712	0.17%
Y: Leave blank	191	0.04%
Z: Examiner read test questions aloud	1,302	0.30%
Accom. or Mod. is in Section 504 plan	556	0.13%
Accom. or Mod. is in IEP	4,136	0.96%
English Learner Test Variation A	573	0.13%
English Learner Test Variation B	159	0.04%
English Learner Test Variation C	356	0.08%
Any Accom., Mod., or EL Variation	5,764	1.34%
No Accom., Mod., or EL Variation	423,151	98.66%
Students Not in Special Education	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	109	0.03%
C: Dictated responses to a scribe	15	0.00%
D: Used word processing with tools off	61	0.02%
E: Dictated essay with conventions	30	0.01%
F: Used noninterfering assistive device	12	0.00%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	46	0.01%
J: Tested during more than one day	97	0.02%
K: Had supervised breaks	509	0.13%
L: Most beneficial time of day	194	0.05%
M: Administered at home or in a hospital	32	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%

Special Services Summary for ELA, Grade Four		
T: Used word processing with tools on	6	0.00%
U: Dictated essay without conventions	5	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	10	0.00%
X: Used an unlisted accommodation	168	0.04%
Y: Leave blank	53	0.01%
Z: Examiner read test questions aloud	215	0.05%
Accom. or Mod. is in Section 504 plan	507	0.12%
Accom. or Mod. is in IEP	527	0.13%
English Learner Test Variation A	556	0.14%
English Learner Test Variation B	139	0.03%
English Learner Test Variation C	306	0.08%
Any Accom., Mod., or EL Variation	1,980	0.49%
No Accom., Mod., or EL Variation	403,649	99.51%
Students in Special Education	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	361	1.69%
C: Dictated responses to a scribe	25	0.12%
D: Used word processing with tools off	140	0.66%
E: Dictated essay with conventions	23	0.11%
F: Used noninterfering assistive device	49	0.23%
G: Used braille version of test	15	0.07%
H: Used large-print version of test	118	0.55%
J: Tested during more than one day	457	2.14%
K: Had supervised breaks	2,135	10.02%
L: Most beneficial time of day	781	3.67%
M: Administered at home or in a hospital	11	0.05%
N: Used a dictionary	3	0.01%
O: Examiner presented using MCE or ASL	12	0.06%
T: Used word processing with tools on	15	0.07%
U: Dictated essay without conventions	4	0.02%
V: Used interfering assistive device	2	0.01%
W: Used an unlisted modification	24	0.11%
X: Used an unlisted accommodation	538	2.53%
Y: Leave blank	136	0.64%
Z: Examiner read test questions aloud	1,081	5.07%
Accom. or Mod. is in Section 504 plan	44	0.21%
Accom. or Mod. is in IEP	3,576	16.78%
English Learner Test Variation A	11	0.05%
English Learner Test Variation B	19	0.09%
English Learner Test Variation C	49	0.23%
Any Accom., Mod., or EL Variation	3,739	17.55%
No Accom., Mod., or EL Variation	17,567	82.45%

Special Services Summary for ELA, Grade Four		
English-Only Students	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	355	0.15%
C: Dictated responses to a scribe	32	0.01%
D: Used word processing with tools off	171	0.07%
E: Dictated essay with conventions	43	0.02%
F: Used noninterfering assistive device	34	0.01%
G: Used braille version of test	5	0.00%
H: Used large-print version of test	118	0.05%
J: Tested during more than one day	412	0.17%
K: Had supervised breaks	1,935	0.81%
L: Most beneficial time of day	726	0.30%
M: Administered at home or in a hospital	27	0.01%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	10	0.00%
T: Used word processing with tools on	16	0.01%
U: Dictated essay without conventions	6	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	25	0.01%
X: Used an unlisted accommodation	510	0.21%
Y: Leave blank	144	0.06%
Z: Examiner read test questions aloud	902	0.38%
Accom. or Mod. is in Section 504 plan	436	0.18%
Accom. or Mod. is in IEP	2,982	1.24%
English Learner Test Variation A	11	0.00%
English Learner Test Variation B	5	0.00%
English Learner Test Variation C	15	0.01%
Any Accom., Mod., or EL Variation	3,528	1.47%
No Accom., Mod., or EL Variation	236,124	98.53%
Initially Fluent English Proficient (I-FEP) Students	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	10	0.05%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	7	0.04%
E: Dictated essay with conventions	0	0.00%
F: Used noninterfering assistive device	1	0.01%
G: Used braille version of test	1	0.01%
H: Used large-print version of test	8	0.04%
J: Tested during more than one day	5	0.03%
K: Had supervised breaks	44	0.23%
L: Most beneficial time of day	10	0.05%
M: Administered at home or in a hospital	1	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
T: Used word processing with tools on	0	0.00%

Special Services Summary for ELA, Grade Four		
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	9	0.05%
Y: Leave blank	1	0.01%
Z: Examiner read test questions aloud	16	0.08%
Accom. or Mod. is in Section 504 plan	13	0.07%
Accom. or Mod. is in IEP	70	0.36%
English Learner Test Variation A	4	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	4	0.02%
Any Accom., Mod., or EL Variation	87	0.45%
No Accom., Mod., or EL Variation	19,116	99.55%
English Learner (EL) Students	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	90	0.08%
C: Dictated responses to a scribe	7	0.01%
D: Used word processing with tools off	20	0.02%
E: Dictated essay with conventions	9	0.01%
F: Used noninterfering assistive device	19	0.02%
G: Used braille version of test	8	0.01%
H: Used large-print version of test	31	0.03%
J: Tested during more than one day	133	0.11%
K: Had supervised breaks	647	0.55%
L: Most beneficial time of day	233	0.20%
M: Administered at home or in a hospital	12	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	4	0.00%
U: Dictated essay without conventions	3	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	9	0.01%
X: Used an unlisted accommodation	177	0.15%
Y: Leave blank	42	0.04%
Z: Examiner read test questions aloud	369	0.32%
Accom. or Mod. is in Section 504 plan	92	0.08%
Accom. or Mod. is in IEP	1,007	0.86%
English Learner Test Variation A	537	0.46%
English Learner Test Variation B	150	0.13%
English Learner Test Variation C	326	0.28%
Any Accom., Mod., or EL Variation	2,018	1.73%
No Accom., Mod., or EL Variation	114,856	98.27%

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	15	0.03%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	3	0.01%
E: Dictated essay with conventions	1	0.00%
F: Used noninterfering assistive device	7	0.01%
G: Used braille version of test	2	0.00%
H: Used large-print version of test	4	0.01%
J: Tested during more than one day	8	0.02%
K: Had supervised breaks	44	0.08%
L: Most beneficial time of day	15	0.03%
M: Administered at home or in a hospital	3	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	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	13	0.02%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	12	0.02%
Accom. or Mod. is in Section 504 plan	15	0.03%
Accom. or Mod. is in IEP	65	0.12%
English Learner Test Variation A	11	0.02%
English Learner Test Variation B	4	0.01%
English Learner Test Variation C	8	0.02%
Any Accom., Mod., or EL Variation	109	0.21%
No Accom., Mod., or EL Variation	52,504	99.79%

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	469	0.11%	301	0.07%
C: Dictated responses to a scribe	36	0.01%	28	0.01%
F: Used noninterfering assistive device	24	0.01%	24	0.01%
G: Used braille version of test	16	0.00%	20	0.00%
H: Used large-print version of test	134	0.03%	122	0.03%
J: Tested during more than one day	524	0.12%	447	0.10%
K: Had supervised breaks	2,461	0.57%	1,797	0.41%
L: Most beneficial time of day	851	0.20%	553	0.13%
M: Administered at home or in a hospital	40	0.01%	51	0.01%
N: Used a dictionary	8	0.00%	7	0.00%
O: Examiner presented using MCE or ASL	2	0.00%	7	0.00%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	19	0.00%	14	0.00%
X: Used an unlisted accommodation	539	0.13%	506	0.12%
Y: Leave blank	208	0.05%	163	0.04%
Z: Examiner read test questions aloud	368	0.09%	232	0.05%
Accom. or Mod. is in Section 504 plan	370	0.09%	242	0.06%
Accom. or Mod. is in IEP	3,430	0.80%	2,673	0.62%
English Learner Test Variation A	283	0.07%	341	0.08%
English Learner Test Variation B	34	0.01%	58	0.01%
English Learner Test Variation C	197	0.05%	213	0.05%
Any Accom., Mod., or EL Variation	4,371	1.02%	3,514	0.81%
No Accom., Mod., or EL Variation	425,127	98.98%	430,863	99.19%
Students Not in Special Education	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	96	0.02%	50	0.01%
C: Dictated responses to a scribe	13	0.00%	10	0.00%
F: Used noninterfering assistive device	4	0.00%	8	0.00%
G: Used braille version of test	1	0.00%	2	0.00%
H: Used large-print version of test	29	0.01%	25	0.01%
J: Tested during more than one day	71	0.02%	57	0.01%
K: Had supervised breaks	365	0.09%	261	0.06%
L: Most beneficial time of day	122	0.03%	84	0.02%
M: Administered at home or in a hospital	29	0.01%	35	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%	3	0.00%
X: Used an unlisted accommodation	112	0.03%	81	0.02%
Y: Leave blank	43	0.01%	18	0.00%
Z: Examiner read test questions aloud	55	0.01%	21	0.01%

Special Services Summary for ELA, Grades Five and Six				
Accom. or Mod. is in Section 504 plan	339	0.08%	226	0.05%
Accom. or Mod. is in IEP	320	0.08%	229	0.06%
English Learner Test Variation A	278	0.07%	337	0.08%
English Learner Test Variation B	29	0.01%	54	0.01%
English Learner Test Variation C	183	0.05%	205	0.05%
Any Accom., Mod., or EL Variation	1,133	0.28%	952	0.23%
No Accom., Mod., or EL Variation	405,344	99.72%	411,901	99.77%
Students in Special Education	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	367	1.76%	247	1.22%
C: Dictated responses to a scribe	23	0.11%	18	0.09%
F: Used noninterfering assistive device	20	0.10%	16	0.08%
G: Used braille version of test	15	0.07%	17	0.08%
H: Used large-print version of test	103	0.49%	97	0.48%
J: Tested during more than one day	449	2.15%	384	1.89%
K: Had supervised breaks	2,074	9.95%	1,512	7.46%
L: Most beneficial time of day	721	3.46%	461	2.27%
M: Administered at home or in a hospital	11	0.05%	16	0.08%
N: Used a dictionary	7	0.03%	7	0.03%
O: Examiner presented using MCE or ASL	2	0.01%	7	0.03%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	16	0.08%	11	0.05%
X: Used an unlisted accommodation	418	2.01%	419	2.07%
Y: Leave blank	160	0.77%	145	0.71%
Z: Examiner read test questions aloud	309	1.48%	207	1.02%
Accom. or Mod. is in Section 504 plan	26	0.12%	15	0.07%
Accom. or Mod. is in IEP	3,074	14.75%	2,411	11.89%
English Learner Test Variation A	3	0.01%	3	0.01%
English Learner Test Variation B	5	0.02%	4	0.02%
English Learner Test Variation C	13	0.06%	5	0.02%
Any Accom., Mod., or EL Variation	3,194	15.33%	2,523	12.44%
No Accom., Mod., or EL Variation	17,642	84.67%	17,758	87.56%
English-Only Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	368	0.15%	232	0.10%
C: Dictated responses to a scribe	29	0.01%	20	0.01%
F: Used noninterfering assistive device	15	0.01%	14	0.01%
G: Used braille version of test	10	0.00%	10	0.00%
H: Used large-print version of test	91	0.04%	95	0.04%
J: Tested during more than one day	378	0.16%	318	0.13%
K: Had supervised breaks	1,693	0.71%	1,277	0.53%
L: Most beneficial time of day	610	0.26%	411	0.17%
M: Administered at home or in a hospital	33	0.01%	36	0.01%
N: Used a dictionary	8	0.00%	4	0.00%

Special Services Summary for ELA, Grades Five and Six				
O: Examiner presented using MCE or ASL	2	0.00%	5	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	16	0.01%	12	0.00%
X: Used an unlisted accommodation	367	0.15%	359	0.15%
Y: Leave blank	141	0.06%	111	0.05%
Z: Examiner read test questions aloud	248	0.10%	155	0.06%
Accom. or Mod. is in Section 504 plan	298	0.12%	201	0.08%
Accom. or Mod. is in IEP	2,368	0.99%	1,859	0.77%
English Learner Test Variation A	3	0.00%	2	0.00%
English Learner Test Variation B	4	0.00%	0	0.00%
English Learner Test Variation C	10	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	2,768	1.16%	2,148	0.89%
No Accom., Mod., or EL Variation	236,119	98.84%	240,144	99.11%
Initially Fluent English Proficient (I-FEP) Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	8	0.04%	15	0.05%
C: Dictated responses to a scribe	1	0.01%	1	0.00%
F: Used noninterfering assistive device	0	0.00%	1	0.00%
G: Used braille version of test	1	0.01%	5	0.02%
H: Used large-print version of test	5	0.03%	8	0.03%
J: Tested during more than one day	5	0.03%	11	0.04%
K: Had supervised breaks	46	0.23%	53	0.17%
L: Most beneficial time of day	13	0.07%	16	0.05%
M: Administered at home or in a hospital	1	0.01%	4	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%
V: Used interfering 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	0.04%	15	0.05%
Y: Leave blank	4	0.02%	6	0.02%
Z: Examiner read test questions aloud	5	0.03%	3	0.01%
Accom. or Mod. is in Section 504 plan	7	0.04%	7	0.02%
Accom. or Mod. is in IEP	63	0.32%	90	0.29%
English Learner Test Variation A	1	0.01%	0	0.00%
English Learner Test Variation B	0	0.00%	1	0.00%
English Learner Test Variation C	0	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	72	0.37%	104	0.34%
No Accom., Mod., or EL Variation	19,645	99.63%	30,435	99.66%
English Learner (EL) Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	66	0.07%	38	0.05%
C: Dictated responses to a scribe	4	0.00%	2	0.00%
F: Used noninterfering assistive device	7	0.01%	3	0.00%
G: Used braille version of test	3	0.00%	3	0.00%

Special Services Summary for ELA, Grades Five and Six				
H: Used large-print version of test	23	0.02%	11	0.01%
J: Tested during more than one day	126	0.13%	110	0.15%
K: Had supervised breaks	639	0.68%	395	0.53%
L: Most beneficial time of day	199	0.21%	110	0.15%
M: Administered at home or in a hospital	4	0.00%	6	0.01%
N: Used a dictionary	0	0.00%	3	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	2	0.00%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	3	0.00%	1	0.00%
X: Used an unlisted accommodation	151	0.16%	106	0.14%
Y: Leave blank	59	0.06%	41	0.05%
Z: Examiner read test questions aloud	107	0.11%	68	0.09%
Accom. or Mod. is in Section 504 plan	42	0.04%	30	0.04%
Accom. or Mod. is in IEP	888	0.95%	601	0.80%
English Learner Test Variation A	275	0.29%	334	0.45%
English Learner Test Variation B	29	0.03%	57	0.08%
English Learner Test Variation C	184	0.20%	207	0.28%
Any Accom., Mod., or EL Variation	1,384	1.47%	1,117	1.49%
No Accom., Mod., or EL Variation	92,567	98.53%	73,703	98.51%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	27	0.04%	13	0.02%
C: Dictated responses to a scribe	2	0.00%	5	0.01%
F: Used noninterfering assistive device	2	0.00%	6	0.01%
G: Used braille version of test	2	0.00%	1	0.00%
H: Used large-print version of test	15	0.02%	6	0.01%
J: Tested during more than one day	13	0.02%	6	0.01%
K: Had supervised breaks	79	0.10%	66	0.08%
L: Most beneficial time of day	28	0.04%	12	0.01%
M: Administered at home or in a hospital	2	0.00%	4	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%	1	0.00%
X: Used an unlisted accommodation	13	0.02%	25	0.03%
Y: Leave blank	4	0.01%	3	0.00%
Z: Examiner read test questions aloud	8	0.01%	6	0.01%
Accom. or Mod. is in Section 504 plan	22	0.03%	3	0.00%
Accom. or Mod. is in IEP	108	0.14%	113	0.13%
English Learner Test Variation A	3	0.00%	2	0.00%
English Learner Test Variation B	1	0.00%	0	0.00%
English Learner Test Variation C	3	0.00%	2	0.00%
Any Accom., Mod., or EL Variation	142	0.19%	127	0.15%
No Accom., Mod., or EL Variation	76,303	99.81%	86,005	99.85%

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	293	0.07%
C: Dictated responses to a scribe	24	0.01%
D: Used word processing with tools off	397	0.09%
E: Dictated essay with conventions	47	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	303	0.07%
K: Had supervised breaks	1,806	0.42%
L: Most beneficial time of day	639	0.15%
M: Administered at home or in a hospital	81	0.02%
N: Used a dictionary	19	0.00%
O: Examiner presented using MCE or ASL	9	0.00%
T: Used word processing with tools on	40	0.01%
U: Dictated essay without conventions	7	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	44	0.01%
X: Used an unlisted accommodation	811	0.19%
Y: Leave blank	271	0.06%
Z: Examiner read test questions aloud	958	0.22%
Accom. or Mod. is in Section 504 plan	455	0.11%
Accom. or Mod. is in IEP	3,590	0.83%
English Learner Test Variation A	947	0.22%
English Learner Test Variation B	70	0.02%
English Learner Test Variation C	892	0.21%
Any Accom., Mod., or EL Variation	5,646	1.31%
No Accom., Mod., or EL Variation	425,550	98.69%
Students Not in Special Education	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	78	0.02%
C: Dictated responses to a scribe	10	0.00%
D: Used word processing with tools off	134	0.03%
E: Dictated essay with conventions	19	0.00%
F: Used noninterfering assistive device	4	0.00%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	27	0.01%
J: Tested during more than one day	30	0.01%
K: Had supervised breaks	201	0.05%
L: Most beneficial time of day	69	0.02%
M: Administered at home or in a hospital	48	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	3	0.00%

Special Services Summary for ELA, Grade Seven		
T: Used word processing with tools on	14	0.00%
U: Dictated essay without conventions	4	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	5	0.00%
X: Used an unlisted accommodation	147	0.04%
Y: Leave blank	65	0.02%
Z: Examiner read test questions aloud	97	0.02%
Accom. or Mod. is in Section 504 plan	403	0.10%
Accom. or Mod. is in IEP	267	0.07%
English Learner Test Variation A	930	0.23%
English Learner Test Variation B	61	0.01%
English Learner Test Variation C	867	0.21%
Any Accom., Mod., or EL Variation	2,201	0.54%
No Accom., Mod., or EL Variation	408,395	99.46%
Students in Special Education	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	215	1.11%
C: Dictated responses to a scribe	14	0.07%
D: Used word processing with tools off	263	1.35%
E: Dictated essay with conventions	28	0.14%
F: Used noninterfering assistive device	37	0.19%
G: Used braille version of test	21	0.11%
H: Used large-print version of test	94	0.48%
J: Tested during more than one day	270	1.39%
K: Had supervised breaks	1,600	8.24%
L: Most beneficial time of day	568	2.93%
M: Administered at home or in a hospital	32	0.16%
N: Used a dictionary	17	0.09%
O: Examiner presented using MCE or ASL	6	0.03%
T: Used word processing with tools on	26	0.13%
U: Dictated essay without conventions	3	0.02%
V: Used interfering assistive device	1	0.01%
W: Used an unlisted modification	38	0.20%
X: Used an unlisted accommodation	662	3.41%
Y: Leave blank	204	1.05%
Z: Examiner read test questions aloud	857	4.41%
Accom. or Mod. is in Section 504 plan	51	0.26%
Accom. or Mod. is in IEP	3,308	17.04%
English Learner Test Variation A	15	0.08%
English Learner Test Variation B	9	0.05%
English Learner Test Variation C	25	0.13%
Any Accom., Mod., or EL Variation	3,427	17.65%
No Accom., Mod., or EL Variation	15,986	82.35%

Special Services Summary for ELA, Grade Seven		
English-Only Students	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	222	0.09%
C: Dictated responses to a scribe	16	0.01%
D: Used word processing with tools off	354	0.15%
E: Dictated essay with conventions	32	0.01%
F: Used noninterfering assistive device	28	0.01%
G: Used braille version of test	10	0.00%
H: Used large-print version of test	82	0.03%
J: Tested during more than one day	224	0.09%
K: Had supervised breaks	1,299	0.53%
L: Most beneficial time of day	446	0.18%
M: Administered at home or in a hospital	67	0.03%
N: Used a dictionary	7	0.00%
O: Examiner presented using MCE or ASL	8	0.00%
T: Used word processing with tools on	32	0.01%
U: Dictated essay without conventions	5	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	21	0.01%
X: Used an unlisted accommodation	585	0.24%
Y: Leave blank	213	0.09%
Z: Examiner read test questions aloud	592	0.24%
Accom. or Mod. is in Section 504 plan	374	0.15%
Accom. or Mod. is in IEP	2,528	1.04%
English Learner Test Variation A	19	0.01%
English Learner Test Variation B	7	0.00%
English Learner Test Variation C	16	0.01%
Any Accom., Mod., or EL Variation	3,000	1.23%
No Accom., Mod., or EL Variation	240,035	98.77%
Initially Fluent English Proficient (I-FEP) Students	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	21	0.06%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	13	0.04%
E: Dictated essay with conventions	3	0.01%
F: Used noninterfering assistive device	1	0.00%
G: Used braille version of test	4	0.01%
H: Used large-print version of test	13	0.04%
J: Tested during more than one day	3	0.01%
K: Had supervised breaks	53	0.16%
L: Most beneficial time of day	15	0.05%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	2	0.01%
O: Examiner presented using MCE or ASL	0	0.00%
T: Used word processing with tools on	0	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	0	0.00%
X: Used an unlisted accommodation	27	0.08%
Y: Leave blank	10	0.03%
Z: Examiner read test questions aloud	32	0.10%
Accom. or Mod. is in Section 504 plan	13	0.04%
Accom. or Mod. is in IEP	118	0.36%
English Learner Test Variation A	2	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	5	0.02%
Any Accom., Mod., or EL Variation	139	0.42%
No Accom., Mod., or EL Variation	32,954	99.58%
English Learner (EL) Students	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	25	0.04%
C: Dictated responses to a scribe	2	0.00%
D: Used word processing with tools off	9	0.01%
E: Dictated essay with conventions	4	0.01%
F: Used noninterfering assistive device	6	0.01%
G: Used braille version of test	7	0.01%
H: Used large-print version of test	10	0.02%
J: Tested during more than one day	44	0.07%
K: Had supervised breaks	343	0.55%
L: Most beneficial time of day	133	0.21%
M: Administered at home or in a hospital	6	0.01%
N: Used a dictionary	10	0.02%
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	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	18	0.03%
X: Used an unlisted accommodation	142	0.23%
Y: Leave blank	32	0.05%
Z: Examiner read test questions aloud	272	0.43%
Accom. or Mod. is in Section 504 plan	26	0.04%
Accom. or Mod. is in IEP	693	1.11%
English Learner Test Variation A	907	1.45%
English Learner Test Variation B	61	0.10%
English Learner Test Variation C	855	1.37%
Any Accom., Mod., or EL Variation	2,163	3.46%
No Accom., Mod., or EL Variation	60,388	96.54%

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	25	0.03%
C: Dictated responses to a scribe	6	0.01%
D: Used word processing with tools off	21	0.02%
E: Dictated essay with conventions	8	0.01%
F: Used noninterfering assistive device	6	0.01%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	16	0.02%
J: Tested during more than one day	27	0.03%
K: Had supervised breaks	104	0.11%
L: Most beneficial time of day	38	0.04%
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%
T: Used word processing with tools on	7	0.01%
U: Dictated essay without conventions	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	5	0.01%
X: Used an unlisted accommodation	55	0.06%
Y: Leave blank	15	0.02%
Z: Examiner read test questions aloud	60	0.07%
Accom. or Mod. is in Section 504 plan	40	0.04%
Accom. or Mod. is in IEP	242	0.26%
English Learner Test Variation A	6	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	7	0.01%
Any Accom., Mod., or EL Variation	308	0.34%
No Accom., Mod., or EL Variation	91,483	99.66%

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	231	0.05%	125	0.03%
C: Dictated responses to a scribe	31	0.01%	20	0.00%
F: Used noninterfering assistive device	21	0.00%	9	0.00%
G: Used braille version of test	20	0.00%	24	0.01%
H: Used large-print version of test	105	0.02%	84	0.02%
J: Tested during more than one day	339	0.08%	291	0.06%
K: Had supervised breaks	1,312	0.30%	1,795	0.39%
L: Most beneficial time of day	502	0.12%	419	0.09%
M: Administered at home or in a hospital	78	0.02%	59	0.01%
N: Used a dictionary	10	0.00%	148	0.03%
O: Examiner presented using MCE or ASL	3	0.00%	7	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	7	0.00%	38	0.01%
X: Used an unlisted accommodation	500	0.11%	387	0.08%
Y: Leave blank	156	0.04%	205	0.04%
Z: Examiner read test questions aloud	210	0.05%	211	0.05%
Accom. or Mod. is in Section 504 plan	185	0.04%	96	0.02%
Accom. or Mod. is in IEP	2,264	0.52%	2,746	0.59%
English Learner Test Variation A	338	0.08%	624	0.13%
English Learner Test Variation B	57	0.01%	333	0.07%
English Learner Test Variation C	348	0.08%	993	0.21%
Any Accom., Mod., or EL Variation	3,171	0.73%	4,207	0.91%
No Accom., Mod., or EL Variation	432,320	99.27%	459,029	99.09%
Students Not in Special Education	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	41	0.01%	18	0.00%
C: Dictated responses to a scribe	8	0.00%	5	0.00%
F: Used noninterfering assistive device	1	0.00%	2	0.00%
G: Used braille version of test	1	0.00%	0	0.00%
H: Used large-print version of test	17	0.00%	16	0.00%
J: Tested during more than one day	31	0.01%	24	0.01%
K: Had supervised breaks	113	0.03%	159	0.04%
L: Most beneficial time of day	48	0.01%	53	0.01%
M: Administered at home or in a hospital	61	0.01%	38	0.01%
N: Used a dictionary	2	0.00%	15	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	2	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	69	0.02%	42	0.01%
Y: Leave blank	17	0.00%	44	0.01%
Z: Examiner read test questions aloud	14	0.00%	21	0.00%

Special Services Summary for ELA, Grades Eight and Nine				
Accom. or Mod. is in Section 504 plan	167	0.04%	91	0.02%
Accom. or Mod. is in IEP	133	0.03%	208	0.05%
English Learner Test Variation A	331	0.08%	613	0.14%
English Learner Test Variation B	55	0.01%	324	0.07%
English Learner Test Variation C	337	0.08%	979	0.22%
Any Accom., Mod., or EL Variation	922	0.22%	1,564	0.36%
No Accom., Mod., or EL Variation	414,596	99.78%	437,645	99.64%
Students in Special Education	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	190	0.95%	107	0.45%
C: Dictated responses to a scribe	23	0.12%	15	0.06%
F: Used noninterfering assistive device	20	0.10%	7	0.03%
G: Used braille version of test	19	0.10%	24	0.10%
H: Used large-print version of test	88	0.44%	68	0.28%
J: Tested during more than one day	308	1.54%	265	1.10%
K: Had supervised breaks	1,195	5.99%	1,634	6.81%
L: Most beneficial time of day	453	2.27%	364	1.52%
M: Administered at home or in a hospital	17	0.09%	21	0.09%
N: Used a dictionary	8	0.04%	133	0.55%
O: Examiner presented using MCE or ASL	3	0.02%	5	0.02%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	5	0.03%	37	0.15%
X: Used an unlisted accommodation	428	2.15%	340	1.42%
Y: Leave blank	139	0.70%	161	0.67%
Z: Examiner read test questions aloud	195	0.98%	189	0.79%
Accom. or Mod. is in Section 504 plan	18	0.09%	5	0.02%
Accom. or Mod. is in IEP	2,125	10.65%	2,530	10.55%
English Learner Test Variation A	7	0.04%	10	0.04%
English Learner Test Variation B	2	0.01%	8	0.03%
English Learner Test Variation C	11	0.06%	13	0.05%
Any Accom., Mod., or EL Variation	2,243	11.24%	2,634	10.98%
No Accom., Mod., or EL Variation	17,708	88.76%	21,354	89.02%
English-Only Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	175	0.07%	91	0.04%
C: Dictated responses to a scribe	21	0.01%	16	0.01%
F: Used noninterfering assistive device	14	0.01%	5	0.00%
G: Used braille version of test	16	0.01%	10	0.00%
H: Used large-print version of test	71	0.03%	48	0.02%
J: Tested during more than one day	269	0.11%	220	0.09%
K: Had supervised breaks	968	0.40%	1,264	0.49%
L: Most beneficial time of day	379	0.16%	312	0.12%
M: Administered at home or in a hospital	54	0.02%	45	0.02%
N: Used a dictionary	3	0.00%	69	0.03%

Special Services Summary for ELA, Grades Eight and Nine				
O: Examiner presented using MCE or ASL	3	0.00%	6	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	7	0.00%	35	0.01%
X: Used an unlisted accommodation	359	0.15%	267	0.10%
Y: Leave blank	109	0.04%	125	0.05%
Z: Examiner read test questions aloud	141	0.06%	144	0.06%
Accom. or Mod. is in Section 504 plan	145	0.06%	82	0.03%
Accom. or Mod. is in IEP	1,648	0.67%	1,865	0.73%
English Learner Test Variation A	3	0.00%	19	0.01%
English Learner Test Variation B	1	0.00%	8	0.00%
English Learner Test Variation C	5	0.00%	18	0.01%
Any Accom., Mod., or EL Variation	1,897	0.78%	2,058	0.80%
No Accom., Mod., or EL Variation	242,395	99.22%	254,659	99.20%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	9	0.02%	7	0.02%
C: Dictated responses to a scribe	3	0.01%	1	0.00%
F: Used noninterfering assistive device	2	0.01%	1	0.00%
G: Used braille version of test	0	0.00%	2	0.01%
H: Used large-print version of test	7	0.02%	6	0.02%
J: Tested during more than one day	5	0.01%	3	0.01%
K: Had supervised breaks	22	0.06%	46	0.13%
L: Most beneficial time of day	11	0.03%	4	0.01%
M: Administered at home or in a hospital	3	0.01%	2	0.01%
N: Used a dictionary	0	0.00%	4	0.01%
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	11	0.03%	15	0.04%
Y: Leave blank	4	0.01%	8	0.02%
Z: Examiner read test questions aloud	6	0.02%	6	0.02%
Accom. or Mod. is in Section 504 plan	3	0.01%	2	0.01%
Accom. or Mod. is in IEP	53	0.14%	87	0.25%
English Learner Test Variation A	0	0.00%	1	0.00%
English Learner Test Variation B	1	0.00%	2	0.01%
English Learner Test Variation C	8	0.02%	1	0.00%
Any Accom., Mod., or EL Variation	68	0.19%	93	0.27%
No Accom., Mod., or EL Variation	36,671	99.81%	34,716	99.73%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	15	0.03%	9	0.01%
C: Dictated responses to a scribe	5	0.01%	2	0.00%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille version of test	2	0.00%	4	0.01%

Special Services Summary for ELA, Grades Eight and Nine				
H: Used large-print version of test	10	0.02%	9	0.01%
J: Tested during more than one day	50	0.09%	51	0.08%
K: Had supervised breaks	217	0.39%	354	0.56%
L: Most beneficial time of day	82	0.15%	78	0.12%
M: Administered at home or in a hospital	10	0.02%	5	0.01%
N: Used a dictionary	6	0.01%	53	0.08%
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%	1	0.00%
X: Used an unlisted accommodation	86	0.15%	79	0.12%
Y: Leave blank	29	0.05%	58	0.09%
Z: Examiner read test questions aloud	51	0.09%	49	0.08%
Accom. or Mod. is in Section 504 plan	19	0.03%	6	0.01%
Accom. or Mod. is in IEP	374	0.67%	567	0.89%
English Learner Test Variation A	329	0.59%	578	0.91%
English Learner Test Variation B	55	0.10%	312	0.49%
English Learner Test Variation C	326	0.59%	948	1.49%
Any Accom., Mod., or EL Variation	970	1.74%	1,780	2.80%
No Accom., Mod., or EL Variation	54,675	98.26%	61,763	97.20%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	32	0.03%	18	0.02%
C: Dictated responses to a scribe	2	0.00%	1	0.00%
F: Used noninterfering assistive device	5	0.01%	3	0.00%
G: Used braille version of test	2	0.00%	8	0.01%
H: Used large-print version of test	17	0.02%	20	0.02%
J: Tested during more than one day	15	0.02%	16	0.01%
K: Had supervised breaks	102	0.10%	120	0.11%
L: Most beneficial time of day	29	0.03%	23	0.02%
M: Administered at home or in a hospital	11	0.01%	6	0.01%
N: Used a dictionary	1	0.00%	22	0.02%
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	42	0.04%	25	0.02%
Y: Leave blank	14	0.01%	14	0.01%
Z: Examiner read test questions aloud	11	0.01%	12	0.01%
Accom. or Mod. is in Section 504 plan	18	0.02%	6	0.01%
Accom. or Mod. is in IEP	185	0.19%	216	0.20%
English Learner Test Variation A	1	0.00%	11	0.01%
English Learner Test Variation B	0	0.00%	1	0.00%
English Learner Test Variation C	1	0.00%	10	0.01%
Any Accom., Mod., or EL Variation	220	0.22%	246	0.23%
No Accom., Mod., or EL Variation	97,911	99.78%	106,996	99.77%

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	169	0.04%	132	0.03%
C: Dictated responses to a scribe	24	0.01%	20	0.00%
F: Used noninterfering assistive device	12	0.00%	13	0.00%
G: Used braille version of test	15	0.00%	20	0.00%
H: Used large-print version of test	105	0.02%	90	0.02%
J: Tested during more than one day	263	0.06%	286	0.06%
K: Had supervised breaks	1,847	0.41%	1,752	0.40%
L: Most beneficial time of day	418	0.09%	405	0.09%
M: Administered at home or in a hospital	93	0.02%	116	0.03%
N: Used a dictionary	129	0.03%	130	0.03%
O: Examiner presented using MCE or ASL	11	0.00%	9	0.00%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	39	0.01%	39	0.01%
X: Used an unlisted accommodation	406	0.09%	408	0.09%
Y: Leave blank	178	0.04%	174	0.04%
Z: Examiner read test questions aloud	269	0.06%	288	0.07%
Accom. or Mod. is in Section 504 plan	113	0.02%	96	0.02%
Accom. or Mod. is in IEP	2,750	0.60%	2,676	0.61%
English Learner Test Variation A	483	0.11%	313	0.07%
English Learner Test Variation B	263	0.06%	144	0.03%
English Learner Test Variation C	812	0.18%	594	0.13%
Any Accom., Mod., or EL Variation	4,053	0.89%	3,713	0.84%
No Accom., Mod., or EL Variation	451,310	99.11%	436,403	99.16%
Students Not in Special Education	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	20	0.00%	22	0.01%
C: Dictated responses to a scribe	8	0.00%	4	0.00%
F: Used noninterfering assistive device	2	0.00%	3	0.00%
G: Used braille version of test	0	0.00%	3	0.00%
H: Used large-print version of test	11	0.00%	7	0.00%
J: Tested during more than one day	22	0.01%	22	0.01%
K: Had supervised breaks	147	0.03%	111	0.03%
L: Most beneficial time of day	45	0.01%	44	0.01%
M: Administered at home or in a hospital	56	0.01%	68	0.02%
N: Used a dictionary	14	0.00%	11	0.00%
O: Examiner presented using MCE or ASL	2	0.00%	1	0.00%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	1	0.00%	1	0.00%
X: Used an unlisted accommodation	40	0.01%	45	0.01%
Y: Leave blank	60	0.01%	25	0.01%
Z: Examiner read test questions aloud	16	0.00%	21	0.01%

Special Services Summary for ELA, Grades Ten and Eleven				
Accom. or Mod. is in Section 504 plan	105	0.02%	87	0.02%
Accom. or Mod. is in IEP	202	0.05%	148	0.04%
English Learner Test Variation A	474	0.11%	303	0.07%
English Learner Test Variation B	260	0.06%	135	0.03%
English Learner Test Variation C	799	0.19%	583	0.14%
Any Accom., Mod., or EL Variation	1,347	0.31%	1,011	0.24%
No Accom., Mod., or EL Variation	429,762	99.69%	414,721	99.76%
Students in Special Education	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	149	0.62%	110	0.45%
C: Dictated responses to a scribe	16	0.07%	16	0.07%
F: Used noninterfering assistive device	10	0.04%	10	0.04%
G: Used braille version of test	15	0.06%	16	0.07%
H: Used large-print version of test	94	0.39%	83	0.34%
J: Tested during more than one day	240	0.99%	264	1.08%
K: Had supervised breaks	1,696	7.00%	1,641	6.74%
L: Most beneficial time of day	371	1.53%	361	1.48%
M: Administered at home or in a hospital	36	0.15%	47	0.19%
N: Used a dictionary	115	0.47%	119	0.49%
O: Examiner presented using MCE or ASL	9	0.04%	8	0.03%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	38	0.16%	38	0.16%
X: Used an unlisted accommodation	366	1.51%	362	1.49%
Y: Leave blank	116	0.48%	149	0.61%
Z: Examiner read test questions aloud	253	1.04%	267	1.10%
Accom. or Mod. is in Section 504 plan	8	0.03%	8	0.03%
Accom. or Mod. is in IEP	2,540	10.49%	2,525	10.37%
English Learner Test Variation A	9	0.04%	10	0.04%
English Learner Test Variation B	3	0.01%	9	0.04%
English Learner Test Variation C	13	0.05%	11	0.05%
Any Accom., Mod., or EL Variation	2,698	11.14%	2,699	11.08%
No Accom., Mod., or EL Variation	21,526	88.86%	21,657	88.92%
English-Only Students	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	134	0.05%	107	0.04%
C: Dictated responses to a scribe	16	0.01%	12	0.00%
F: Used noninterfering assistive device	9	0.00%	6	0.00%
G: Used braille version of test	5	0.00%	10	0.00%
H: Used large-print version of test	69	0.03%	57	0.02%
J: Tested during more than one day	214	0.08%	211	0.08%
K: Had supervised breaks	1,297	0.51%	1,189	0.48%
L: Most beneficial time of day	307	0.12%	299	0.12%
M: Administered at home or in a hospital	66	0.03%	85	0.03%
N: Used a dictionary	66	0.03%	57	0.02%

Special Services Summary for ELA, Grades Ten and Eleven				
O: Examiner presented using MCE or ASL	10	0.00%	8	0.00%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	34	0.01%	28	0.01%
X: Used an unlisted accommodation	306	0.12%	302	0.12%
Y: Leave blank	110	0.04%	105	0.04%
Z: Examiner read test questions aloud	185	0.07%	192	0.08%
Accom. or Mod. is in Section 504 plan	97	0.04%	82	0.03%
Accom. or Mod. is in IEP	1,925	0.76%	1,806	0.73%
English Learner Test Variation A	8	0.00%	7	0.00%
English Learner Test Variation B	7	0.00%	9	0.00%
English Learner Test Variation C	13	0.01%	10	0.00%
Any Accom., Mod., or EL Variation	2,169	0.85%	2,044	0.82%
No Accom., Mod., or EL Variation	251,986	99.15%	246,997	99.18%
Initially Fluent English Proficient (I-FEP) Students	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	6	0.02%	2	0.01%
C: Dictated responses to a scribe	1	0.00%	4	0.01%
F: Used noninterfering assistive device	0	0.00%	0	0.00%
G: Used braille version of test	2	0.01%	1	0.00%
H: Used large-print version of test	5	0.02%	3	0.01%
J: Tested during more than one day	6	0.02%	7	0.02%
K: Had supervised breaks	44	0.13%	56	0.15%
L: Most beneficial time of day	6	0.02%	7	0.02%
M: Administered at home or in a hospital	2	0.01%	1	0.00%
N: Used a dictionary	5	0.02%	1	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	0.00%	1	0.00%
X: Used an unlisted accommodation	12	0.04%	6	0.02%
Y: Leave blank	4	0.01%	10	0.03%
Z: Examiner read test questions aloud	5	0.02%	5	0.01%
Accom. or Mod. is in Section 504 plan	1	0.00%	1	0.00%
Accom. or Mod. is in IEP	67	0.20%	83	0.22%
English Learner Test Variation A	1	0.00%	1	0.00%
English Learner Test Variation B	3	0.01%	0	0.00%
English Learner Test Variation C	6	0.02%	2	0.01%
Any Accom., Mod., or EL Variation	84	0.25%	91	0.24%
No Accom., Mod., or EL Variation	32,990	99.75%	37,863	99.76%
English Learner (EL) Students	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	9	0.02%	11	0.02%
C: Dictated responses to a scribe	6	0.01%	1	0.00%
F: Used noninterfering assistive device	2	0.00%	2	0.00%
G: Used braille version of test	3	0.01%	0	0.00%

Special Services Summary for ELA, Grades Ten and Eleven				
H: Used large-print version of test	8	0.01%	9	0.02%
J: Tested during more than one day	35	0.06%	50	0.10%
K: Had supervised breaks	384	0.65%	383	0.76%
L: Most beneficial time of day	85	0.14%	76	0.15%
M: Administered at home or in a hospital	14	0.02%	18	0.04%
N: Used a dictionary	46	0.08%	60	0.12%
O: Examiner presented using MCE or ASL	1	0.00%	1	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	2	0.00%	4	0.01%
X: Used an unlisted accommodation	67	0.11%	84	0.17%
Y: Leave blank	48	0.08%	45	0.09%
Z: Examiner read test questions aloud	70	0.12%	76	0.15%
Accom. or Mod. is in Section 504 plan	11	0.02%	7	0.01%
Accom. or Mod. is in IEP	564	0.96%	589	1.17%
English Learner Test Variation A	470	0.80%	304	0.60%
English Learner Test Variation B	252	0.43%	132	0.26%
English Learner Test Variation C	778	1.33%	578	1.15%
Any Accom., Mod., or EL Variation	1,567	2.67%	1,345	2.68%
No Accom., Mod., or EL Variation	57,066	97.33%	48,934	97.32%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	19	0.02%	12	0.01%
C: Dictated responses to a scribe	1	0.00%	3	0.00%
F: Used noninterfering assistive device	1	0.00%	5	0.00%
G: Used braille version of test	5	0.00%	8	0.01%
H: Used large-print version of test	23	0.02%	21	0.02%
J: Tested during more than one day	8	0.01%	15	0.01%
K: Had supervised breaks	115	0.11%	114	0.11%
L: Most beneficial time of day	19	0.02%	17	0.02%
M: Administered at home or in a hospital	10	0.01%	12	0.01%
N: Used a dictionary	12	0.01%	12	0.01%
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%	5	0.00%
X: Used an unlisted accommodation	21	0.02%	12	0.01%
Y: Leave blank	15	0.01%	14	0.01%
Z: Examiner read test questions aloud	9	0.01%	13	0.01%
Accom. or Mod. is in Section 504 plan	4	0.00%	4	0.00%
Accom. or Mod. is in IEP	186	0.17%	183	0.18%
English Learner Test Variation A	3	0.00%	0	0.00%
English Learner Test Variation B	0	0.00%	3	0.00%
English Learner Test Variation C	7	0.01%	3	0.00%
Any Accom., Mod., or EL Variation	216	0.20%	216	0.21%
No Accom., Mod., or EL Variation	108,572	99.80%	102,061	99.79%

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	482	0.10%
C: Dictated responses to a scribe	32	0.01%
F: Used noninterfering assistive device	34	0.01%
G: Used braille version of test	26	0.01%
H: Used large-print version of test	143	0.03%
J: Tested during more than one day	695	0.15%
K: Had supervised breaks	3,727	0.81%
L: Most beneficial time of day	1,293	0.28%
M: Administered at home or in a hospital	97	0.02%
N: Used a dictionary	4	0.00%
O: Examiner presented using MCE or ASL	45	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	17	0.00%
X: Used an unlisted accommodation	1,049	0.23%
Y: Leave blank	460	0.10%
Z: Examiner read test questions aloud	4,026	0.88%
Accom. or Mod. is in Section 504 plan	177	0.04%
Accom. or Mod. is in IEP	8,441	1.84%
English Learner Test Variation A	246	0.05%
English Learner Test Variation B	27	0.01%
English Learner Test Variation C	233	0.05%
English Learner Test Variation D	241	0.05%
Any Accom., Mod., or EL Variation	9,403	2.05%
No Accom., Mod., or EL Variation	449,722	97.95%
Students Not in Special Education	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	38	0.01%
C: Dictated responses to a scribe	5	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	17	0.00%
J: Tested during more than one day	25	0.01%
K: Had supervised breaks	99	0.02%
L: Most beneficial time of day	42	0.01%
M: Administered at home or in a hospital	60	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	60	0.01%
Y: Leave blank	14	0.00%
Z: Examiner read test questions aloud	57	0.01%

Special Services Summary for History–Social Science, Grade Eight		
Accom. or Mod. is in Section 504 plan	159	0.04%
Accom. or Mod. is in IEP	143	0.03%
English Learner Test Variation A	240	0.06%
English Learner Test Variation B	21	0.01%
English Learner Test Variation C	223	0.05%
English Learner Test Variation D	232	0.06%
Any Accom., Mod., or EL Variation	826	0.20%
No Accom., Mod., or EL Variation	413,801	99.80%
Students in Special Education	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	442	1.00%
C: Dictated responses to a scribe	27	0.06%
F: Used noninterfering assistive device	34	0.08%
G: Used braille version of test	25	0.06%
H: Used large-print version of test	126	0.28%
J: Tested during more than one day	666	1.50%
K: Had supervised breaks	3,608	8.14%
L: Most beneficial time of day	1,239	2.80%
M: Administered at home or in a hospital	37	0.08%
N: Used a dictionary	4	0.01%
O: Examiner presented using MCE or ASL	45	0.10%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	14	0.03%
X: Used an unlisted accommodation	982	2.22%
Y: Leave blank	445	1.00%
Z: Examiner read test questions aloud	3,943	8.90%
Accom. or Mod. is in Section 504 plan	18	0.04%
Accom. or Mod. is in IEP	8,247	18.61%
English Learner Test Variation A	6	0.01%
English Learner Test Variation B	6	0.01%
English Learner Test Variation C	9	0.02%
English Learner Test Variation D	8	0.02%
Any Accom., Mod., or EL Variation	8,524	19.24%
No Accom., Mod., or EL Variation	35,787	80.76%
English-Only Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	341	0.13%
C: Dictated responses to a scribe	21	0.01%
F: Used noninterfering assistive device	19	0.01%
G: Used braille version of test	19	0.01%
H: Used large-print version of test	93	0.04%
J: Tested during more than one day	428	0.17%
K: Had supervised breaks	2,220	0.86%
L: Most beneficial time of day	779	0.30%

Special Services Summary for History–Social Science, Grade Eight		
M: Administered at home or in a hospital	71	0.03%
N: Used a dictionary	4	0.00%
O: Examiner presented using MCE or ASL	27	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	14	0.01%
X: Used an unlisted accommodation	635	0.25%
Y: Leave blank	246	0.10%
Z: Examiner read test questions aloud	2,001	0.78%
Accom. or Mod. is in Section 504 plan	140	0.05%
Accom. or Mod. is in IEP	4,716	1.84%
English Learner Test Variation A	3	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	4	0.00%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	5,029	1.96%
No Accom., Mod., or EL Variation	251,735	98.04%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	17	0.05%
C: Dictated responses to a scribe	3	0.01%
F: Used noninterfering assistive device	3	0.01%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	8	0.02%
J: Tested during more than one day	15	0.04%
K: Had supervised breaks	69	0.19%
L: Most beneficial time of day	28	0.08%
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	2	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	26	0.07%
Y: Leave blank	7	0.02%
Z: Examiner read test questions aloud	89	0.24%
Accom. or Mod. is in Section 504 plan	3	0.01%
Accom. or Mod. is in IEP	197	0.53%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	5	0.01%
English Learner Test Variation D	4	0.01%
Any Accom., Mod., or EL Variation	215	0.58%
No Accom., Mod., or EL Variation	37,049	99.42%

Special Services Summary for History–Social Science, Grade Eight		
English Learner (EL) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	87	0.13%
C: Dictated responses to a scribe	5	0.01%
F: Used noninterfering assistive device	7	0.01%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	22	0.03%
J: Tested during more than one day	223	0.34%
K: Had supervised breaks	1,239	1.90%
L: Most beneficial time of day	426	0.65%
M: Administered at home or in a hospital	12	0.02%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	14	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.00%
X: Used an unlisted accommodation	309	0.47%
Y: Leave blank	185	0.28%
Z: Examiner read test questions aloud	1,718	2.64%
Accom. or Mod. is in Section 504 plan	16	0.02%
Accom. or Mod. is in IEP	3,039	4.67%
English Learner Test Variation A	238	0.37%
English Learner Test Variation B	26	0.04%
English Learner Test Variation C	222	0.34%
English Learner Test Variation D	231	0.35%
Any Accom., Mod., or EL Variation	3,625	5.57%
No Accom., Mod., or EL Variation	61,477	94.43%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	37	0.04%
C: Dictated responses to a scribe	3	0.00%
F: Used noninterfering assistive device	5	0.01%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	20	0.02%
J: Tested during more than one day	29	0.03%
K: Had supervised breaks	189	0.19%
L: Most beneficial time of day	59	0.06%
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%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	77	0.08%
Y: Leave blank	21	0.02%
Z: Examiner read test questions aloud	204	0.21%

Special Services Summary for History–Social Science, Grade Eight		
Accom. or Mod. is in Section 504 plan	17	0.02%
Accom. or Mod. is in IEP	467	0.47%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	1	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	503	0.51%
No Accom., Mod., or EL Variation	98,761	99.49%

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	13	198	10	221	0.05%
C: Dictated responses to a scribe	0	17	2	19	0.00%
F: Used noninterfering assistive device	3	21	0	24	0.01%
G: Used braille version of test	1	12	0	13	0.00%
H: Used large-print version of test	2	100	7	109	0.02%
J: Tested during more than one day	74	326	45	445	0.09%
K: Had supervised breaks	228	2,731	173	3,132	0.66%
L: Most beneficial time of day	86	462	57	605	0.13%
M: Administered at home or in a hospital	5	79	10	94	0.02%
N: Used a dictionary	2	40	2	44	0.01%
O: Examiner presented using MCE or ASL	10	40	2	52	0.01%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	28	1	29	0.01%
X: Used an unlisted accommodation	47	626	30	703	0.15%
Y: Leave blank	9	288	15	312	0.07%
Z: Examiner read test questions aloud	29	1,000	32	1,061	0.22%
Accom. or Mod. is in Section 504 plan	8	90	7	105	0.02%
Accom. or Mod. is in IEP	324	4,386	245	4,955	1.04%
English Learner Test Variation A	19	314	11	344	0.07%
English Learner Test Variation B	12	186	7	205	0.04%
English Learner Test Variation C	44	597	24	665	0.14%
English Learner Test Variation D	49	619	32	700	0.15%
Any Accom., Mod., or EL Variation	436	5,775	315	6,526	1.38%
No Accom., Mod., or EL Variation	34,714	417,126	15,889	467,729	98.62%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	2	17	0	19	0.00%
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	0	0	0	0.00%
H: Used large-print version of test	2	8	1	11	0.00%
J: Tested during more than one day	4	19	1	24	0.01%
K: Had supervised breaks	10	102	8	120	0.03%
L: Most beneficial time of day	8	36	1	45	0.01%
M: Administered at home or in a hospital	1	42	4	47	0.01%
N: Used a dictionary	0	8	1	9	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	0	2	0	2	0.00%
X: Used an unlisted accommodation	3	32	0	35	0.01%
Y: Leave blank	1	48	2	51	0.01%
Z: Examiner read test questions aloud	1	20	2	23	0.01%

Special Services Summary for World History					
Accom. or Mod. is in Section 504 plan	8	82	6	96	0.02%
Accom. or Mod. is in IEP	11	151	8	170	0.04%
English Learner Test Variation A	18	305	10	333	0.08%
English Learner Test Variation B	11	174	5	190	0.04%
English Learner Test Variation C	44	575	21	640	0.15%
English Learner Test Variation D	46	573	31	650	0.15%
Any Accom., Mod., or EL Variation	108	1,268	66	1,442	0.33%
No Accom., Mod., or EL Variation	32,074	386,629	13,909	432,612	99.67%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	11	181	10	202	0.50%
C: Dictated responses to a scribe	0	15	2	17	0.04%
F: Used noninterfering assistive device	2	18	0	20	0.05%
G: Used braille version of test	1	12	0	13	0.03%
H: Used large-print version of test	0	92	6	98	0.24%
J: Tested during more than one day	69	305	44	418	1.04%
K: Had supervised breaks	217	2,624	165	3,006	7.50%
L: Most beneficial time of day	77	424	56	557	1.39%
M: Administered at home or in a hospital	4	37	6	47	0.12%
N: Used a dictionary	2	32	1	35	0.09%
O: Examiner presented using MCE or ASL	10	38	2	50	0.12%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	26	1	27	0.07%
X: Used an unlisted accommodation	44	594	30	668	1.67%
Y: Leave blank	8	239	13	260	0.65%
Z: Examiner read test questions aloud	28	976	30	1,034	2.58%
Accom. or Mod. is in Section 504 plan	0	8	1	9	0.02%
Accom. or Mod. is in IEP	312	4,225	237	4,774	11.91%
English Learner Test Variation A	1	9	1	11	0.03%
English Learner Test Variation B	1	12	2	15	0.04%
English Learner Test Variation C	0	22	3	25	0.06%
English Learner Test Variation D	3	46	1	50	0.12%
Any Accom., Mod., or EL Variation	327	4,497	249	5,073	12.66%
No Accom., Mod., or EL Variation	2,624	30,418	1,969	35,011	87.34%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	10	149	8	167	0.06%
C: Dictated responses to a scribe	0	10	2	12	0.00%
F: Used noninterfering assistive device	2	13	0	15	0.01%
G: Used braille version of test	1	4	0	5	0.00%
H: Used large-print version of test	2	65	3	70	0.03%
J: Tested during more than one day	58	197	40	295	0.11%
K: Had supervised breaks	164	1,610	114	1,888	0.72%
L: Most beneficial time of day	64	298	46	408	0.15%

Special Services Summary for World History					
M: Administered at home or in a hospital	4	55	6	65	0.02%
N: Used a dictionary	2	23	1	26	0.01%
O: Examiner presented using MCE or ASL	3	23	2	28	0.01%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	21	0	21	0.01%
X: Used an unlisted accommodation	31	440	19	490	0.19%
Y: Leave blank	5	159	13	177	0.07%
Z: Examiner read test questions aloud	15	560	20	595	0.23%
Accom. or Mod. is in Section 504 plan	8	77	7	92	0.03%
Accom. or Mod. is in IEP	223	2,651	169	3,043	1.16%
English Learner Test Variation A	0	6	1	7	0.00%
English Learner Test Variation B	0	8	1	9	0.00%
English Learner Test Variation C	0	13	1	14	0.01%
English Learner Test Variation D	0	10	1	11	0.00%
Any Accom., Mod., or EL Variation	240	2,904	183	3,327	1.26%
No Accom., Mod., or EL Variation	18,080	233,282	8,670	260,032	98.74%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	8	0	8	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	2	0	2	0.01%
H: Used large-print version of test	0	4	0	4	0.01%
J: Tested during more than one day	1	7	2	10	0.03%
K: Had supervised breaks	6	81	7	94	0.27%
L: Most beneficial time of day	2	9	2	13	0.04%
M: Administered at home or in a hospital	0	4	0	4	0.01%
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	2	0	2	0.01%
X: Used an unlisted accommodation	1	16	0	17	0.05%
Y: Leave blank	1	8	1	10	0.03%
Z: Examiner read test questions aloud	0	16	0	16	0.05%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	8	117	8	133	0.39%
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	0.01%
English Learner Test Variation D	0	8	0	8	0.02%
Any Accom., Mod., or EL Variation	8	135	8	151	0.44%
No Accom., Mod., or EL Variation	3,418	29,735	934	34,087	99.56%

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	1	19	2	22	0.03%
C: Dictated responses to a scribe	0	6	0	6	0.01%
F: Used noninterfering assistive device	0	6	0	6	0.01%
G: Used braille version of test	0	3	0	3	0.00%
H: Used large-print version of test	0	12	3	15	0.02%
J: Tested during more than one day	13	106	2	121	0.19%
K: Had supervised breaks	49	870	45	964	1.51%
L: Most beneficial time of day	13	138	6	157	0.25%
M: Administered at home or in a hospital	1	10	3	14	0.02%
N: Used a dictionary	0	12	1	13	0.02%
O: Examiner presented using MCE or ASL	7	16	0	23	0.04%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	4	0	4	0.01%
X: Used an unlisted accommodation	8	138	10	156	0.24%
Y: Leave blank	3	103	0	106	0.17%
Z: Examiner read test questions aloud	14	368	11	393	0.62%
Accom. or Mod. is in Section 504 plan	0	9	0	9	0.01%
Accom. or Mod. is in IEP	76	1,342	58	1,476	2.32%
English Learner Test Variation A	19	305	10	334	0.52%
English Learner Test Variation B	12	178	6	196	0.31%
English Learner Test Variation C	44	569	23	636	1.00%
English Learner Test Variation D	49	589	31	669	1.05%
Any Accom., Mod., or EL Variation	170	2,420	113	2,703	4.24%
No Accom., Mod., or EL Variation	4,467	53,078	3,468	61,013	95.76%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	2	21	0	23	0.02%
C: Dictated responses to a scribe	0	1	0	1	0.00%
F: Used noninterfering assistive device	1	2	0	3	0.00%
G: Used braille version of test	0	3	0	3	0.00%
H: Used large-print version of test	0	19	1	20	0.02%
J: Tested during more than one day	1	15	1	17	0.02%
K: Had supervised breaks	7	162	6	175	0.16%
L: Most beneficial time of day	6	16	2	24	0.02%
M: Administered at home or in a hospital	0	9	1	10	0.01%
N: Used a dictionary	0	5	0	5	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	0	1	0.00%
X: Used an unlisted accommodation	7	31	0	38	0.03%
Y: Leave blank	0	18	1	19	0.02%
Z: Examiner read test questions aloud	0	53	1	54	0.05%

Special Services Summary for World History					
Accom. or Mod. is in Section 504 plan	0	3	0	3	0.00%
Accom. or Mod. is in IEP	15	266	8	289	0.26%
English Learner Test Variation A	0	3	0	3	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	8	0	8	0.01%
English Learner Test Variation D	0	5	0	5	0.00%
Any Accom., Mod., or EL Variation	16	298	9	323	0.29%
No Accom., Mod., or EL Variation	8,639	100,467	2,783	111,889	99.71%

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	194	0.04%
C: Dictated responses to a scribe	23	0.01%
F: Used noninterfering assistive device	13	0.00%
G: Used braille version of test	22	0.00%
H: Used large-print version of test	97	0.02%
J: Tested during more than one day	319	0.07%
K: Had supervised breaks	2,703	0.60%
L: Most beneficial time of day	507	0.11%
M: Administered at home or in a hospital	110	0.02%
N: Used a dictionary	45	0.01%
O: Examiner presented using MCE or ASL	40	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	33	0.01%
X: Used an unlisted accommodation	580	0.13%
Y: Leave blank	300	0.07%
Z: Examiner read test questions aloud	1,112	0.25%
Accom. or Mod. is in Section 504 plan	85	0.02%
Accom. or Mod. is in IEP	4,463	1.00%
English Learner Test Variation A	271	0.06%
English Learner Test Variation B	121	0.03%
English Learner Test Variation C	550	0.12%
English Learner Test Variation D	645	0.14%
Any Accom., Mod., or EL Variation	5,863	1.31%
No Accom., Mod., or EL Variation	441,523	98.69%
Students Not in Special Education	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	19	0.00%
C: Dictated responses to a scribe	1	0.00%
F: Used noninterfering assistive device	2	0.00%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	6	0.00%
J: Tested during more than one day	17	0.00%
K: Had supervised breaks	91	0.02%
L: Most beneficial time of day	42	0.01%
M: Administered at home or in a hospital	64	0.02%
N: Used a dictionary	6	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	1	0.00%
X: Used an unlisted accommodation	32	0.01%
Y: Leave blank	23	0.01%
Z: Examiner read test questions aloud	27	0.01%

Special Services Summary for History–Social Science, Grade Eleven		
Accom. or Mod. is in Section 504 plan	77	0.02%
Accom. or Mod. is in IEP	127	0.03%
English Learner Test Variation A	265	0.06%
English Learner Test Variation B	107	0.03%
English Learner Test Variation C	535	0.13%
English Learner Test Variation D	599	0.15%
Any Accom., Mod., or EL Variation	1,215	0.30%
No Accom., Mod., or EL Variation	409,518	99.70%
Students in Special Education	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	175	0.48%
C: Dictated responses to a scribe	22	0.06%
F: Used noninterfering assistive device	10	0.03%
G: Used braille version of test	18	0.05%
H: Used large-print version of test	89	0.24%
J: Tested during more than one day	301	0.82%
K: Had supervised breaks	2,608	7.13%
L: Most beneficial time of day	464	1.27%
M: Administered at home or in a hospital	46	0.13%
N: Used a dictionary	39	0.11%
O: Examiner presented using MCE or ASL	38	0.10%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	32	0.09%
X: Used an unlisted accommodation	547	1.50%
Y: Leave blank	276	0.75%
Z: Examiner read test questions aloud	1,085	2.97%
Accom. or Mod. is in Section 504 plan	7	0.02%
Accom. or Mod. is in IEP	4,329	11.84%
English Learner Test Variation A	6	0.02%
English Learner Test Variation B	14	0.04%
English Learner Test Variation C	15	0.04%
English Learner Test Variation D	45	0.12%
Any Accom., Mod., or EL Variation	4,640	12.69%
No Accom., Mod., or EL Variation	31,937	87.31%
English-Only Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	147	0.06%
C: Dictated responses to a scribe	14	0.01%
F: Used noninterfering assistive device	5	0.00%
G: Used braille version of test	10	0.00%
H: Used large-print version of test	61	0.02%
J: Tested during more than one day	208	0.08%
K: Had supervised breaks	1,555	0.62%
L: Most beneficial time of day	352	0.14%

Special Services Summary for History–Social Science, Grade Eleven		
M: Administered at home or in a hospital	78	0.03%
N: Used a dictionary	15	0.01%
O: Examiner presented using MCE or ASL	23	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	25	0.01%
X: Used an unlisted accommodation	400	0.16%
Y: Leave blank	156	0.06%
Z: Examiner read test questions aloud	621	0.25%
Accom. or Mod. is in Section 504 plan	70	0.03%
Accom. or Mod. is in IEP	2,647	1.05%
English Learner Test Variation A	4	0.00%
English Learner Test Variation B	7	0.00%
English Learner Test Variation C	7	0.00%
English Learner Test Variation D	7	0.00%
Any Accom., Mod., or EL Variation	2,901	1.15%
No Accom., Mod., or EL Variation	249,865	98.85%
Initially Fluent English Proficient (I-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	3	0.01%
C: Dictated responses to a scribe	3	0.01%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	1	0.00%
H: Used large-print version of test	4	0.01%
J: Tested during more than one day	6	0.02%
K: Had supervised breaks	92	0.24%
L: Most beneficial time of day	9	0.02%
M: Administered at home or in a hospital	2	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	0	0.00%
X: Used an unlisted accommodation	15	0.04%
Y: Leave blank	15	0.04%
Z: Examiner read test questions aloud	24	0.06%
Accom. or Mod. is in Section 504 plan	2	0.01%
Accom. or Mod. is in IEP	140	0.37%
English Learner Test Variation A	1	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	2	0.01%
English Learner Test Variation D	4	0.01%
Any Accom., Mod., or EL Variation	156	0.41%
No Accom., Mod., or EL Variation	37,901	99.59%

Special Services Summary for History–Social Science, Grade Eleven		
English Learner (EL) Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	30	0.06%
C: Dictated responses to a scribe	1	0.00%
F: Used noninterfering assistive device	4	0.01%
G: Used braille version of test	0	0.00%
H: Used large-print version of test	11	0.02%
J: Tested during more than one day	90	0.17%
K: Had supervised breaks	889	1.65%
L: Most beneficial time of day	122	0.23%
M: Administered at home or in a hospital	16	0.03%
N: Used a dictionary	28	0.05%
O: Examiner presented using MCE or ASL	15	0.03%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.01%
X: Used an unlisted accommodation	144	0.27%
Y: Leave blank	115	0.21%
Z: Examiner read test questions aloud	416	0.77%
Accom. or Mod. is in Section 504 plan	7	0.01%
Accom. or Mod. is in IEP	1,419	2.63%
English Learner Test Variation A	265	0.49%
English Learner Test Variation B	112	0.21%
English Learner Test Variation C	538	1.00%
English Learner Test Variation D	631	1.17%
Any Accom., Mod., or EL Variation	2,511	4.66%
No Accom., Mod., or EL Variation	51,361	95.34%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	12	0.01%
C: Dictated responses to a scribe	5	0.00%
F: Used noninterfering assistive device	4	0.00%
G: Used braille version of test	10	0.01%
H: Used large-print version of test	21	0.02%
J: Tested during more than one day	13	0.01%
K: Had supervised breaks	156	0.15%
L: Most beneficial time of day	20	0.02%
M: Administered at home or in a hospital	14	0.01%
N: Used a dictionary	2	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	4	0.00%
X: Used an unlisted accommodation	17	0.02%
Y: Leave blank	14	0.01%
Z: Examiner read test questions aloud	48	0.05%

Special Services Summary for History–Social Science, Grade Eleven		
Accom. or Mod. is in Section 504 plan	4	0.00%
Accom. or Mod. is in IEP	243	0.24%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	2	0.00%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	276	0.27%
No Accom., Mod., or EL Variation	101,862	99.73%

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	399	0.09%	227	0.05%
C: Dictated responses to a scribe	140	0.03%	51	0.01%
F: Used noninterfering assistive device	84	0.02%	35	0.01%
G: Used braille version of test	20	0.00%	16	0.00%
H: Used large-print version of test	179	0.04%	145	0.03%
J: Tested during more than one day	1,123	0.24%	702	0.16%
K: Had supervised breaks	4,466	0.96%	2,778	0.63%
L: Most beneficial time of day	2,088	0.45%	1,179	0.27%
M: Administered at home or in a hospital	51	0.01%	38	0.01%
N: Used a dictionary	2	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	98	0.02%	40	0.01%
Q: Used a calculator	8	0.00%	9	0.00%
R: Used an arithmetic table	29	0.01%	27	0.01%
S: Used math manipulatives	123	0.03%	40	0.01%
V: Used interfering assistive device	4	0.00%	2	0.00%
W: Used an unlisted modification	31	0.01%	16	0.00%
X: Used an unlisted accommodation	950	0.20%	629	0.14%
Y: Leave blank	190	0.04%	144	0.03%
Z: Examiner read test questions aloud	3,438	0.74%	3,638	0.82%
Accom. or Mod. is in Section 504 plan	278	0.06%	353	0.08%
Accom. or Mod. is in IEP	7,470	1.61%	5,656	1.27%
English Learner Test Variation A	557	0.12%	335	0.08%
English Learner Test Variation B	60	0.01%	72	0.02%
English Learner Test Variation C	201	0.04%	146	0.03%
English Learner Test Variation D	62	0.01%	42	0.01%
Any Accom., Mod., or EL Variation	8,916	1.92%	6,787	1.53%
No Accom., Mod., or EL Variation	455,607	98.08%	437,184	98.47%
Students Not in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	59	0.01%	49	0.01%
C: Dictated responses to a scribe	28	0.01%	22	0.01%
F: Used noninterfering assistive device	15	0.00%	4	0.00%
G: Used braille version of test	1	0.00%	0	0.00%
H: Used large-print version of test	32	0.01%	33	0.01%
J: Tested during more than one day	182	0.04%	106	0.03%
K: Had supervised breaks	796	0.19%	462	0.11%
L: Most beneficial time of day	311	0.07%	169	0.04%
M: Administered at home or in a hospital	24	0.01%	25	0.01%
N: Used a dictionary	2	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	3	0.00%	3	0.00%
Q: Used a calculator	4	0.00%	0	0.00%
R: Used an arithmetic table	5	0.00%	4	0.00%

Special Services Summary for Mathematics, Grades Two and Three				
S: Used math manipulatives	13	0.00%	8	0.00%
V: Used interfering assistive device	3	0.00%	2	0.00%
W: Used an unlisted modification	6	0.00%	3	0.00%
X: Used an unlisted accommodation	168	0.04%	124	0.03%
Y: Leave blank	44	0.01%	31	0.01%
Z: Examiner read test questions aloud	580	0.14%	439	0.11%
Accom. or Mod. is in Section 504 plan	249	0.06%	337	0.08%
Accom. or Mod. is in IEP	1,098	0.26%	601	0.14%
English Learner Test Variation A	518	0.12%	323	0.08%
English Learner Test Variation B	32	0.01%	47	0.01%
English Learner Test Variation C	139	0.03%	121	0.03%
English Learner Test Variation D	57	0.01%	39	0.01%
Any Accom., Mod., or EL Variation	2,132	0.50%	1,486	0.36%
No Accom., Mod., or EL Variation	425,662	99.50%	414,837	99.64%
Students in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	334	0.91%	174	0.63%
C: Dictated responses to a scribe	112	0.31%	29	0.11%
F: Used noninterfering assistive device	69	0.19%	30	0.11%
G: Used braille version of test	18	0.05%	15	0.05%
H: Used large-print version of test	140	0.38%	108	0.39%
J: Tested during more than one day	940	2.56%	594	2.16%
K: Had supervised breaks	3,663	9.98%	2,301	8.35%
L: Most beneficial time of day	1,774	4.83%	1,003	3.64%
M: Administered at home or in a hospital	27	0.07%	13	0.05%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	95	0.26%	37	0.13%
Q: Used a calculator	4	0.01%	9	0.03%
R: Used an arithmetic table	24	0.07%	23	0.08%
S: Used math manipulatives	110	0.30%	32	0.12%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	25	0.07%	13	0.05%
X: Used an unlisted accommodation	780	2.13%	499	1.81%
Y: Leave blank	146	0.40%	113	0.41%
Z: Examiner read test questions aloud	2,854	7.78%	3,169	11.50%
Accom. or Mod. is in Section 504 plan	29	0.08%	16	0.06%
Accom. or Mod. is in IEP	6,352	17.31%	5,013	18.19%
English Learner Test Variation A	39	0.11%	12	0.04%
English Learner Test Variation B	28	0.08%	25	0.09%
English Learner Test Variation C	62	0.17%	25	0.09%
English Learner Test Variation D	5	0.01%	3	0.01%
Any Accom., Mod., or EL Variation	6,764	18.43%	5,257	19.08%
No Accom., Mod., or EL Variation	29,937	81.57%	22,298	80.92%

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	250	0.09%	167	0.07%
C: Dictated responses to a scribe	100	0.04%	34	0.01%
F: Used noninterfering assistive device	53	0.02%	22	0.01%
G: Used braille version of test	11	0.00%	11	0.00%
H: Used large-print version of test	105	0.04%	100	0.04%
J: Tested during more than one day	738	0.28%	488	0.19%
K: Had supervised breaks	2,706	1.03%	1,867	0.74%
L: Most beneficial time of day	1,309	0.50%	821	0.33%
M: Administered at home or in a hospital	40	0.02%	27	0.01%
N: Used a dictionary	1	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	66	0.03%	26	0.01%
Q: Used a calculator	5	0.00%	4	0.00%
R: Used an arithmetic table	17	0.01%	19	0.01%
S: Used math manipulatives	79	0.03%	20	0.01%
V: Used interfering assistive device	2	0.00%	1	0.00%
W: Used an unlisted modification	18	0.01%	11	0.00%
X: Used an unlisted accommodation	593	0.23%	414	0.17%
Y: Leave blank	119	0.05%	92	0.04%
Z: Examiner read test questions aloud	2,007	0.76%	2,275	0.91%
Accom. or Mod. is in Section 504 plan	214	0.08%	279	0.11%
Accom. or Mod. is in IEP	4,593	1.74%	3,688	1.47%
English Learner Test Variation A	19	0.01%	6	0.00%
English Learner Test Variation B	7	0.00%	4	0.00%
English Learner Test Variation C	18	0.01%	7	0.00%
English Learner Test Variation D	2	0.00%	2	0.00%
Any Accom., Mod., or EL Variation	5,092	1.93%	4,157	1.66%
No Accom., Mod., or EL Variation	258,318	98.07%	246,448	98.34%
Initially Fluent English Proficient (I-FEP) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	5	0.03%	1	0.00%
C: Dictated responses to a scribe	4	0.02%	1	0.00%
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	3	0.02%	4	0.02%
J: Tested during more than one day	13	0.07%	7	0.03%
K: Had supervised breaks	49	0.26%	38	0.19%
L: Most beneficial time of day	28	0.15%	20	0.10%
M: Administered at home or in a hospital	1	0.01%	1	0.00%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	4	0.02%	2	0.01%
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%

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%	0	0.00%
X: Used an unlisted accommodation	9	0.05%	11	0.05%
Y: Leave blank	1	0.01%	5	0.02%
Z: Examiner read test questions aloud	19	0.10%	53	0.26%
Accom. or Mod. is in Section 504 plan	3	0.02%	4	0.02%
Accom. or Mod. is in IEP	81	0.43%	87	0.43%
English Learner Test Variation A	1	0.01%	1	0.00%
English Learner Test Variation B	2	0.01%	0	0.00%
English Learner Test Variation C	2	0.01%	1	0.00%
English Learner Test Variation D	1	0.01%	1	0.00%
Any Accom., Mod., or EL Variation	87	0.46%	98	0.49%
No Accom., Mod., or EL Variation	18,839	99.54%	19,914	99.51%
English Learner (EL) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	132	0.08%	48	0.03%
C: Dictated responses to a scribe	33	0.02%	12	0.01%
F: Used noninterfering assistive device	27	0.02%	12	0.01%
G: Used braille version of test	6	0.00%	4	0.00%
H: Used large-print version of test	62	0.04%	28	0.02%
J: Tested during more than one day	365	0.21%	192	0.14%
K: Had supervised breaks	1,680	0.97%	838	0.60%
L: Most beneficial time of day	738	0.43%	329	0.24%
M: Administered at home or in a hospital	10	0.01%	10	0.01%
N: Used a dictionary	1	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	26	0.02%	12	0.01%
Q: Used a calculator	3	0.00%	4	0.00%
R: Used an arithmetic table	12	0.01%	8	0.01%
S: Used math manipulatives	41	0.02%	18	0.01%
V: Used interfering assistive device	2	0.00%	1	0.00%
W: Used an unlisted modification	12	0.01%	4	0.00%
X: Used an unlisted accommodation	341	0.20%	196	0.14%
Y: Leave blank	70	0.04%	45	0.03%
Z: Examiner read test questions aloud	1,394	0.81%	1,269	0.91%
Accom. or Mod. is in Section 504 plan	55	0.03%	63	0.05%
Accom. or Mod. is in IEP	2,748	1.59%	1,814	1.31%
English Learner Test Variation A	534	0.31%	319	0.23%
English Learner Test Variation B	50	0.03%	68	0.05%
English Learner Test Variation C	178	0.10%	138	0.10%
English Learner Test Variation D	58	0.03%	36	0.03%
Any Accom., Mod., or EL Variation	3,667	2.12%	2,437	1.75%
No Accom., Mod., or EL Variation	169,207	97.88%	136,542	98.25%

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	3	0.03%	6	0.02%
C: Dictated responses to a scribe	0	0.00%	3	0.01%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille version of test	2	0.02%	0	0.00%
H: Used large-print version of test	0	0.00%	5	0.01%
J: Tested during more than one day	2	0.02%	9	0.03%
K: Had supervised breaks	16	0.18%	19	0.06%
L: Most beneficial time of day	4	0.05%	3	0.01%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented 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	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	2	0.01%
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	4	0.05%	5	0.01%
Y: Leave blank	0	0.00%	1	0.00%
Z: Examiner read test questions aloud	9	0.10%	21	0.06%
Accom. or Mod. is in Section 504 plan	4	0.05%	4	0.01%
Accom. or Mod. is in IEP	19	0.22%	38	0.11%
English Learner Test Variation A	0	0.00%	5	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%	2	0.01%
Any Accom., Mod., or EL Variation	26	0.30%	53	0.16%
No Accom., Mod., or EL Variation	8,623	99.70%	33,681	99.84%

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	543	0.13%	517	0.12%
C: Dictated responses to a scribe	38	0.01%	39	0.01%
F: Used noninterfering assistive device	49	0.01%	24	0.01%
G: Used braille version of test	14	0.00%	13	0.00%
H: Used large-print version of test	151	0.03%	144	0.03%
J: Tested during more than one day	702	0.16%	633	0.15%
K: Had supervised breaks	2,898	0.67%	2,893	0.67%
L: Most beneficial time of day	1,046	0.24%	1,074	0.25%
M: Administered at home or in a hospital	41	0.01%	41	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	27	0.01%	23	0.01%
Q: Used a calculator	29	0.01%	69	0.02%
R: Used an arithmetic table	29	0.01%	40	0.01%
S: Used math manipulatives	22	0.01%	31	0.01%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	15	0.00%	20	0.00%
X: Used an unlisted accommodation	662	0.15%	666	0.15%
Y: Leave blank	140	0.03%	205	0.05%
Z: Examiner read test questions aloud	3,364	0.78%	3,014	0.70%
Accom. or Mod. is in Section 504 plan	422	0.10%	411	0.09%
Accom. or Mod. is in IEP	5,715	1.32%	5,574	1.29%
English Learner Test Variation A	346	0.08%	277	0.06%
English Learner Test Variation B	101	0.02%	36	0.01%
English Learner Test Variation C	237	0.05%	200	0.05%
English Learner Test Variation D	22	0.01%	57	0.01%
Any Accom., Mod., or EL Variation	6,944	1.60%	6,633	1.53%
No Accom., Mod., or EL Variation	426,077	98.40%	426,143	98.47%
Students Not in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	102	0.03%	95	0.02%
C: Dictated responses to a scribe	17	0.00%	16	0.00%
F: Used noninterfering assistive device	12	0.00%	1	0.00%
G: Used braille version of test	1	0.00%	1	0.00%
H: Used large-print version of test	39	0.01%	29	0.01%
J: Tested during more than one day	93	0.02%	72	0.02%
K: Had supervised breaks	417	0.10%	341	0.08%
L: Most beneficial time of day	144	0.04%	121	0.03%
M: Administered at home or in a hospital	30	0.01%	31	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%	11	0.00%
R: Used an arithmetic table	0	0.00%	5	0.00%

Special Services Summary for Mathematics, Grades Four and Five				
S: Used math manipulatives	0	0.00%	2	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	6	0.00%	3	0.00%
X: Used an unlisted accommodation	126	0.03%	121	0.03%
Y: Leave blank	33	0.01%	41	0.01%
Z: Examiner read test questions aloud	356	0.09%	250	0.06%
Accom. or Mod. is in Section 504 plan	387	0.10%	377	0.09%
Accom. or Mod. is in IEP	513	0.13%	389	0.10%
English Learner Test Variation A	331	0.08%	269	0.07%
English Learner Test Variation B	88	0.02%	20	0.00%
English Learner Test Variation C	198	0.05%	175	0.04%
English Learner Test Variation D	20	0.00%	56	0.01%
Any Accom., Mod., or EL Variation	1,481	0.37%	1,247	0.31%
No Accom., Mod., or EL Variation	403,968	99.63%	405,049	99.69%
Students in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	427	1.69%	414	1.71%
C: Dictated responses to a scribe	21	0.08%	23	0.10%
F: Used noninterfering assistive device	37	0.15%	23	0.10%
G: Used braille version of test	13	0.05%	12	0.05%
H: Used large-print version of test	111	0.44%	112	0.46%
J: Tested during more than one day	582	2.30%	546	2.26%
K: Had supervised breaks	2,383	9.43%	2,493	10.31%
L: Most beneficial time of day	870	3.44%	935	3.87%
M: Administered at home or in a hospital	11	0.04%	10	0.04%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	25	0.10%	23	0.10%
Q: Used a calculator	24	0.09%	57	0.24%
R: Used an arithmetic table	29	0.11%	35	0.14%
S: Used math manipulatives	21	0.08%	29	0.12%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	9	0.04%	17	0.07%
X: Used an unlisted accommodation	511	2.02%	532	2.20%
Y: Leave blank	104	0.41%	162	0.67%
Z: Examiner read test questions aloud	2,887	11.42%	2,686	11.11%
Accom. or Mod. is in Section 504 plan	31	0.12%	29	0.12%
Accom. or Mod. is in IEP	5,007	19.81%	5,072	20.98%
English Learner Test Variation A	11	0.04%	5	0.02%
English Learner Test Variation B	12	0.05%	14	0.06%
English Learner Test Variation C	38	0.15%	20	0.08%
English Learner Test Variation D	2	0.01%	0	0.00%
Any Accom., Mod., or EL Variation	5,252	20.78%	5,258	21.75%
No Accom., Mod., or EL Variation	20,028	79.22%	18,914	78.25%

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	395	0.16%	382	0.16%
C: Dictated responses to a scribe	32	0.01%	32	0.01%
F: Used noninterfering assistive device	30	0.01%	14	0.01%
G: Used braille version of test	4	0.00%	8	0.00%
H: Used large-print version of test	107	0.04%	92	0.04%
J: Tested during more than one day	479	0.20%	417	0.17%
K: Had supervised breaks	1,950	0.81%	1,839	0.77%
L: Most beneficial time of day	735	0.30%	724	0.30%
M: Administered at home or in a hospital	28	0.01%	33	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	23	0.01%	21	0.01%
Q: Used a calculator	24	0.01%	58	0.02%
R: Used an arithmetic table	18	0.01%	31	0.01%
S: Used math manipulatives	13	0.01%	21	0.01%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	11	0.00%	17	0.01%
X: Used an unlisted accommodation	445	0.18%	436	0.18%
Y: Leave blank	100	0.04%	128	0.05%
Z: Examiner read test questions aloud	2,013	0.83%	1,701	0.71%
Accom. or Mod. is in Section 504 plan	330	0.14%	330	0.14%
Accom. or Mod. is in IEP	3,712	1.54%	3,461	1.44%
English Learner Test Variation A	8	0.00%	3	0.00%
English Learner Test Variation B	1	0.00%	3	0.00%
English Learner Test Variation C	6	0.00%	9	0.00%
English Learner Test Variation D	0	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	4,204	1.74%	3,929	1.64%
No Accom., Mod., or EL Variation	237,616	98.26%	236,312	98.36%
Initially Fluent English Proficient (I-FEP) Students	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	13	0.07%	9	0.05%
C: Dictated responses to a scribe	0	0.00%	1	0.01%
F: Used noninterfering assistive device	1	0.01%	0	0.00%
G: Used braille version of test	1	0.01%	0	0.00%
H: Used large-print version of test	8	0.04%	6	0.03%
J: Tested during more than one day	7	0.04%	7	0.04%
K: Had supervised breaks	45	0.23%	52	0.26%
L: Most beneficial time of day	11	0.06%	15	0.08%
M: Administered at home or in a hospital	1	0.01%	1	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	1	0.01%	0	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	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%	12	0.06%
Y: Leave blank	1	0.01%	3	0.02%
Z: Examiner read test questions aloud	53	0.28%	50	0.25%
Accom. or Mod. is in Section 504 plan	10	0.05%	9	0.05%
Accom. or Mod. is in IEP	88	0.46%	95	0.48%
English Learner Test Variation A	4	0.02%	1	0.01%
English Learner Test Variation B	0	0.00%	0	0.00%
English Learner Test Variation C	3	0.02%	0	0.00%
English Learner Test Variation D	0	0.00%	0	0.00%
Any Accom., Mod., or EL Variation	107	0.56%	106	0.54%
No Accom., Mod., or EL Variation	19,150	99.44%	19,664	99.46%
English Learner (EL) Students	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	118	0.10%	97	0.10%
C: Dictated responses to a scribe	6	0.01%	4	0.00%
F: Used noninterfering assistive device	16	0.01%	8	0.01%
G: Used braille version of test	7	0.01%	3	0.00%
H: Used large-print version of test	30	0.03%	30	0.03%
J: Tested during more than one day	206	0.17%	193	0.20%
K: Had supervised breaks	861	0.73%	917	0.96%
L: Most beneficial time of day	287	0.24%	304	0.32%
M: Administered at home or in a hospital	9	0.01%	5	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	4	0.00%	2	0.00%
Q: Used a calculator	4	0.00%	11	0.01%
R: Used an arithmetic table	11	0.01%	7	0.01%
S: Used math manipulatives	8	0.01%	9	0.01%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	3	0.00%	3	0.00%
X: Used an unlisted accommodation	197	0.17%	204	0.21%
Y: Leave blank	34	0.03%	69	0.07%
Z: Examiner read test questions aloud	1,260	1.06%	1,195	1.25%
Accom. or Mod. is in Section 504 plan	69	0.06%	49	0.05%
Accom. or Mod. is in IEP	1,826	1.54%	1,873	1.96%
English Learner Test Variation A	318	0.27%	269	0.28%
English Learner Test Variation B	96	0.08%	33	0.03%
English Learner Test Variation C	225	0.19%	189	0.20%
English Learner Test Variation D	22	0.02%	50	0.05%
Any Accom., Mod., or EL Variation	2,506	2.11%	2,414	2.52%
No Accom., Mod., or EL Variation	116,224	97.89%	93,346	97.48%

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	15	0.03%	29	0.04%
C: Dictated responses to a scribe	0	0.00%	2	0.00%
F: Used noninterfering assistive device	2	0.00%	2	0.00%
G: Used braille version of test	2	0.00%	2	0.00%
H: Used large-print version of test	3	0.01%	16	0.02%
J: Tested during more than one day	9	0.02%	14	0.02%
K: Had supervised breaks	38	0.07%	81	0.11%
L: Most beneficial time of day	12	0.02%	31	0.04%
M: Administered at home or in a hospital	3	0.01%	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%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	0	0.00%	2	0.00%
S: Used math manipulatives	1	0.00%	1	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.00%	0	0.00%
X: Used an unlisted accommodation	8	0.02%	13	0.02%
Y: Leave blank	2	0.00%	5	0.01%
Z: Examiner read test questions aloud	33	0.06%	64	0.08%
Accom. or Mod. is in Section 504 plan	13	0.02%	22	0.03%
Accom. or Mod. is in IEP	74	0.14%	140	0.18%
English Learner Test Variation A	8	0.02%	3	0.00%
English Learner Test Variation B	4	0.01%	0	0.00%
English Learner Test Variation C	1	0.00%	2	0.00%
English Learner Test Variation D	0	0.00%	6	0.01%
Any Accom., Mod., or EL Variation	104	0.20%	177	0.23%
No Accom., Mod., or EL Variation	52,527	99.80%	76,326	99.77%

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	328	0.08%	254	0.06%
C: Dictated responses to a scribe	28	0.01%	24	0.01%
F: Used noninterfering assistive device	25	0.01%	22	0.01%
G: Used braille version of test	17	0.00%	18	0.00%
H: Used large-print version of test	122	0.03%	104	0.03%
J: Tested during more than one day	483	0.11%	267	0.07%
K: Had supervised breaks	1,970	0.45%	1,449	0.37%
L: Most beneficial time of day	650	0.15%	493	0.13%
M: Administered at home or in a hospital	53	0.01%	63	0.02%
N: Used a dictionary	2	0.00%	4	0.00%
O: Examiner presented using MCE or ASL	15	0.00%	8	0.00%
Q: Used a calculator	67	0.02%	98	0.02%
R: Used an arithmetic table	28	0.01%	17	0.00%
S: Used math manipulatives	22	0.01%	6	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	12	0.00%	4	0.00%
X: Used an unlisted accommodation	586	0.13%	534	0.14%
Y: Leave blank	157	0.04%	187	0.05%
Z: Examiner read test questions aloud	1,830	0.42%	900	0.23%
Accom. or Mod. is in Section 504 plan	259	0.06%	237	0.06%
Accom. or Mod. is in IEP	4,012	0.92%	2,895	0.74%
English Learner Test Variation A	247	0.06%	444	0.11%
English Learner Test Variation B	60	0.01%	47	0.01%
English Learner Test Variation C	207	0.05%	551	0.14%
English Learner Test Variation D	131	0.03%	257	0.07%
Any Accom., Mod., or EL Variation	4,899	1.12%	4,160	1.06%
No Accom., Mod., or EL Variation	431,667	98.88%	389,623	98.94%
Students Not in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	52	0.01%	59	0.02%
C: Dictated responses to a scribe	10	0.00%	10	0.00%
F: Used noninterfering assistive device	7	0.00%	3	0.00%
G: Used braille version of test	2	0.00%	2	0.00%
H: Used large-print version of test	25	0.01%	22	0.01%
J: Tested during more than one day	47	0.01%	27	0.01%
K: Had supervised breaks	255	0.06%	160	0.04%
L: Most beneficial time of day	86	0.02%	50	0.01%
M: Administered at home or in a hospital	37	0.01%	39	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%
Q: Used a calculator	5	0.00%	9	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%

Special Services Summary for Mathematics, Grades Six and Seven				
S: Used math manipulatives	2	0.00%	1	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	3	0.00%	1	0.00%
X: Used an unlisted accommodation	81	0.02%	95	0.03%
Y: Leave blank	18	0.00%	33	0.01%
Z: Examiner read test questions aloud	122	0.03%	62	0.02%
Accom. or Mod. is in Section 504 plan	241	0.06%	219	0.06%
Accom. or Mod. is in IEP	269	0.07%	187	0.05%
English Learner Test Variation A	239	0.06%	437	0.12%
English Learner Test Variation B	53	0.01%	41	0.01%
English Learner Test Variation C	195	0.05%	533	0.14%
English Learner Test Variation D	128	0.03%	251	0.07%
Any Accom., Mod., or EL Variation	1,003	0.24%	1,334	0.36%
No Accom., Mod., or EL Variation	411,606	99.76%	371,768	99.64%
Students in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	272	1.20%	194	0.99%
C: Dictated responses to a scribe	18	0.08%	14	0.07%
F: Used noninterfering assistive device	18	0.08%	19	0.10%
G: Used braille version of test	15	0.07%	16	0.08%
H: Used large-print version of test	97	0.43%	82	0.42%
J: Tested during more than one day	432	1.90%	238	1.22%
K: Had supervised breaks	1,683	7.42%	1,278	6.53%
L: Most beneficial time of day	553	2.44%	437	2.23%
M: Administered at home or in a hospital	14	0.06%	23	0.12%
N: Used a dictionary	1	0.00%	4	0.02%
O: Examiner presented using MCE or ASL	15	0.07%	8	0.04%
Q: Used a calculator	62	0.27%	89	0.45%
R: Used an arithmetic table	28	0.12%	17	0.09%
S: Used math manipulatives	20	0.09%	5	0.03%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	9	0.04%	3	0.02%
X: Used an unlisted accommodation	500	2.20%	438	2.24%
Y: Leave blank	136	0.60%	152	0.78%
Z: Examiner read test questions aloud	1,659	7.31%	828	4.23%
Accom. or Mod. is in Section 504 plan	17	0.07%	17	0.09%
Accom. or Mod. is in IEP	3,677	16.20%	2,685	13.71%
English Learner Test Variation A	7	0.03%	7	0.04%
English Learner Test Variation B	7	0.03%	6	0.03%
English Learner Test Variation C	9	0.04%	18	0.09%
English Learner Test Variation D	2	0.01%	6	0.03%
Any Accom., Mod., or EL Variation	3,820	16.83%	2,801	14.30%
No Accom., Mod., or EL Variation	18,874	83.17%	16,785	85.70%

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	235	0.10%	184	0.08%
C: Dictated responses to a scribe	18	0.01%	20	0.01%
F: Used noninterfering assistive device	17	0.01%	13	0.01%
G: Used braille version of test	9	0.00%	6	0.00%
H: Used large-print version of test	88	0.04%	67	0.03%
J: Tested during more than one day	308	0.13%	194	0.09%
K: Had supervised breaks	1,301	0.54%	999	0.45%
L: Most beneficial time of day	436	0.18%	318	0.14%
M: Administered at home or in a hospital	37	0.02%	52	0.02%
N: Used a dictionary	1	0.00%	3	0.00%
O: Examiner presented using MCE or ASL	8	0.00%	6	0.00%
Q: Used a calculator	55	0.02%	76	0.03%
R: Used an arithmetic table	23	0.01%	12	0.01%
S: Used math manipulatives	18	0.01%	6	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	12	0.00%	3	0.00%
X: Used an unlisted accommodation	378	0.16%	382	0.17%
Y: Leave blank	102	0.04%	142	0.06%
Z: Examiner read test questions aloud	1,034	0.43%	482	0.22%
Accom. or Mod. is in Section 504 plan	214	0.09%	199	0.09%
Accom. or Mod. is in IEP	2,492	1.03%	1,869	0.85%
English Learner Test Variation A	2	0.00%	10	0.00%
English Learner Test Variation B	0	0.00%	7	0.00%
English Learner Test Variation C	1	0.00%	12	0.01%
English Learner Test Variation D	0	0.00%	4	0.00%
Any Accom., Mod., or EL Variation	2,800	1.15%	2,167	0.98%
No Accom., Mod., or EL Variation	240,147	98.85%	218,561	99.02%
Initially Fluent English Proficient (I-FEP) Students	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	15	0.05%	18	0.07%
C: Dictated responses to a scribe	1	0.00%	0	0.00%
F: Used noninterfering assistive device	1	0.00%	0	0.00%
G: Used braille version of test	3	0.01%	4	0.01%
H: Used large-print version of test	10	0.03%	11	0.04%
J: Tested during more than one day	9	0.03%	2	0.01%
K: Had supervised breaks	52	0.17%	33	0.12%
L: Most beneficial time of day	18	0.06%	10	0.04%
M: Administered at home or in a hospital	4	0.01%	1	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	2	0.01%	0	0.00%
Q: Used a calculator	2	0.01%	2	0.01%
R: Used an arithmetic table	0	0.00%	0	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	0	0.00%	0	0.00%
X: Used an unlisted accommodation	21	0.07%	13	0.05%
Y: Leave blank	7	0.02%	6	0.02%
Z: Examiner read test questions aloud	43	0.14%	15	0.05%
Accom. or Mod. is in Section 504 plan	7	0.02%	7	0.03%
Accom. or Mod. is in IEP	120	0.39%	82	0.30%
English Learner Test Variation A	0	0.00%	0	0.00%
English Learner Test Variation B	1	0.00%	0	0.00%
English Learner Test Variation C	1	0.00%	1	0.00%
English Learner Test Variation D	0	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	134	0.44%	93	0.34%
No Accom., Mod., or EL Variation	30,447	99.56%	27,487	99.66%
English Learner (EL) Students	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	62	0.08%	29	0.05%
C: Dictated responses to a scribe	4	0.01%	0	0.00%
F: Used noninterfering assistive device	1	0.00%	6	0.01%
G: Used braille version of test	3	0.00%	6	0.01%
H: Used large-print version of test	15	0.02%	10	0.02%
J: Tested during more than one day	160	0.21%	51	0.08%
K: Had supervised breaks	554	0.73%	328	0.52%
L: Most beneficial time of day	179	0.23%	128	0.20%
M: Administered at home or in a hospital	7	0.01%	4	0.01%
N: Used a dictionary	1	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	5	0.01%	1	0.00%
Q: Used a calculator	8	0.01%	15	0.02%
R: Used an arithmetic table	5	0.01%	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	0	0.00%	1	0.00%
X: Used an unlisted accommodation	159	0.21%	100	0.16%
Y: Leave blank	45	0.06%	29	0.05%
Z: Examiner read test questions aloud	683	0.90%	335	0.53%
Accom. or Mod. is in Section 504 plan	34	0.04%	18	0.03%
Accom. or Mod. is in IEP	1,238	1.62%	724	1.16%
English Learner Test Variation A	241	0.32%	425	0.68%
English Learner Test Variation B	59	0.08%	38	0.06%
English Learner Test Variation C	202	0.26%	526	0.84%
English Learner Test Variation D	130	0.17%	251	0.40%
Any Accom., Mod., or EL Variation	1,778	2.33%	1,639	2.62%
No Accom., Mod., or EL Variation	74,476	97.67%	60,984	97.38%

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%	21	0.03%
C: Dictated responses to a scribe	5	0.01%	4	0.00%
F: Used noninterfering assistive device	6	0.01%	3	0.00%
G: Used braille version of test	1	0.00%	2	0.00%
H: Used large-print version of test	7	0.01%	16	0.02%
J: Tested during more than one day	4	0.00%	15	0.02%
K: Had supervised breaks	59	0.07%	83	0.10%
L: Most beneficial time of day	14	0.02%	30	0.04%
M: Administered at home or in a hospital	4	0.00%	4	0.00%
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	2	0.00%	2	0.00%
R: Used an arithmetic table	0	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	27	0.03%	36	0.04%
Y: Leave blank	3	0.00%	8	0.01%
Z: Examiner read test questions aloud	67	0.08%	64	0.08%
Accom. or Mod. is in Section 504 plan	3	0.00%	11	0.01%
Accom. or Mod. is in IEP	154	0.18%	202	0.25%
English Learner Test Variation A	2	0.00%	4	0.00%
English Learner Test Variation B	0	0.00%	1	0.00%
English Learner Test Variation C	1	0.00%	4	0.00%
English Learner Test Variation D	1	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	171	0.20%	227	0.28%
No Accom., Mod., or EL Variation	86,022	99.80%	81,910	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	406	90	496	0.26%
C: Dictated responses to a scribe	26	15	41	0.02%
F: Used noninterfering assistive device	24	6	30	0.02%
G: Used braille version of test	18	10	28	0.01%
H: Used large-print version of test	76	26	102	0.05%
J: Tested during more than one day	620	188	808	0.42%
K: Had supervised breaks	2,758	1,389	4,147	2.18%
L: Most beneficial time of day	958	285	1,243	0.65%
M: Administered at home or in a hospital	64	15	79	0.04%
N: Used a dictionary	0	5	5	0.00%
O: Examiner presented using MCE or ASL	39	11	50	0.03%
Q: Used a calculator	229	461	690	0.36%
R: Used an arithmetic table	72	57	129	0.07%
S: Used math manipulatives	43	10	53	0.03%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	13	27	40	0.02%
X: Used an unlisted accommodation	622	214	836	0.44%
Y: Leave blank	353	146	499	0.26%
Z: Examiner read test questions aloud	2,946	382	3,328	1.75%
Accom. or Mod. is in Section 504 plan	101	16	117	0.06%
Accom. or Mod. is in IEP	6,227	2,360	8,587	4.51%
English Learner Test Variation A	192	135	327	0.17%
English Learner Test Variation B	29	33	62	0.03%
English Learner Test Variation C	215	137	352	0.18%
English Learner Test Variation D	89	171	260	0.14%
Any Accom., Mod., or EL Variation	6,901	2,761	9,662	5.07%
No Accom., Mod., or EL Variation	138,572	42,296	180,868	94.93%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	17	7	24	0.02%
C: Dictated responses to a scribe	1	1	2	0.00%
F: Used noninterfering assistive device	0	0	0	0.00%
G: Used braille version of test	1	0	1	0.00%
H: Used large-print version of test	5	5	10	0.01%
J: Tested during more than one day	18	5	23	0.02%
K: Had supervised breaks	75	54	129	0.09%
L: Most beneficial time of day	27	15	42	0.03%
M: Administered at home or in a hospital	32	4	36	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	8	13	21	0.01%
R: Used an arithmetic table	1	0	1	0.00%

Special Services Summary for General Mathematics				
S: Used math manipulatives	0	0	0	0.00%
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	32	12	44	0.03%
Y: Leave blank	7	6	13	0.01%
Z: Examiner read test questions aloud	46	13	59	0.04%
Accom. or Mod. is in Section 504 plan	85	14	99	0.07%
Accom. or Mod. is in IEP	106	75	181	0.12%
English Learner Test Variation A	189	124	313	0.21%
English Learner Test Variation B	21	25	46	0.03%
English Learner Test Variation C	207	120	327	0.22%
English Learner Test Variation D	83	154	237	0.16%
Any Accom., Mod., or EL Variation	570	360	930	0.63%
No Accom., Mod., or EL Variation	115,921	30,803	146,724	99.37%
Students in Special Education	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	388	83	471	1.10%
C: Dictated responses to a scribe	25	14	39	0.09%
F: Used noninterfering assistive device	24	6	30	0.07%
G: Used braille version of test	17	10	27	0.06%
H: Used large-print version of test	71	21	92	0.22%
J: Tested during more than one day	599	181	780	1.83%
K: Had supervised breaks	2,672	1,329	4,001	9.37%
L: Most beneficial time of day	921	268	1,189	2.78%
M: Administered at home or in a hospital	32	11	43	0.10%
N: Used a dictionary	0	5	5	0.01%
O: Examiner presented using MCE or ASL	39	11	50	0.12%
Q: Used a calculator	221	446	667	1.56%
R: Used an arithmetic table	71	57	128	0.30%
S: Used math manipulatives	43	10	53	0.12%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	10	27	37	0.09%
X: Used an unlisted accommodation	587	200	787	1.84%
Y: Leave blank	346	140	486	1.14%
Z: Examiner read test questions aloud	2,880	368	3,248	7.60%
Accom. or Mod. is in Section 504 plan	16	2	18	0.04%
Accom. or Mod. is in IEP	6,090	2,275	8,365	19.59%
English Learner Test Variation A	3	11	14	0.03%
English Learner Test Variation B	8	8	16	0.04%
English Learner Test Variation C	7	17	24	0.06%
English Learner Test Variation D	5	17	22	0.05%
Any Accom., Mod., or EL Variation	6,299	2,391	8,690	20.35%
No Accom., Mod., or EL Variation	22,562	11,459	34,021	79.65%

Special Services Summary for General Mathematics				
English-Only Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	288	73	361	0.33%
C: Dictated responses to a scribe	18	9	27	0.02%
F: Used noninterfering assistive device	16	4	20	0.02%
G: Used braille version of test	12	6	18	0.02%
H: Used large-print version of test	51	16	67	0.06%
J: Tested during more than one day	416	124	540	0.50%
K: Had supervised breaks	1,701	892	2,593	2.39%
L: Most beneficial time of day	589	186	775	0.72%
M: Administered at home or in a hospital	47	11	58	0.05%
N: Used a dictionary	0	2	2	0.00%
O: Examiner presented using MCE or ASL	25	5	30	0.03%
Q: Used a calculator	146	316	462	0.43%
R: Used an arithmetic table	44	32	76	0.07%
S: Used math manipulatives	24	4	28	0.03%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	11	24	35	0.03%
X: Used an unlisted accommodation	403	145	548	0.51%
Y: Leave blank	182	71	253	0.23%
Z: Examiner read test questions aloud	1,472	228	1,700	1.57%
Accom. or Mod. is in Section 504 plan	80	14	94	0.09%
Accom. or Mod. is in IEP	3,574	1,524	5,098	4.70%
English Learner Test Variation A	3	3	6	0.01%
English Learner Test Variation B	1	0	1	0.00%
English Learner Test Variation C	4	1	5	0.00%
English Learner Test Variation D	2	2	4	0.00%
Any Accom., Mod., or EL Variation	3,782	1,605	5,387	4.97%
No Accom., Mod., or EL Variation	77,885	25,100	102,985	95.03%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	12	4	16	0.18%
C: Dictated responses to a scribe	1	0	1	0.01%
F: Used noninterfering assistive device	2	1	3	0.03%
G: Used braille version of test	1	1	2	0.02%
H: Used large-print version of test	4	1	5	0.06%
J: Tested during more than one day	11	2	13	0.15%
K: Had supervised breaks	60	39	99	1.11%
L: Most beneficial time of day	20	8	28	0.32%
M: Administered at home or in a hospital	2	0	2	0.02%
N: Used a dictionary	0	0	0	0.00%
O: Examiner presented using MCE or ASL	2	0	2	0.02%
Q: Used a calculator	3	5	8	0.09%
R: Used an arithmetic table	0	1	1	0.01%
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	0	1	1	0.01%
X: Used an unlisted accommodation	12	4	16	0.18%
Y: Leave blank	5	5	10	0.11%
Z: Examiner read test questions aloud	66	8	74	0.83%
Accom. or Mod. is in Section 504 plan	2	0	2	0.02%
Accom. or Mod. is in IEP	137	63	200	2.25%
English Learner Test Variation A	0	0	0	0.00%
English Learner Test Variation B	1	0	1	0.01%
English Learner Test Variation C	5	0	5	0.06%
English Learner Test Variation D	2	1	3	0.03%
Any Accom., Mod., or EL Variation	148	64	212	2.39%
No Accom., Mod., or EL Variation	7,131	1,536	8,667	97.61%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	82	9	91	0.20%
C: Dictated responses to a scribe	5	4	9	0.02%
F: Used noninterfering assistive device	4	1	5	0.01%
G: Used braille version of test	3	2	5	0.01%
H: Used large-print version of test	16	6	22	0.05%
J: Tested during more than one day	177	58	235	0.51%
K: Had supervised breaks	877	395	1,272	2.74%
L: Most beneficial time of day	313	78	391	0.84%
M: Administered at home or in a hospital	10	4	14	0.03%
N: Used a dictionary	0	3	3	0.01%
O: Examiner presented using MCE or ASL	12	6	18	0.04%
Q: Used a calculator	75	121	196	0.42%
R: Used an arithmetic table	27	24	51	0.11%
S: Used math manipulatives	16	6	22	0.05%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	2	2	4	0.01%
X: Used an unlisted accommodation	161	55	216	0.46%
Y: Leave blank	156	60	216	0.46%
Z: Examiner read test questions aloud	1,253	134	1,387	2.98%
Accom. or Mod. is in Section 504 plan	11	1	12	0.03%
Accom. or Mod. is in IEP	2,205	676	2,881	6.20%
English Learner Test Variation A	186	128	314	0.68%
English Learner Test Variation B	27	33	60	0.13%
English Learner Test Variation C	198	132	330	0.71%
English Learner Test Variation D	85	164	249	0.54%
Any Accom., Mod., or EL Variation	2,633	987	3,620	7.78%
No Accom., Mod., or EL Variation	32,123	10,761	42,884	92.22%

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	24	4	28	0.11%
C: Dictated responses to a scribe	2	2	4	0.02%
F: Used noninterfering assistive device	2	0	2	0.01%
G: Used braille version of test	2	1	3	0.01%
H: Used large-print version of test	5	3	8	0.03%
J: Tested during more than one day	16	4	20	0.08%
K: Had supervised breaks	112	58	170	0.65%
L: Most beneficial time of day	34	12	46	0.18%
M: Administered at home or in a hospital	5	0	5	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	4	15	19	0.07%
R: Used an arithmetic table	1	0	1	0.00%
S: Used math manipulatives	3	0	3	0.01%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0.00%
X: Used an unlisted accommodation	46	10	56	0.21%
Y: Leave blank	10	10	20	0.08%
Z: Examiner read test questions aloud	140	12	152	0.58%
Accom. or Mod. is in Section 504 plan	8	1	9	0.03%
Accom. or Mod. is in IEP	289	89	378	1.44%
English Learner Test Variation A	0	4	4	0.02%
English Learner Test Variation B	0	0	0	0.00%
English Learner Test Variation C	1	4	5	0.02%
English Learner Test Variation D	0	4	4	0.02%
Any Accom., Mod., or EL Variation	306	97	403	1.54%
No Accom., Mod., or EL Variation	21,080	4,745	25,825	98.46%

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	5	79	52	63	35	234	0.03%
C: Dictated responses to a scribe	0	12	8	7	3	30	0.00%
F: Used noninterfering assistive device	1	10	4	8	4	27	0.00%
G: Used braille version of test	0	5	15	4	1	25	0.00%
H: Used large-print version of test	2	38	51	25	10	126	0.02%
J: Tested during more than one day	8	90	156	116	102	472	0.07%
K: Had supervised breaks	21	481	1,030	890	523	2,945	0.41%
L: Most beneficial time of day	1	166	230	224	151	772	0.11%
M: Administered at home or in a hospital	1	22	31	44	22	120	0.02%
N: Used a dictionary	0	0	10	4	1	15	0.00%
O: Examiner presented using MCE or ASL	0	3	10	6	6	25	0.00%
Q: Used a calculator	0	30	444	453	340	1,267	0.18%
R: Used an arithmetic table	0	5	6	11	8	30	0.00%
S: Used math manipulatives	0	0	2	7	3	12	0.00%
V: Used interfering assistive device	0	0	0	1	0	1	0.00%
W: Used an unlisted modification	1	3	11	6	11	32	0.00%
X: Used an unlisted accommodation	6	239	281	223	101	850	0.12%
Y: Leave blank	2	55	166	84	37	344	0.05%
Z: Examiner read test questions aloud	3	261	281	189	126	860	0.12%
Accom. or Mod. is in Section 504 plan	8	78	78	44	35	243	0.03%
Accom. or Mod. is in IEP	31	979	2,037	1,592	999	5,638	0.79%
English Learner Test Variation A	2	100	390	270	102	864	0.12%
English Learner Test Variation B	0	20	186	110	33	349	0.05%
English Learner Test Variation C	2	96	672	376	155	1,301	0.18%
English Learner Test Variation D	0	135	568	399	158	1,260	0.18%
Any Accom., Mod., or EL Variation	44	1,340	3,286	2,436	1,387	8,493	1.19%
No Accom., Mod., or EL Variation	37,846	274,621	239,869	102,072	48,458	702,866	98.81%
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	2	21	10	7	2	42	0.01%
C: Dictated responses to a scribe	0	5	0	1	0	6	0.00%
F: Used noninterfering assistive device	0	0	0	0	1	1	0.00%
G: Used braille version of test	0	0	0	0	0	0	0.00%
H: Used large-print version of test	0	9	10	4	1	24	0.00%
J: Tested during more than one day	1	8	12	8	6	35	0.01%
K: Had supervised breaks	4	35	73	49	31	192	0.03%
L: Most beneficial time of day	0	18	31	17	16	82	0.01%
M: Administered at home or in a hospital	0	18	22	22	11	73	0.01%
N: Used a dictionary	0	0	1	2	0	3	0.00%
O: Examiner presented using MCE or ASL	0	0	2	0	1	3	0.00%

Special Services Summary for Algebra I							
Q: Used a calculator	0	2	42	37	24	105	0.02%
R: Used an arithmetic table	0	2	0	1	0	3	0.00%
S: Used math manipulatives	0	0	1	1	0	2	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	1	0	0	2	0.00%
X: Used an unlisted accommodation	3	26	27	19	11	86	0.01%
Y: Leave blank	1	5	33	28	2	69	0.01%
Z: Examiner read test questions aloud	0	12	15	9	10	46	0.01%
Accom. or Mod. is in Section 504 plan	8	73	73	40	26	220	0.03%
Accom. or Mod. is in IEP	1	44	122	104	50	321	0.05%
English Learner Test Variation A	2	97	388	265	101	853	0.13%
English Learner Test Variation B	0	20	182	108	31	341	0.05%
English Learner Test Variation C	2	92	665	368	152	1,279	0.19%
English Learner Test Variation D	0	132	546	383	151	1,212	0.18%
Any Accom., Mod., or EL Variation	13	362	1,277	855	367	2,874	0.43%
No Accom., Mod., or EL Variation	37,301	266,765	226,645	92,861	43,190	666,762	99.57%
Students in Special Education	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	57	42	56	33	191	0.46%
C: Dictated responses to a scribe	0	7	8	6	3	24	0.06%
F: Used noninterfering assistive device	1	10	4	8	3	26	0.06%
G: Used braille version of test	0	5	15	4	1	25	0.06%
H: Used large-print version of test	2	29	41	21	9	102	0.25%
J: Tested during more than one day	7	82	143	108	96	436	1.05%
K: Had supervised breaks	17	445	956	840	492	2,750	6.61%
L: Most beneficial time of day	1	147	198	207	135	688	1.65%
M: Administered at home or in a hospital	1	4	9	21	11	46	0.11%
N: Used a dictionary	0	0	9	2	1	12	0.03%
O: Examiner presented using MCE or ASL	0	3	8	6	5	22	0.05%
Q: Used a calculator	0	28	400	416	316	1,160	2.79%
R: Used an arithmetic table	0	3	6	10	8	27	0.06%
S: Used math manipulatives	0	0	1	6	3	10	0.02%
V: Used interfering assistive device	0	0	0	1	0	1	0.00%
W: Used an unlisted modification	1	2	10	6	11	30	0.07%
X: Used an unlisted accommodation	3	212	250	204	90	759	1.83%
Y: Leave blank	1	50	132	55	35	273	0.66%
Z: Examiner read test questions aloud	3	249	264	180	116	812	1.95%
Accom. or Mod. is in Section 504 plan	0	5	5	4	9	23	0.06%
Accom. or Mod. is in IEP	30	933	1,906	1,485	949	5,303	12.75%
English Learner Test Variation A	0	3	2	5	1	11	0.03%
English Learner Test Variation B	0	0	4	2	2	8	0.02%
English Learner Test Variation C	0	4	7	8	3	22	0.05%
English Learner Test Variation D	0	3	22	16	7	48	0.12%

Special Services Summary for Algebra I							
Any Accom., Mod., or EL Variation	31	975	2,000	1,578	1,020	5,604	13.48%
No Accom., Mod., or EL Variation	464	7,847	13,211	9,195	5,259	35,976	86.52%
English-Only Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	2	57	38	53	28	178	0.05%
C: Dictated responses to a scribe	0	7	6	3	2	18	0.00%
F: Used noninterfering assistive device	1	7	2	5	2	17	0.00%
G: Used braille version of test	0	4	7	0	1	12	0.00%
H: Used large-print version of test	2	22	30	20	8	82	0.02%
J: Tested during more than one day	7	66	104	101	78	356	0.09%
K: Had supervised breaks	19	291	635	630	367	1,942	0.50%
L: Most beneficial time of day	0	103	154	168	124	549	0.14%
M: Administered at home or in a hospital	1	16	22	28	15	82	0.02%
N: Used a dictionary	0	0	9	1	1	11	0.00%
O: Examiner presented using MCE or ASL	0	2	6	5	5	18	0.00%
Q: Used a calculator	0	25	261	311	230	827	0.21%
R: Used an arithmetic table	0	4	5	7	4	20	0.01%
S: Used math manipulatives	0	0	1	4	3	8	0.00%
V: Used interfering assistive device	0	0	0	1	0	1	0.00%
W: Used an unlisted modification	0	3	10	5	11	29	0.01%
X: Used an unlisted accommodation	5	157	190	165	77	594	0.15%
Y: Leave blank	2	35	86	49	25	197	0.05%
Z: Examiner read test questions aloud	2	138	158	122	91	511	0.13%
Accom. or Mod. is in Section 504 plan	6	61	70	36	31	204	0.05%
Accom. or Mod. is in IEP	25	606	1,226	1,123	702	3,682	0.94%
English Learner Test Variation A	0	0	16	7	1	24	0.01%
English Learner Test Variation B	0	0	7	6	1	14	0.00%
English Learner Test Variation C	0	1	17	8	0	26	0.01%
English Learner Test Variation D	0	0	7	8	0	15	0.00%
Any Accom., Mod., or EL Variation	31	704	1,373	1,243	777	4,128	1.06%
No Accom., Mod., or EL Variation	22,027	152,441	129,603	55,750	26,146	385,967	98.94%
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	1	3	1	1	0	6	0.01%
C: Dictated responses to a scribe	0	2	1	1	0	4	0.01%
F: Used noninterfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	1	1	0	2	0.00%
H: Used large-print version of test	0	2	4	0	0	6	0.01%
J: Tested during more than one day	1	3	1	2	1	8	0.02%
K: Had supervised breaks	1	12	26	22	14	75	0.14%
L: Most beneficial time of day	0	9	2	2	3	16	0.03%
M: Administered at home or in a hospital	0	1	2	1	0	4	0.01%
N: Used a dictionary	0	0	0	0	0	0	0.00%

Special Services Summary for Algebra I							
O: Examiner presented using MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	3	10	10	11	34	0.06%
R: Used an arithmetic table	0	0	0	0	1	1	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	7	12	6	2	27	0.05%
Y: Leave blank	0	2	6	1	2	11	0.02%
Z: Examiner read test questions aloud	0	5	8	4	1	18	0.03%
Accom. or Mod. is in Section 504 plan	0	1	1	0	0	2	0.00%
Accom. or Mod. is in IEP	2	32	58	37	30	159	0.30%
English Learner Test Variation A	0	0	1	0	1	2	0.00%
English Learner Test Variation B	0	0	0	0	0	0	0.00%
English Learner Test Variation C	0	2	1	0	1	4	0.01%
English Learner Test Variation D	0	1	1	3	1	6	0.01%
Any Accom., Mod., or EL Variation	2	38	63	42	31	176	0.34%
No Accom., Mod., or EL Variation	5,530	24,703	14,374	4,941	2,782	52,330	99.66%
English Learner (EL) Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	10	7	6	6	30	0.03%
C: Dictated responses to a scribe	0	2	1	3	1	7	0.01%
F: Used noninterfering assistive device	0	1	1	2	1	5	0.00%
G: Used braille version of test	0	0	3	1	0	4	0.00%
H: Used large-print version of test	0	5	6	4	0	15	0.01%
J: Tested during more than one day	0	16	40	13	14	83	0.08%
K: Had supervised breaks	0	118	285	204	117	724	0.66%
L: Most beneficial time of day	1	38	60	47	18	164	0.15%
M: Administered at home or in a hospital	0	3	1	10	4	18	0.02%
N: Used a dictionary	0	0	1	3	0	4	0.00%
O: Examiner presented using MCE or ASL	0	1	4	1	1	7	0.01%
Q: Used a calculator	0	2	132	109	88	331	0.30%
R: Used an arithmetic table	0	1	1	4	3	9	0.01%
S: Used math manipulatives	0	0	1	3	0	4	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	0	1	0	2	0.00%
X: Used an unlisted accommodation	0	48	65	43	19	175	0.16%
Y: Leave blank	0	9	60	27	9	105	0.10%
Z: Examiner read test questions aloud	1	89	98	54	30	272	0.25%
Accom. or Mod. is in Section 504 plan	1	8	4	7	1	21	0.02%
Accom. or Mod. is in IEP	2	225	584	360	228	1,399	1.27%

Special Services Summary for Algebra I							
English Learner Test Variation A	2	97	354	262	100	815	0.74%
English Learner Test Variation B	0	20	169	103	32	324	0.30%
English Learner Test Variation C	2	92	636	366	154	1,250	1.14%
English Learner Test Variation D	0	134	556	387	156	1,233	1.12%
Any Accom., Mod., or EL Variation	8	466	1,644	1,070	531	3,719	3.39%
No Accom., Mod., or EL Variation	618	26,864	43,714	23,165	11,672	106,033	96.61%
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	1	9	6	2	1	19	0.01%
C: Dictated responses to a scribe	0	1	0	0	0	1	0.00%
F: Used noninterfering assistive device	0	2	1	1	1	5	0.00%
G: Used braille version of test	0	1	4	2	0	7	0.00%
H: Used large-print version of test	0	9	11	1	2	23	0.01%
J: Tested during more than one day	0	5	10	0	8	23	0.01%
K: Had supervised breaks	1	58	79	32	22	192	0.12%
L: Most beneficial time of day	0	16	13	7	5	41	0.03%
M: Administered at home or in a hospital	0	2	5	5	3	15	0.01%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	41	22	10	73	0.05%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	0	0	1	0.00%
X: Used an unlisted accommodation	1	25	14	9	2	51	0.03%
Y: Leave blank	0	9	14	7	1	31	0.02%
Z: Examiner read test questions aloud	0	27	16	9	2	54	0.03%
Accom. or Mod. is in Section 504 plan	1	8	3	1	3	16	0.01%
Accom. or Mod. is in IEP	2	112	164	70	34	382	0.24%
English Learner Test Variation A	0	1	4	0	0	5	0.00%
English Learner Test Variation B	0	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	3	1	0	4	0.00%
English Learner Test Variation D	0	0	4	1	1	6	0.00%
Any Accom., Mod., or EL Variation	3	126	184	78	43	434	0.28%
No Accom., Mod., or EL Variation	9,651	70,303	51,616	17,962	7,767	157,299	99.72%

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	6	21	45	32	104	0.03%
C: Dictated responses to a scribe	0	2	6	2	10	0.00%
F: Used noninterfering assistive device	1	5	4	0	10	0.00%
G: Used braille version of test	0	3	5	1	9	0.00%
H: Used large-print version of test	4	16	33	15	68	0.02%
J: Tested during more than one day	2	10	39	45	96	0.02%
K: Had supervised breaks	6	80	379	344	809	0.20%
L: Most beneficial time of day	3	21	65	75	164	0.04%
M: Administered at home or in a hospital	5	8	20	26	59	0.01%
N: Used a dictionary	0	1	4	0	5	0.00%
O: Examiner presented using MCE or ASL	0	1	4	2	7	0.00%
Q: Used a calculator	0	57	227	243	527	0.13%
R: Used an arithmetic table	0	0	7	4	11	0.00%
S: Used math manipulatives	0	0	2	0	2	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	5	5	10	0.00%
X: Used an unlisted accommodation	7	20	101	107	235	0.06%
Y: Leave blank	2	13	40	48	103	0.03%
Z: Examiner read test questions aloud	0	12	94	81	187	0.05%
Accom. or Mod. is in Section 504 plan	12	20	39	23	94	0.02%
Accom. or Mod. is in IEP	16	188	792	744	1,740	0.43%
English Learner Test Variation A	0	39	109	101	249	0.06%
English Learner Test Variation B	0	33	95	44	172	0.04%
English Learner Test Variation C	1	99	275	180	555	0.14%
English Learner Test Variation D	0	168	250	178	596	0.15%
Any Accom., Mod., or EL Variation	32	471	1,380	1,146	3,029	0.74%
No Accom., Mod., or EL Variation	29,076	143,562	154,714	77,140	404,492	99.26%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	3	4	6	16	0.00%
C: Dictated responses to a scribe	0	0	1	0	1	0.00%
F: Used noninterfering assistive device	1	1	0	0	2	0.00%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	1	3	1	5	0.00%
J: Tested during more than one day	1	3	8	2	14	0.00%
K: Had supervised breaks	2	8	32	28	70	0.02%
L: Most beneficial time of day	2	2	13	7	24	0.01%
M: Administered at home or in a hospital	4	8	16	16	44	0.01%
N: Used a dictionary	0	1	1	0	2	0.00%
O: Examiner presented using MCE or ASL	0	0	2	0	2	0.00%
Q: Used a calculator	0	5	19	6	30	0.01%
R: Used an arithmetic table	0	0	0	1	1	0.00%

Special Services Summary for Geometry						
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	1	1	2	0.00%
X: Used an unlisted accommodation	4	4	11	17	36	0.01%
Y: Leave blank	0	1	7	8	16	0.00%
Z: Examiner read test questions aloud	0	3	4	3	10	0.00%
Accom. or Mod. is in Section 504 plan	11	17	35	20	83	0.02%
Accom. or Mod. is in IEP	2	11	44	39	96	0.02%
English Learner Test Variation A	0	39	108	98	245	0.06%
English Learner Test Variation B	0	33	95	41	169	0.04%
English Learner Test Variation C	1	99	273	176	549	0.14%
English Learner Test Variation D	0	164	244	172	580	0.15%
Any Accom., Mod., or EL Variation	17	284	581	392	1,274	0.32%
No Accom., Mod., or EL Variation	28,827	141,269	148,456	72,299	390,851	99.68%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	18	41	26	88	0.57%
C: Dictated responses to a scribe	0	2	5	2	9	0.06%
F: Used noninterfering assistive device	0	4	4	0	8	0.05%
G: Used braille version of test	0	3	5	0	8	0.05%
H: Used large-print version of test	4	15	30	14	63	0.41%
J: Tested during more than one day	1	7	31	43	82	0.53%
K: Had supervised breaks	4	72	347	316	739	4.80%
L: Most beneficial time of day	1	19	52	68	140	0.91%
M: Administered at home or in a hospital	1	0	4	10	15	0.10%
N: Used a dictionary	0	0	3	0	3	0.02%
O: Examiner presented using MCE or ASL	0	1	2	2	5	0.03%
Q: Used a calculator	0	52	207	237	496	3.22%
R: Used an arithmetic table	0	0	7	3	10	0.06%
S: Used math manipulatives	0	0	2	0	2	0.01%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	4	4	8	0.05%
X: Used an unlisted accommodation	3	16	90	90	199	1.29%
Y: Leave blank	2	12	33	40	87	0.57%
Z: Examiner read test questions aloud	0	9	90	78	177	1.15%
Accom. or Mod. is in Section 504 plan	1	3	4	2	10	0.06%
Accom. or Mod. is in IEP	14	177	747	704	1,642	10.67%
English Learner Test Variation A	0	0	1	3	4	0.03%
English Learner Test Variation B	0	0	0	3	3	0.02%
English Learner Test Variation C	0	0	2	4	6	0.04%
English Learner Test Variation D	0	4	6	6	16	0.10%
Any Accom., Mod., or EL Variation	15	187	798	753	1,753	11.39%
No Accom., Mod., or EL Variation	249	2,293	6,256	4,835	13,633	88.61%

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	4	13	33	23	73	0.03%
C: Dictated responses to a scribe	0	2	4	1	7	0.00%
F: Used noninterfering assistive device	0	1	3	0	4	0.00%
G: Used braille version of test	0	0	2	0	2	0.00%
H: Used large-print version of test	3	7	17	7	34	0.02%
J: Tested during more than one day	1	7	20	32	60	0.03%
K: Had supervised breaks	4	57	222	203	486	0.21%
L: Most beneficial time of day	3	18	36	57	114	0.05%
M: Administered at home or in a hospital	3	5	16	17	41	0.02%
N: Used a dictionary	0	0	2	0	2	0.00%
O: Examiner presented using MCE or ASL	0	1	3	1	5	0.00%
Q: Used a calculator	0	34	147	151	332	0.15%
R: Used an arithmetic table	0	0	4	1	5	0.00%
S: Used math manipulatives	0	0	2	0	2	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	4	5	9	0.00%
X: Used an unlisted accommodation	6	13	76	78	173	0.08%
Y: Leave blank	1	8	26	25	60	0.03%
Z: Examiner read test questions aloud	0	8	66	51	125	0.06%
Accom. or Mod. is in Section 504 plan	11	18	35	18	82	0.04%
Accom. or Mod. is in IEP	10	115	492	453	1,070	0.47%
English Learner Test Variation A	0	0	1	3	4	0.00%
English Learner Test Variation B	0	0	1	3	4	0.00%
English Learner Test Variation C	0	1	3	4	8	0.00%
English Learner Test Variation D	0	6	1	0	7	0.00%
Any Accom., Mod., or EL Variation	22	146	564	510	1,242	0.55%
No Accom., Mod., or EL Variation	17,319	81,919	84,692	41,198	225,128	99.45%
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	2	1	4	0.01%
C: Dictated responses to a scribe	0	0	0	1	1	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	1	3	0	4	0.01%
J: Tested during more than one day	1	0	1	1	3	0.01%
K: Had supervised breaks	1	1	10	9	21	0.06%
L: Most beneficial time of day	0	0	1	0	1	0.00%
M: Administered at home or in a hospital	1	0	1	0	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	2	5	6	13	0.04%
R: Used an arithmetic table	0	0	0	0	0	0.00%

Special Services Summary for Geometry						
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	1	0	1	0.00%
X: Used an unlisted accommodation	1	1	2	1	5	0.02%
Y: Leave blank	0	0	0	3	3	0.01%
Z: Examiner read test questions aloud	0	0	0	5	5	0.02%
Accom. or Mod. is in Section 504 plan	0	0	1	0	1	0.00%
Accom. or Mod. is in IEP	1	5	20	21	47	0.14%
English Learner Test Variation A	0	0	1	0	1	0.00%
English Learner Test Variation B	0	0	2	0	2	0.01%
English Learner Test Variation C	0	0	2	1	3	0.01%
English Learner Test Variation D	0	0	7	2	9	0.03%
Any Accom., Mod., or EL Variation	2	5	31	23	61	0.18%
No Accom., Mod., or EL Variation	4,810	13,367	9,629	5,333	33,139	99.82%
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	7	8	0.02%
C: Dictated responses to a scribe	0	0	1	0	1	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	1	0	1	0.00%
H: Used large-print version of test	0	1	2	5	8	0.02%
J: Tested during more than one day	0	2	12	10	24	0.06%
K: Had supervised breaks	0	11	113	112	236	0.56%
L: Most beneficial time of day	0	2	22	14	38	0.09%
M: Administered at home or in a hospital	0	2	1	6	9	0.02%
N: Used a dictionary	0	1	2	0	3	0.01%
O: Examiner presented using MCE or ASL	0	0	1	1	2	0.00%
Q: Used a calculator	0	13	49	73	135	0.32%
R: Used an arithmetic table	0	0	3	3	6	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	3	19	23	45	0.11%
Y: Leave blank	1	3	9	15	28	0.07%
Z: Examiner read test questions aloud	0	2	22	21	45	0.11%
Accom. or Mod. is in Section 504 plan	0	1	1	4	6	0.01%
Accom. or Mod. is in IEP	1	31	197	224	453	1.08%
English Learner Test Variation A	0	38	105	97	240	0.57%
English Learner Test Variation B	0	33	92	40	165	0.39%
English Learner Test Variation C	1	97	263	173	534	1.27%
English Learner Test Variation D	0	161	237	175	573	1.36%
Any Accom., Mod., or EL Variation	2	278	685	559	1,524	3.62%
No Accom., Mod., or EL Variation	244	7,438	20,060	12,869	40,611	96.38%

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	2	7	9	1	19	0.02%
C: Dictated responses to a scribe	0	0	1	0	1	0.00%
F: Used noninterfering assistive device	1	4	1	0	6	0.01%
G: Used braille version of test	0	3	2	0	5	0.00%
H: Used large-print version of test	1	6	11	3	21	0.02%
J: Tested during more than one day	0	1	6	2	9	0.01%
K: Had supervised breaks	1	11	33	20	65	0.06%
L: Most beneficial time of day	0	1	6	4	11	0.01%
M: Administered at home or in a hospital	1	1	2	3	7	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	8	25	13	46	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%
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	4	5	12	0.01%
Y: Leave blank	0	2	4	5	11	0.01%
Z: Examiner read test questions aloud	0	2	5	4	11	0.01%
Accom. or Mod. is in Section 504 plan	1	1	2	0	4	0.00%
Accom. or Mod. is in IEP	4	37	80	45	166	0.16%
English Learner Test Variation A	0	1	2	0	3	0.00%
English Learner Test Variation B	0	0	0	1	1	0.00%
English Learner Test Variation C	0	1	3	1	5	0.00%
English Learner Test Variation D	0	0	1	1	2	0.00%
Any Accom., Mod., or EL Variation	6	40	93	52	191	0.18%
No Accom., Mod., or EL Variation	6,697	40,707	40,142	17,642	105,188	99.82%

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	4	22	29	55	0.02%
C: Dictated responses to a scribe	0	0	1	4	5	0.00%
F: Used noninterfering assistive device	0	0	1	3	4	0.00%
G: Used braille version of test	0	0	2	7	9	0.00%
H: Used large-print version of test	0	3	20	22	45	0.02%
J: Tested during more than one day	1	4	18	35	58	0.02%
K: Had supervised breaks	2	26	129	305	462	0.16%
L: Most beneficial time of day	1	6	9	40	56	0.02%
M: Administered at home or in a hospital	1	1	5	17	24	0.01%
N: Used a dictionary	0	0	0	7	7	0.00%
O: Examiner presented using MCE or ASL	0	0	4	7	11	0.00%
Q: Used a calculator	0	7	41	144	192	0.07%
R: Used an arithmetic table	0	0	0	5	5	0.00%
S: Used math manipulatives	0	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	4	5	0.00%
X: Used an unlisted accommodation	0	2	29	50	81	0.03%
Y: Leave blank	0	5	15	43	63	0.02%
Z: Examiner read test questions aloud	0	1	29	56	86	0.03%
Accom. or Mod. is in Section 504 plan	0	2	14	31	47	0.02%
Accom. or Mod. is in IEP	2	38	229	538	807	0.28%
English Learner Test Variation A	0	1	14	29	44	0.02%
English Learner Test Variation B	0	1	22	21	44	0.02%
English Learner Test Variation C	0	11	80	116	207	0.07%
English Learner Test Variation D	0	11	83	192	286	0.10%
Any Accom., Mod., or EL Variation	2	64	411	886	1,363	0.48%
No Accom., Mod., or EL Variation	744	32,378	131,015	121,120	285,257	99.52%
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	1	4	6	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	0	2	2	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	2	3	0.00%
J: Tested during more than one day	0	0	1	7	8	0.00%
K: Had supervised breaks	0	1	11	16	28	0.01%
L: Most beneficial time of day	0	1	3	10	14	0.01%
M: Administered at home or in a hospital	0	1	5	15	21	0.01%
N: Used a dictionary	0	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	1	3	10	14	0.01%
R: Used an arithmetic table	0	0	0	0	0	0.00%

Special Services Summary for Algebra II						
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	5	5	10	0.00%
Y: Leave blank	0	0	3	1	4	0.00%
Z: Examiner read test questions aloud	0	0	1	3	4	0.00%
Accom. or Mod. is in Section 504 plan	0	2	14	28	44	0.02%
Accom. or Mod. is in IEP	0	1	10	19	30	0.01%
English Learner Test Variation A	0	1	14	29	44	0.02%
English Learner Test Variation B	0	1	22	20	43	0.02%
English Learner Test Variation C	0	11	79	116	206	0.07%
English Learner Test Variation D	0	11	78	186	275	0.10%
Any Accom., Mod., or EL Variation	0	24	176	322	522	0.19%
No Accom., Mod., or EL Variation	738	32,057	129,009	116,975	278,779	99.81%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	3	21	25	49	0.67%
C: Dictated responses to a scribe	0	0	1	4	5	0.07%
F: Used noninterfering assistive device	0	0	1	1	2	0.03%
G: Used braille version of test	0	0	2	7	9	0.12%
H: Used large-print version of test	0	3	19	20	42	0.57%
J: Tested during more than one day	1	4	17	28	50	0.68%
K: Had supervised breaks	2	25	118	289	434	5.93%
L: Most beneficial time of day	1	5	6	30	42	0.57%
M: Administered at home or in a hospital	1	0	0	2	3	0.04%
N: Used a dictionary	0	0	0	6	6	0.08%
O: Examiner presented using MCE or ASL	0	0	4	7	11	0.15%
Q: Used a calculator	0	6	38	134	178	2.43%
R: Used an arithmetic table	0	0	0	5	5	0.07%
S: Used math manipulatives	0	0	1	0	1	0.01%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	4	5	0.07%
X: Used an unlisted accommodation	0	2	24	45	71	0.97%
Y: Leave blank	0	5	12	42	59	0.81%
Z: Examiner read test questions aloud	0	1	28	53	82	1.12%
Accom. or Mod. is in Section 504 plan	0	0	0	3	3	0.04%
Accom. or Mod. is in IEP	2	37	219	519	777	10.62%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	1	1	0.01%
English Learner Test Variation C	0	0	1	0	1	0.01%
English Learner Test Variation D	0	0	5	6	11	0.15%
Any Accom., Mod., or EL Variation	2	40	235	564	841	11.50%
No Accom., Mod., or EL Variation	6	320	2,003	4,143	6,472	88.50%

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	2	14	25	41	0.03%
C: Dictated responses to a scribe	0	0	1	1	2	0.00%
F: Used noninterfering assistive device	0	0	0	3	3	0.00%
G: Used braille version of test	0	0	1	2	3	0.00%
H: Used large-print version of test	0	0	9	13	22	0.01%
J: Tested during more than one day	1	3	11	18	33	0.02%
K: Had supervised breaks	2	9	58	134	203	0.13%
L: Most beneficial time of day	1	3	7	18	29	0.02%
M: Administered at home or in a hospital	1	1	3	14	19	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	3	4	7	0.00%
Q: Used a calculator	0	2	25	82	109	0.07%
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	1	3	4	0.00%
X: Used an unlisted accommodation	0	0	21	34	55	0.03%
Y: Leave blank	0	1	8	19	28	0.02%
Z: Examiner read test questions aloud	0	0	11	19	30	0.02%
Accom. or Mod. is in Section 504 plan	0	1	13	28	42	0.03%
Accom. or Mod. is in IEP	2	11	122	273	408	0.25%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	2	2	0.00%
English Learner Test Variation C	0	0	0	3	3	0.00%
English Learner Test Variation D	0	0	1	3	4	0.00%
Any Accom., Mod., or EL Variation	2	14	144	329	489	0.31%
No Accom., Mod., or EL Variation	422	17,543	74,640	67,001	159,606	99.69%
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	3	0	4	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	1	0	1	0.00%
H: Used large-print version of test	0	0	2	1	3	0.01%
J: Tested during more than one day	0	0	2	3	5	0.02%
K: Had supervised breaks	0	0	6	10	16	0.06%
L: Most beneficial time of day	0	0	0	2	2	0.01%
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	2	4	6	0.02%
R: Used an arithmetic table	0	0	0	0	0	0.00%

Special Services Summary for Algebra II						
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	1	1	2	0.01%
Y: Leave blank	0	2	1	4	7	0.03%
Z: Examiner read test questions aloud	0	0	1	1	2	0.01%
Accom. or Mod. is in Section 504 plan	0	1	0	2	3	0.01%
Accom. or Mod. is in IEP	0	2	12	18	32	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	2	0	2	0.01%
English Learner Test Variation D	0	0	1	0	1	0.00%
Any Accom., Mod., or EL Variation	0	3	14	20	37	0.13%
No Accom., Mod., or EL Variation	183	4,996	12,532	9,951	27,662	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	0	0	0.00%
F: Used noninterfering assistive device	0	0	1	0	1	0.01%
G: Used braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	1	2	0.01%
J: Tested during more than one day	0	1	4	12	17	0.09%
K: Had supervised breaks	0	11	47	124	182	0.99%
L: Most beneficial time of day	0	1	1	17	19	0.10%
M: Administered at home or in a hospital	0	0	0	2	2	0.01%
N: Used a dictionary	0	0	0	6	6	0.03%
O: Examiner presented using MCE or ASL	0	0	1	3	4	0.02%
Q: Used a calculator	0	4	10	41	55	0.30%
R: Used an arithmetic table	0	0	0	4	4	0.02%
S: Used math manipulatives	0	0	1	0	1	0.01%
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	5	13	18	0.10%
Y: Leave blank	0	2	5	16	23	0.12%
Z: Examiner read test questions aloud	0	1	10	29	40	0.22%
Accom. or Mod. is in Section 504 plan	0	0	1	0	1	0.01%
Accom. or Mod. is in IEP	0	14	63	181	258	1.40%
English Learner Test Variation A	0	1	14	29	44	0.24%
English Learner Test Variation B	0	1	22	19	42	0.23%
English Learner Test Variation C	0	11	75	113	199	1.08%
English Learner Test Variation D	0	11	79	187	277	1.50%
Any Accom., Mod., or EL Variation	0	36	212	459	707	3.83%
No Accom., Mod., or EL Variation	7	900	5,926	10,936	17,769	96.17%

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	1	4	3	8	0.01%
C: Dictated responses to a scribe	0	0	0	3	3	0.00%
F: Used noninterfering assistive device	0	0	0	0	0	0.00%
G: Used braille version of test	0	0	0	5	5	0.01%
H: Used large-print version of test	0	3	8	7	18	0.02%
J: Tested during more than one day	0	0	1	2	3	0.00%
K: Had supervised breaks	0	6	18	37	61	0.08%
L: Most beneficial time of day	0	2	1	3	6	0.01%
M: Administered at home or in a hospital	0	0	1	1	2	0.00%
N: Used a dictionary	0	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	1	4	17	22	0.03%
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	1	1	0.00%
X: Used an unlisted accommodation	0	2	2	2	6	0.01%
Y: Leave blank	0	0	1	4	5	0.01%
Z: Examiner read test questions aloud	0	0	7	7	14	0.02%
Accom. or Mod. is in Section 504 plan	0	0	0	1	1	0.00%
Accom. or Mod. is in IEP	0	11	32	66	109	0.14%
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	2	0	2	0.00%
English Learner Test Variation D	0	0	0	2	2	0.00%
Any Accom., Mod., or EL Variation	0	11	37	78	126	0.16%
No Accom., Mod., or EL Variation	131	8,914	37,804	33,087	79,936	99.84%

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	7	12	19	0.01%
C: Dictated responses to a scribe	0	0	2	2	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	2	17	19	0.01%
J: Tested during more than one day	0	0	2	2	0.00%
K: Had supervised breaks	0	3	42	45	0.03%
L: Most beneficial time of day	0	0	5	5	0.00%
M: Administered at home or in a hospital	0	0	4	4	0.00%
N: Used a dictionary	0	1	1	2	0.00%
O: Examiner presented using MCE or ASL	0	1	2	3	0.00%
Q: Used a calculator	0	1	12	13	0.01%
R: Used an arithmetic table	0	0	1	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	1	1	0.00%
X: Used an unlisted accommodation	0	3	8	11	0.01%
Y: Leave blank	0	0	8	8	0.01%
Z: Examiner read test questions aloud	0	0	3	3	0.00%
Accom. or Mod. is in Section 504 plan	0	4	13	17	0.01%
Accom. or Mod. is in IEP	0	9	84	93	0.06%
English Learner Test Variation A	0	0	4	4	0.00%
English Learner Test Variation B	0	1	3	4	0.00%
English Learner Test Variation C	0	12	45	57	0.04%
English Learner Test Variation D	0	9	44	53	0.04%
Any Accom., Mod., or EL Variation	0	30	189	219	0.15%
No Accom., Mod., or EL Variation	880	24,770	124,082	149,732	99.85%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	3	5	8	0.01%
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	0	0	0.00%
H: Used large-print version of test	0	1	3	4	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	3	3	0.00%
L: Most beneficial time of day	0	0	2	2	0.00%
M: Administered at home or in a hospital	0	0	4	4	0.00%
N: Used a dictionary	0	1	1	2	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Summative High School Mathematics					
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	0.00%
X: Used an unlisted accommodation	0	0	1	1	0.00%
Y: Leave blank	0	0	2	2	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 plan	0	4	13	17	0.01%
Accom. or Mod. is in IEP	0	0	3	3	0.00%
English Learner Test Variation A	0	0	4	4	0.00%
English Learner Test Variation B	0	1	3	4	0.00%
English Learner Test Variation C	0	12	45	57	0.04%
English Learner Test Variation D	0	9	43	52	0.03%
Any Accom., Mod., or EL Variation	0	20	105	125	0.08%
No Accom., Mod., or EL Variation	873	24,617	122,962	148,452	99.92%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	4	7	11	0.80%
C: Dictated responses to a scribe	0	0	1	1	0.07%
F: Used noninterfering assistive device	0	0	2	2	0.15%
G: Used braille version of test	0	0	2	2	0.15%
H: Used large-print version of test	0	1	14	15	1.09%
J: Tested during more than one day	0	0	2	2	0.15%
K: Had supervised breaks	0	3	39	42	3.06%
L: Most beneficial time of day	0	0	3	3	0.22%
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	1	2	3	0.22%
Q: Used a calculator	0	1	11	12	0.87%
R: Used an arithmetic table	0	0	1	1	0.07%
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	7	10	0.73%
Y: Leave blank	0	0	6	6	0.44%
Z: Examiner read test questions aloud	0	0	2	2	0.15%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	9	81	90	6.55%
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	1	1	0.07%
Any Accom., Mod., or EL Variation	0	10	84	94	6.85%
No Accom., Mod., or EL Variation	7	153	1,119	1,279	93.15%

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	6	7	13	0.02%
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	2	10	12	0.01%
J: Tested during more than one day	0	0	1	1	0.00%
K: Had supervised breaks	0	2	27	29	0.03%
L: Most beneficial time of day	0	0	4	4	0.00%
M: Administered at home or in a hospital	0	0	4	4	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	1	2	3	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	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	1	0.00%
X: Used an unlisted accommodation	0	2	8	10	0.01%
Y: Leave blank	0	0	2	2	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 plan	0	3	13	16	0.02%
Accom. or Mod. is in IEP	0	8	51	59	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	1	1	0.00%
Any Accom., Mod., or EL Variation	0	12	72	84	0.10%
No Accom., Mod., or EL Variation	363	13,672	72,132	86,167	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	1	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	1	1	0.00%
H: Used large-print version of test	0	0	2	2	0.01%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	1	0	1	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	1	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Summative High School Mathematics					
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	0.00%
Y: Leave blank	0	0	2	2	0.01%
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	1	5	6	0.03%
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	1	1	0.00%
Any Accom., Mod., or EL Variation	0	1	7	8	0.04%
No Accom., Mod., or EL Variation	251	4,137	16,075	20,463	99.96%
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	1	1	0.03%
J: Tested during more than one day	0	0	1	1	0.03%
K: Had supervised breaks	0	0	8	8	0.24%
L: Most beneficial time of day	0	0	1	1	0.03%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	1	1	2	0.06%
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	2	2	0.06%
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	12	12	0.36%
English Learner Test Variation A	0	0	4	4	0.12%
English Learner Test Variation B	0	1	3	4	0.12%
English Learner Test Variation C	0	11	45	56	1.70%
English Learner Test Variation D	0	8	42	50	1.52%
Any Accom., Mod., or EL Variation	0	15	93	108	3.28%
No Accom., Mod., or EL Variation	34	353	2,799	3,186	96.72%

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	4	5	0.01%
C: Dictated responses to a scribe	0	0	1	1	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	4	4	0.01%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	7	7	0.02%
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	2	2	0.01%
R: Used an arithmetic table	0	0	1	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	0	0	0	0	0.00%
Y: Leave blank	0	0	2	2	0.01%
Z: Examiner read test questions aloud	0	0	2	2	0.01%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	0	0	16	16	0.04%
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	1	17	18	0.05%
No Accom., Mod., or EL Variation	231	6,595	33,018	39,844	99.95%

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	1	4	1	6	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	3	2	5	0.04%
J: Tested during more than one day	0	0	7	10	17	0.13%
K: Had supervised breaks	1	14	67	121	203	1.50%
L: Most beneficial time of day	0	0	17	40	57	0.42%
M: Administered at home or in a hospital	0	0	1	3	4	0.03%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	2	3	0.02%
Q: Used a calculator	0	0	18	36	54	0.40%
R: Used an arithmetic table	0	0	2	0	2	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	2	0	2	0.01%
X: Used an unlisted accommodation	0	1	36	14	51	0.38%
Y: Leave blank	0	2	1	1	4	0.03%
Z: Examiner read test questions aloud	0	4	9	11	24	0.18%
Accom. or Mod. is in Section 504 plan	0	0	3	2	5	0.04%
Accom. or Mod. is in IEP	1	19	124	164	308	2.28%
English Learner Test Variation A	0	0	15	9	24	0.18%
English Learner Test Variation B	0	0	1	1	2	0.01%
English Learner Test Variation C	0	0	17	15	32	0.24%
English Learner Test Variation D	0	0	7	9	16	0.12%
Any Accom., Mod., or EL Variation	1	20	154	211	386	2.85%
No Accom., Mod., or EL Variation	144	1,020	5,844	6,142	13,150	97.15%
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	0	0	0.00%
J: Tested during more than one day	0	0	1	0	1	0.01%
K: Had supervised breaks	0	1	1	2	4	0.03%
L: Most beneficial time of day	0	0	0	2	2	0.02%
M: Administered at home or in a hospital	0	0	0	3	3	0.03%
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	3	2	5	0.04%
R: Used an arithmetic table	0	0	1	0	1	0.01%

Special Services Summary for Integrated Mathematics 1						
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	0	2	0.02%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	0	1	0.01%
Accom. or Mod. is in Section 504 plan	0	0	3	2	5	0.04%
Accom. or Mod. is in IEP	0	1	3	3	7	0.06%
English Learner Test Variation A	0	0	15	9	24	0.20%
English Learner Test Variation B	0	0	1	1	2	0.02%
English Learner Test Variation C	0	0	17	15	32	0.27%
English Learner Test Variation D	0	0	7	7	14	0.12%
Any Accom., Mod., or EL Variation	0	1	28	26	55	0.46%
No Accom., Mod., or EL Variation	136	944	5,360	5,443	11,883	99.54%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	1	3	1	5	0.31%
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	3	2	5	0.31%
J: Tested during more than one day	0	0	6	10	16	1.01%
K: Had supervised breaks	1	13	66	119	199	12.52%
L: Most beneficial time of day	0	0	17	38	55	3.46%
M: Administered at home or in a hospital	0	0	1	0	1	0.06%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	2	3	0.19%
Q: Used a calculator	0	0	15	33	48	3.02%
R: Used an arithmetic table	0	0	1	0	1	0.06%
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	2	0	2	0.13%
X: Used an unlisted accommodation	0	1	34	14	49	3.08%
Y: Leave blank	0	2	1	1	4	0.25%
Z: Examiner read test questions aloud	0	4	8	11	23	1.45%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	18	121	160	300	18.88%
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	0.06%
Any Accom., Mod., or EL Variation	1	19	126	184	330	20.77%
No Accom., Mod., or EL Variation	8	76	481	694	1,259	79.23%

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	1	3	1	5	0.06%
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	2	4	0.05%
J: Tested during more than one day	0	0	7	8	15	0.19%
K: Had supervised breaks	0	11	45	74	130	1.65%
L: Most beneficial time of day	0	0	10	24	34	0.43%
M: Administered at home or in a hospital	0	0	0	2	2	0.03%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	2	0.03%
Q: Used a calculator	0	0	12	19	31	0.39%
R: Used an arithmetic table	0	0	2	0	2	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	2	0	2	0.03%
X: Used an unlisted accommodation	0	1	22	12	35	0.44%
Y: Leave blank	0	0	1	1	2	0.03%
Z: Examiner read test questions aloud	0	3	7	6	16	0.20%
Accom. or Mod. is in Section 504 plan	0	0	3	1	4	0.05%
Accom. or Mod. is in IEP	0	13	81	100	194	2.46%
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	14	89	117	220	2.79%
No Accom., Mod., or EL Variation	111	584	3,275	3,692	7,662	97.21%
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	0	0	0.00%
K: Had supervised breaks	0	1	4	2	7	0.84%
L: Most beneficial time of day	0	0	1	0	1	0.12%
M: Administered at home or in a hospital	0	0	1	0	1	0.12%
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	3	3	0.36%
R: Used an arithmetic table	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 1						
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	1	1	2	0.24%
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	1	4	6	11	1.31%
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	1	4	7	12	1.43%
No Accom., Mod., or EL Variation	10	68	324	423	825	98.57%
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	2	2	0.09%
K: Had supervised breaks	1	2	17	42	62	2.81%
L: Most beneficial time of day	0	0	5	14	19	0.86%
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	4	10	14	0.63%
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	10	1	11	0.50%
Y: Leave blank	0	2	0	0	2	0.09%
Z: Examiner read test questions aloud	0	1	2	3	6	0.27%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	5	32	50	88	3.99%
English Learner Test Variation A	0	0	15	9	24	1.09%
English Learner Test Variation B	0	0	1	1	2	0.09%
English Learner Test Variation C	0	0	17	15	32	1.45%
English Learner Test Variation D	0	0	7	9	16	0.73%
Any Accom., Mod., or EL Variation	1	5	54	77	137	6.21%
No Accom., Mod., or EL Variation	9	126	1,056	878	2,069	93.79%

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	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	1	3	4	0.15%
L: Most beneficial time of day	0	0	1	2	3	0.12%
M: Administered at home or in a hospital	0	0	0	1	1	0.04%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	1	1	0.04%
Q: Used a calculator	0	0	2	4	6	0.23%
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	3	0	3	0.12%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	1	1	0.04%
Accom. or Mod. is in Section 504 plan	0	0	0	1	1	0.04%
Accom. or Mod. is in IEP	0	0	7	8	15	0.58%
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	7	10	17	0.66%
No Accom., Mod., or EL Variation	14	242	1,172	1,139	2,567	99.34%

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	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	1	1	0.02%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	1	14	15	0.29%
L: Most beneficial time of day	0	0	0	7	7	0.14%
M: Administered at home or in a hospital	0	0	1	1	2	0.04%
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	4	6	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%
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	1	4	5	0.10%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	5	5	0.10%
Accom. or Mod. is in Section 504 plan	0	0	0	2	2	0.04%
Accom. or Mod. is in IEP	0	0	4	21	25	0.49%
English Learner Test Variation A	0	0	0	3	3	0.06%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	2	6	8	0.16%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	7	35	42	0.82%
No Accom., Mod., or EL Variation	6	255	1,477	3,364	5,102	99.18%
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	1	1	0.02%
L: Most beneficial time of day	0	0	0	1	1	0.02%
M: Administered at home or in a hospital	0	0	1	1	2	0.04%
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	0.02%
R: Used an arithmetic table	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 2						
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	0.02%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	2	2	0.04%
Accom. or Mod. is in Section 504 plan	0	0	0	2	2	0.04%
Accom. or Mod. is in IEP	0	0	0	2	2	0.04%
English Learner Test Variation A	0	0	0	3	3	0.06%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	2	6	8	0.17%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	3	11	14	0.29%
No Accom., Mod., or EL Variation	6	253	1,431	3,115	4,805	99.71%
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	1	1	0.31%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	1	13	14	4.31%
L: Most beneficial time of day	0	0	0	6	6	1.85%
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	2	3	5	1.54%
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	1	3	4	1.23%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	3	3	0.92%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	4	19	23	7.08%
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	4	24	28	8.62%
No Accom., Mod., or EL Variation	0	2	46	249	297	91.38%

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	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	1	1	0.03%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	7	7	0.22%
L: Most beneficial time of day	0	0	0	4	4	0.13%
M: Administered at home or in a hospital	0	0	1	0	1	0.03%
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	3	4	0.13%
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	1	1	2	0.06%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	4	4	0.13%
Accom. or Mod. is in Section 504 plan	0	0	0	2	2	0.06%
Accom. or Mod. is in IEP	0	0	2	12	14	0.44%
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	3	17	20	0.64%
No Accom., Mod., or EL Variation	6	167	811	2,145	3,129	99.36%
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	0.31%
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	0.31%
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%

Special Services Summary for Integrated Mathematics 2						
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	1	1	0.31%
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	2	2	0.62%
No Accom., Mod., or EL Variation	0	15	100	207	322	99.38%
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	1	5	6	1.07%
L: Most beneficial time of day	0	0	0	2	2	0.36%
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	0.36%
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	2	2	0.36%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	1	1	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	2	7	9	1.60%
English Learner Test Variation A	0	0	0	3	3	0.53%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	2	6	8	1.43%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	4	14	18	3.21%
No Accom., Mod., or EL Variation	0	7	147	389	543	96.79%

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	1	1	0.09%
L: Most beneficial time of day	0	0	0	1	1	0.09%
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	1	1	0.09%
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	0.09%
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	0	2	2	0.18%
No Accom., Mod., or EL Variation	0	65	416	616	1,097	99.82%

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	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	1	1	0.12%
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	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	2	74	162	567	805	99.88%
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%

Special Services Summary for Integrated Mathematics 3						
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	2	73	154	544	773	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	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	1	1	3.03%
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	3.03%
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	3.03%
No Accom., Mod., or EL Variation	0	1	8	23	32	96.97%

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	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	1	1	0.20%
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	0.20%
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	0.20%
No Accom., Mod., or EL Variation	0	49	78	372	499	99.80%
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%

Special Services Summary for Integrated Mathematics 3						
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	9	16	41	67	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	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	2	7	36	46	100.00%

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	0	14	61	118	193	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	454	0.11%
C: Dictated responses to a scribe	37	0.01%
F: Used noninterfering assistive device	19	0.00%
G: Used braille version of test	11	0.00%
H: Used large-print version of test	135	0.03%
J: Tested during more than one day	445	0.10%
K: Had supervised breaks	2,225	0.52%
L: Most beneficial time of day	873	0.20%
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	14	0.00%
Q: Used a calculator	9	0.00%
R: Used an arithmetic table	6	0.00%
S: Used math manipulatives	10	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	16	0.00%
X: Used an unlisted accommodation	572	0.13%
Y: Leave blank	216	0.05%
Z: Examiner read test questions aloud	2,164	0.50%
Accom. or Mod. is in Section 504 plan	357	0.08%
Accom. or Mod. is in IEP	4,341	1.01%
English Learner Test Variation A	234	0.05%
English Learner Test Variation B	25	0.01%
English Learner Test Variation C	146	0.03%
English Learner Test Variation D	21	0.00%
Any Accom., Mod., or EL Variation	5,230	1.21%
No Accom., Mod., or EL Variation	425,913	98.79%
Students Not in Special Education	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	91	0.02%
C: Dictated responses to a scribe	16	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	28	0.01%
J: Tested during more than one day	62	0.02%
K: Had supervised breaks	292	0.07%
L: Most beneficial time of day	106	0.03%
M: Administered at home or in a hospital	25	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	0	0.00%

Special Services Summary for Science, Grade Five		
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.00%
X: Used an unlisted accommodation	107	0.03%
Y: Leave blank	40	0.01%
Z: Examiner read test questions aloud	217	0.05%
Accom. or Mod. is in Section 504 plan	328	0.08%
Accom. or Mod. is in IEP	350	0.09%
English Learner Test Variation A	230	0.06%
English Learner Test Variation B	19	0.00%
English Learner Test Variation C	132	0.03%
English Learner Test Variation D	21	0.01%
Any Accom., Mod., or EL Variation	1,069	0.26%
No Accom., Mod., or EL Variation	405,027	99.74%
Students in Special Education	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	355	1.56%
C: Dictated responses to a scribe	21	0.09%
F: Used noninterfering assistive device	18	0.08%
G: Used braille version of test	10	0.04%
H: Used large-print version of test	102	0.45%
J: Tested during more than one day	370	1.63%
K: Had supervised breaks	1,888	8.29%
L: Most beneficial time of day	752	3.30%
M: Administered at home or in a hospital	12	0.05%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	14	0.06%
Q: Used a calculator	7	0.03%
R: Used an arithmetic table	6	0.03%
S: Used math manipulatives	8	0.04%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	13	0.06%
X: Used an unlisted accommodation	456	2.00%
Y: Leave blank	170	0.75%
Z: Examiner read test questions aloud	1,894	8.32%
Accom. or Mod. is in Section 504 plan	25	0.11%
Accom. or Mod. is in IEP	3,897	17.12%
English Learner Test Variation A	2	0.01%
English Learner Test Variation B	6	0.03%
English Learner Test Variation C	14	0.06%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	4,061	17.84%
No Accom., Mod., or EL Variation	18,702	82.16%

Special Services Summary for Science, Grade Five		
English-Only Students	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	351	0.15%
C: Dictated responses to a scribe	31	0.01%
F: Used noninterfering assistive device	10	0.00%
G: Used braille version of test	6	0.00%
H: Used large-print version of test	88	0.04%
J: Tested during more than one day	297	0.12%
K: Had supervised breaks	1,452	0.61%
L: Most beneficial time of day	595	0.25%
M: Administered at home or in a hospital	31	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	14	0.01%
Q: Used a calculator	7	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	5	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	13	0.01%
X: Used an unlisted accommodation	366	0.15%
Y: Leave blank	141	0.06%
Z: Examiner read test questions aloud	1,276	0.53%
Accom. or Mod. is in Section 504 plan	286	0.12%
Accom. or Mod. is in IEP	2,791	1.17%
English Learner Test Variation A	2	0.00%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	7	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	3,180	1.33%
No Accom., Mod., or EL Variation	236,310	98.67%
Initially Fluent English Proficient (I-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	7	0.04%
C: Dictated responses to a scribe	1	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	4	0.02%
J: Tested during more than one day	5	0.03%
K: Had supervised breaks	44	0.22%
L: Most beneficial time of day	12	0.06%
M: Administered at home or in a hospital	1	0.01%
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 Five		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	7	0.04%
Y: Leave blank	4	0.02%
Z: Examiner read test questions aloud	33	0.17%
Accom. or Mod. is in Section 504 plan	6	0.03%
Accom. or Mod. is in IEP	76	0.39%
English Learner Test Variation A	1	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	84	0.43%
No Accom., Mod., or EL Variation	19,645	99.57%
English Learner (EL) Students	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	73	0.08%
C: Dictated responses to a scribe	4	0.00%
F: Used noninterfering assistive device	8	0.01%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	29	0.03%
J: Tested during more than one day	130	0.14%
K: Had supervised breaks	663	0.70%
L: Most beneficial time of day	238	0.25%
M: Administered at home or in a hospital	4	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	2	0.00%
R: Used an arithmetic table	4	0.00%
S: Used math manipulatives	4	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.00%
X: Used an unlisted accommodation	184	0.19%
Y: Leave blank	67	0.07%
Z: Examiner read test questions aloud	805	0.85%
Accom. or Mod. is in Section 504 plan	43	0.05%
Accom. or Mod. is in IEP	1,353	1.42%
English Learner Test Variation A	229	0.24%
English Learner Test Variation B	22	0.02%
English Learner Test Variation C	138	0.15%
English Learner Test Variation D	21	0.02%
Any Accom., Mod., or EL Variation	1,815	1.91%
No Accom., Mod., or EL Variation	93,156	98.09%

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	23	0.03%
C: Dictated responses to a scribe	1	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	14	0.02%
J: Tested during more than one day	10	0.01%
K: Had supervised breaks	62	0.08%
L: Most beneficial time of day	27	0.04%
M: Administered at home or in a hospital	2	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	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	14	0.02%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	47	0.06%
Accom. or Mod. is in Section 504 plan	22	0.03%
Accom. or Mod. is in IEP	116	0.15%
English Learner Test Variation A	1	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	1	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	145	0.19%
No Accom., Mod., or EL Variation	76,311	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	219	0.05%
C: Dictated responses to a scribe	23	0.01%
F: Used noninterfering assistive device	18	0.00%
G: Used braille version of test	21	0.00%
H: Used large-print version of test	102	0.02%
J: Tested during more than one day	249	0.06%
K: Had supervised breaks	1,177	0.27%
L: Most beneficial time of day	459	0.11%
M: Administered at home or in a hospital	70	0.02%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	10	0.00%
Q: Used a calculator	23	0.01%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	4	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	9	0.00%
X: Used an unlisted accommodation	496	0.11%
Y: Leave blank	176	0.04%
Z: Examiner read test questions aloud	838	0.19%
Accom. or Mod. is in Section 504 plan	176	0.04%
Accom. or Mod. is in IEP	2,594	0.59%
English Learner Test Variation A	232	0.05%
English Learner Test Variation B	29	0.01%
English Learner Test Variation C	224	0.05%
English Learner Test Variation D	183	0.04%
Any Accom., Mod., or EL Variation	3,365	0.77%
No Accom., Mod., or EL Variation	432,706	99.23%
Students Not in Special Education	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	38	0.01%
C: Dictated responses to a scribe	7	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	17	0.00%
J: Tested during more than one day	21	0.01%
K: Had supervised breaks	93	0.02%
L: Most beneficial time of day	40	0.01%
M: Administered at home or in a hospital	56	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%

Special Services Summary for Science, Grade Eight		
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	60	0.01%
Y: Leave blank	15	0.00%
Z: Examiner read test questions aloud	51	0.01%
Accom. or Mod. is in Section 504 plan	157	0.04%
Accom. or Mod. is in IEP	134	0.03%
English Learner Test Variation A	228	0.06%
English Learner Test Variation B	28	0.01%
English Learner Test Variation C	216	0.05%
English Learner Test Variation D	179	0.04%
Any Accom., Mod., or EL Variation	792	0.19%
No Accom., Mod., or EL Variation	413,645	99.81%
Students in Special Education	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	181	0.84%
C: Dictated responses to a scribe	16	0.07%
F: Used noninterfering assistive device	17	0.08%
G: Used braille version of test	20	0.09%
H: Used large-print version of test	85	0.39%
J: Tested during more than one day	228	1.06%
K: Had supervised breaks	1,082	5.01%
L: Most beneficial time of day	417	1.93%
M: Administered at home or in a hospital	14	0.06%
N: Used a dictionary	2	0.01%
O: Examiner presented using MCE or ASL	10	0.05%
Q: Used a calculator	22	0.10%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	4	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	7	0.03%
X: Used an unlisted accommodation	433	2.00%
Y: Leave blank	160	0.74%
Z: Examiner read test questions aloud	785	3.63%
Accom. or Mod. is in Section 504 plan	19	0.09%
Accom. or Mod. is in IEP	2,454	11.36%
English Learner Test Variation A	4	0.02%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	7	0.03%
English Learner Test Variation D	4	0.02%
Any Accom., Mod., or EL Variation	2,566	11.88%
No Accom., Mod., or EL Variation	19,035	88.12%

Special Services Summary for Science, Grade Eight		
English-Only Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	167	0.07%
C: Dictated responses to a scribe	17	0.01%
F: Used noninterfering assistive device	12	0.00%
G: Used braille version of test	16	0.01%
H: Used large-print version of test	70	0.03%
J: Tested during more than one day	198	0.08%
K: Had supervised breaks	845	0.35%
L: Most beneficial time of day	346	0.14%
M: Administered at home or in a hospital	49	0.02%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	7	0.00%
Q: Used a calculator	21	0.01%
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	8	0.00%
X: Used an unlisted accommodation	345	0.14%
Y: Leave blank	120	0.05%
Z: Examiner read test questions aloud	470	0.19%
Accom. or Mod. is in Section 504 plan	138	0.06%
Accom. or Mod. is in IEP	1,738	0.71%
English Learner Test Variation A	3	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	4	0.00%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	1,973	0.81%
No Accom., Mod., or EL Variation	242,319	99.19%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	9	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	0	0.00%
H: Used large-print version of test	7	0.02%
J: Tested during more than one day	2	0.01%
K: Had supervised breaks	17	0.05%
L: Most beneficial time of day	10	0.03%
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	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	1	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	13	0.04%
Y: Leave blank	3	0.01%
Z: Examiner read test questions aloud	26	0.07%
Accom. or Mod. is in Section 504 plan	4	0.01%
Accom. or Mod. is in IEP	70	0.19%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	5	0.01%
English Learner Test Variation D	2	0.01%
Any Accom., Mod., or EL Variation	85	0.23%
No Accom., Mod., or EL Variation	36,678	99.77%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	15	0.03%
C: Dictated responses to a scribe	3	0.01%
F: Used noninterfering assistive device	0	0.00%
G: Used braille version of test	2	0.00%
H: Used large-print version of test	8	0.01%
J: Tested during more than one day	38	0.07%
K: Had supervised breaks	232	0.41%
L: Most beneficial time of day	80	0.14%
M: Administered at home or in a hospital	9	0.02%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	3	0.01%
Q: Used a calculator	2	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	108	0.19%
Y: Leave blank	39	0.07%
Z: Examiner read test questions aloud	283	0.50%
Accom. or Mod. is in Section 504 plan	17	0.03%
Accom. or Mod. is in IEP	598	1.06%
English Learner Test Variation A	224	0.40%
English Learner Test Variation B	28	0.05%
English Learner Test Variation C	213	0.38%
English Learner Test Variation D	175	0.31%
Any Accom., Mod., or EL Variation	1,083	1.93%
No Accom., Mod., or EL Variation	55,168	98.07%

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	28	0.03%
C: Dictated responses to a scribe	0	0.00%
F: Used noninterfering assistive device	4	0.00%
G: Used braille version of test	3	0.00%
H: Used large-print version of test	17	0.02%
J: Tested during more than one day	11	0.01%
K: Had supervised breaks	80	0.08%
L: Most beneficial time of day	23	0.02%
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	0	0.00%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	28	0.03%
Y: Leave blank	13	0.01%
Z: Examiner read test questions aloud	56	0.06%
Accom. or Mod. is in Section 504 plan	16	0.02%
Accom. or Mod. is in IEP	182	0.19%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	1	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	209	0.21%
No Accom., Mod., or EL Variation	97,879	99.79%

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	154	0.03%
C: Dictated responses to a scribe	19	0.00%
F: Used noninterfering assistive device	11	0.00%
G: Used braille version of test	13	0.00%
H: Used large-print version of test	89	0.02%
J: Tested during more than one day	152	0.03%
K: Had supervised breaks	1,429	0.32%
L: Most beneficial time of day	286	0.06%
M: Administered at home or in a hospital	62	0.01%
N: Used a dictionary	41	0.01%
O: Examiner presented using MCE or ASL	4	0.00%
Q: Used a calculator	32	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	24	0.01%
X: Used an unlisted accommodation	360	0.08%
Y: Leave blank	152	0.03%
Z: Examiner read test questions aloud	407	0.09%
Accom. or Mod. is in Section 504 plan	88	0.02%
Accom. or Mod. is in IEP	2,257	0.50%
English Learner Test Variation A	380	0.08%
English Learner Test Variation B	208	0.05%
English Learner Test Variation C	682	0.15%
English Learner Test Variation D	653	0.14%
Any Accom., Mod., or EL Variation	3,635	0.81%
No Accom., Mod., or EL Variation	447,739	99.19%
Students Not in Special Education	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	17	0.00%
C: Dictated responses to a scribe	3	0.00%
F: Used noninterfering assistive device	1	0.00%
G: Used braille version of test	0	0.00%
H: Used large-print version of test	6	0.00%
J: Tested during more than one day	16	0.00%
K: Had supervised breaks	105	0.02%
L: Most beneficial time of day	40	0.01%
M: Administered at home or in a hospital	43	0.01%
N: Used a dictionary	9	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	2	0.00%
R: Used an arithmetic table	0	0.00%

Special Services Summary for Grade Ten Life Science		
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	35	0.01%
Y: Leave blank	52	0.01%
Z: Examiner read test questions aloud	20	0.00%
Accom. or Mod. is in Section 504 plan	80	0.02%
Accom. or Mod. is in IEP	157	0.04%
English Learner Test Variation A	376	0.09%
English Learner Test Variation B	207	0.05%
English Learner Test Variation C	674	0.16%
English Learner Test Variation D	633	0.15%
Any Accom., Mod., or EL Variation	1,393	0.33%
No Accom., Mod., or EL Variation	424,449	99.67%
Students in Special Education	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	137	0.54%
C: Dictated responses to a scribe	16	0.06%
F: Used noninterfering assistive device	10	0.04%
G: Used braille version of test	13	0.05%
H: Used large-print version of test	83	0.33%
J: Tested during more than one day	135	0.53%
K: Had supervised breaks	1,321	5.18%
L: Most beneficial time of day	245	0.96%
M: Administered at home or in a hospital	19	0.07%
N: Used a dictionary	32	0.13%
O: Examiner presented using MCE or ASL	4	0.02%
Q: Used a calculator	30	0.12%
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	24	0.09%
X: Used an unlisted accommodation	325	1.27%
Y: Leave blank	98	0.38%
Z: Examiner read test questions aloud	386	1.51%
Accom. or Mod. is in Section 504 plan	8	0.03%
Accom. or Mod. is in IEP	2,094	8.21%
English Learner Test Variation A	4	0.02%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	8	0.03%
English Learner Test Variation D	20	0.08%
Any Accom., Mod., or EL Variation	2,236	8.77%
No Accom., Mod., or EL Variation	23,255	91.23%

Special Services Summary for Grade Ten Life Science		
English-Only Students	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	118	0.05%
C: Dictated responses to a scribe	11	0.00%
F: Used noninterfering assistive device	7	0.00%
G: Used braille version of test	5	0.00%
H: Used large-print version of test	60	0.02%
J: Tested during more than one day	117	0.05%
K: Had supervised breaks	938	0.37%
L: Most beneficial time of day	201	0.08%
M: Administered at home or in a hospital	46	0.02%
N: Used a dictionary	26	0.01%
O: Examiner presented using MCE or ASL	4	0.00%
Q: Used a calculator	22	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	17	0.01%
X: Used an unlisted accommodation	255	0.10%
Y: Leave blank	95	0.04%
Z: Examiner read test questions aloud	231	0.09%
Accom. or Mod. is in Section 504 plan	74	0.03%
Accom. or Mod. is in IEP	1,490	0.59%
English Learner Test Variation A	8	0.00%
English Learner Test Variation B	7	0.00%
English Learner Test Variation C	12	0.00%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	1,680	0.67%
No Accom., Mod., or EL Variation	249,842	99.33%
Initially Fluent English Proficient (I-FEP) Students	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	6	0.02%
C: Dictated responses to a scribe	1	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	5	0.02%
J: Tested during more than one day	4	0.01%
K: Had supervised breaks	47	0.14%
L: Most beneficial time of day	5	0.02%
M: Administered at home or in a hospital	2	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	2	0.01%
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	15	0.05%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	8	0.02%
Accom. or Mod. is in Section 504 plan	1	0.00%
Accom. or Mod. is in IEP	72	0.22%
English Learner Test Variation A	1	0.00%
English Learner Test Variation B	2	0.01%
English Learner Test Variation C	6	0.02%
English Learner Test Variation D	10	0.03%
Any Accom., Mod., or EL Variation	87	0.26%
No Accom., Mod., or EL Variation	32,807	99.74%
English Learner (EL) Students	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	13	0.02%
C: Dictated responses to a scribe	6	0.01%
F: Used noninterfering assistive device	3	0.01%
G: Used braille version of test	3	0.01%
H: Used large-print version of test	6	0.01%
J: Tested during more than one day	25	0.04%
K: Had supervised breaks	336	0.58%
L: Most beneficial time of day	66	0.11%
M: Administered at home or in a hospital	7	0.01%
N: Used a dictionary	15	0.03%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	4	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	5	0.01%
X: Used an unlisted accommodation	73	0.13%
Y: Leave blank	38	0.07%
Z: Examiner read test questions aloud	139	0.24%
Accom. or Mod. is in Section 504 plan	10	0.02%
Accom. or Mod. is in IEP	520	0.89%
English Learner Test Variation A	368	0.63%
English Learner Test Variation B	197	0.34%
English Learner Test Variation C	650	1.12%
English Learner Test Variation D	629	1.08%
Any Accom., Mod., or EL Variation	1,659	2.85%
No Accom., Mod., or EL Variation	56,536	97.15%

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	16	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	4	0.00%
H: Used large-print version of test	18	0.02%
J: Tested during more than one day	6	0.01%
K: Had supervised breaks	101	0.09%
L: Most beneficial time of day	14	0.01%
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%
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	1	0.00%
X: Used an unlisted accommodation	17	0.02%
Y: Leave blank	15	0.01%
Z: Examiner read test questions aloud	28	0.03%
Accom. or Mod. is in Section 504 plan	3	0.00%
Accom. or Mod. is in IEP	168	0.16%
English Learner Test Variation A	2	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	8	0.01%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	192	0.18%
No Accom., Mod., or EL Variation	107,878	99.82%

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	38	108	33	179	0.03%
C: Dictated responses to a scribe	8	9	5	22	0.00%
F: Used noninterfering assistive device	5	12	2	19	0.00%
G: Used braille version of test	6	9	0	15	0.00%
H: Used large-print version of test	26	60	13	99	0.02%
J: Tested during more than one day	98	161	77	336	0.06%
K: Had supervised breaks	718	1,449	556	2,723	0.49%
L: Most beneficial time of day	141	208	112	461	0.08%
M: Administered at home or in a hospital	10	45	37	92	0.02%
N: Used a dictionary	11	24	18	53	0.01%
O: Examiner presented using MCE or ASL	1	31	3	35	0.01%
Q: Used a calculator	29	43	12	84	0.02%
R: Used an arithmetic table	4	2	0	6	0.00%
S: Used math manipulatives	1	0	0	1	0.00%
V: Used interfering assistive device	0	1	0	1	0.00%
W: Used an unlisted modification	14	22	15	51	0.01%
X: Used an unlisted accommodation	261	346	138	745	0.13%
Y: Leave blank	72	179	78	329	0.06%
Z: Examiner read test questions aloud	300	499	208	1,007	0.18%
Accom. or Mod. is in Section 504 plan	20	54	30	104	0.02%
Accom. or Mod. is in IEP	1,245	2,398	966	4,609	0.83%
English Learner Test Variation A	105	267	63	435	0.08%
English Learner Test Variation B	67	166	37	270	0.05%
English Learner Test Variation C	192	455	173	820	0.15%
English Learner Test Variation D	256	577	220	1,053	0.19%
Any Accom., Mod., or EL Variation	1,704	3,499	1,381	6,584	1.18%
No Accom., Mod., or EL Variation	227,132	224,593	98,368	550,093	98.82%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	6	8	4	18	0.00%
C: Dictated responses to a scribe	2	2	0	4	0.00%
F: Used noninterfering assistive device	1	1	0	2	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	3	5	2	10	0.00%
J: Tested during more than one day	10	13	8	31	0.01%
K: Had supervised breaks	35	65	23	123	0.02%
L: Most beneficial time of day	15	25	18	58	0.01%
M: Administered at home or in a hospital	5	21	18	44	0.01%
N: Used a dictionary	3	5	3	11	0.00%
O: Examiner presented using MCE or ASL	0	2	1	3	0.00%
Q: Used a calculator	0	0	1	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Biology					
S: Used math manipulatives	1	0	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	1	2	0.00%
X: Used an unlisted accommodation	6	18	12	36	0.01%
Y: Leave blank	8	24	5	37	0.01%
Z: Examiner read test questions aloud	9	12	5	26	0.01%
Accom. or Mod. is in Section 504 plan	18	49	27	94	0.02%
Accom. or Mod. is in IEP	45	86	29	160	0.03%
English Learner Test Variation A	99	261	62	422	0.08%
English Learner Test Variation B	61	155	33	249	0.05%
English Learner Test Variation C	184	449	171	804	0.16%
English Learner Test Variation D	238	534	209	981	0.19%
Any Accom., Mod., or EL Variation	446	1,013	400	1,859	0.36%
No Accom., Mod., or EL Variation	216,922	206,325	91,581	514,828	99.64%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	32	100	29	161	0.40%
C: Dictated responses to a scribe	6	7	5	18	0.05%
F: Used noninterfering assistive device	4	11	2	17	0.04%
G: Used braille version of test	6	9	0	15	0.04%
H: Used large-print version of test	23	55	11	89	0.22%
J: Tested during more than one day	88	148	69	305	0.76%
K: Had supervised breaks	683	1,381	533	2,597	6.51%
L: Most beneficial time of day	126	183	94	403	1.01%
M: Administered at home or in a hospital	5	23	18	46	0.12%
N: Used a dictionary	8	19	15	42	0.11%
O: Examiner presented using MCE or ASL	1	29	2	32	0.08%
Q: Used a calculator	29	43	11	83	0.21%
R: Used an arithmetic table	4	2	0	6	0.02%
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	13	22	14	49	0.12%
X: Used an unlisted accommodation	255	328	126	709	1.78%
Y: Leave blank	62	154	73	289	0.72%
Z: Examiner read test questions aloud	290	484	202	976	2.45%
Accom. or Mod. is in Section 504 plan	2	5	3	10	0.03%
Accom. or Mod. is in IEP	1,197	2,305	935	4,437	11.12%
English Learner Test Variation A	6	6	1	13	0.03%
English Learner Test Variation B	6	11	4	21	0.05%
English Learner Test Variation C	8	6	2	16	0.04%
English Learner Test Variation D	18	43	11	72	0.18%
Any Accom., Mod., or EL Variation	1,255	2,479	979	4,713	11.82%
No Accom., Mod., or EL Variation	10,182	18,222	6,771	35,175	88.18%

Special Services Summary for Biology					
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	30	82	21	133	0.04%
C: Dictated responses to a scribe	5	4	5	14	0.00%
F: Used noninterfering assistive device	3	10	1	14	0.00%
G: Used braille version of test	1	4	0	5	0.00%
H: Used large-print version of test	15	38	9	62	0.02%
J: Tested during more than one day	54	100	55	209	0.07%
K: Had supervised breaks	385	885	347	1,617	0.52%
L: Most beneficial time of day	94	149	81	324	0.11%
M: Administered at home or in a hospital	9	30	24	63	0.02%
N: Used a dictionary	6	16	5	27	0.01%
O: Examiner presented using MCE or ASL	0	16	3	19	0.01%
Q: Used a calculator	8	21	7	36	0.01%
R: Used an arithmetic table	1	0	0	1	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	12	18	12	42	0.01%
X: Used an unlisted accommodation	168	248	94	510	0.17%
Y: Leave blank	40	103	38	181	0.06%
Z: Examiner read test questions aloud	144	307	109	560	0.18%
Accom. or Mod. is in Section 504 plan	17	46	28	91	0.03%
Accom. or Mod. is in IEP	683	1,485	585	2,753	0.89%
English Learner Test Variation A	0	3	1	4	0.00%
English Learner Test Variation B	0	5	2	7	0.00%
English Learner Test Variation C	0	5	1	6	0.00%
English Learner Test Variation D	1	3	0	4	0.00%
Any Accom., Mod., or EL Variation	727	1,641	640	3,008	0.98%
No Accom., Mod., or EL Variation	126,499	122,714	56,218	305,431	99.02%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	3	0	4	0.01%
C: Dictated responses to a scribe	1	0	0	1	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	0	3	0	3	0.01%
J: Tested during more than one day	1	6	4	11	0.02%
K: Had supervised breaks	14	39	20	73	0.16%
L: Most beneficial time of day	5	4	1	10	0.02%
M: Administered at home or in a hospital	0	2	0	2	0.00%
N: Used a dictionary	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	1	2	2	5	0.01%
R: Used an arithmetic table	0	1	0	1	0.00%

Special Services Summary for Biology					
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	0	1	0.00%
X: Used an unlisted accommodation	5	9	4	18	0.04%
Y: Leave blank	5	3	4	12	0.03%
Z: Examiner read test questions aloud	7	7	7	21	0.05%
Accom. or Mod. is in Section 504 plan	2	1	0	3	0.01%
Accom. or Mod. is in IEP	31	58	32	121	0.27%
English Learner Test Variation A	0	1	0	1	0.00%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	0	1	0	1	0.00%
English Learner Test Variation D	0	5	1	6	0.01%
Any Accom., Mod., or EL Variation	33	67	35	135	0.30%
No Accom., Mod., or EL Variation	20,676	14,249	9,313	44,238	99.70%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	9	8	17	0.02%
C: Dictated responses to a scribe	1	4	0	5	0.01%
F: Used noninterfering assistive device	0	1	0	1	0.00%
G: Used braille version of test	0	3	0	3	0.00%
H: Used large-print version of test	2	9	1	12	0.02%
J: Tested during more than one day	38	48	12	98	0.14%
K: Had supervised breaks	254	436	162	852	1.21%
L: Most beneficial time of day	32	50	23	105	0.15%
M: Administered at home or in a hospital	0	7	5	12	0.02%
N: Used a dictionary	4	8	10	22	0.03%
O: Examiner presented using MCE or ASL	1	15	0	16	0.02%
Q: Used a calculator	16	15	2	33	0.05%
R: Used an arithmetic table	3	1	0	4	0.01%
S: Used math manipulatives	1	0	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	2	3	2	7	0.01%
X: Used an unlisted accommodation	76	76	35	187	0.27%
Y: Leave blank	18	62	32	112	0.16%
Z: Examiner read test questions aloud	131	156	83	370	0.53%
Accom. or Mod. is in Section 504 plan	1	4	2	7	0.01%
Accom. or Mod. is in IEP	424	704	303	1,431	2.04%
English Learner Test Variation A	94	260	62	416	0.59%
English Learner Test Variation B	57	159	34	250	0.36%
English Learner Test Variation C	180	440	172	792	1.13%
English Learner Test Variation D	250	561	219	1,030	1.47%
Any Accom., Mod., or EL Variation	817	1,610	650	3,077	4.38%
No Accom., Mod., or EL Variation	20,571	34,715	11,864	67,150	95.62%

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	7	13	4	24	0.02%
C: Dictated responses to a scribe	1	1	0	2	0.00%
F: Used noninterfering assistive device	2	1	1	4	0.00%
G: Used braille version of test	4	2	0	6	0.00%
H: Used large-print version of test	9	10	3	22	0.02%
J: Tested during more than one day	5	7	6	18	0.01%
K: Had supervised breaks	64	84	27	175	0.13%
L: Most beneficial time of day	10	5	7	22	0.02%
M: Administered at home or in a hospital	1	6	8	15	0.01%
N: Used a dictionary	1	0	2	3	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	4	5	1	10	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	1	1	0.00%
X: Used an unlisted accommodation	12	13	5	30	0.02%
Y: Leave blank	8	11	4	23	0.02%
Z: Examiner read test questions aloud	18	27	9	54	0.04%
Accom. or Mod. is in Section 504 plan	0	3	0	3	0.00%
Accom. or Mod. is in IEP	105	145	46	296	0.22%
English Learner Test Variation A	1	2	0	3	0.00%
English Learner Test Variation B	0	0	1	1	0.00%
English Learner Test Variation C	1	4	0	5	0.00%
English Learner Test Variation D	1	2	0	3	0.00%
Any Accom., Mod., or EL Variation	111	168	56	335	0.25%
No Accom., Mod., or EL Variation	59,048	52,576	20,852	132,476	99.75%

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	0	21	21	42	0.02%
C: Dictated responses to a scribe	0	2	2	4	0.00%
F: Used noninterfering assistive device	0	0	3	3	0.00%
G: Used braille version of test	0	2	6	8	0.00%
H: Used large-print version of test	1	16	24	41	0.01%
J: Tested during more than one day	1	18	25	44	0.02%
K: Had supervised breaks	16	125	251	392	0.14%
L: Most beneficial time of day	0	20	32	52	0.02%
M: Administered at home or in a hospital	0	7	15	22	0.01%
N: Used a dictionary	0	1	14	15	0.01%
O: Examiner presented using MCE or ASL	0	0	10	10	0.00%
Q: Used a calculator	2	14	46	62	0.02%
R: Used an arithmetic table	0	0	3	3	0.00%
S: Used math manipulatives	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	3	3	6	0.00%
X: Used an unlisted accommodation	1	47	50	98	0.04%
Y: Leave blank	1	13	37	51	0.02%
Z: Examiner read test questions aloud	3	11	73	87	0.03%
Accom. or Mod. is in Section 504 plan	0	13	17	30	0.01%
Accom. or Mod. is in IEP	20	216	429	665	0.24%
English Learner Test Variation A	1	14	37	52	0.02%
English Learner Test Variation B	0	7	9	16	0.01%
English Learner Test Variation C	1	52	96	149	0.05%
English Learner Test Variation D	3	49	108	160	0.06%
Any Accom., Mod., or EL Variation	25	327	657	1,009	0.37%
No Accom., Mod., or EL Variation	5,392	135,877	133,095	274,364	99.63%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	2	2	0.00%
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	1	1	0.00%
H: Used large-print version of test	0	1	2	3	0.00%
J: Tested during more than one day	0	0	7	7	0.00%
K: Had supervised breaks	2	8	25	35	0.01%
L: Most beneficial time of day	0	4	9	13	0.00%
M: Administered at home or in a hospital	0	7	15	22	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	1	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Chemistry					
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	0	1	0.00%
X: Used an unlisted accommodation	0	6	6	12	0.00%
Y: Leave blank	0	6	1	7	0.00%
Z: Examiner read test questions aloud	1	0	2	3	0.00%
Accom. or Mod. is in Section 504 plan	0	13	17	30	0.01%
Accom. or Mod. is in IEP	2	10	23	35	0.01%
English Learner Test Variation A	1	14	35	50	0.02%
English Learner Test Variation B	0	7	8	15	0.01%
English Learner Test Variation C	1	51	93	145	0.05%
English Learner Test Variation D	3	49	100	152	0.06%
Any Accom., Mod., or EL Variation	6	113	220	339	0.13%
No Accom., Mod., or EL Variation	5,202	133,305	128,947	267,454	99.87%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	21	19	40	0.53%
C: Dictated responses to a scribe	0	2	2	4	0.05%
F: Used noninterfering assistive device	0	0	2	2	0.03%
G: Used braille version of test	0	2	5	7	0.09%
H: Used large-print version of test	1	15	22	38	0.50%
J: Tested during more than one day	1	18	18	37	0.49%
K: Had supervised breaks	14	117	226	357	4.71%
L: Most beneficial time of day	0	16	23	39	0.51%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	1	14	15	0.20%
O: Examiner presented using MCE or ASL	0	0	10	10	0.13%
Q: Used a calculator	2	14	45	61	0.81%
R: Used an arithmetic table	0	0	3	3	0.04%
S: Used math manipulatives	0	1	0	1	0.01%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	2	3	5	0.07%
X: Used an unlisted accommodation	1	41	44	86	1.14%
Y: Leave blank	1	7	36	44	0.58%
Z: Examiner read test questions aloud	2	11	71	84	1.11%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	18	206	406	630	8.32%
English Learner Test Variation A	0	0	2	2	0.03%
English Learner Test Variation B	0	0	1	1	0.01%
English Learner Test Variation C	0	1	3	4	0.05%
English Learner Test Variation D	0	0	8	8	0.11%
Any Accom., Mod., or EL Variation	19	214	437	670	8.84%
No Accom., Mod., or EL Variation	190	2,571	4,145	6,906	91.16%

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	14	15	29	0.02%
C: Dictated responses to a scribe	0	1	1	2	0.00%
F: Used noninterfering assistive device	0	0	1	1	0.00%
G: Used braille version of test	0	0	4	4	0.00%
H: Used large-print version of test	1	8	13	22	0.01%
J: Tested during more than one day	1	12	9	22	0.01%
K: Had supervised breaks	8	61	107	176	0.12%
L: Most beneficial time of day	0	13	13	26	0.02%
M: Administered at home or in a hospital	0	5	14	19	0.01%
N: Used a dictionary	0	1	5	6	0.00%
O: Examiner presented using MCE or ASL	0	0	2	2	0.00%
Q: Used a calculator	0	11	24	35	0.02%
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	3	3	6	0.00%
X: Used an unlisted accommodation	1	32	30	63	0.04%
Y: Leave blank	0	6	18	24	0.02%
Z: Examiner read test questions aloud	3	5	23	31	0.02%
Accom. or Mod. is in Section 504 plan	0	11	15	26	0.02%
Accom. or Mod. is in IEP	10	111	194	315	0.21%
English Learner Test Variation A	1	2	0	3	0.00%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	1	2	0	3	0.00%
English Learner Test Variation D	0	2	1	3	0.00%
Any Accom., Mod., or EL Variation	11	138	232	381	0.25%
No Accom., Mod., or EL Variation	2,643	76,911	71,168	150,722	99.75%
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	1	0	1	0.00%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	1	0	1	0.00%
H: Used large-print version of test	0	1	2	3	0.01%
J: Tested during more than one day	0	1	1	2	0.01%
K: Had supervised breaks	0	9	10	19	0.07%
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	1	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Chemistry					
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	2	3	0.01%
Y: Leave blank	0	1	5	6	0.02%
Z: Examiner read test questions aloud	0	2	2	4	0.01%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	15	18	33	0.12%
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	1	0	1	0.00%
Any Accom., Mod., or EL Variation	0	16	20	36	0.13%
No Accom., Mod., or EL Variation	669	13,945	12,777	27,391	99.87%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	1	2	3	0.02%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	0	0	1	1	0.01%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	2	2	0.01%
J: Tested during more than one day	0	4	12	16	0.09%
K: Had supervised breaks	8	47	105	160	0.89%
L: Most beneficial time of day	0	6	14	20	0.11%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	7	7	0.04%
O: Examiner presented using MCE or ASL	0	0	8	8	0.04%
Q: Used a calculator	2	2	14	18	0.10%
R: Used an arithmetic table	0	0	3	3	0.02%
S: Used math manipulatives	0	1	0	1	0.01%
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	8	14	22	0.12%
Y: Leave blank	0	5	12	17	0.09%
Z: Examiner read test questions aloud	0	2	40	42	0.23%
Accom. or Mod. is in Section 504 plan	0	2	2	4	0.02%
Accom. or Mod. is in IEP	9	67	167	243	1.35%
English Learner Test Variation A	0	12	36	48	0.27%
English Learner Test Variation B	0	6	9	15	0.08%
English Learner Test Variation C	0	49	94	143	0.79%
English Learner Test Variation D	3	45	105	153	0.85%
Any Accom., Mod., or EL Variation	13	146	346	505	2.80%
No Accom., Mod., or EL Variation	568	6,315	10,644	17,527	97.20%

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	0	4	3	7	0.01%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used noninterfering assistive device	0	0	1	1	0.00%
G: Used braille version of test	0	1	2	3	0.00%
H: Used large-print version of test	0	7	7	14	0.02%
J: Tested during more than one day	0	1	3	4	0.01%
K: Had supervised breaks	0	7	29	36	0.05%
L: Most beneficial time of day	0	1	5	6	0.01%
M: Administered at home or in a hospital	0	1	1	2	0.00%
N: Used a dictionary	0	0	2	2	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	1	7	8	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	6	4	10	0.01%
Y: Leave blank	1	1	2	4	0.01%
Z: Examiner read test questions aloud	0	1	8	9	0.01%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	22	50	73	0.09%
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	1	2	0.00%
English Learner Test Variation D	0	1	2	3	0.00%
Any Accom., Mod., or EL Variation	1	25	58	84	0.11%
No Accom., Mod., or EL Variation	1,501	38,586	38,401	78,488	99.89%

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	88	31	16	135	0.07%
C: Dictated responses to a scribe	8	5	4	17	0.01%
F: Used noninterfering assistive device	4	3	1	8	0.00%
G: Used braille version of test	11	0	4	15	0.01%
H: Used large-print version of test	49	10	17	76	0.04%
J: Tested during more than one day	171	29	39	239	0.12%
K: Had supervised breaks	1,474	366	402	2,242	1.08%
L: Most beneficial time of day	246	116	95	457	0.22%
M: Administered at home or in a hospital	34	16	23	73	0.04%
N: Used a dictionary	13	1	1	15	0.01%
O: Examiner presented using MCE or ASL	18	4	6	28	0.01%
Q: Used a calculator	20	16	9	45	0.02%
R: Used an arithmetic table	18	0	0	18	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	5	5	9	19	0.01%
X: Used an unlisted accommodation	273	113	141	527	0.25%
Y: Leave blank	149	44	62	255	0.12%
Z: Examiner read test questions aloud	586	132	188	906	0.44%
Accom. or Mod. is in Section 504 plan	42	8	7	57	0.03%
Accom. or Mod. is in IEP	2,486	624	761	3,871	1.87%
English Learner Test Variation A	174	33	60	267	0.13%
English Learner Test Variation B	99	13	14	126	0.06%
English Learner Test Variation C	334	64	82	480	0.23%
English Learner Test Variation D	284	56	57	397	0.19%
Any Accom., Mod., or EL Variation	3,104	756	937	4,797	2.32%
No Accom., Mod., or EL Variation	130,823	29,917	41,387	202,127	97.68%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	8	2	1	11	0.01%
C: Dictated responses to a scribe	1	1	0	2	0.00%
F: Used noninterfering assistive device	1	0	0	1	0.00%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	11	1	1	13	0.01%
J: Tested during more than one day	2	3	0	5	0.00%
K: Had supervised breaks	44	8	17	69	0.04%
L: Most beneficial time of day	15	5	3	23	0.01%
M: Administered at home or in a hospital	19	10	10	39	0.02%
N: Used a dictionary	2	1	1	4	0.00%
O: Examiner presented using MCE or ASL	2	0	0	2	0.00%
Q: Used a calculator	0	1	0	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Earth Science					
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	17	4	3	24	0.01%
Y: Leave blank	23	19	1	43	0.02%
Z: Examiner read test questions aloud	18	2	3	23	0.01%
Accom. or Mod. is in Section 504 plan	41	7	5	53	0.03%
Accom. or Mod. is in IEP	79	35	15	129	0.07%
English Learner Test Variation A	171	33	60	264	0.15%
English Learner Test Variation B	96	13	12	121	0.07%
English Learner Test Variation C	326	62	78	466	0.26%
English Learner Test Variation D	264	55	56	375	0.21%
Any Accom., Mod., or EL Variation	601	141	152	894	0.50%
No Accom., Mod., or EL Variation	117,695	25,581	36,268	179,544	99.50%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	79	29	15	123	0.47%
C: Dictated responses to a scribe	7	4	4	15	0.06%
F: Used noninterfering assistive device	3	3	1	7	0.03%
G: Used braille version of test	11	0	3	14	0.05%
H: Used large-print version of test	38	9	16	63	0.24%
J: Tested during more than one day	169	26	39	234	0.89%
K: Had supervised breaks	1,430	358	385	2,173	8.22%
L: Most beneficial time of day	231	111	92	434	1.64%
M: Administered at home or in a hospital	15	6	13	34	0.13%
N: Used a dictionary	11	0	0	11	0.04%
O: Examiner presented using MCE or ASL	16	4	6	26	0.10%
Q: Used a calculator	20	15	9	44	0.17%
R: Used an arithmetic table	18	0	0	18	0.07%
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	5	5	9	19	0.07%
X: Used an unlisted accommodation	252	109	138	499	1.89%
Y: Leave blank	125	25	61	211	0.80%
Z: Examiner read test questions aloud	565	130	185	880	3.33%
Accom. or Mod. is in Section 504 plan	1	1	1	3	0.01%
Accom. or Mod. is in IEP	2,399	589	745	3,733	14.13%
English Learner Test Variation A	3	0	0	3	0.01%
English Learner Test Variation B	3	0	2	5	0.02%
English Learner Test Variation C	8	2	4	14	0.05%
English Learner Test Variation D	20	1	1	22	0.08%
Any Accom., Mod., or EL Variation	2,495	615	784	3,894	14.74%
No Accom., Mod., or EL Variation	13,083	4,332	5,112	22,527	85.26%

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	61	27	12	100	0.08%
C: Dictated responses to a scribe	7	4	2	13	0.01%
F: Used noninterfering assistive device	3	3	0	6	0.00%
G: Used braille version of test	5	0	1	6	0.00%
H: Used large-print version of test	26	9	12	47	0.04%
J: Tested during more than one day	102	25	33	160	0.13%
K: Had supervised breaks	923	234	249	1,406	1.17%
L: Most beneficial time of day	155	80	67	302	0.25%
M: Administered at home or in a hospital	26	12	12	50	0.04%
N: Used a dictionary	8	0	0	8	0.01%
O: Examiner presented using MCE or ASL	11	3	5	19	0.02%
Q: Used a calculator	14	13	6	33	0.03%
R: Used an arithmetic table	12	0	0	12	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	5	4	6	15	0.01%
X: Used an unlisted accommodation	170	72	95	337	0.28%
Y: Leave blank	84	28	40	152	0.13%
Z: Examiner read test questions aloud	327	70	107	504	0.42%
Accom. or Mod. is in Section 504 plan	37	8	3	48	0.04%
Accom. or Mod. is in IEP	1,502	405	484	2,391	1.99%
English Learner Test Variation A	14	2	0	16	0.01%
English Learner Test Variation B	6	2	0	8	0.01%
English Learner Test Variation C	13	4	2	19	0.02%
English Learner Test Variation D	6	1	1	8	0.01%
Any Accom., Mod., or EL Variation	1,613	433	514	2,560	2.13%
No Accom., Mod., or EL Variation	76,306	17,721	23,648	117,675	97.87%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	2	0	5	0.05%
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	3	0	0	3	0.03%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	32	7	10	49	0.44%
L: Most beneficial time of day	3	1	0	4	0.04%
M: Administered at home or in a hospital	1	0	0	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	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 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	6	3	2	11	0.10%
Y: Leave blank	2	1	3	6	0.05%
Z: Examiner read test questions aloud	9	3	5	17	0.15%
Accom. or Mod. is in Section 504 plan	1	0	0	1	0.01%
Accom. or Mod. is in IEP	52	12	19	83	0.75%
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	1	1	0.01%
English Learner Test Variation D	1	1	1	3	0.03%
Any Accom., Mod., or EL Variation	54	15	22	91	0.82%
No Accom., Mod., or EL Variation	6,860	1,449	2,691	11,000	99.18%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	14	2	3	19	0.05%
C: Dictated responses to a scribe	0	1	0	1	0.00%
F: Used noninterfering assistive device	1	0	0	1	0.00%
G: Used braille version of test	4	0	0	4	0.01%
H: Used large-print version of test	10	1	3	14	0.04%
J: Tested during more than one day	61	4	5	70	0.18%
K: Had supervised breaks	430	106	114	650	1.71%
L: Most beneficial time of day	76	28	22	126	0.33%
M: Administered at home or in a hospital	1	2	7	10	0.03%
N: Used a dictionary	5	1	1	7	0.02%
O: Examiner presented using MCE or ASL	7	1	0	8	0.02%
Q: Used a calculator	5	2	3	10	0.03%
R: Used an arithmetic table	6	0	0	6	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	82	28	40	150	0.39%
Y: Leave blank	55	10	18	83	0.22%
Z: Examiner read test questions aloud	224	54	69	347	0.91%
Accom. or Mod. is in Section 504 plan	1	0	0	1	0.00%
Accom. or Mod. is in IEP	795	175	212	1,182	3.11%
English Learner Test Variation A	158	31	59	248	0.65%
English Learner Test Variation B	93	11	14	118	0.31%
English Learner Test Variation C	319	60	79	458	1.21%
English Learner Test Variation D	275	53	55	383	1.01%
Any Accom., Mod., or EL Variation	1,285	272	349	1,906	5.02%
No Accom., Mod., or EL Variation	23,053	5,732	7,307	36,092	94.98%

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	10	0	1	11	0.03%
C: Dictated responses to a scribe	1	0	1	2	0.01%
F: Used noninterfering assistive device	0	0	1	1	0.00%
G: Used braille version of test	2	0	2	4	0.01%
H: Used large-print version of test	10	0	2	12	0.03%
J: Tested during more than one day	8	0	1	9	0.02%
K: Had supervised breaks	85	19	28	132	0.35%
L: Most beneficial time of day	11	7	5	23	0.06%
M: Administered at home or in a hospital	6	2	4	12	0.03%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	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%
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	15	10	4	29	0.08%
Y: Leave blank	8	5	1	14	0.04%
Z: Examiner read test questions aloud	23	5	7	35	0.09%
Accom. or Mod. is in Section 504 plan	3	0	3	6	0.02%
Accom. or Mod. is in IEP	130	32	44	206	0.55%
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	2	0	0	2	0.01%
English Learner Test Variation D	2	1	0	3	0.01%
Any Accom., Mod., or EL Variation	145	36	50	231	0.62%
No Accom., Mod., or EL Variation	24,399	4,970	7,687	37,056	99.38%

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	5	6	12	23	0.03%
C: Dictated responses to a scribe	1	0	3	4	0.00%
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	4	1	11	16	0.02%
J: Tested during more than one day	1	4	9	14	0.02%
K: Had supervised breaks	56	31	108	195	0.24%
L: Most beneficial time of day	9	5	15	29	0.04%
M: Administered at home or in a hospital	1	3	2	6	0.01%
N: Used a dictionary	5	0	1	6	0.01%
O: Examiner presented using MCE or ASL	1	0	2	3	0.00%
Q: Used a calculator	9	5	16	30	0.04%
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	2	0	1	3	0.00%
X: Used an unlisted accommodation	18	3	34	55	0.07%
Y: Leave blank	13	4	17	34	0.04%
Z: Examiner read test questions aloud	17	21	19	57	0.07%
Accom. or Mod. is in Section 504 plan	10	5	8	23	0.03%
Accom. or Mod. is in IEP	96	47	181	324	0.40%
English Learner Test Variation A	1	1	3	5	0.01%
English Learner Test Variation B	0	1	1	2	0.00%
English Learner Test Variation C	1	6	12	19	0.02%
English Learner Test Variation D	0	12	29	41	0.05%
Any Accom., Mod., or EL Variation	110	77	237	424	0.52%
No Accom., Mod., or EL Variation	14,032	9,882	56,508	80,422	99.48%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	2	3	5	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	1	0	0	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	1	1	0.00%
K: Had supervised breaks	1	0	4	5	0.01%
L: Most beneficial time of day	1	0	4	5	0.01%
M: Administered at home or in a hospital	1	3	1	5	0.01%
N: Used a dictionary	1	0	0	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	1	3	0	4	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Physics					
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	4	1	3	8	0.01%
Y: Leave blank	4	1	2	7	0.01%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 plan	10	5	8	23	0.03%
Accom. or Mod. is in IEP	2	1	4	7	0.01%
English Learner Test Variation A	1	1	3	5	0.01%
English Learner Test Variation B	0	1	1	2	0.00%
English Learner Test Variation C	1	5	12	18	0.02%
English Learner Test Variation D	0	12	28	40	0.05%
Any Accom., Mod., or EL Variation	14	28	51	93	0.12%
No Accom., Mod., or EL Variation	13,453	9,584	55,216	78,253	99.88%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	5	4	9	18	0.72%
C: Dictated responses to a scribe	1	0	3	4	0.16%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	0	0	1	1	0.04%
H: Used large-print version of test	4	1	10	15	0.60%
J: Tested during more than one day	1	4	8	13	0.52%
K: Had supervised breaks	55	31	104	190	7.62%
L: Most beneficial time of day	8	5	11	24	0.96%
M: Administered at home or in a hospital	0	0	1	1	0.04%
N: Used a dictionary	4	0	1	5	0.20%
O: Examiner presented using MCE or ASL	1	0	2	3	0.12%
Q: Used a calculator	8	2	16	26	1.04%
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	2	0	1	3	0.12%
X: Used an unlisted accommodation	14	2	31	47	1.88%
Y: Leave blank	9	3	15	27	1.08%
Z: Examiner read test questions aloud	17	21	18	56	2.24%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	94	46	177	317	12.71%
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	0.04%
English Learner Test Variation D	0	0	1	1	0.04%
Any Accom., Mod., or EL Variation	96	49	186	331	13.27%
No Accom., Mod., or EL Variation	578	298	1,288	2,164	86.73%

Special Services Summary for Physics					
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	4	5	9	18	0.04%
C: Dictated responses to a scribe	1	0	2	3	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	2	1	7	10	0.02%
J: Tested during more than one day	1	1	5	7	0.02%
K: Had supervised breaks	34	19	48	101	0.22%
L: Most beneficial time of day	9	2	12	23	0.05%
M: Administered at home or in a hospital	1	1	2	4	0.01%
N: Used a dictionary	4	0	0	4	0.01%
O: Examiner presented using MCE or ASL	1	0	1	2	0.00%
Q: Used a calculator	6	4	10	20	0.04%
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	2	0	1	3	0.01%
X: Used an unlisted accommodation	17	3	27	47	0.10%
Y: Leave blank	11	3	10	24	0.05%
Z: Examiner read test questions aloud	8	8	14	30	0.07%
Accom. or Mod. is in Section 504 plan	8	4	7	19	0.04%
Accom. or Mod. is in IEP	66	29	96	191	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	76	35	111	222	0.49%
No Accom., Mod., or EL Variation	7,574	5,797	31,696	45,067	99.51%
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	1	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	0	0	0	0.00%
J: Tested during more than one day	0	0	1	1	0.01%
K: Had supervised breaks	2	0	1	3	0.03%
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	1	1	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Physics					
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	3	3	0.03%
Y: Leave blank	0	0	1	1	0.01%
Z: Examiner read test questions aloud	1	0	0	1	0.01%
Accom. or Mod. is in Section 504 plan	0	0	1	1	0.01%
Accom. or Mod. is in IEP	2	0	6	8	0.09%
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	2	0	7	9	0.10%
No Accom., Mod., or EL Variation	1,507	812	6,471	8,790	99.90%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	0	1	2	0.04%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used noninterfering assistive device	1	0	0	1	0.02%
G: Used braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	1	0	1	2	0.04%
J: Tested during more than one day	0	1	2	3	0.06%
K: Had supervised breaks	18	8	51	77	1.50%
L: Most beneficial time of day	0	1	3	4	0.08%
M: Administered at home or in a hospital	0	2	0	2	0.04%
N: Used a dictionary	1	0	1	2	0.04%
O: Examiner presented using MCE or ASL	0	0	1	1	0.02%
Q: Used a calculator	2	1	2	5	0.10%
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	1	0	4	5	0.10%
Y: Leave blank	2	1	2	5	0.10%
Z: Examiner read test questions aloud	8	13	3	24	0.47%
Accom. or Mod. is in Section 504 plan	2	0	0	2	0.04%
Accom. or Mod. is in IEP	25	15	60	100	1.95%
English Learner Test Variation A	1	1	3	5	0.10%
English Learner Test Variation B	0	1	1	2	0.04%
English Learner Test Variation C	1	5	12	18	0.35%
English Learner Test Variation D	0	12	29	41	0.80%
Any Accom., Mod., or EL Variation	28	36	99	163	3.17%
No Accom., Mod., or EL Variation	1,235	899	2,844	4,978	96.83%

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	1	2	0.01%
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	3	3	0.01%
J: Tested during more than one day	0	2	1	3	0.01%
K: Had supervised breaks	2	4	8	14	0.07%
L: Most beneficial time of day	0	2	0	2	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	1	0	3	4	0.02%
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	4	4	0.02%
Z: Examiner read test questions aloud	0	0	2	2	0.01%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	3	3	19	25	0.12%
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	3	5	20	28	0.13%
No Accom., Mod., or EL Variation	3,684	2,363	15,457	21,504	99.87%

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	9	3	2	14	0.03%
C: Dictated responses to a scribe	0	1	0	1	0.00%
F: Used noninterfering assistive device	0	1	0	1	0.00%
G: Used braille version of test	4	0	0	4	0.01%
H: Used large-print version of test	6	0	2	8	0.02%
J: Tested during more than one day	21	9	10	40	0.09%
K: Had supervised breaks	250	43	54	347	0.75%
L: Most beneficial time of day	17	7	6	30	0.06%
M: Administered at home or in a hospital	3	1	1	5	0.01%
N: Used a dictionary	11	1	1	13	0.03%
O: Examiner presented using MCE or ASL	15	0	1	16	0.03%
Q: Used a calculator	6	4	0	10	0.02%
R: Used an arithmetic table	1	1	0	2	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	8	1	0	9	0.02%
X: Used an unlisted accommodation	121	30	11	162	0.35%
Y: Leave blank	72	0	4	76	0.16%
Z: Examiner read test questions aloud	76	24	33	133	0.29%
Accom. or Mod. is in Section 504 plan	7	0	1	8	0.02%
Accom. or Mod. is in IEP	473	99	99	671	1.45%
English Learner Test Variation A	33	2	0	35	0.08%
English Learner Test Variation B	3	3	2	8	0.02%
English Learner Test Variation C	30	18	18	66	0.14%
English Learner Test Variation D	102	24	9	135	0.29%
Any Accom., Mod., or EL Variation	617	139	127	883	1.91%
No Accom., Mod., or EL Variation	33,276	4,298	7,868	45,442	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	1	0	0	1	0.00%
J: Tested during more than one day	1	0	1	2	0.00%
K: Had supervised breaks	15	1	2	18	0.04%
L: Most beneficial time of day	2	1	1	4	0.01%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	1	0	0	1	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%

Special Services Summary for Integrated/Coordinated Science 1					
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	9	0	0	9	0.02%
Y: Leave blank	2	0	0	2	0.00%
Z: Examiner read test questions aloud	2	0	2	4	0.01%
Accom. or Mod. is in Section 504 plan	6	0	1	7	0.02%
Accom. or Mod. is in IEP	14	1	3	18	0.04%
English Learner Test Variation A	33	2	0	35	0.09%
English Learner Test Variation B	0	2	2	4	0.01%
English Learner Test Variation C	30	15	17	62	0.15%
English Learner Test Variation D	99	22	7	128	0.32%
Any Accom., Mod., or EL Variation	149	35	26	210	0.52%
No Accom., Mod., or EL Variation	29,993	3,550	6,785	40,328	99.48%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	9	3	2	14	0.24%
C: Dictated responses to a scribe	0	1	0	1	0.02%
F: Used noninterfering assistive device	0	1	0	1	0.02%
G: Used braille version of test	4	0	0	4	0.07%
H: Used large-print version of test	5	0	2	7	0.12%
J: Tested during more than one day	20	9	9	38	0.66%
K: Had supervised breaks	235	42	52	329	5.70%
L: Most beneficial time of day	15	6	5	26	0.45%
M: Administered at home or in a hospital	3	1	1	5	0.09%
N: Used a dictionary	10	1	1	12	0.21%
O: Examiner presented using MCE or ASL	15	0	1	16	0.28%
Q: Used a calculator	6	4	0	10	0.17%
R: Used an arithmetic table	1	1	0	2	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	8	1	0	9	0.16%
X: Used an unlisted accommodation	110	30	11	151	2.62%
Y: Leave blank	70	0	4	74	1.28%
Z: Examiner read test questions aloud	74	24	31	129	2.23%
Accom. or Mod. is in Section 504 plan	1	0	0	1	0.02%
Accom. or Mod. is in IEP	457	98	96	651	11.28%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	3	1	0	4	0.07%
English Learner Test Variation C	0	3	1	4	0.07%
English Learner Test Variation D	3	2	2	7	0.12%
Any Accom., Mod., or EL Variation	466	104	101	671	11.63%
No Accom., Mod., or EL Variation	3,279	743	1,079	5,101	88.37%

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	5	2	2	9	0.04%
C: Dictated responses to a scribe	0	0	0	0	0.00%
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	0	2	6	0.03%
J: Tested during more than one day	16	4	10	30	0.13%
K: Had supervised breaks	139	20	36	195	0.87%
L: Most beneficial time of day	12	4	6	22	0.10%
M: Administered at home or in a hospital	3	1	0	4	0.02%
N: Used a dictionary	4	1	1	6	0.03%
O: Examiner presented using MCE or ASL	2	0	1	3	0.01%
Q: Used a calculator	3	4	0	7	0.03%
R: Used an arithmetic table	1	1	0	2	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	8	1	0	9	0.04%
X: Used an unlisted accommodation	72	22	6	100	0.45%
Y: Leave blank	34	0	2	36	0.16%
Z: Examiner read test questions aloud	39	15	25	79	0.35%
Accom. or Mod. is in Section 504 plan	7	0	1	8	0.04%
Accom. or Mod. is in IEP	245	61	70	376	1.69%
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	256	62	71	389	1.74%
No Accom., Mod., or EL Variation	15,455	2,210	4,255	21,920	98.26%
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	1	0	0	1	0.03%
K: Had supervised breaks	5	1	0	6	0.19%
L: Most beneficial time of day	1	0	0	1	0.03%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	1	0	0	1	0.03%
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%

Special Services Summary for Integrated/Coordinated Science 1					
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	7	0	0	7	0.22%
Y: Leave blank	2	0	0	2	0.06%
Z: Examiner read test questions aloud	2	0	0	2	0.06%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	14	1	0	15	0.48%
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	14	1	0	15	0.48%
No Accom., Mod., or EL Variation	2,483	187	427	3,097	99.52%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	1	0	4	0.04%
C: Dictated responses to a scribe	0	1	0	1	0.01%
F: Used noninterfering assistive device	0	0	0	0	0.00%
G: Used braille version of test	2	0	0	2	0.02%
H: Used large-print version of test	1	0	0	1	0.01%
J: Tested during more than one day	3	5	0	8	0.09%
K: Had supervised breaks	95	19	14	128	1.42%
L: Most beneficial time of day	3	3	0	6	0.07%
M: Administered at home or in a hospital	0	0	1	1	0.01%
N: Used a dictionary	6	0	0	6	0.07%
O: Examiner presented using MCE or ASL	13	0	0	13	0.14%
Q: Used a calculator	2	0	0	2	0.02%
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	34	7	5	46	0.51%
Y: Leave blank	26	0	2	28	0.31%
Z: Examiner read test questions aloud	31	7	8	46	0.51%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	184	31	26	241	2.68%
English Learner Test Variation A	33	2	0	35	0.39%
English Learner Test Variation B	3	3	2	8	0.09%
English Learner Test Variation C	29	18	18	65	0.72%
English Learner Test Variation D	96	24	9	129	1.43%
Any Accom., Mod., or EL Variation	310	70	52	432	4.80%
No Accom., Mod., or EL Variation	5,808	1,094	1,667	8,569	95.20%

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	1	0	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	1	0	0	1	0.01%
J: Tested during more than one day	1	0	0	1	0.01%
K: Had supervised breaks	10	3	4	17	0.14%
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	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%
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	8	1	0	9	0.08%
Y: Leave blank	10	0	0	10	0.08%
Z: Examiner read test questions aloud	4	2	0	6	0.05%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	29	6	3	38	0.32%
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	1	0	0	1	0.01%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	30	6	4	40	0.34%
No Accom., Mod., or EL Variation	9,444	794	1,501	11,739	99.66%

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	3	3	0.08%
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	2	2	0.05%
H: Used large-print version of test	0	1	1	2	0.05%
J: Tested during more than one day	9	14	0	23	0.61%
K: Had supervised breaks	18	41	2	61	1.62%
L: Most beneficial time of day	10	5	0	15	0.40%
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	2	3	0.08%
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	3	3	0.08%
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	19	43	9	71	1.89%
English Learner Test Variation A	0	1	0	1	0.03%
English Learner Test Variation B	0	1	0	1	0.03%
English Learner Test Variation C	0	2	13	15	0.40%
English Learner Test Variation D	0	1	19	20	0.53%
Any Accom., Mod., or EL Variation	19	46	28	93	2.47%
No Accom., Mod., or EL Variation	1,338	1,386	949	3,673	97.53%
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%

Special Services Summary for Integrated/Coordinated Science 2					
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	1	0	1	0.03%
English Learner Test Variation B	0	1	0	1	0.03%
English Learner Test Variation C	0	2	13	15	0.46%
English Learner Test Variation D	0	1	19	20	0.62%
Any Accom., Mod., or EL Variation	0	2	19	21	0.65%
No Accom., Mod., or EL Variation	1,222	1,176	815	3,213	99.35%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	3	3	0.57%
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	2	2	0.38%
H: Used large-print version of test	0	1	1	2	0.38%
J: Tested during more than one day	9	14	0	23	4.34%
K: Had supervised breaks	18	41	2	61	11.51%
L: Most beneficial time of day	10	5	0	15	2.83%
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	2	3	0.57%
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	3	3	0.57%
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	19	43	9	71	13.40%
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	19	44	9	72	13.58%
No Accom., Mod., or EL Variation	116	208	134	458	86.42%

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	3	3	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	2	2	0.11%
H: Used large-print version of test	0	1	1	2	0.11%
J: Tested during more than one day	6	10	0	16	0.86%
K: Had supervised breaks	12	20	2	34	1.84%
L: Most beneficial time of day	6	2	0	8	0.43%
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	1	2	0.11%
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	3	3	0.16%
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	12	22	8	42	2.27%
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	12	22	8	42	2.27%
No Accom., Mod., or EL Variation	803	463	544	1,810	97.73%
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	2	0	2	0.59%
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	1	1	0.30%
R: Used an arithmetic table	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 2					
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	2	1	3	0.89%
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	2	1	3	0.89%
No Accom., Mod., or EL Variation	150	108	77	335	99.11%
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	3	4	0	7	1.10%
K: Had supervised breaks	6	19	0	25	3.93%
L: Most beneficial time of day	4	3	0	7	1.10%
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	7	19	0	26	4.09%
English Learner Test Variation A	0	1	0	1	0.16%
English Learner Test Variation B	0	1	0	1	0.16%
English Learner Test Variation C	0	2	13	15	2.36%
English Learner Test Variation D	0	1	19	20	3.14%
Any Accom., Mod., or EL Variation	7	22	19	48	7.55%
No Accom., Mod., or EL Variation	144	285	159	588	92.45%

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	241	524	168	933	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	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	2	2	0.21%
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	0.21%
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	0.21%
No Accom., Mod., or EL Variation	21	57	888	966	99.79%
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%

Special Services Summary for Integrated/Coordinated Science 3					
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	18	46	751	815	100.00%
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	2	2	1.31%
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	1.31%
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	1.31%
No Accom., Mod., or EL Variation	3	11	137	151	98.69%

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	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	2	2	0.37%
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	0.37%
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	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	0.37%
No Accom., Mod., or EL Variation	14	25	493	532	99.63%
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%

Special Services Summary for Integrated/Coordinated Science 3					
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	1	6	74	81	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	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	4	14	147	165	100.00%

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	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	2	12	173	187	100.00%

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	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	34	14	17	65	100.00%
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%

Special Services Summary for Integrated/Coordinated Science 4					
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	19	10	12	41	100.00%
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	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	15	4	5	24	100.00%

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	18	8	13	39	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%

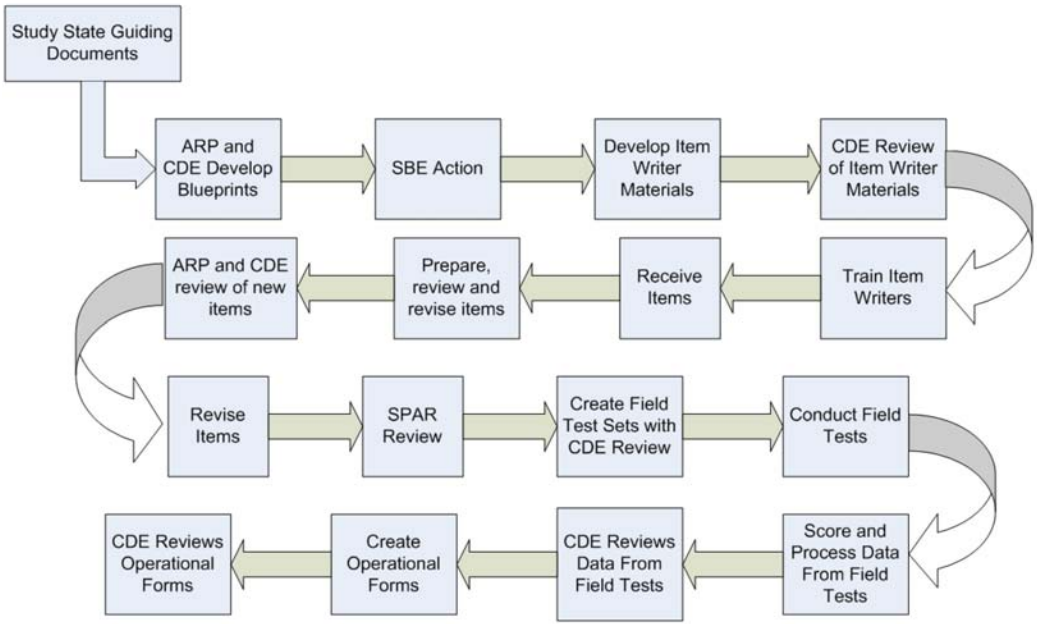
Special Services Summary for Integrated/Coordinated Science 4					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test 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	1	1	0	2	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	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	7	4	2	13	100.00%

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%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	8	1	2	11	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 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 on 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 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 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 CST for ELA in grade three; the number of items to be field-tested is 92 percent 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 4–6, 8, 10, 11	75	80%	60
	Gr 7	75	68%	51
	Gr 9	75	73%	55
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	140%	84
	EOC	60	140%	84

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

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

2. Internal Editorial Review

After the content-area assessment specialists review each item, a group of specially trained editors 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. 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 genders 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 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 test items to be used statewide for the testing of students in California public schools, grades two through eleven. At the SPAR panel meetings, all new items are presented in binders for review. The SPAR panel representatives ensure that the test items conform to the requirements of *EC* Section 60602. 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 2012 administration of grades four and seven CSTs for ELA were selected from the writing prompts field-tested by ETS in 2011. 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. Ten prompts were field-tested for grade four and twelve for grade seven 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.

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.

Allocation of Students to Forms

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 2012 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 90 to 95 percent of the entire population tested.

Table 3.3 Summary of Items and Forms Presented in the 2012 CSTs

		Operational			Field Test			
Content Area	CST*	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	428,576	462,557	10	58	41,710–43,454	45,748–46,750
	3	65	408,399	440,407	10	60	40,018–41,878	43,174–45,153
	4**	76	394,731	428,201	10	59	35,617–41,160	38,419–44,376
	5	75	396,170	428,868	10	59	27,993–141,537	30,205–152,474
	6	75	404,974	433,830	10	59	37,317–41,697	39,898–44,551
	7**	76	400,638	430,441	10	51	37,527–41,043	40,273–43,971

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	404,364	434,601	10	60	28,631–144,426	30,695–154,786
	9	75	428,371	461,474	10	55	40,566–44,605	43,463–47,935
	10	75	425,636	453,721	10	60	29,878–150,735	31,787–160,238
	11	75	414,150	438,268	10	60	39,470–42,286	41,640–44,680
History–Social Science	Grade 8	75	424,820	458,422	5	30	30,179–303,546	32,393–325,809
	World History	60	436,472	467,412	5	30	85,547–88,847	90,927–94,395
	Grade 11	60	420,929	446,136	5	30	42,258–250,335	44,503–263,620
Mathematics	2	65	429,442	463,446	10	60	41,800–43,534	45,870–46,829
	3	65	411,069	443,229	10	60	40,306–42,259	43,479–45,561
	4	65	398,471	432,630	10	60	36,024–41,445	38,864–44,692
	5	65	399,060	432,325	10	60	28,206–142,556	30,438–153,584
	6	65	406,857	436,076	10	60	37,552–41,852	40,151–44,719
	7	65	365,740	393,171	10	60	34,217–37,510	36,671–40,133
	General Math	65	178,727	189,071	1	6	178,727	189,071
	Algebra I	65	661,692	708,443	5	30	128,967–135,363	137,703–144,567
	Geometry	65	380,177	406,408	5	30	74,241–77,465	79,254–82,711
	Algebra II	65	265,502	286,125	5	30	52,014–53,809	55,986–57,894
	Summ. H.S. Math	65	141,194	149,833	5	30	27,588–28,887	29,231–30,593
	Integrated Math 1	65	13,299	13,442	1	6	13,299	13,442
	Integrated Math 2	65	5,016	5,127	1	6	5,016	5,127
	Integrated Math 3	65	762	806	1	6	762	806
Science	5	60	397,570	430,759	14	84	28,050–28,848	30,258–31,154
	8	60	405,093	435,529	14	84	28,696–29,479	30,760–31,657
	Life Science	60	421,061	449,842	14	84	29,580–33,464	31,492–35,646
	Biology	60	518,271	555,736	14	84	36,507–37,718	39,136–40,097
	Chemistry	60	252,717	275,129	14	84	17,930–18,228	19,465–19,822
	Earth Science	60	203,828	206,454	14	84	14,414–14,938	14,525–15,173
	Physics	60	75,719	80,743	14	84	5,319–5,521	5,659–5,885
	Int/Coord Science 1	60	38,045	46,200	1	6	38,045	46,200
	Int/Coord Science 2	60	3,627	3,759	1	6	3,627	3,759
	Int/Coord Science 3	60	934	968	1	6	934	968
	Int/Coord Science 4	60	60	65	1	6	60	65

* 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, SPAR, and CDE are updated to a “field-test ready” status; items that are rejected are updated to a

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

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

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), the California English Language Development Test (CELDT), and STAR (CSTs, CMA, CAPA, and STS). CAHSEE and STAR are currently consolidated in the California item banking system. ETS works with the CDE to obtain the data for assessments, such as the CELDT, under contract with other vendors for inclusion into the item bank. ETS provides the item banking application using the LAN architecture and the relational database management system, SQL 2005/SQL 2008, already deployed. ETS provides updated versions of the item bank to the CDE on an ongoing basis and works with the CDE to determine the optimum process if a change in databases is desired.

References

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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, adopted by the SBE in 2002, was determined by considering the construct that the test is intended to measure and the level of psychometric quality desired. Test length is closely related to the complexity of content to be measured by each test; this content is defined by the California content standards for each grade level and content area. Also considered is the goal that the test be short enough that most of the students complete it in a reasonable amount of time.

The number of operational items on each CST varies by content area and grade. There are 65 operational items on the CSTs for ELA in grades two and three and 75 operational 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. The CST grade-level and end-of-course mathematics tests comprise 65 operational items and the CST grade-level and end-of-course science tests are composed of 60 operational items each. The CST for History–Social Science (Grade 8) comprises 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 number of items total also varies. There are 71 items total on ELA in grades two and three and all mathematics CSTs, and 66 items total on all science CSTs. In history–social science, there are 81 items total on ELA in grades four through eleven, and the grade eight history–social science CST, and 66 items total on both the grade eleven U.S. History CST and the EOC CST for World History.

In addition to operational items, six items on each test are field-test items. For more details on the distribution of items, see Appendix 2.A—CST Items and Estimated Time Chart starting on page 23.

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 25.

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 specified content standard. In selecting items, team members also try to ensure that they include a variety of formats and content and that at least some of the items include graphics for visual interest.

Another consideration is the difficulty of each item. Test developers strive to ensure that there are some easy and some hard items and that there are a number of items in the middle range of difficulty. If items do not meet all content and psychometric criteria, staff reviews the other available items to determine if there are other selections that could improve the match of the test to all of the requirements. If such a match is not attainable, the content team works in conjunction with psychometricians and the CDE to determine which combination of items will best serve the needs of the students taking the test. Chapter 3, starting on page 190, contains further information about this process.

Psychometric Criteria

The three goals of CST test development are as follows:

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

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

Primary 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 2012 administration were the test information function (TIF) and an average point-biserial correlation.

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

Due to the unique characteristics of the Rasch IRT model, the information curve conditional on each ability level is determined by item difficulty (*b*-values) alone. In this case, the TIF would, therefore, suffice as the target for conditional test difficulty. Although additional item

difficulty targets are not imperative when the target TIF is used for form construction, the target mean and standard deviation of item difficulty (*b*-values) consistent with the TIF were still provided to test development staff to help with the test construction process. The target *b*-value range approximates a minimum proportion-correct value (*p*-value) of 0.20 and a maximum *p*-value of 0.95 for each test.

The point-biserial correlation describes the relationship between student performance on a dichotomously-scored item and student performance on the test as a whole. It is used as a measure of how well an item discriminates among test-takers 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.

Assembly Targets

The target values for the 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.

Table 4.1 Statistical Targets for CST Test Assembly

Content Area	CST*	Target Mean *b*	Target SD *b*	Min *p*-value	Max *p*-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
	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

Content Area	CST*	Target Mean *b*	Target SD *b*	Min *p*-value	Max *p*-value	Mean Point Biserial	Min Point Biserial
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 2012 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.

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 211, 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.

Since the Integrated Mathematics and Integrated/Coordinated Science tests are built of components from multiple tests, such analyses that compare the information curves are not applicable for those integrated 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. Refer to the section “Scaling the CSTs for Integrated/Coordinated Science” in Chapter 2 on page 19 for more information on this procedure.

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 218 present the target and projected information curves for the clusters in the ELA, history–social science, mathematics, and science tests, respectively.

Projected Psychometric Properties of the Assembled Tests

Prior to the 2012 administration, ETS psychometricians performed a preliminary review of the technical characteristics of the assembled tests. The expected or projected performance of examinees and the overall score reliability were estimated using the item level statistics available in the California item bank for the selected items. The test reliability was based on Gulliksen’s formula (Gulliksen, 1987) for estimating test reliability (r_{xx}) from item *p*-values and item point-biserial correlations:

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

where,

K is the number of items in the test,

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

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

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

In addition, estimated test raw score means were calculated by summing the item *p*-values, and estimated test raw score standard deviations were calculated by summing the item reliability indices. Table 4.A.1 on page 209 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 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 2012 CST administration.

Table 4.A.2 on page 210 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.

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 forms are 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 forms 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 items for reporting clusters 3, 4, and 5, respectively. 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 forms are 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 2012 CST Projected Raw Score Statistics

Content Area	CST*	Number of Op. Items	Mean Raw Score	Std. Dev. of Raw Scores	Reliability
English–Language Arts	2	65	44.16	13.68	0.94
	3	65	43.34	12.65	0.93
	4**	75	49.11	14.47	0.94
	5	75	51.70	13.70	0.93
	6	75	47.27	13.66	0.93
	7**	75	48.51	14.08	0.93
	8	75	48.28	14.26	0.93
	9	75	46.85	14.26	0.93
	10	75	47.10	14.84	0.94
	11	75	47.13	14.37	0.93
History–Social Science	8	75	46.66	14.50	0.93
	World History	60	36.84	12.10	0.92
	11	60	36.24	11.55	0.92
Mathematics	2	65	49.16	11.53	0.93
	3	65	51.06	11.06	0.93
	4	65	51.01	12.14	0.94
	5	65	44.50	13.02	0.94
	6	65	42.40	12.79	0.93
	7	65	40.04	13.22	0.93
	General Mathematics	65	33.50	12.04	0.91
	Algebra I	65	32.33	12.72	0.92
	Geometry	65	36.62	13.20	0.93
	Algebra II	65	35.88	11.93	0.91
	Summative H.S. Math	65	47.30	11.76	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	41.41	11.20	0.92
	8	60	41.60	11.18	0.92
	10 Life Science	60	37.68	12.49	0.93
	Biology	60	37.55	12.47	0.93
	Chemistry	60	37.36	11.28	0.91
	Earth Science	60	35.09	11.45	0.91
	Physics	60	37.32	11.37	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 2012 CST Projected Item Statistics

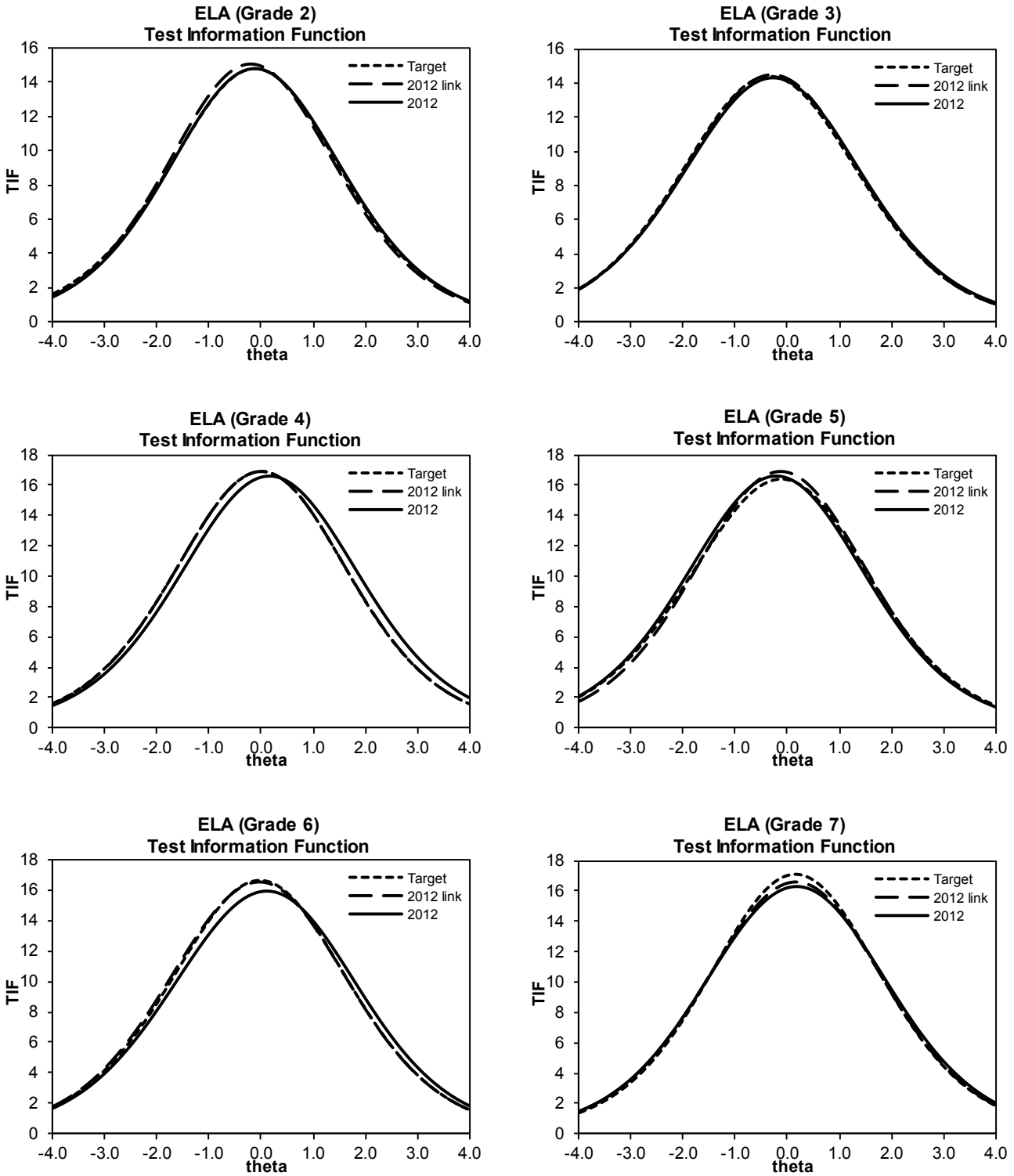
Content Area	CST*	Mean b	SD b	Mean *p*–value	Min *p*–value	Max *p*–value	Mean Point Biserial	Min Point Biserial
English–Language Arts	2	–0.10	0.65	0.68	0.43	0.84	0.47	0.29
	3	–0.29	0.76	0.67	0.31	0.90	0.43	0.24
	4**	0.16	0.76	0.65	0.36	0.88	0.43	0.21
	5	–0.22	0.75	0.69	0.41	0.92	0.42	0.20
	6	0.06	0.84	0.63	0.33	0.90	0.40	0.20
	7**	0.17	0.81	0.65	0.31	0.87	0.42	0.21
	8	–0.02	0.67	0.64	0.39	0.88	0.41	0.19
	9	0.04	0.68	0.62	0.34	0.85	0.41	0.17
	10	–0.16	0.66	0.63	0.31	0.87	0.43	0.17
	11	–0.25	0.61	0.63	0.36	0.85	0.41	0.23
History–Social Science	8	–0.13	0.60	0.62	0.31	0.85	0.42	0.20
	World History	–0.21	0.54	0.61	0.32	0.85	0.43	0.25
	11	–0.26	0.71	0.60	0.35	0.90	0.41	0.21
Mathematics	2	–0.85	0.95	0.76	0.44	0.94	0.44	0.30
	3	–0.74	0.95	0.79	0.30	0.95	0.44	0.22
	4	–0.65	0.75	0.78	0.48	0.92	0.47	0.29
	5	–0.16	0.85	0.68	0.33	0.94	0.45	0.26
	6	–0.27	0.84	0.65	0.27	0.91	0.44	0.23
	7	–0.06	0.59	0.62	0.35	0.82	0.43	0.26
	General Mathematics	0.11	0.60	0.52	0.30	0.81	0.38	0.24
	Algebra I	–0.06	0.63	0.50	0.25	0.89	0.40	0.22
	Geometry	–0.77	0.71	0.56	0.27	0.86	0.43	0.27
	Algebra II	–0.41	0.79	0.55	0.21	0.87	0.39	0.21
	Summative H.S. Math	–0.82	0.68	0.73	0.43	0.90	0.42	0.26
	Integrated Mathematics 1***	N/A	N/A	N/A	0.21	0.87	N/A	0.14
	Integrated Mathematics 2***	N/A	N/A	N/A	0.19	0.73	N/A	0.07
	Integrated Mathematics 3***	N/A	N/A	N/A	0.21	0.85	N/A	0.15
Science	5	–0.65	0.53	0.69	0.38	0.88	0.42	0.23
	8	–0.38	0.70	0.69	0.28	0.86	0.42	0.22
	10 Life Science	–0.28	0.67	0.63	0.31	0.84	0.45	0.30
	Biology	–0.41	0.58	0.63	0.35	0.86	0.45	0.26
	Chemistry	–0.42	0.56	0.62	0.33	0.82	0.40	0.20
	Earth Science	–0.11	0.42	0.58	0.41	0.78	0.39	0.20
	Physics	–0.17	0.54	0.62	0.31	0.87	0.40	0.21
	Int/Coord Science 1***	N/A	N/A	N/A	0.33	0.81	N/A	0.21
	Int/Coord Science 2***	N/A	N/A	N/A	0.35	0.87	N/A	0.29
	Int/Coord Science 3***	N/A	N/A	N/A	0.35	0.82	N/A	0.20
	Int/Coord Science 4***	N/A	N/A	N/A	0.31	0.82	N/A	0.20

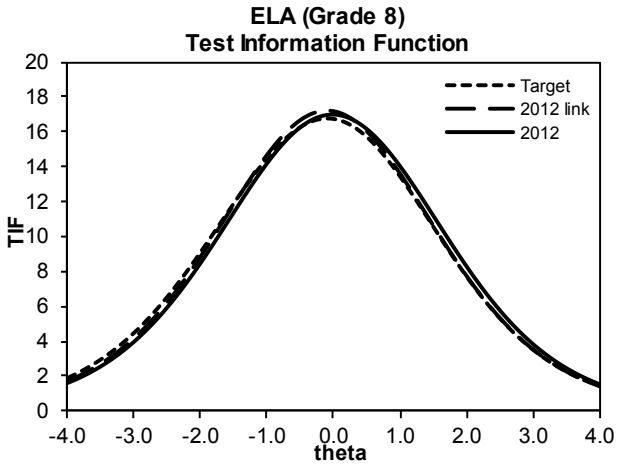
* Numbers indicate grade-level tests.

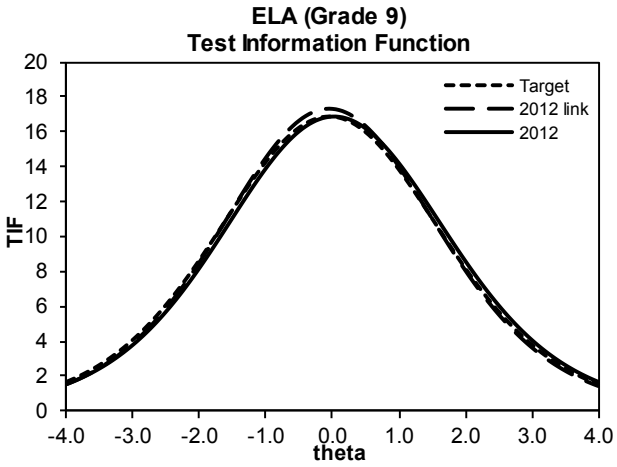
** MC items

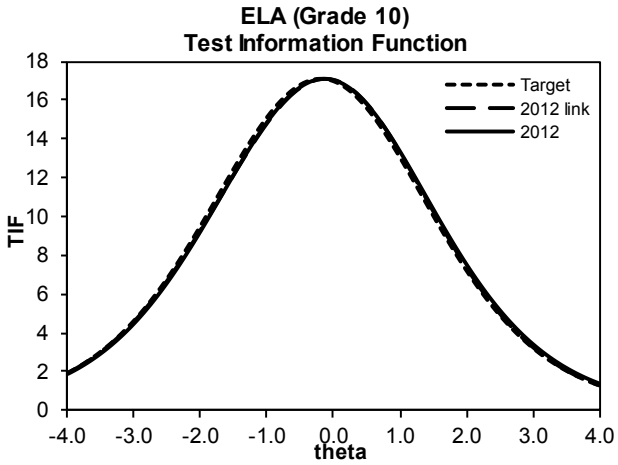
*** These tests were constructed using items from other operational CSTs; therefore, only the minimum and maximum *p*-value and the minimum point biserial value are provided for these tests.

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
TIF
theta
Target
2012 link
2012


ELA (Grade 9)
Test Information Function
TIF
theta
Target
2012 link
2012


ELA (Grade 10)
Test Information Function
TIF
theta
Target
2012 link
2012

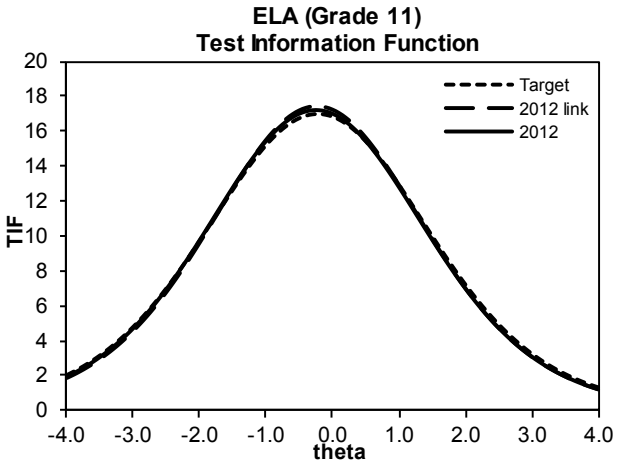
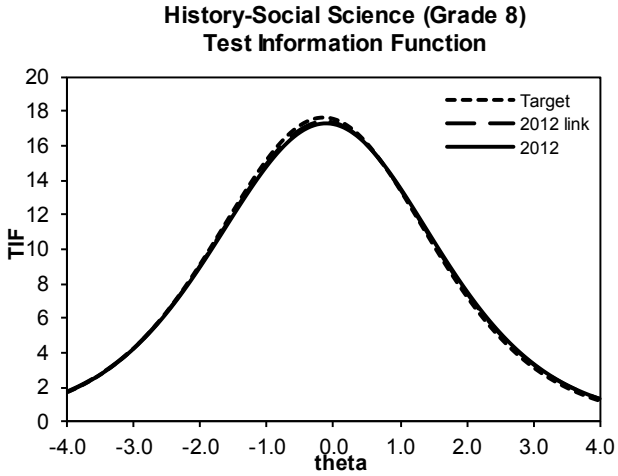
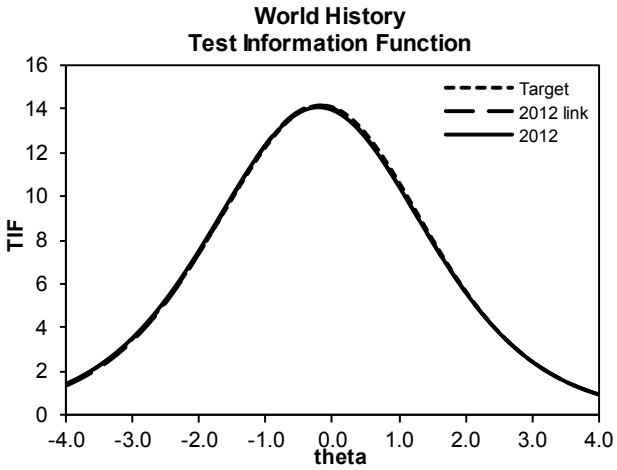

ELA (Grade 11)
Test Information Function
TIF
theta
Target
2012 link
2012

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





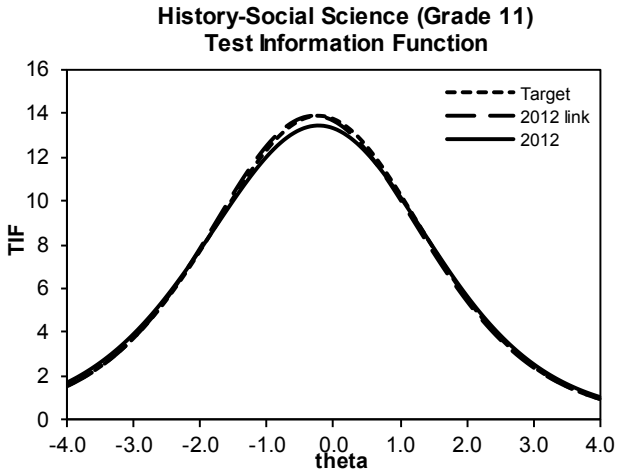
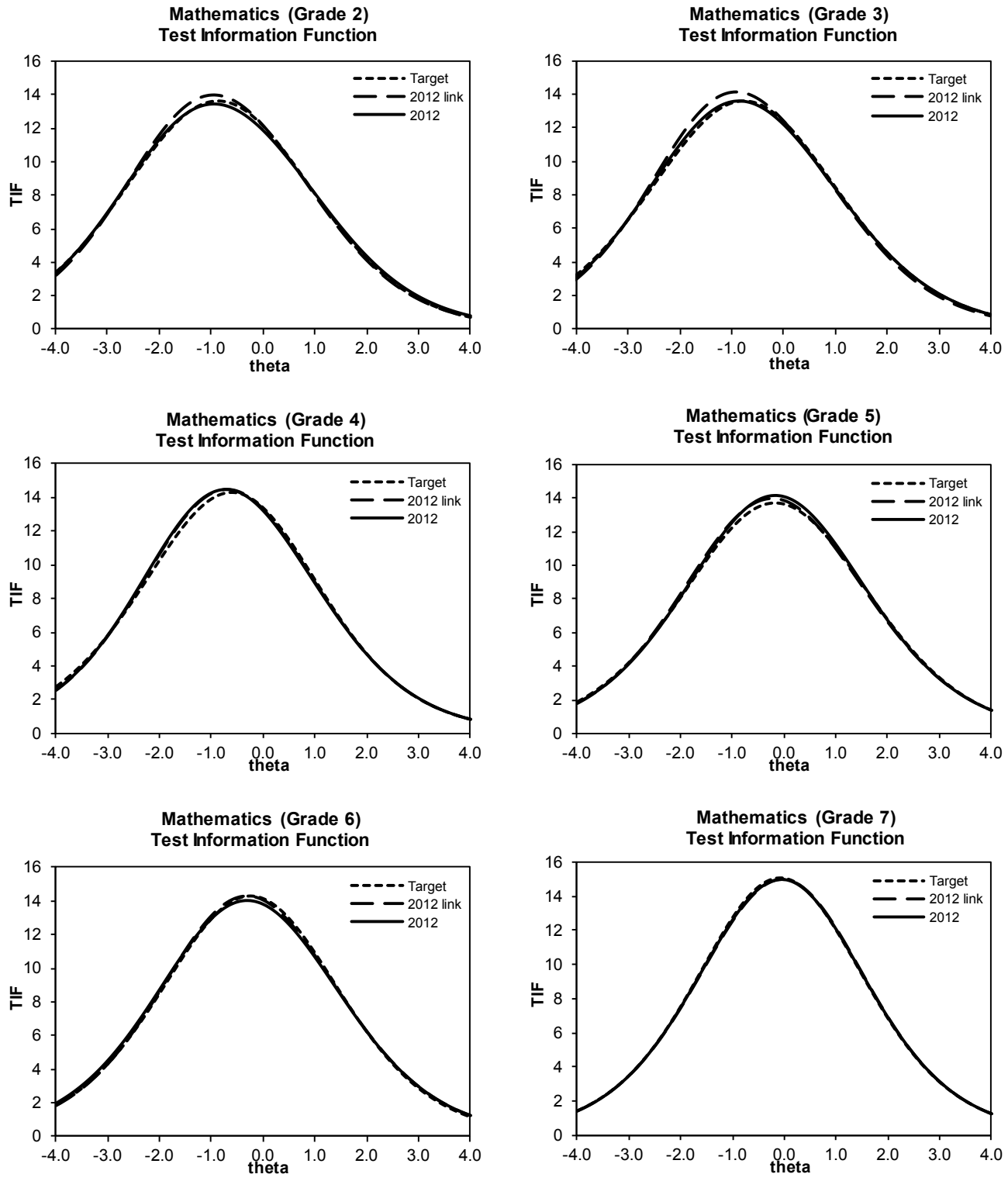
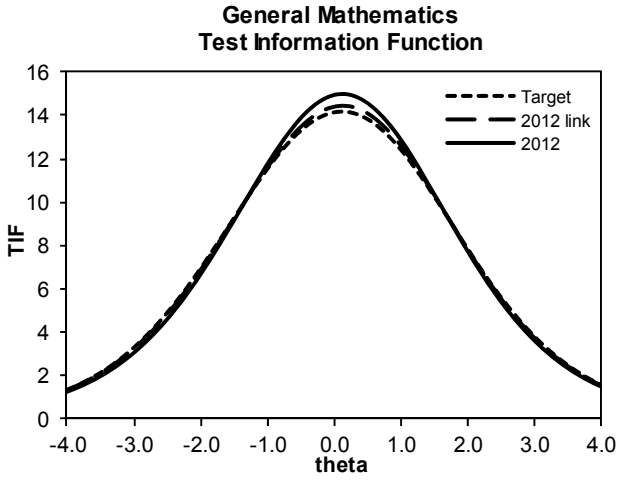
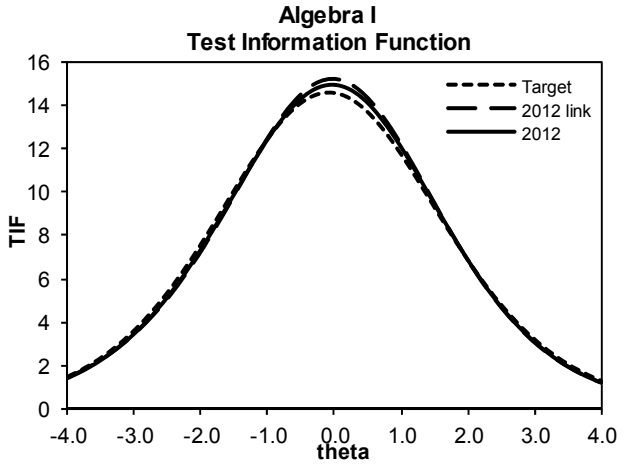
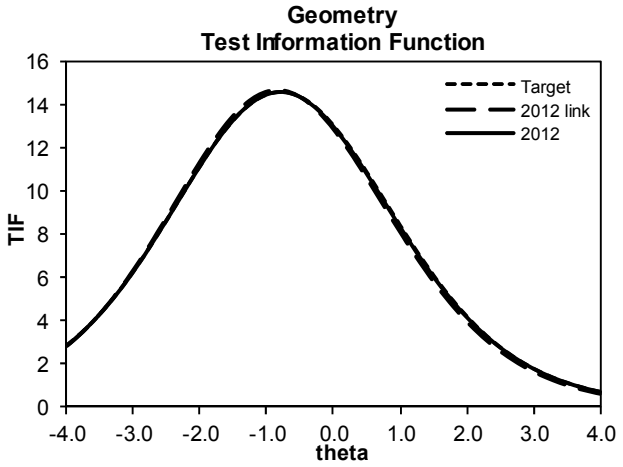


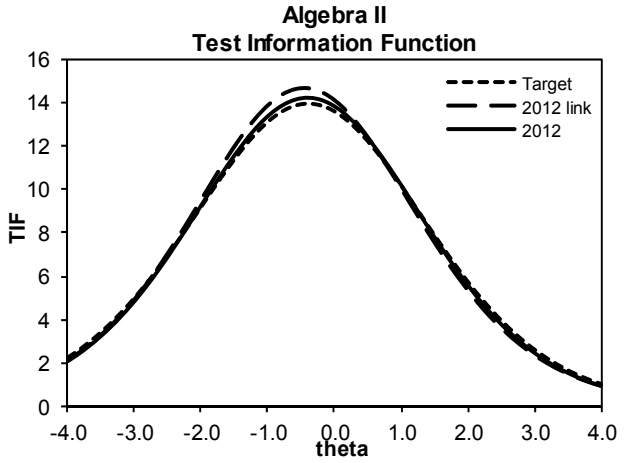
Figure 4.A.3 Plots for Target Information Function and Projected Information for Total Test and Linking Set for Mathematics




General Mathematics
Test Information Function
Target
2012 link
2012
TIF
theta


Algebra I
Test Information Function
Target
2012 link
2012
TIF
theta


Geometry
Test Information Function
Target
2012 link
2012
TIF
theta


Algebra II
Test Information Function
Target
2012 link
2012
TIF
theta

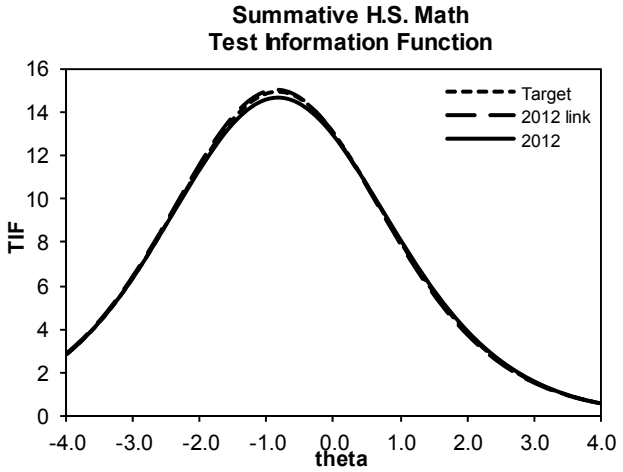
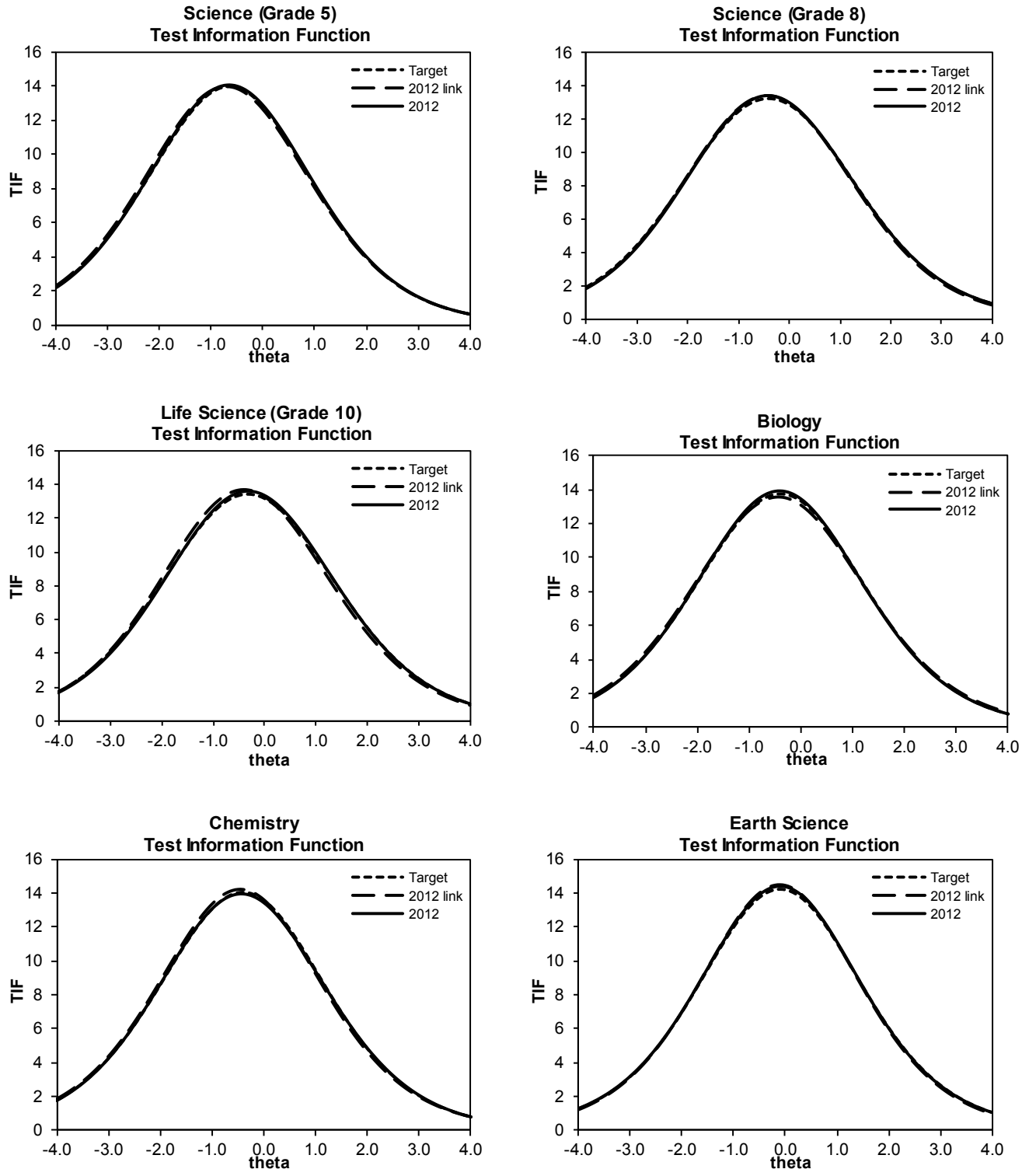
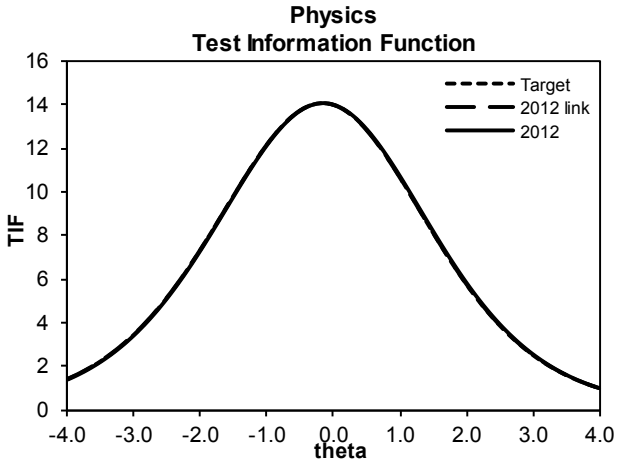

Summative H.S. Math
Test Information Function
Target
2012 link
2012
TIF
theta

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




Physics
Test Information Function
Target
2012 link
2012
TIF
theta
16
14
12
10
8
6
4
2
0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0

Appendix 4.B—Cluster Targets

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

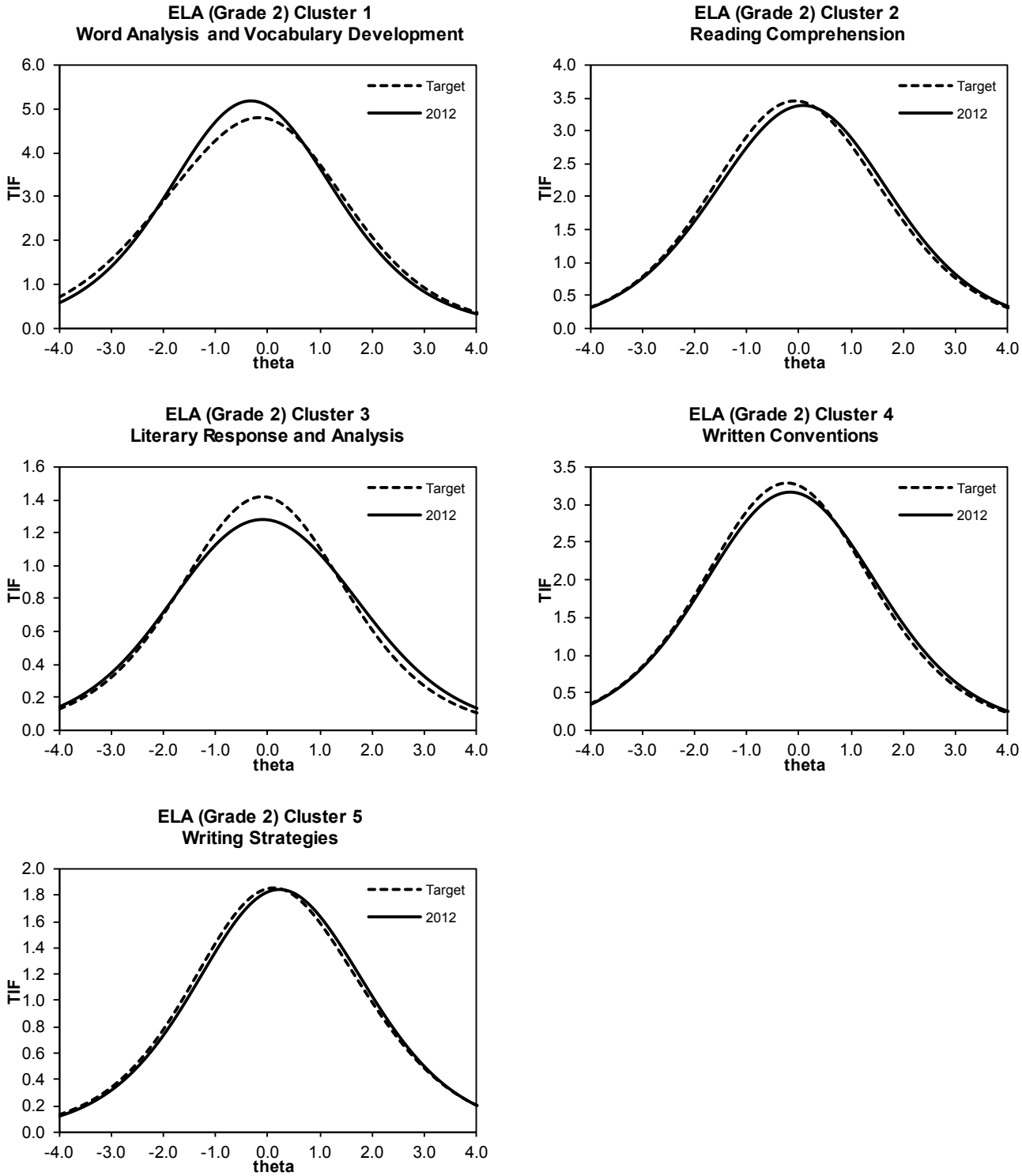


Figure 4.B.2 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Three

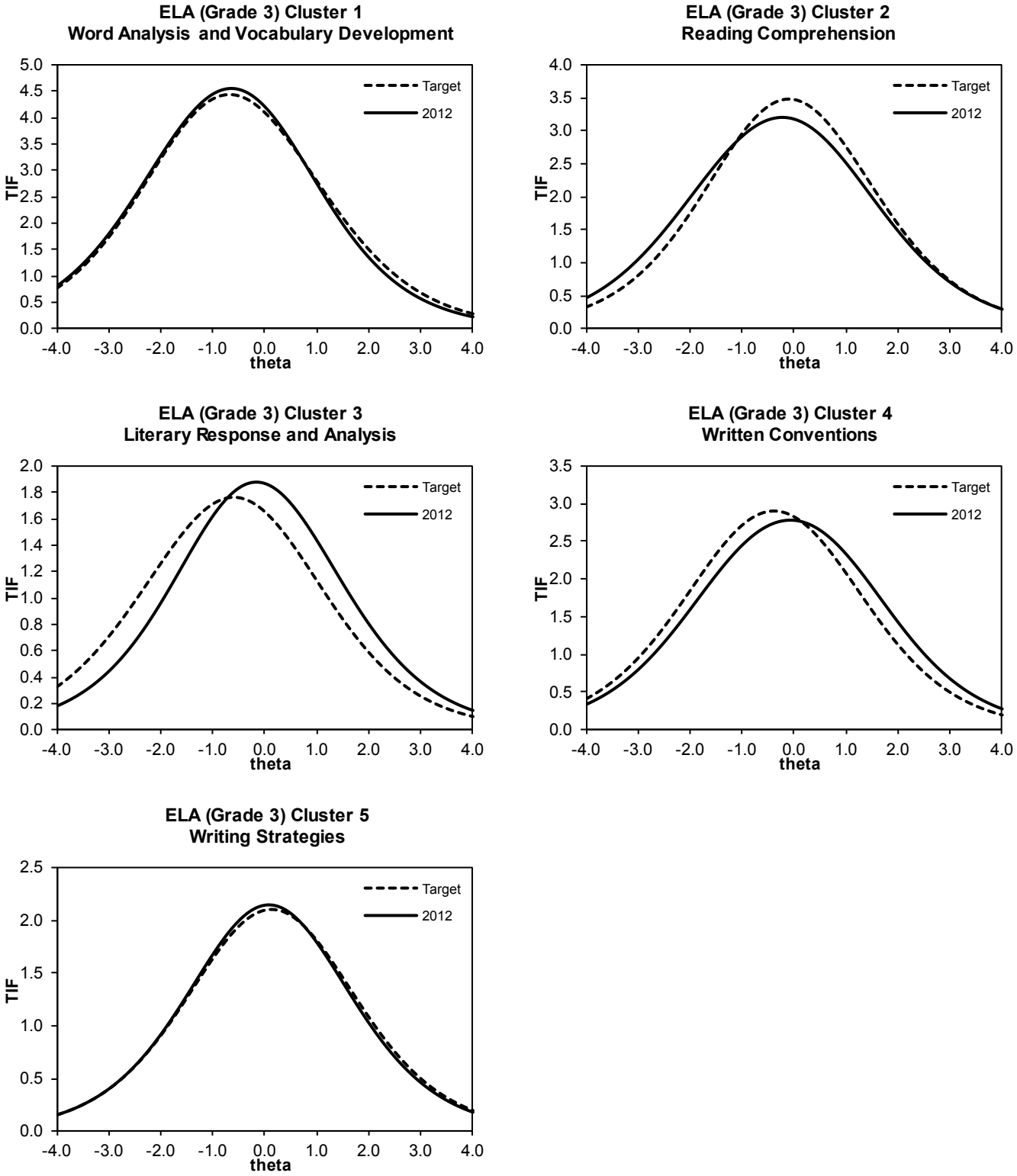


Figure 4.B.3 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Four (multiple choice only)

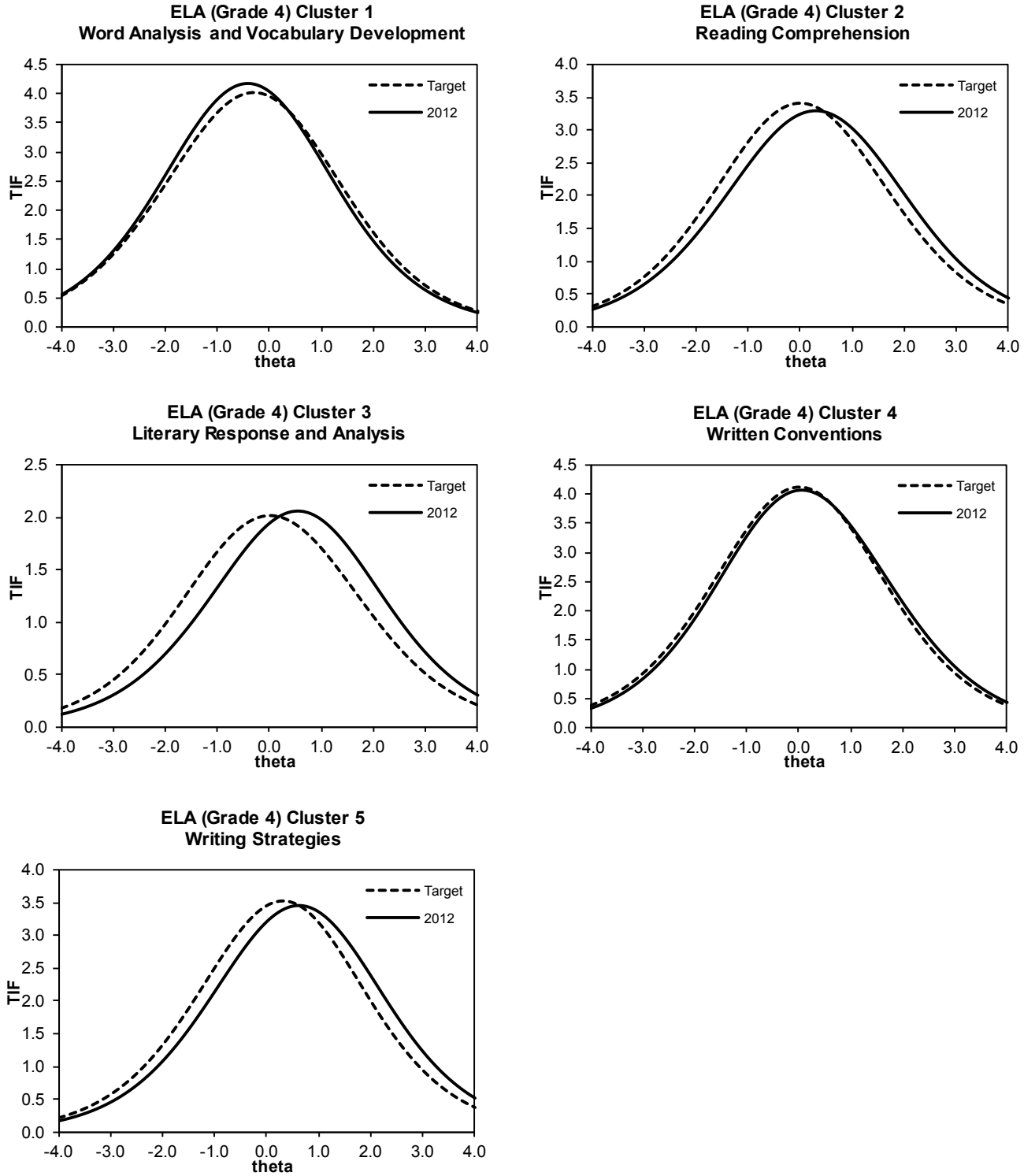


Figure 4.B.4 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Five

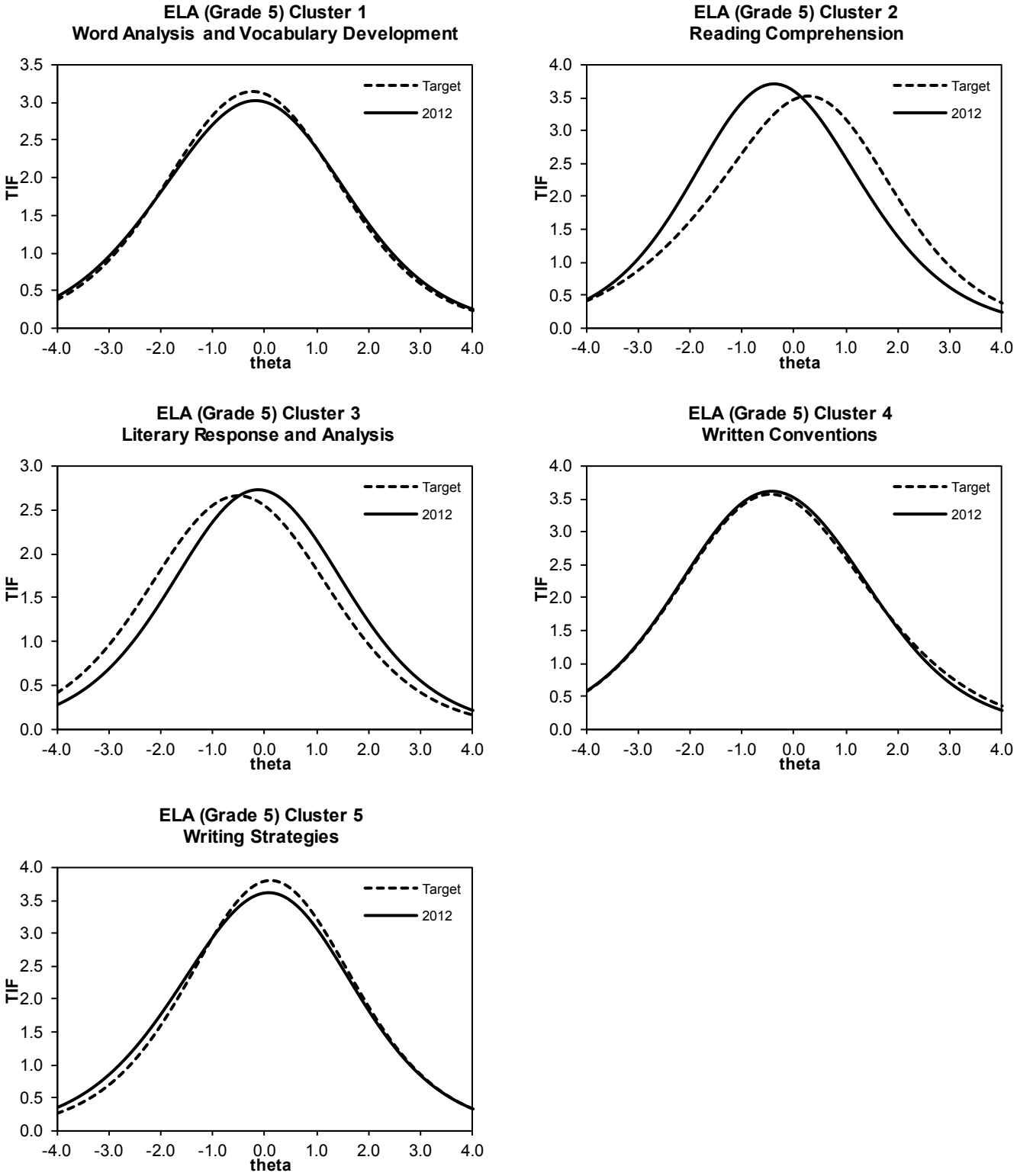


Figure 4.B.5 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Six

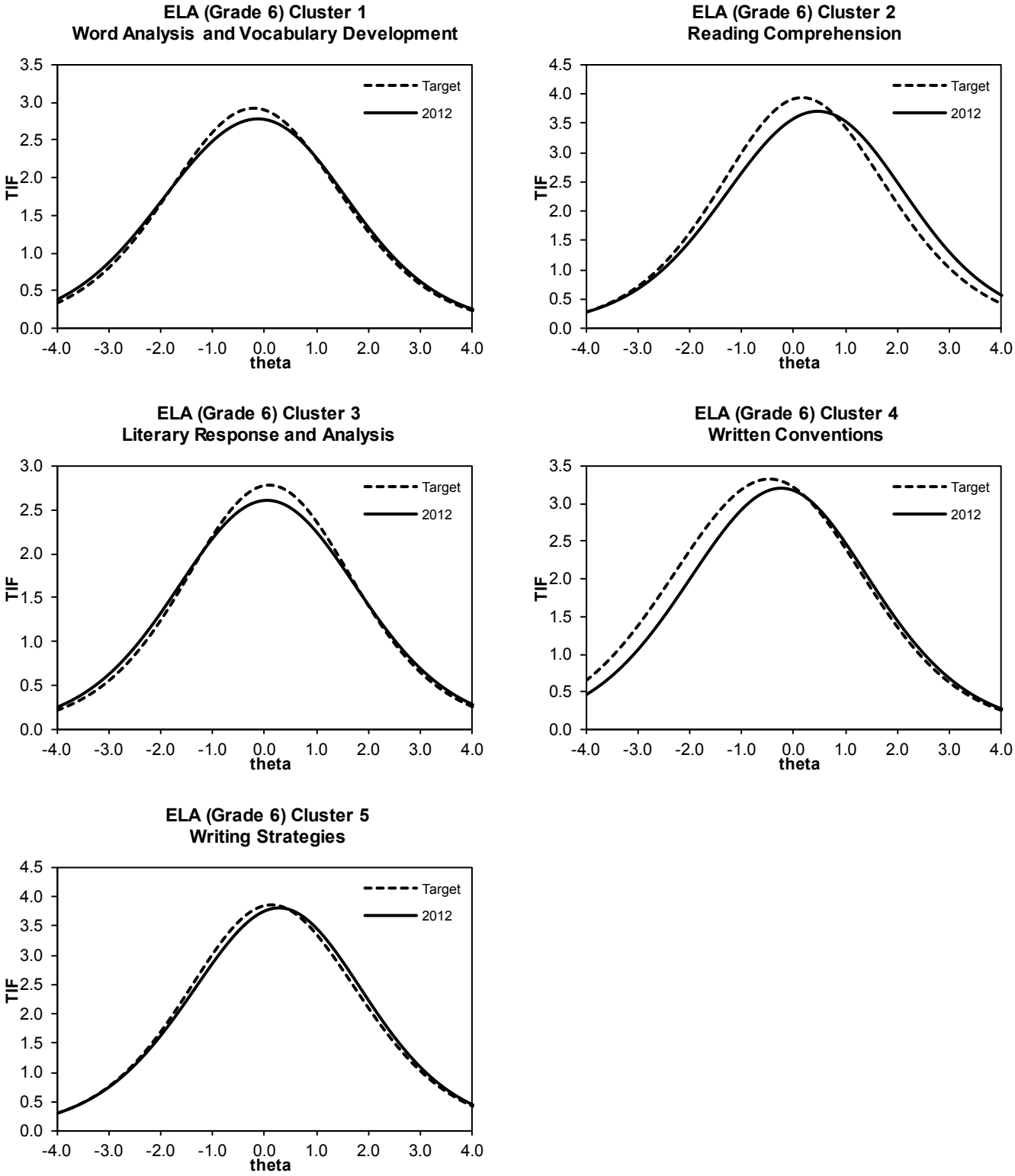


Figure 4.B.6 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Seven (multiple choice only)

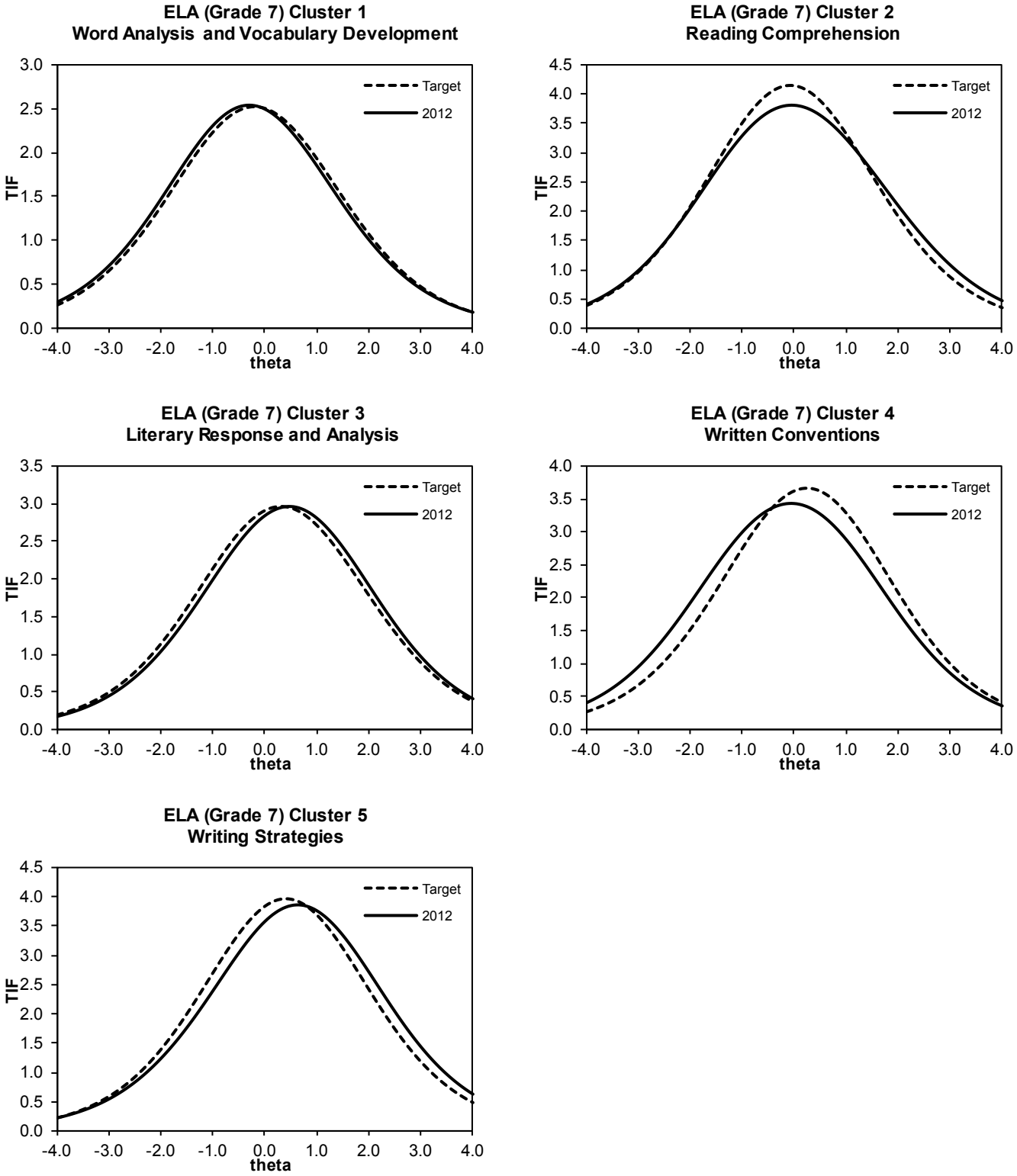


Figure 4.B.7 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Eight

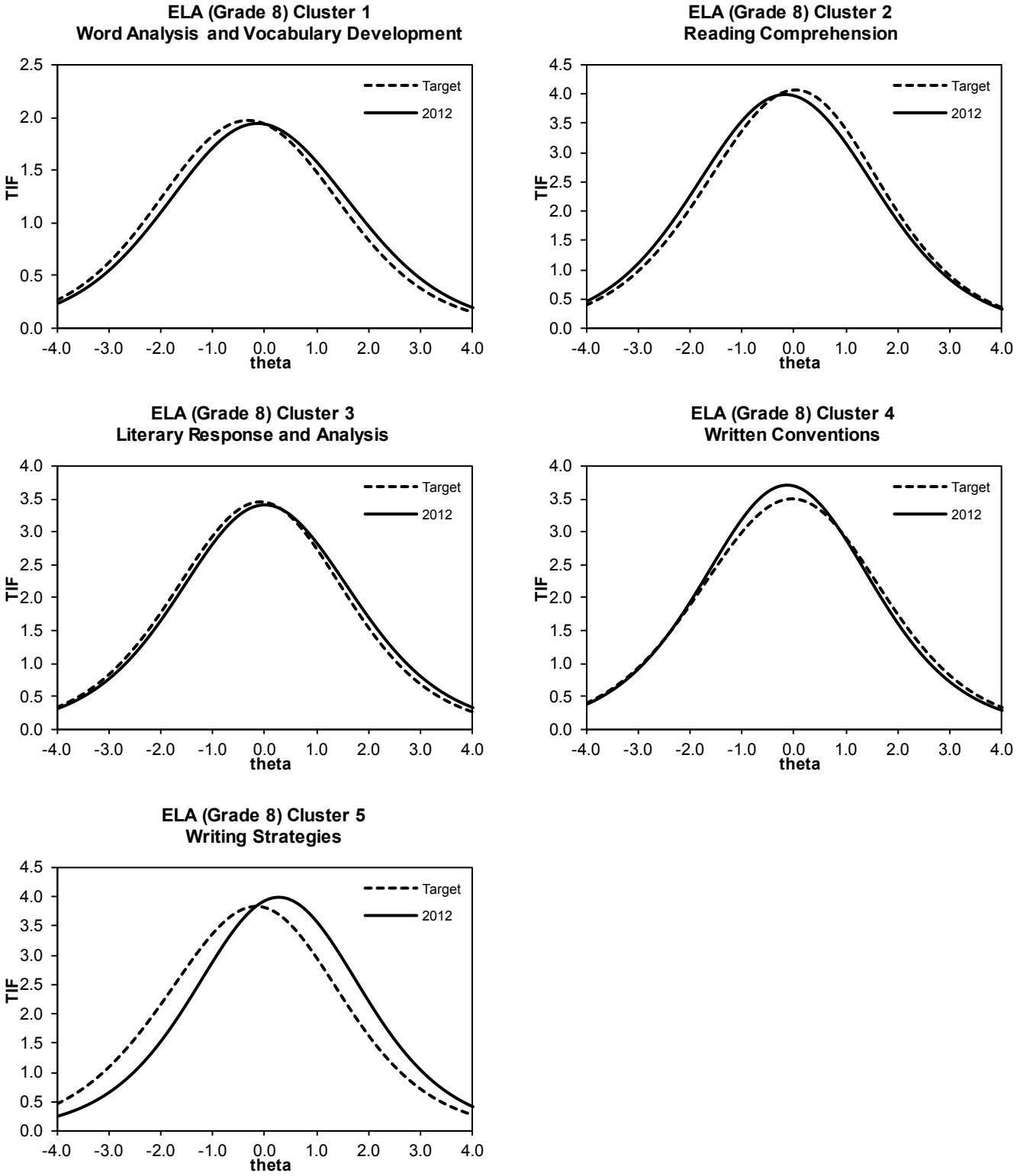


Figure 4.B.8 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Nine

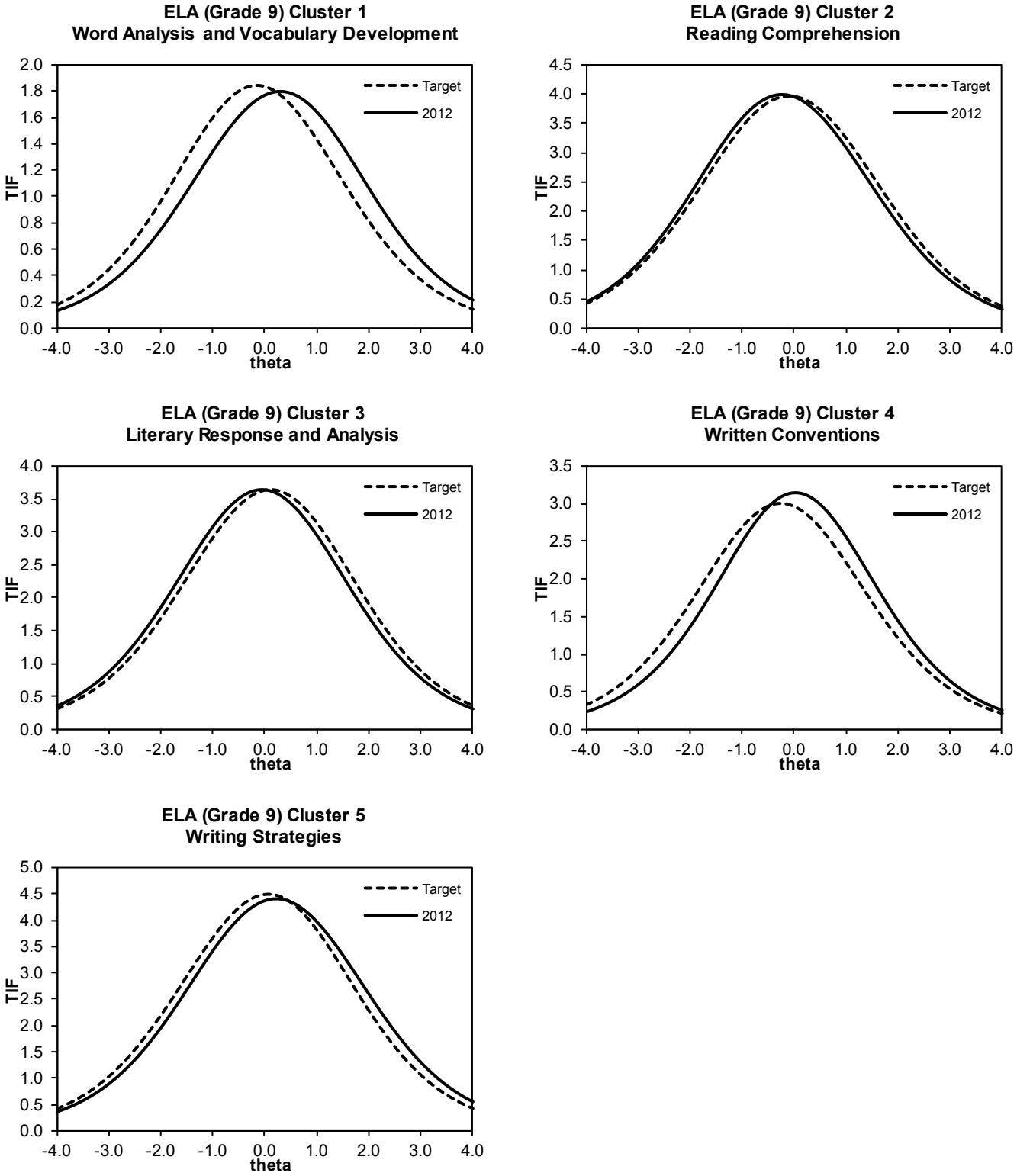


Figure 4.B.9 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Ten

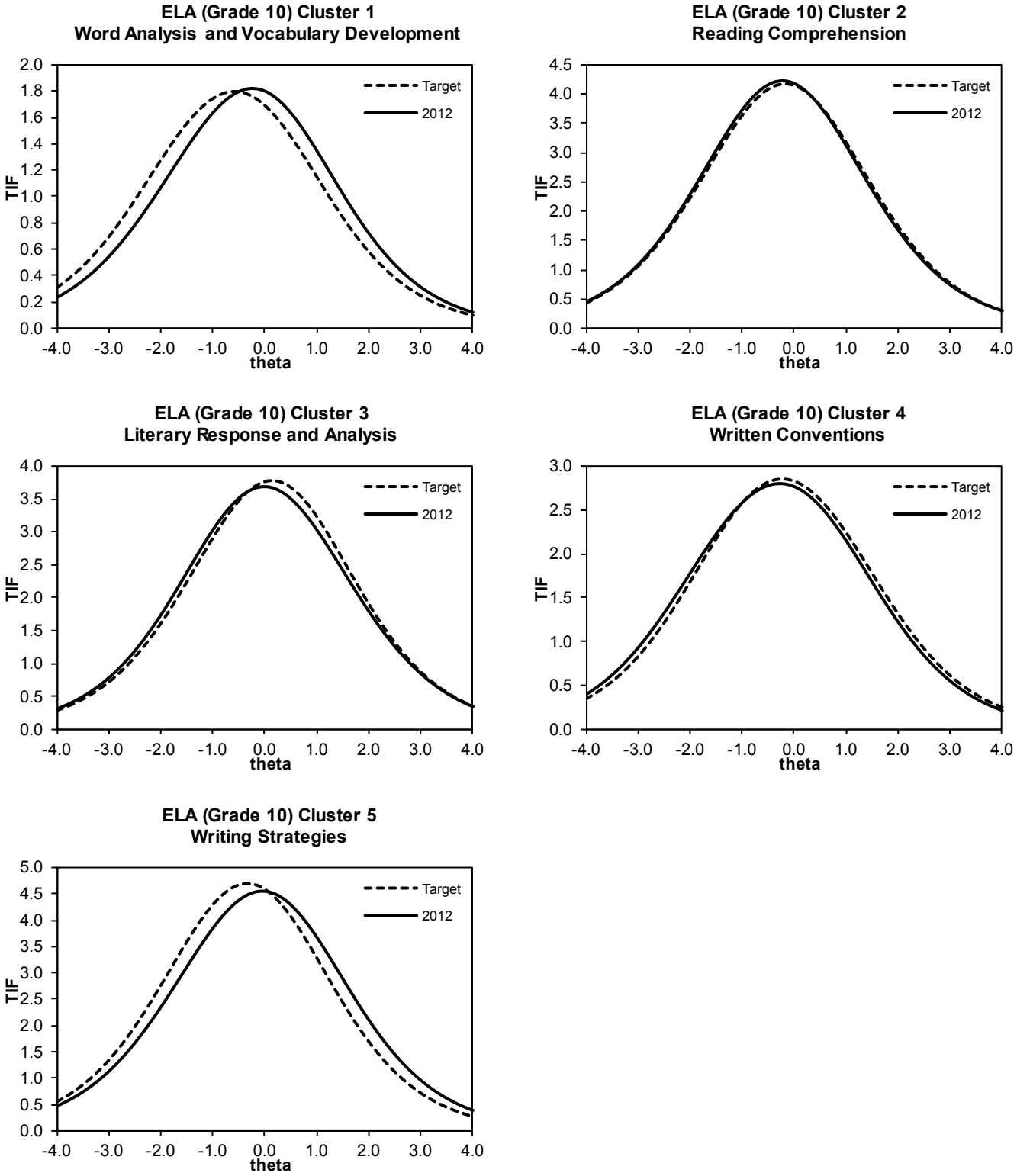


Figure 4.B.10 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Eleven

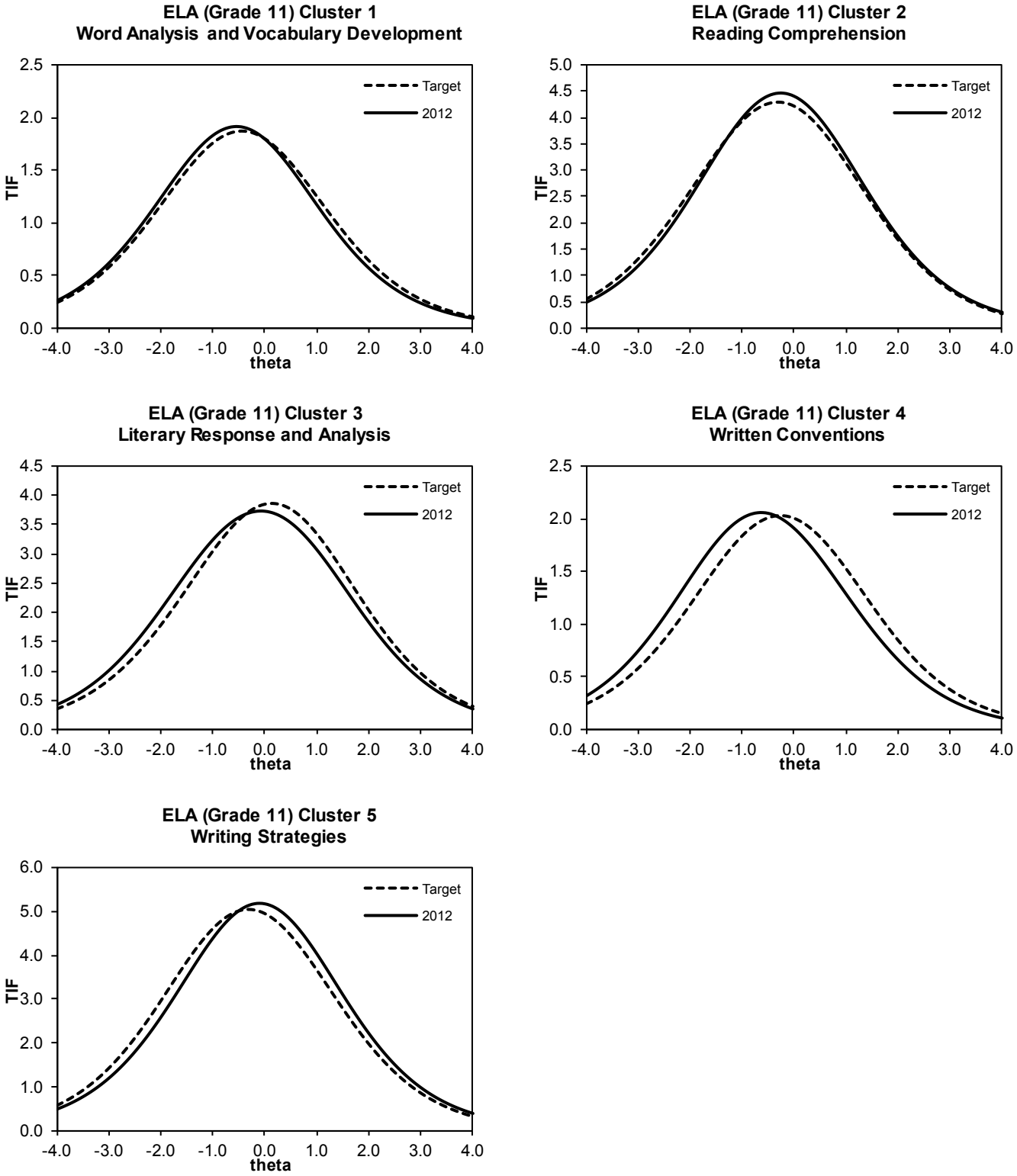


Figure 4.B.11 Plots of Target Information Functions and Projected Information for Clusters for History–Social Science, Grade Eight

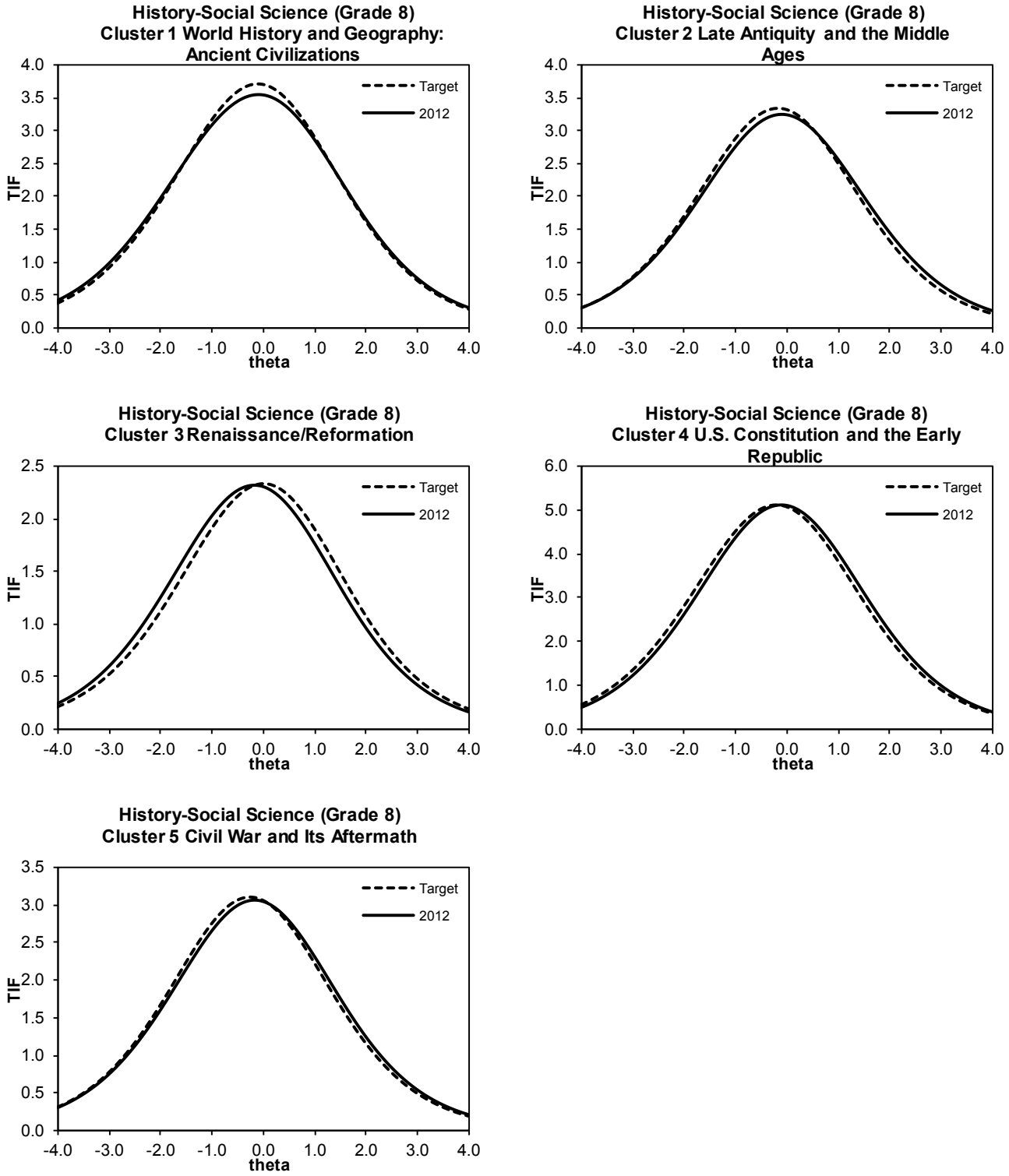


Figure 4.B.12 Plots of Target Information Functions and Projected Information for Clusters for World History

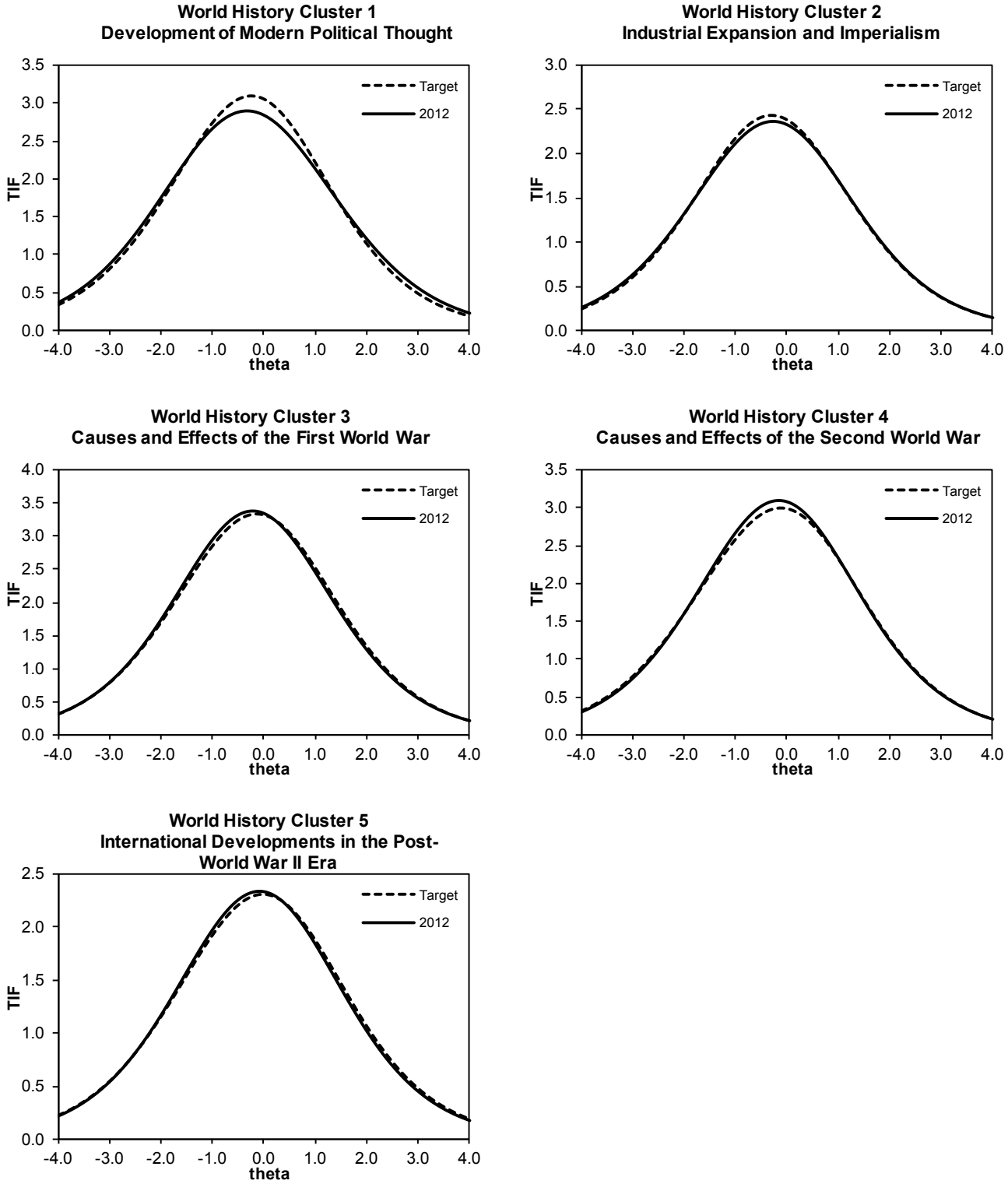


Figure 4.B.13 Plots of Target Information Functions and Projected Information for Clusters for U.S. History, Grade Eleven

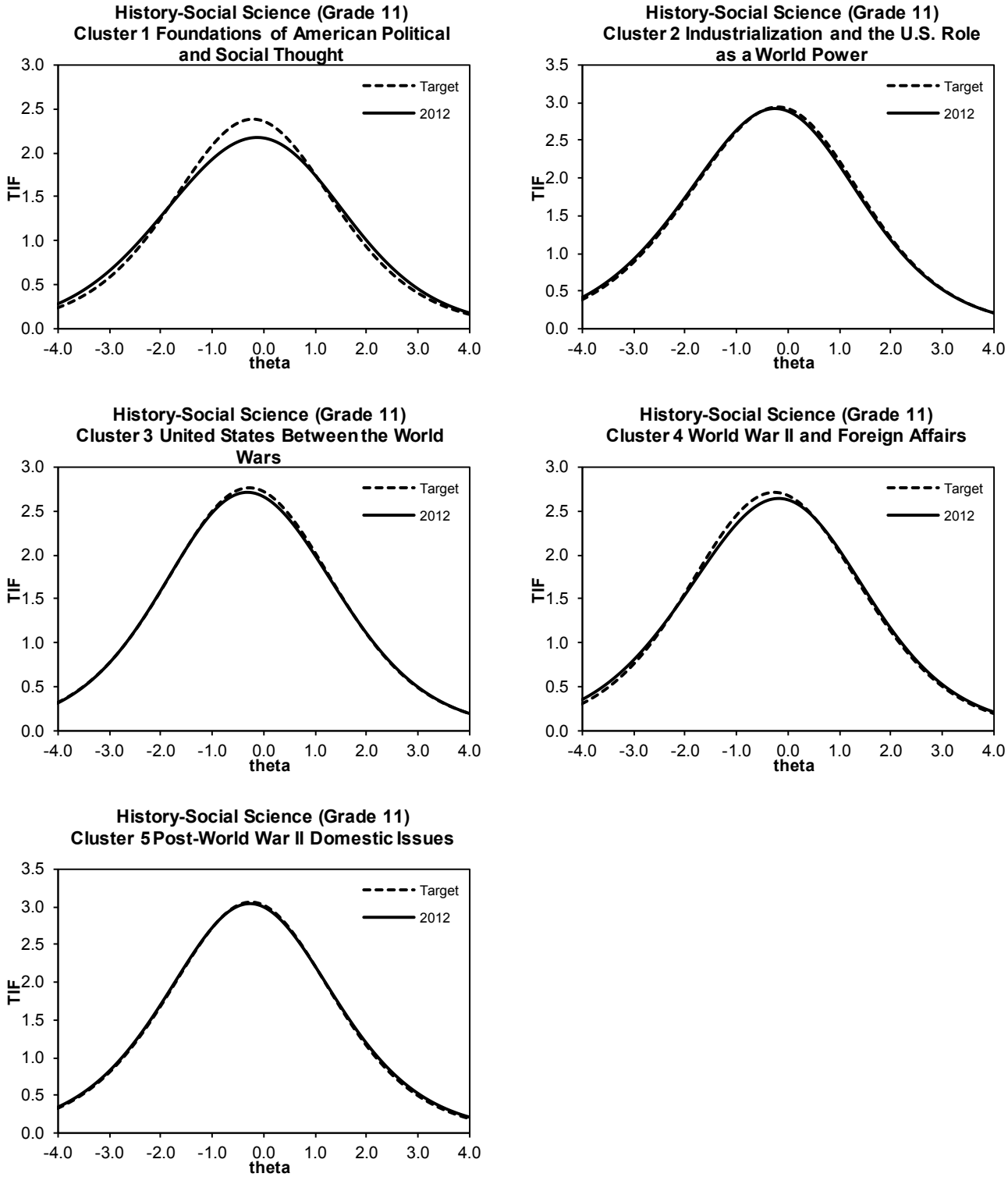


Figure 4.B.14 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Two

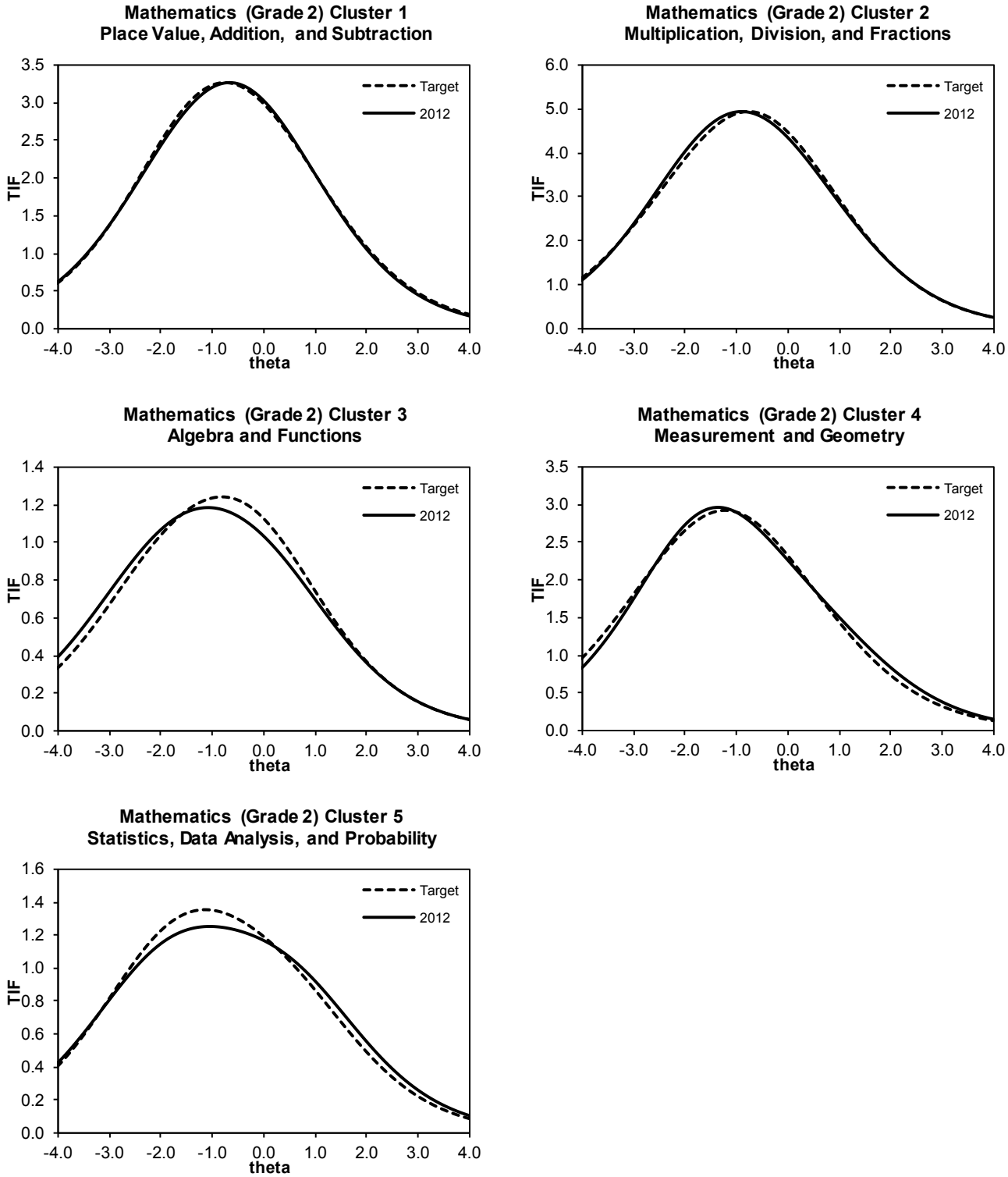


Figure 4.B.15 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Three

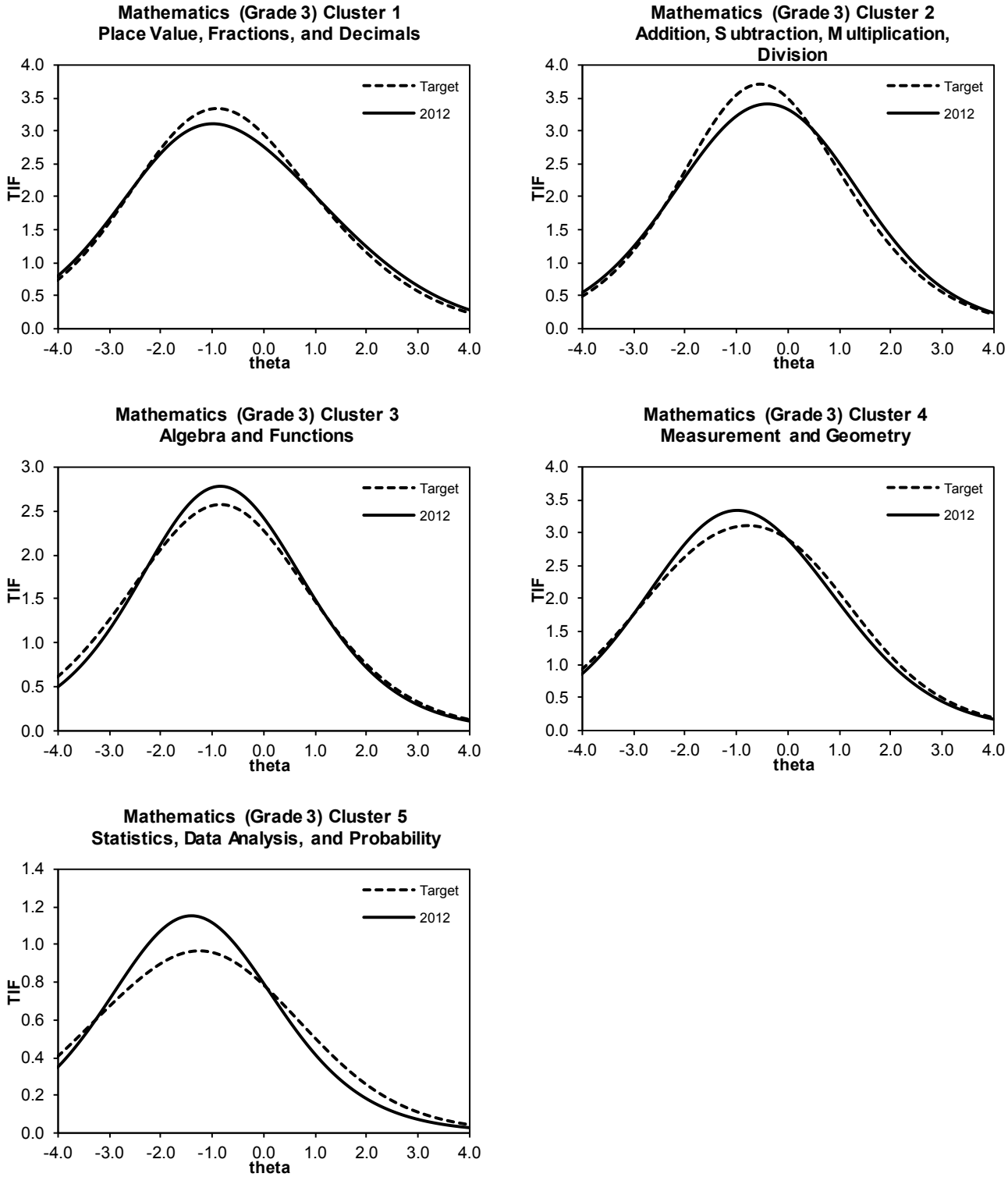


Figure 4.B.16 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Four

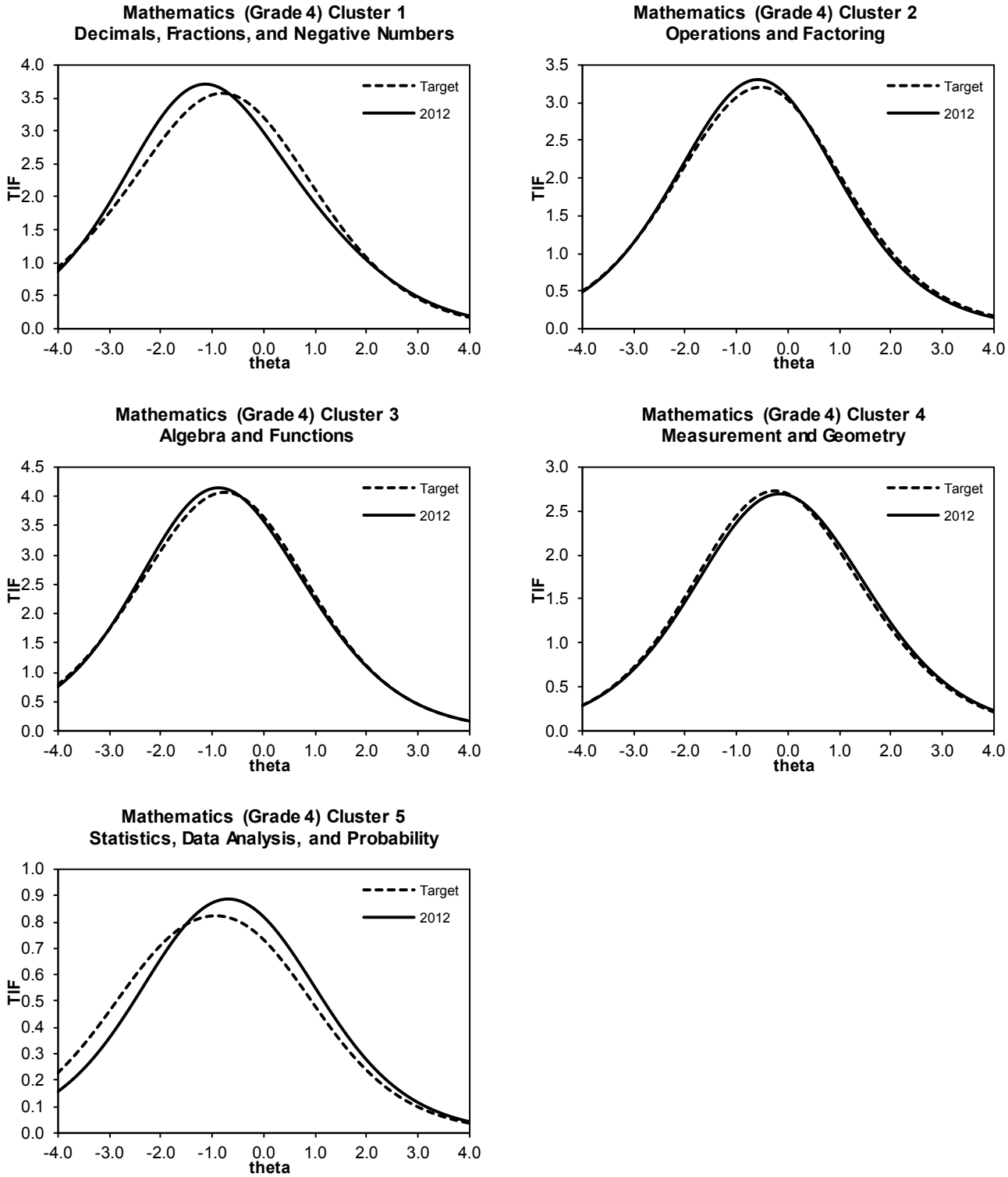


Figure 4.B.17 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Five

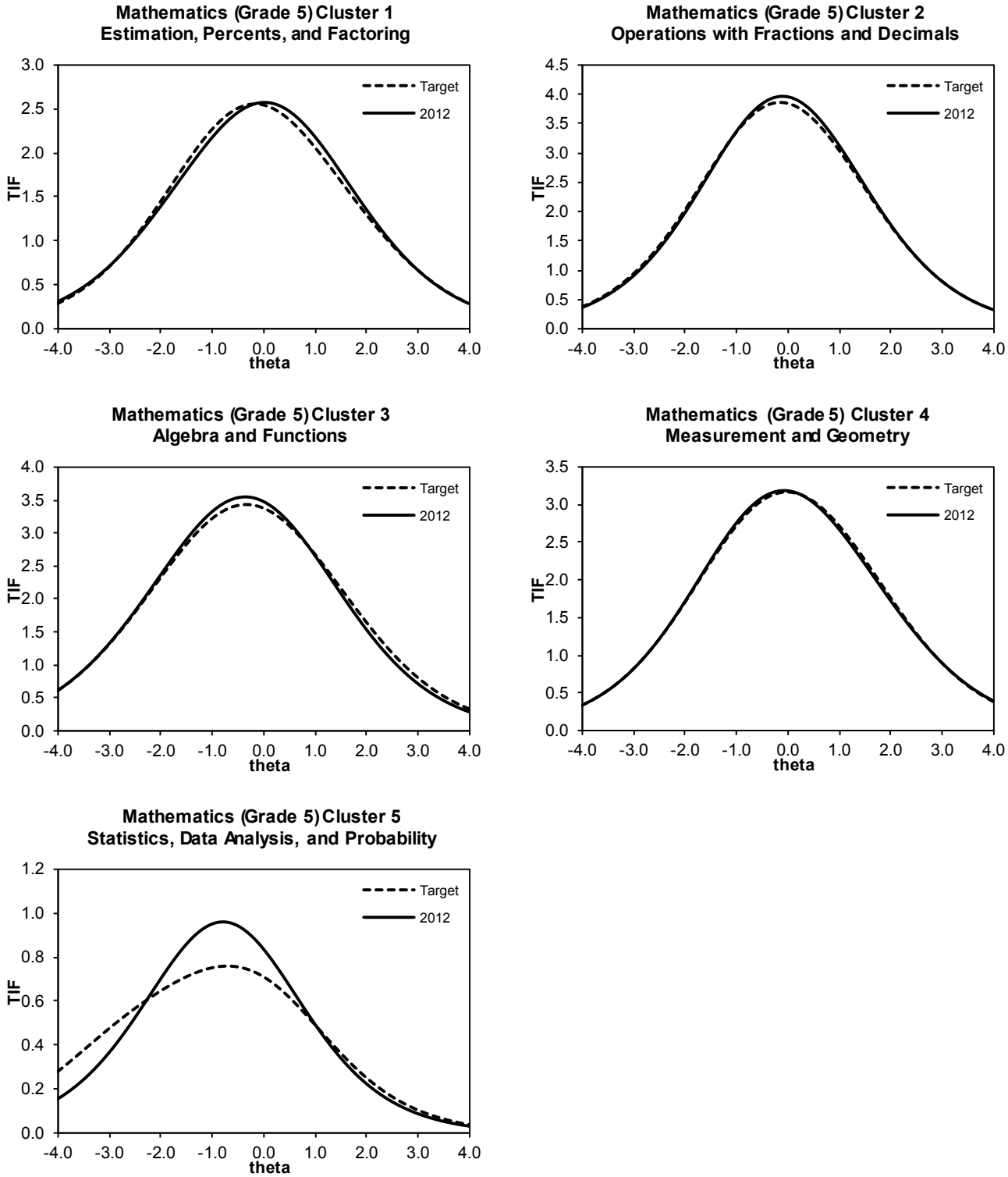


Figure 4.B.18 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Six

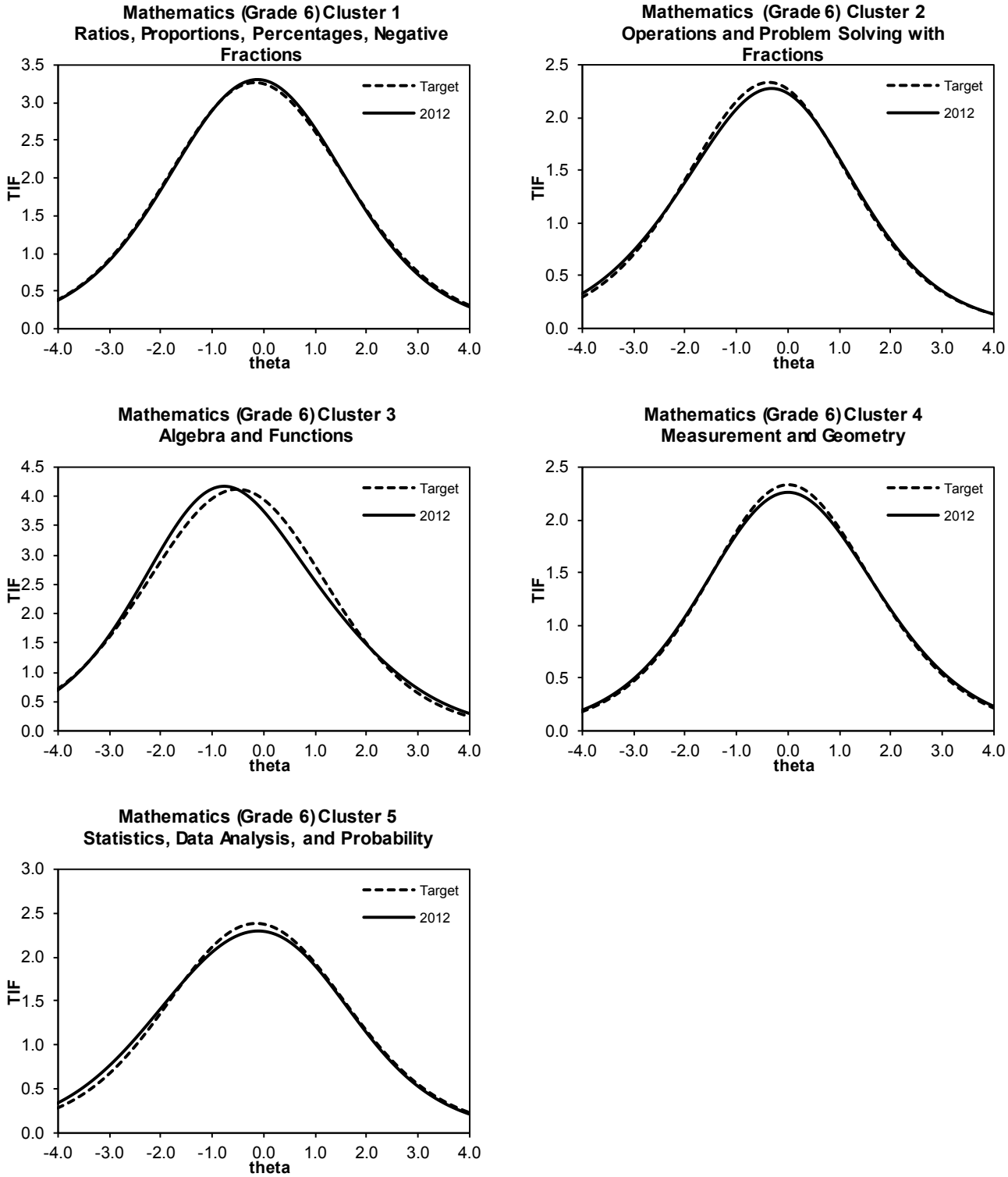


Figure 4.B.19 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Seven

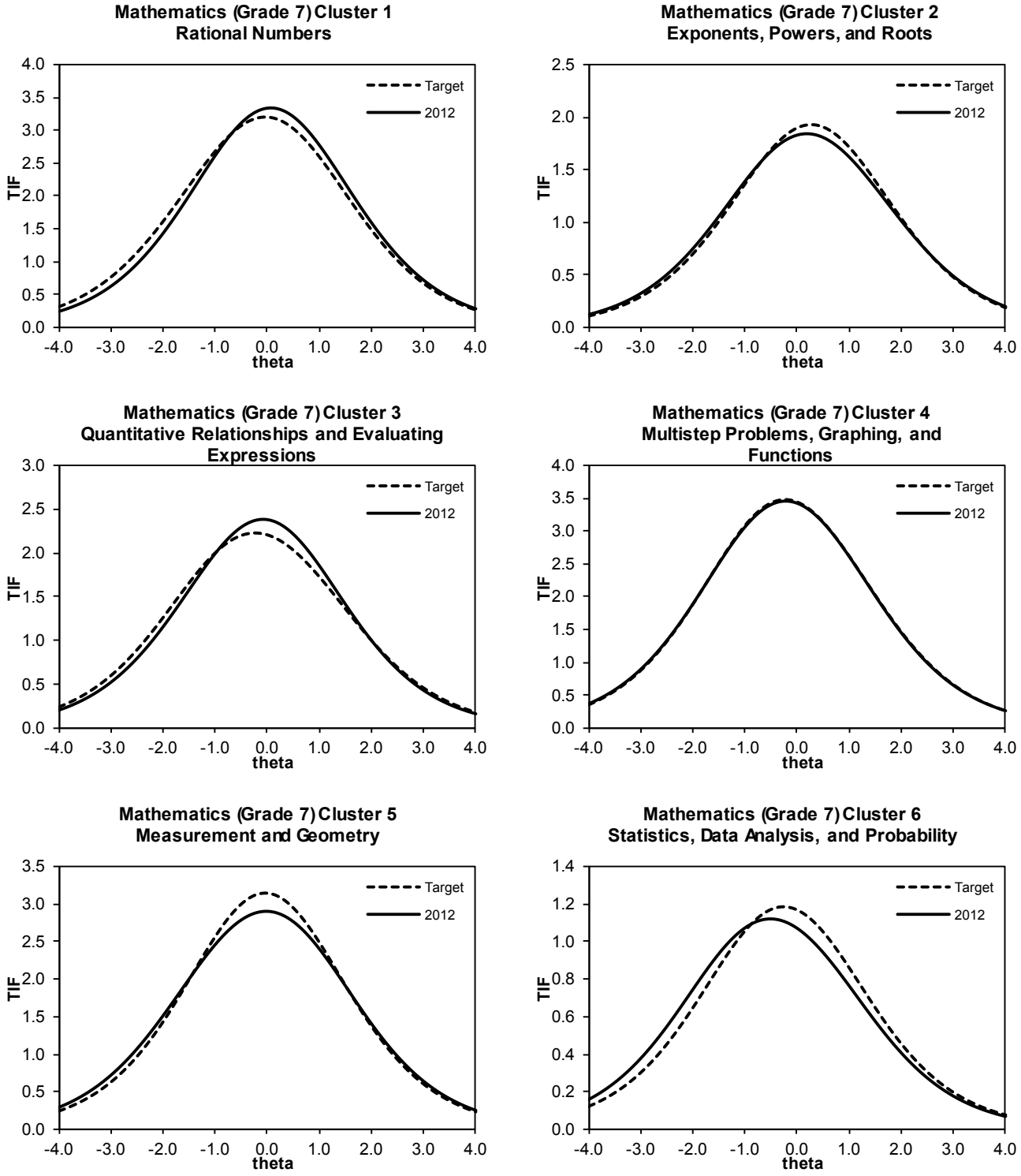


Figure 4.B.20 Plots of Target Information Functions and Projected Information for Clusters for General Mathematics

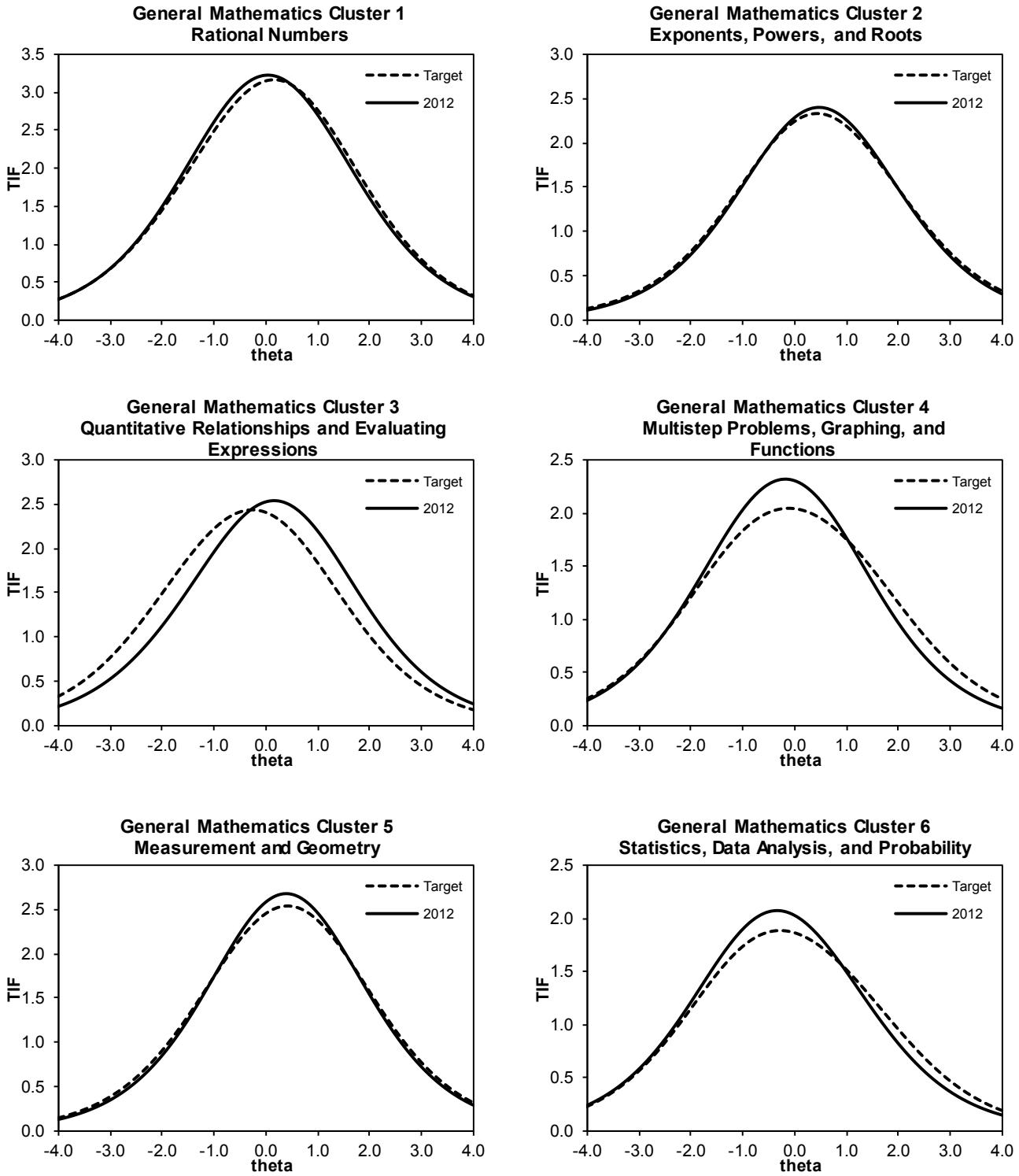


Figure 4.B.21 Plots of Target Information Functions and Projected Information for Clusters for Algebra I

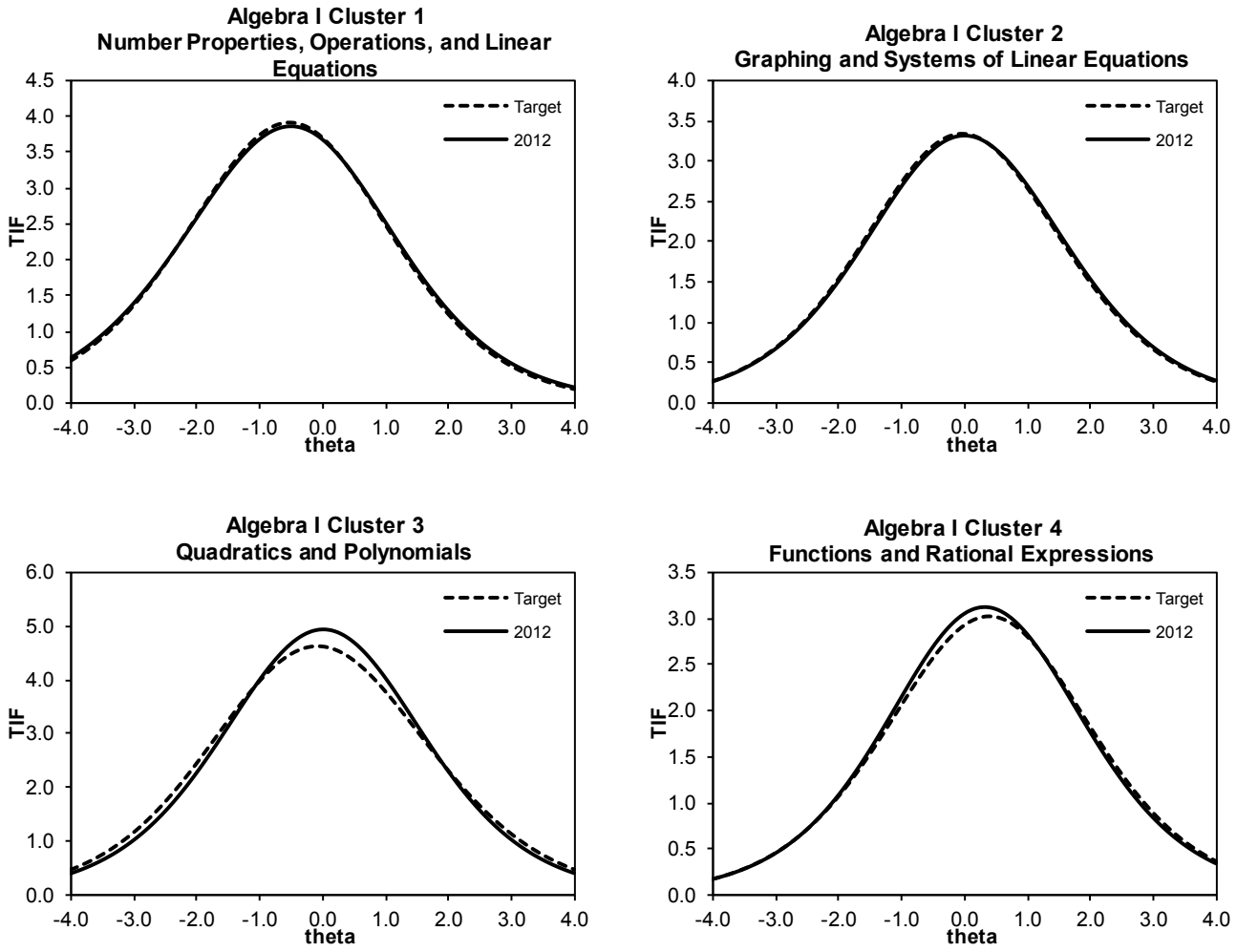


Figure 4.B.22 Plots of Target Information Functions and Projected Information for Clusters for Geometry

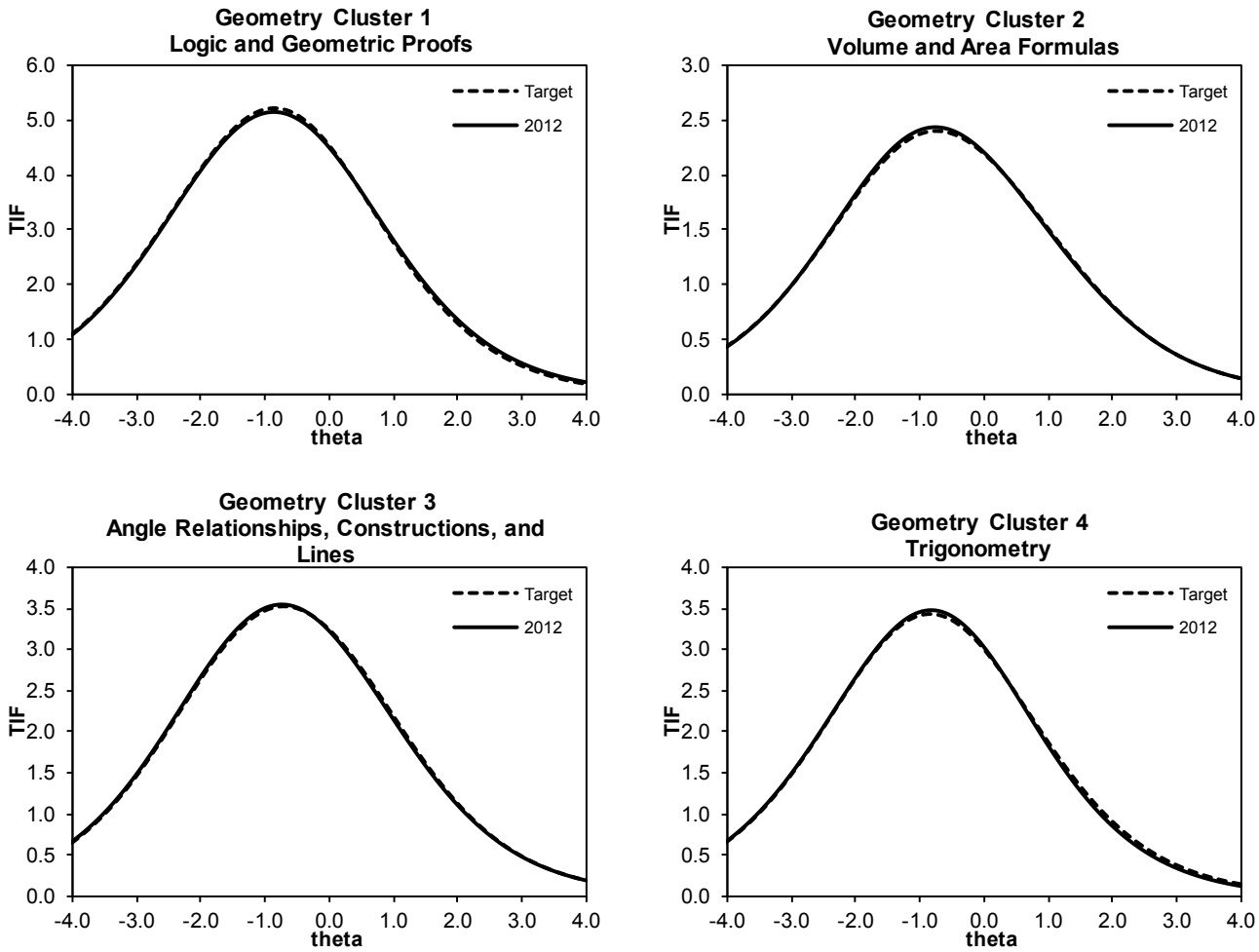


Figure 4.B.23 Plots of Target Information Functions and Projected Information for Clusters for Algebra II

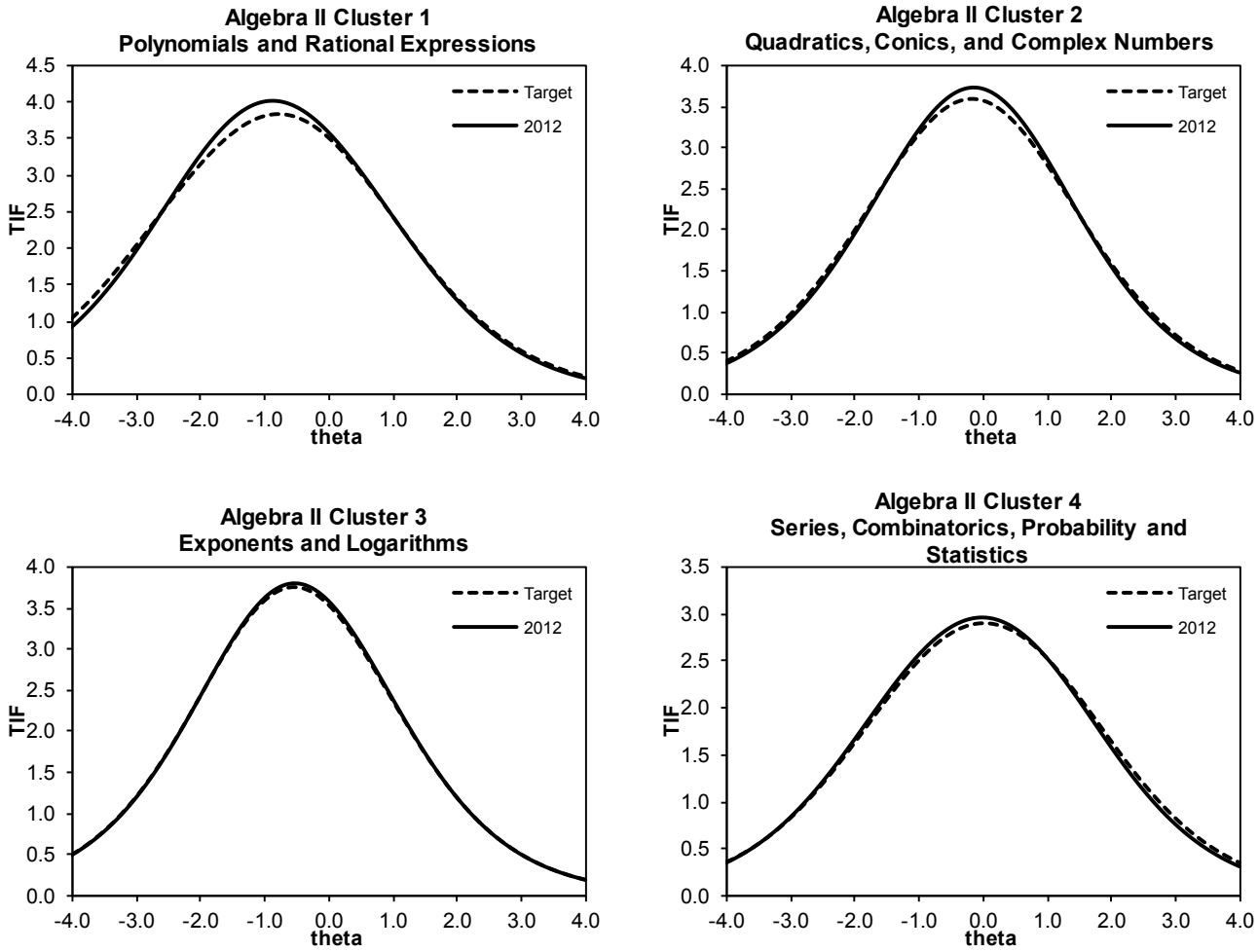


Figure 4.B.24 Plots of Target Information Functions and Projected Information for Clusters for Summative High School Mathematics

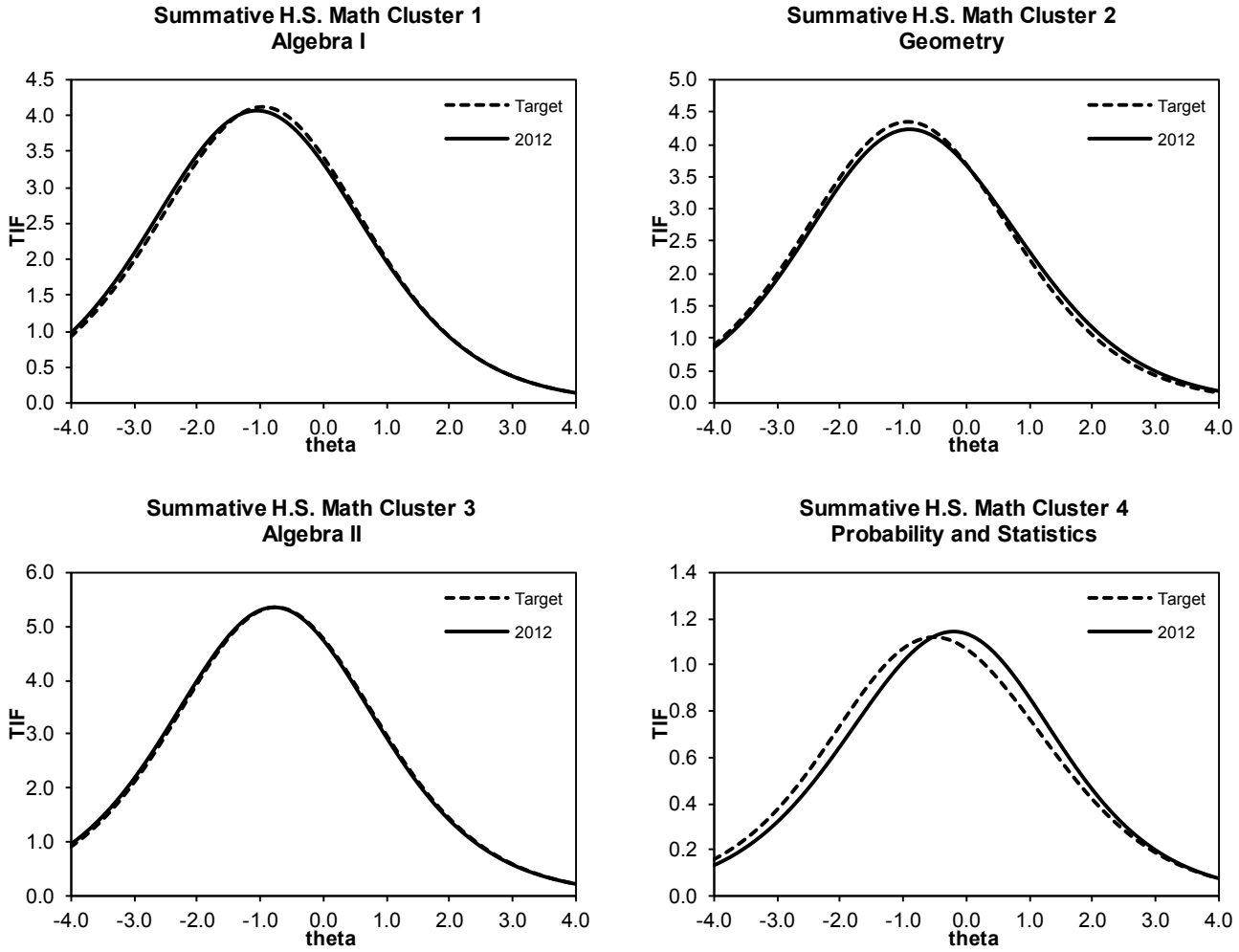


Figure 4.B.25 Plots of Target Information Functions and Projected Information for Clusters for Science, Grade Five

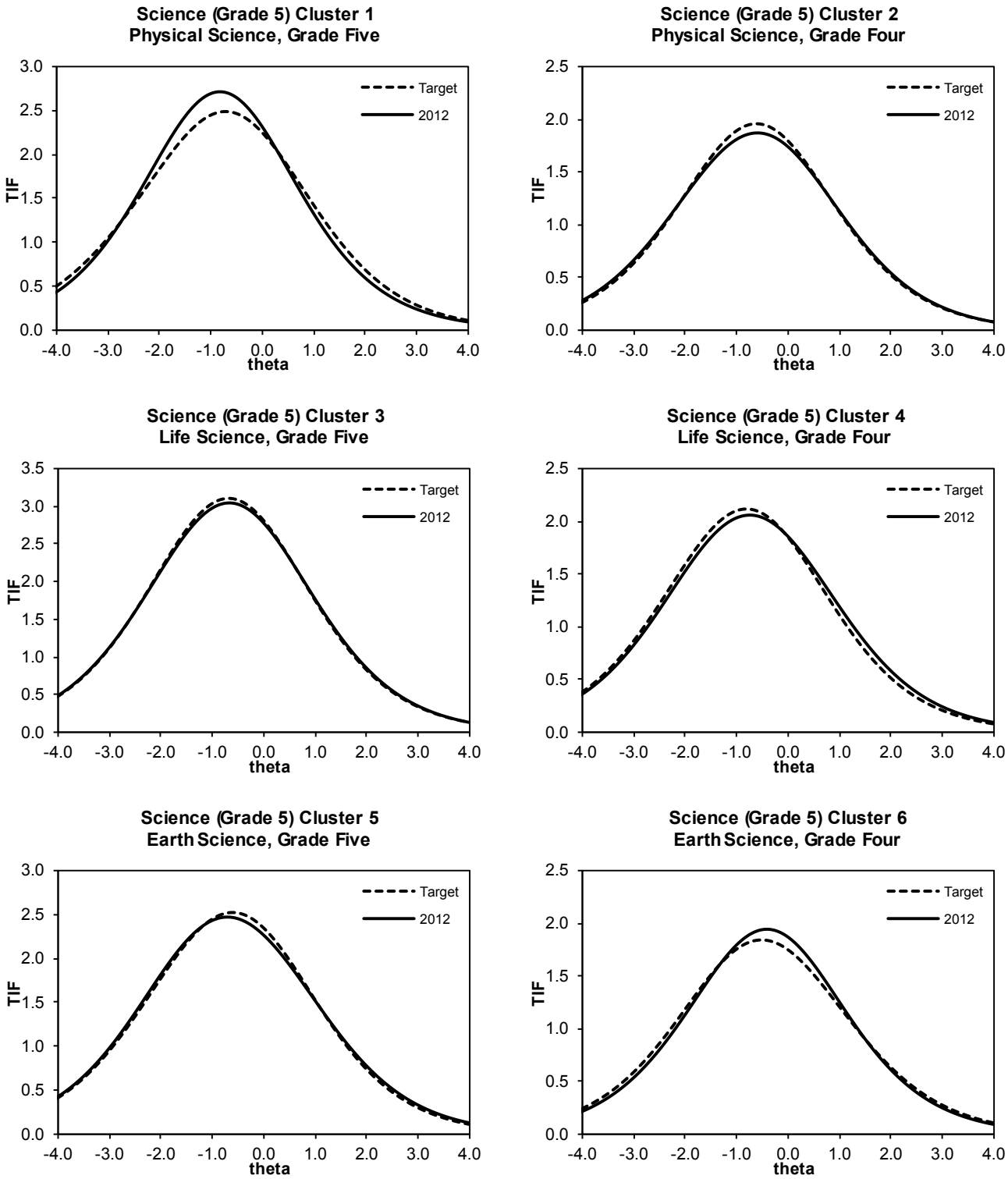


Figure 4.B.26 Plots of Target Information Functions and Projected Information for Clusters for Science, Grade Eight

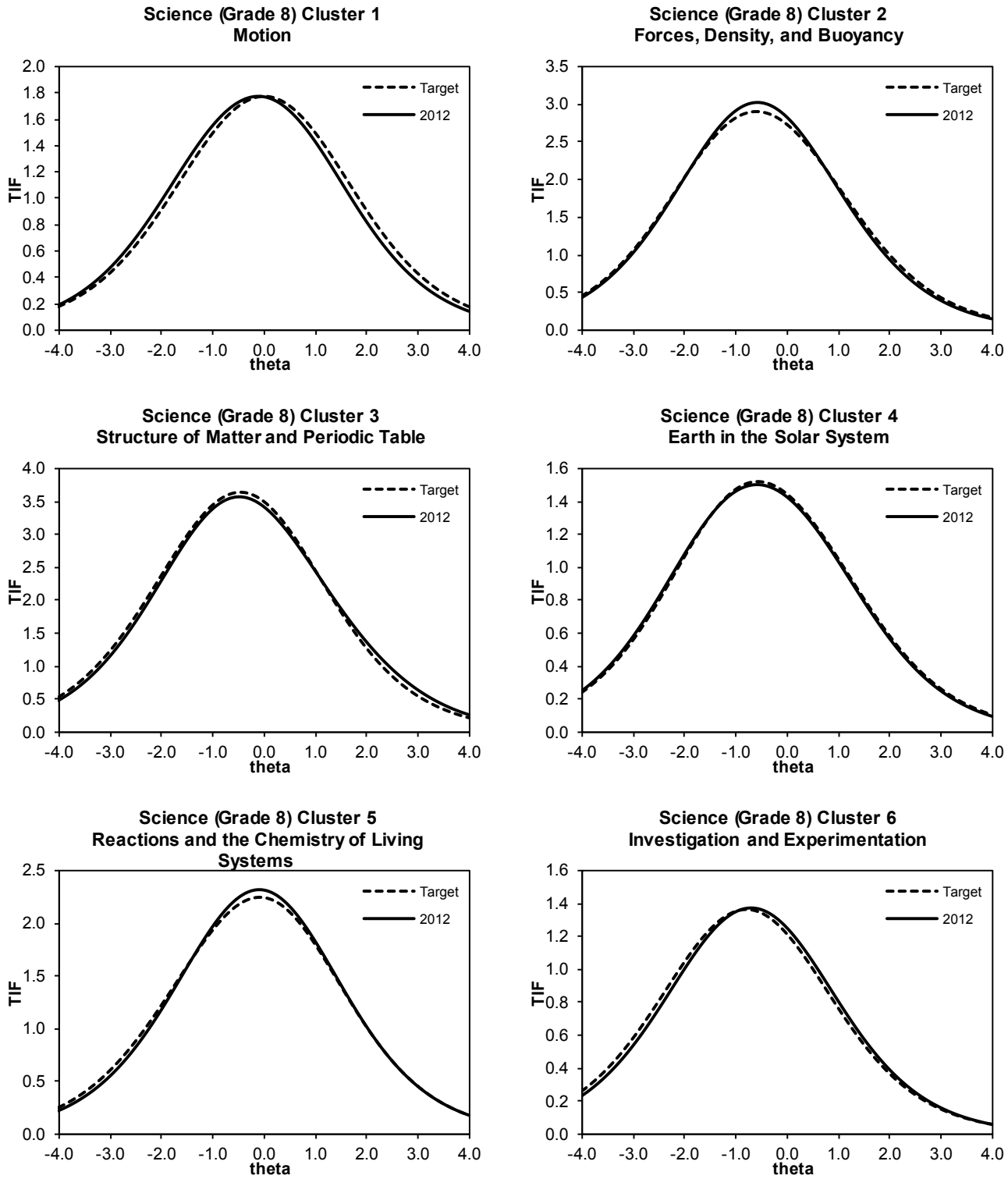


Figure 4.B.27 Plots of Target Information Functions and Projected Information for Clusters for Life Science, Grade Ten

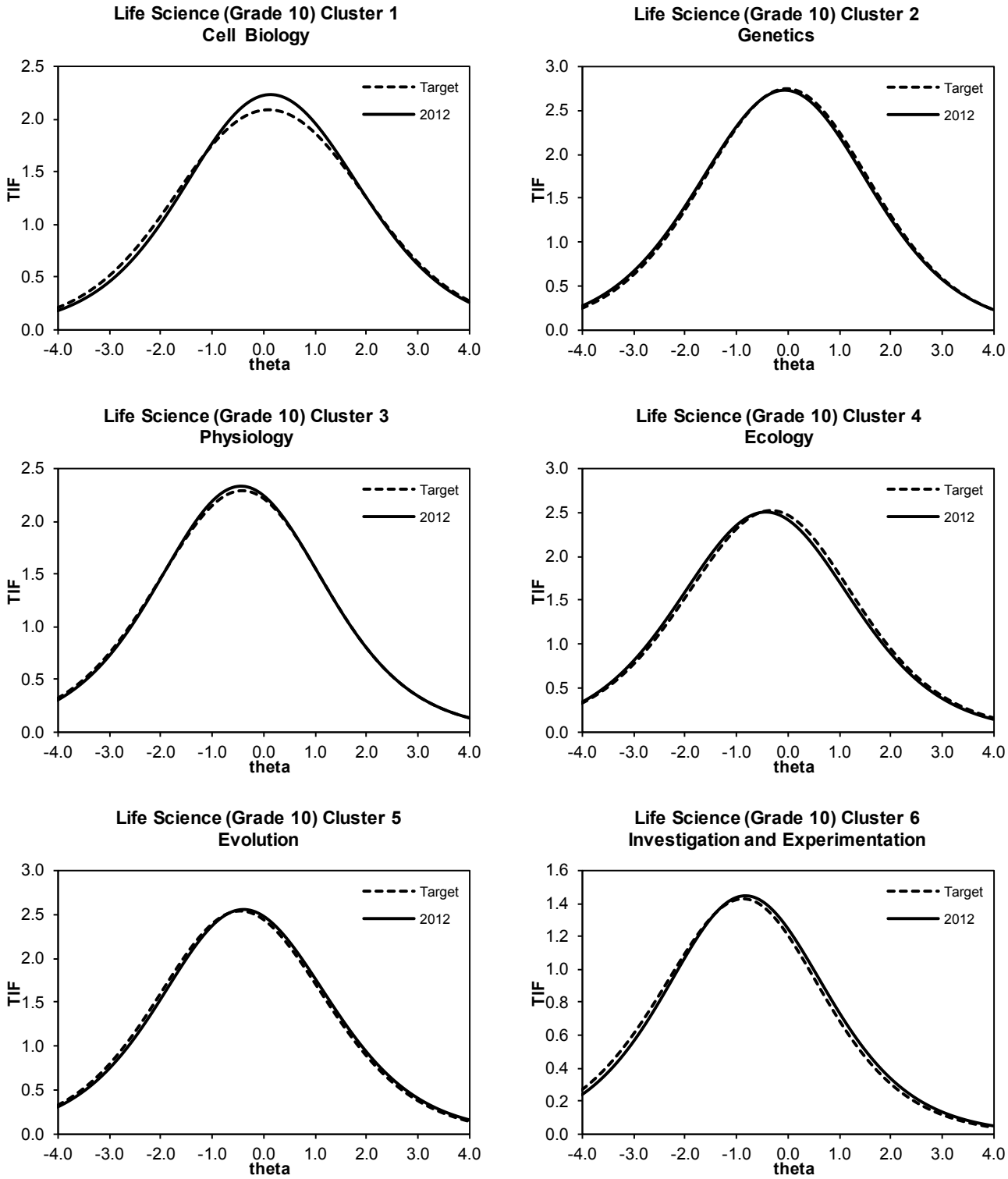


Figure 4.B.28 Plots of Target Information Functions and Projected Information for Clusters for Biology

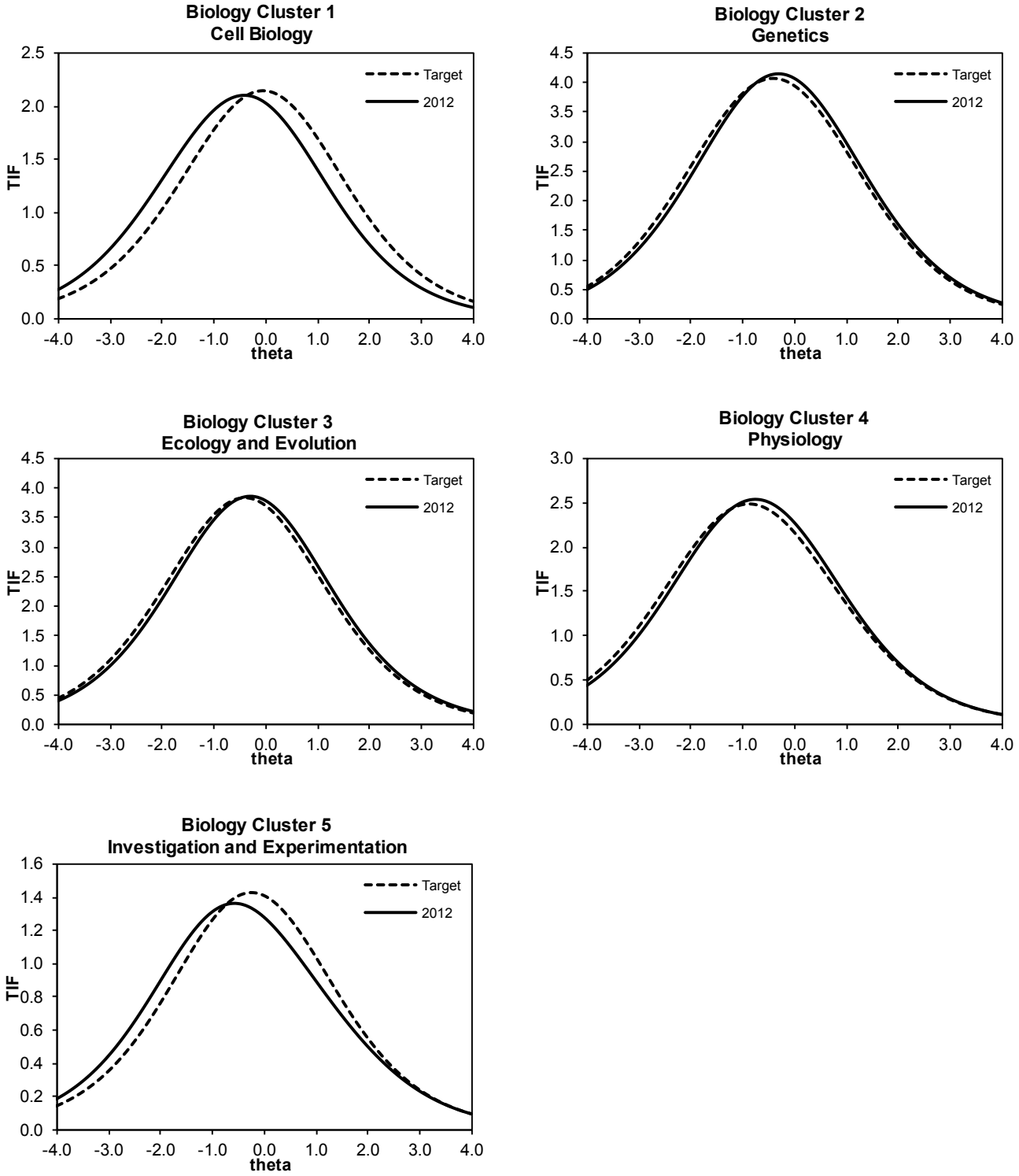


Figure 4.B.29 Plots of Target Information Functions and Projected Information for Clusters for Chemistry

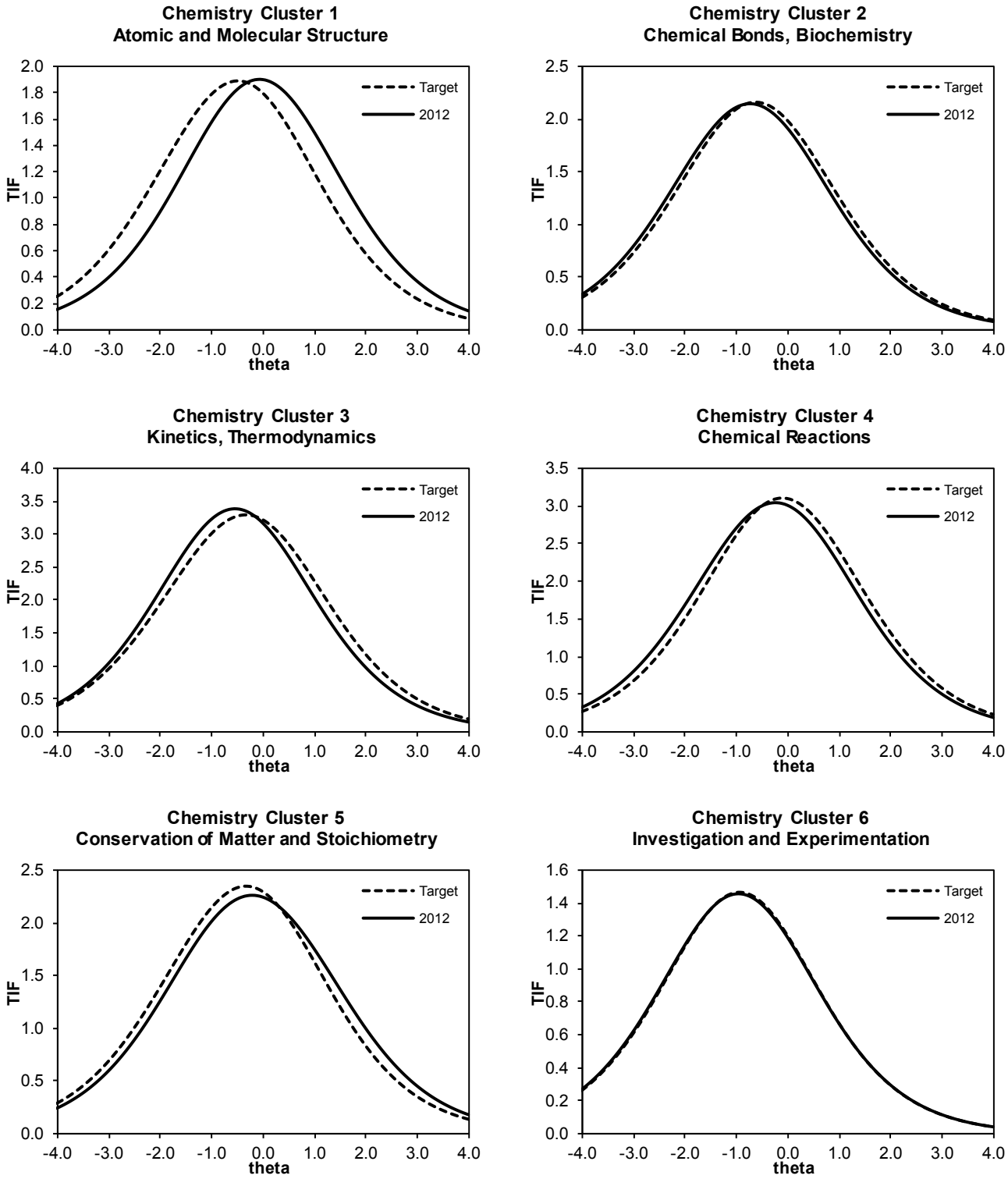


Figure 4.B.30 Plots of Target Information Functions and Projected Information for Clusters for Earth Science

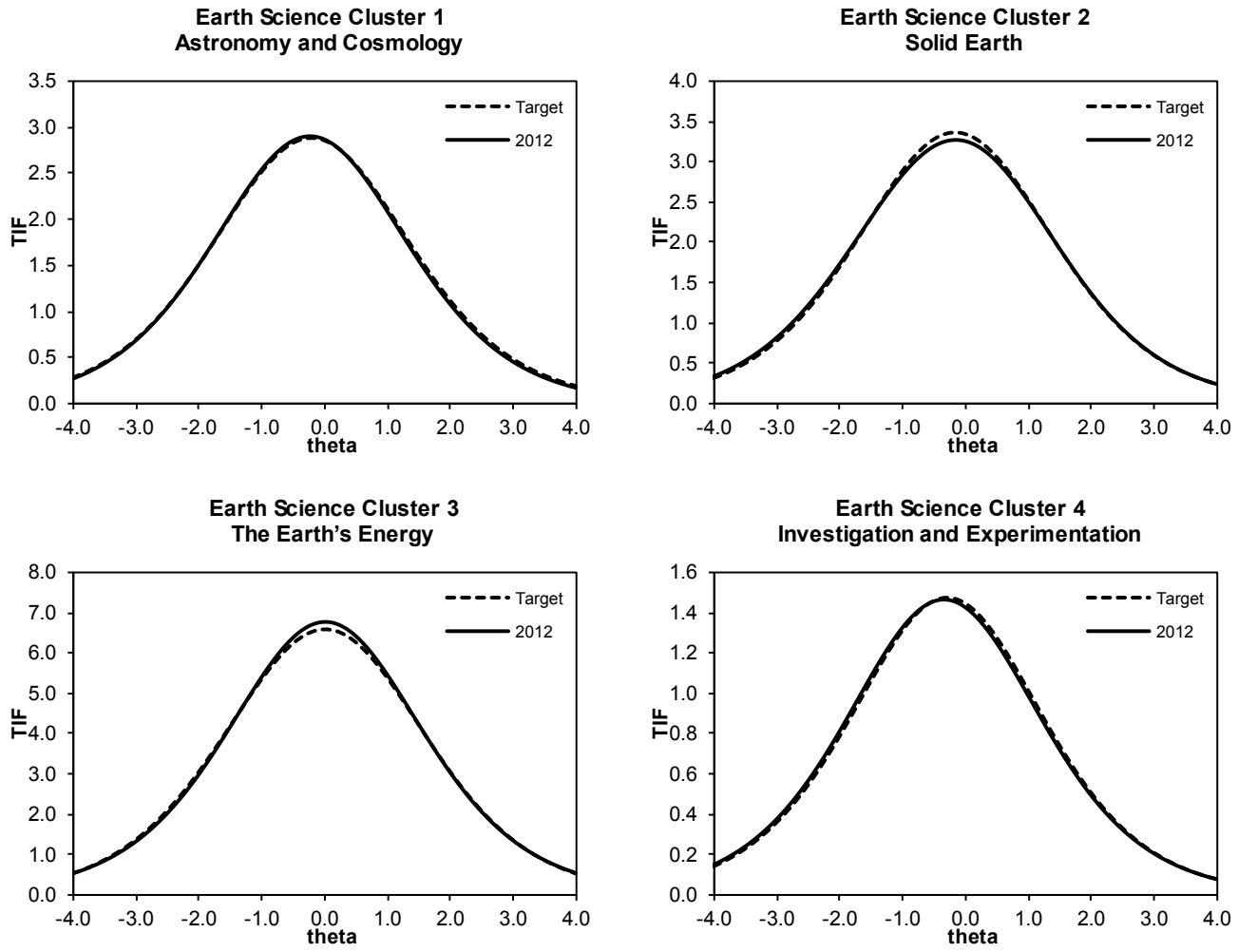
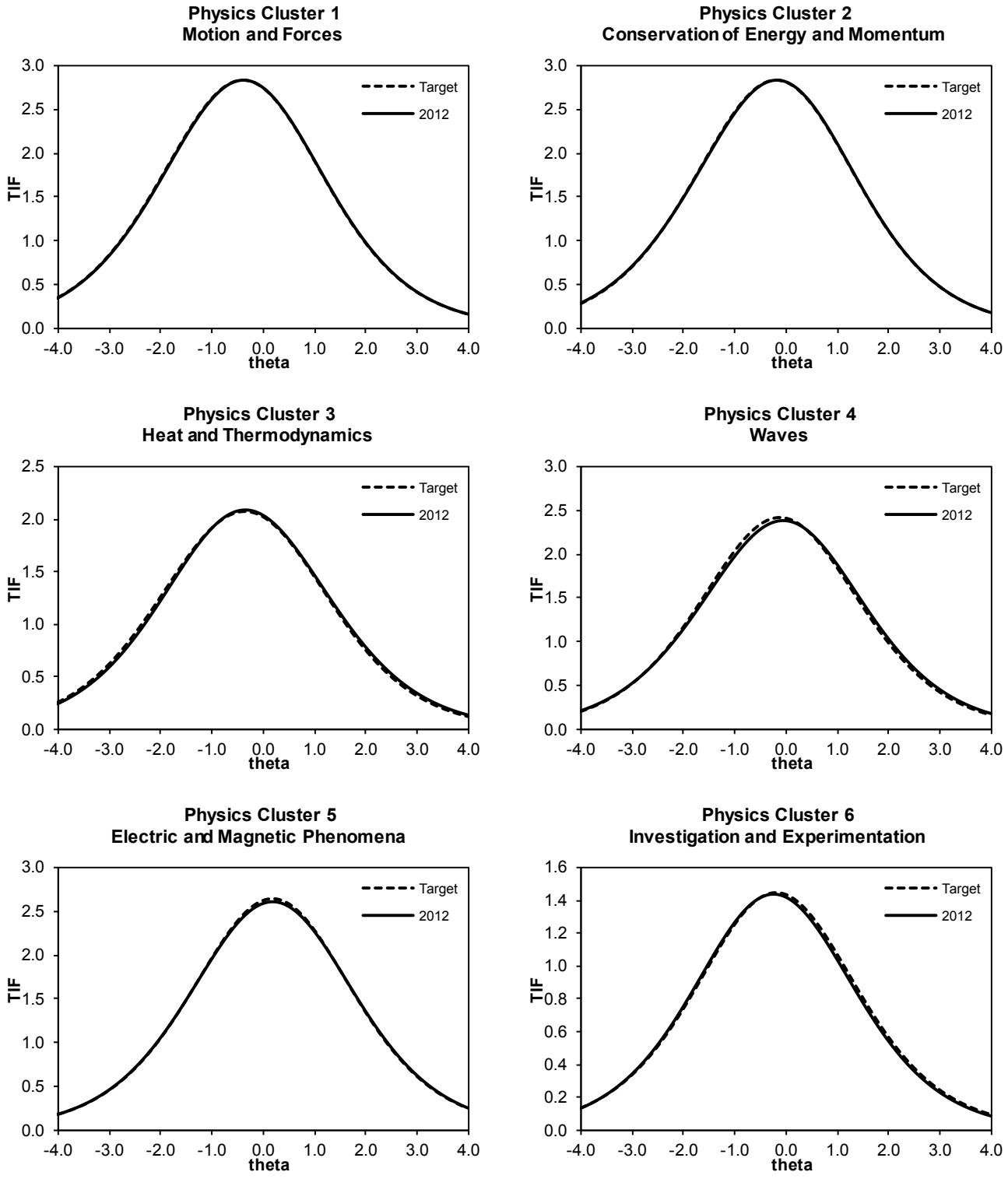


Figure 4.B.31 Plots of Target Information Functions and Projected Information for Clusters for Physics



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 testing materials maintains the security and confidentiality of the tests. ETS's Code of Ethics requires that all test information, including tangible materials (such as test booklets), confidential files, processes, and activities are kept secure. ETS has systems in place that maintain tight security for test questions and test results, as well as for student data. To ensure security for all the tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI), which is described in the next section.

ETS's Office of Testing Integrity

The OTI is a division of ETS that provides quality assurance services for all testing programs administered by ETS and resides in the ETS legal department. The Office of Professional Standards Compliance 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 electronically, with the backups kept off site, to prevent loss from a system breakdown or a natural disaster.
- The offsite backup files are kept in secure storage with access limited to authorized personnel only.
- To prevent unauthorized electronic access to the item bank, state-of-the-art network security measures are used.

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

Transfer of Forms and Items to the CDE

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

Security of Electronic 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, 2012a) 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 preapproves all printing vendors before they can work on secured confidential and proprietary testing materials. The printing vendor must submit a completed ETS Printing Plan and a Typesetting Facility Security Plan; both plans document security procedures, access to testing materials, a log of work in progress, personnel procedures, and access to the facilities by the employees and visitors. After reviewing the completed plans, representatives of the OTI visit the printing vendor to conduct an onsite inspection. The printing vendor ships printed test booklets to Pearson and other authorized locations. Pearson distributes the booklets to school districts in securely packaged boxes.

Test Administration

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

Test Delivery

Test security requires accounting for all secure materials before, during, and after each test administration. The district STAR coordinators are, therefore, required to keep all testing materials in central locked storage except during actual test administration times. Test site coordinators are responsible for accounting for and returning all secure materials to the district STAR coordinator, who is responsible for returning them to the STAR Scoring and Processing 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 its facilities. Entrances are monitored by security personnel and a computerized badge-reading system is utilized. Upon entering a facility, all Pearson employees are required to display identification badges that must be worn at all times while in the facility. Visitors must sign in and out. While they are at the facility, they are assigned a visitor badge and escorted by Pearson personnel. Access to the Data Center is further controlled by the computerized badge-reading system that allows entrance only to those employees who possess the proper authorization.

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

For mainframe processes, Pearson utilizes Random Access Control Facility (RACF) to limit and control access to all data files (test and production), source code, object code, databases, and tables. RACF controls who is authorized to alter, update, or even read the files. All attempts to access files on the mainframe by unauthorized users are logged and monitored. In addition, Pearson uses ChangeMan, a mainframe configuration management

tool, to control versions of the software and data files. ChangeMan provides another level of security, combined with RACF, to place the correct tested version of code into production. Unapproved changes are not implemented without prior review and approval.

Transfer of Scores via Secure Data Exchange

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

Statistical Analysis

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

Reporting and Posting Results

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

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

Student Confidentiality

To meet ESEA and state requirements, school districts must collect demographic data about students. This includes information about students' ethnicity, parent education, disabilities, whether the student qualifies for the National School Lunch Program (NSLP), and so forth (CDE, 2012b). 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. ETS is certified in the BS 25999-2 standard for business continuity and conducts disaster recovery exercises annually. ETS routinely backs up its data to either disk through deduplication or to tape, both of which are stored off site.

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

ETS protects individual 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 Manua*l (CDE, 2012c). 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 office of education programs, and charter schools testing independently from their home district.

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

Test Site Coordinator

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

Test site coordinators are responsible for making sure that the school has the proper testing materials, distributing testing materials within a school, securing materials before, during, and after the administration period, answering questions from test examiners, preparing and packaging materials to be returned to the school district after testing, and returning the materials to the school district. (CDE, 2012c)

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, 2012d) 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 *DFA*s are manuals used by test examiners to administer the CSTs to students (CDE, 2012d). 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, 2012c). 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, 2012e)
- **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, 2012f)
- **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, 2012b)
- **Extended Pre-ID Data Corrections—**This module allows school districts to correct the data that were submitted during Pre-ID prior to the last day of the school district's selected testing window. (CDE, 2012b)

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 on page 35 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 Booklets.

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, 20101c).

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, 2010g)

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, 2012c).

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, 2012d) and the *STAR District and Test Site Coordinator Manual* (CDE, 2012c). 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 or advanced level by 2014. Schools and districts are expected to provide additional assistance to students scoring at or below the basic level.

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

Standard Setting Procedure

The process of standard setting is designed to identify a “cut score” or minimum test score that is required to qualify a student for each performance level. The process generally requires 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 panelist training prior to making judgments or recommendations for cut scores. The standard-setting processes implemented for CSTs required panelists to follow these steps, which include training and practice prior to making judgments:

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

The Bookmark method is an item-mapping procedure in which panelists consider content covered by items in a specially constructed book where items are ordered from easiest to hardest, based on operational student performance data from a previous test administration. The "item map," which accompanies the ordered item booklet (OIB), includes information on

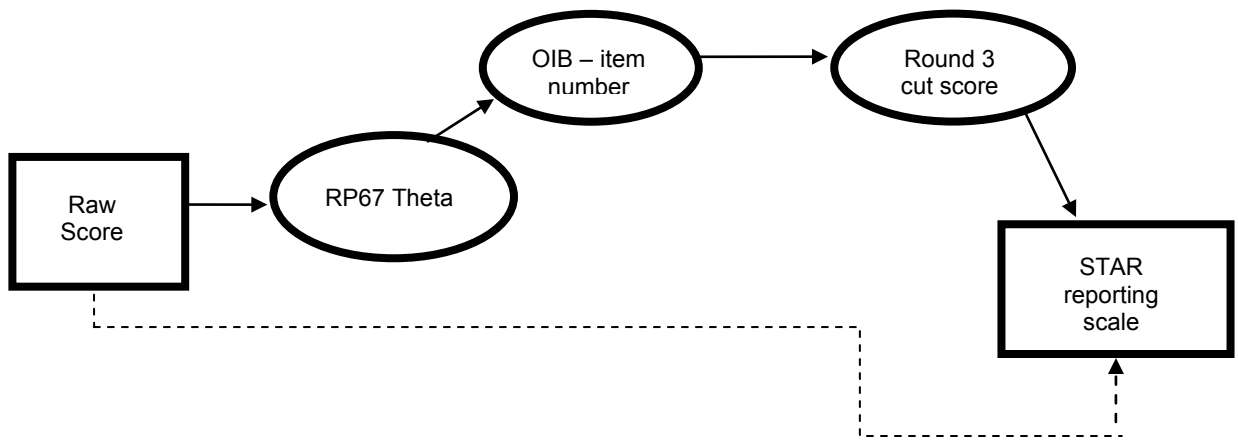
the content measured by each operational test question, information about each question's difficulty, the correct answer for each question, and where each question was located in the test booklet before the questions were reordered by difficulty.

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

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

Each item location corresponds to a value of theta, based on a response probability of 0.67 (RP67 Theta), which maps back to a raw score on 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 or curve and then transformed to the scale-score metric using the following equation:

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

where,

θ represents the student ability,

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

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

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

The scale-score ranges for each performance level are presented in Table 2.2 on page 18. 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 272 in Chapter 7 presents the percentages of examinees meeting each performance level in 2012.

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

Procedures for Maintaining and Retrieving Individual Scores

Items for all 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 in 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. The specifications for these procedures are presented in the next sections.

Scoring and Reporting Specifications

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

- General Reporting Specifications—Provides the calculation rules for the information presented on STAR summary reports and defines the appropriate codes to use when a student does not take or complete a test or when a score will not be reported
- Score Key and Score Conversion—Defines file formats and information that is provided for scoring and the process of converting raw scores to scale scores
- Form Planner Specifications—Describes, in detail, the contents of files that contain keys required for scoring
- Aggregation Rules—Describes how and when a school's results are aggregated at the school, district, county, and state levels
- "What If" List—Provides a variety of anomalous scenarios that may occur when test materials are returned by school districts to Pearson and defines the action(s) to be taken in response
- Edit Specifications—Describes edits, defaults, and solutions to errors encountered while data are being captured as answer documents are processed
- Reporting Cluster Names and Item Numbers—Identifies the reporting clusters for each test and the number of items in each cluster
- CST and CMA Matching Criteria—Describes the criteria necessary to ensure that, for students who take both CST and CMA tests, all results are combined into a single student data record by matching specific demographic fields on test booklets and answer documents
- 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 test raw score equals the number of multiple-choice test items answered correctly. In grades four and seven, the ELA total test raw score equals the sum of examinees' scores on the multiple-choice items and the writing task.

Subscore

The items in each CST are aggregated into groups of related content standards to form reporting clusters. A subscore is a measure of an examinee's performance on the items in each reporting cluster. These results are reported 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 25.

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 15. 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' essay responses to the writing task 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 279.

It is important to note that the writing score, considered in isolation, does not correspond directly to one of the five performance levels used to show overall student performance on the CST for ELA tests. For example a writing score of 8 does not correspond to the advanced performance level, nor does a writing score of 6 correspond 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

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

Scoring Key Verification Process

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

1. Keys in the form planners are checked against their matching test booklets to ensure that the correct keys are listed.
2. The form planners are checked for accuracy against the Form Planner Specification document and the Score Key and Score Conversion document before the keys are loaded into the score key management system (SKM) at ETS.
3. The printed lists of the scoring keys are checked again once the keys have been loaded into the SKM system.
4. The sequences of linking items in the form planners are matched with their sequences in the actual test booklets. Linking items are used to equate the scores on the current year's test form to scores obtained on the previous years' test forms so as to adjust for any differences in the difficulty level of the forms across years. This is accomplished during the equating process, as discussed in Chapter 2 on page 15.

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.

Students' responses to the writing task are each read by a single reader; the writing score is based on that reader's rating. In addition, 10 percent of students' responses are also read by a second reader to provide data that can be used to assess the accuracy and 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 receive 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, on page 15 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 614.

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 614.

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 content-area section in the table presents 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

				Scale Score		Raw Score		Raw Score Percent Correct	
Content Area	CST*	No. of Items	No. of Examinees	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
English–Language Arts	2	65	462,557	361	67	43.99	14.07	67.67	21.65
	3	65	440,407	347	64	44.34	12.71	68.22	19.55
	4	75	428,201	375	59	50.02	14.63	66.69	19.51
	5	75	428,868	366	57	52.11	13.87	69.49	18.49
	6	75	433,830	364	57	49.05	14.08	65.40	18.77
	7	75	430,441	367	61	50.63	13.66	67.51	18.22
	8	75	434,601	365	62	49.56	14.46	66.08	19.28
	9	75	461,474	361	62	48.42	14.47	64.56	19.29
	10	75	453,721	348	59	49.31	14.77	65.75	19.70
	11	75	438,268	345	63	49.02	14.38	65.36	19.17
History–Social Science	8	75	458,422	357	70	47.74	14.96	63.66	19.95
	World History	60	467,412	346	76	38.43	12.36	64.04	20.60
	11	60	446,136	347	70	37.30	12.02	62.17	20.03
Mathematics	2	65	463,446	383	87	49.52	11.76	76.19	18.10
	3	65	443,229	399	89	51.52	11.13	79.27	17.12
	4	65	432,630	395	81	52.13	11.68	80.19	17.97
	5	65	432,325	395	92	46.04	13.02	70.83	20.03
	6	65	436,076	367	76	43.09	13.10	66.29	20.15
	7	65	393,171	360	73	40.79	13.39	62.75	20.60
	General Mathematics	65	189,071	318	56	33.63	12.17	51.73	18.72
	Algebra I	65	708,443	330	75	32.90	13.13	50.61	20.21
	Geometry	65	406,408	323	70	36.14	13.42	55.60	20.64
	Algebra II	65	286,125	331	71	36.12	12.56	55.56	19.33
	Summ. H.S. Mathematics	65	149,833	363	78	47.46	11.95	73.01	18.39
	Integrated Mathematics 1	65	13,442	292	51	27.40	9.34	42.15	14.36
	Integrated Mathematics 2	65	5,127	323	57	29.28	11.01	45.05	16.95
	Integrated Mathematics 3	65	806	338	72	33.58	11.97	51.66	18.41
Science	5	60	430,759	367	66	42.45	11.14	70.75	18.56
	8	60	435,529	395	99	42.85	11.23	71.41	18.72
	10 Life Science	60	449,842	357	69	38.97	12.25	64.95	20.42
	Biology	60	555,736	355	61	38.56	12.49	64.26	20.82
	Chemistry	60	275,129	342	56	37.92	11.90	63.20	19.83
	Earth Science	60	206,454	335	50	36.25	11.78	60.42	19.63
	Physics	60	80,743	355	53	37.88	11.76	63.13	19.60
	Int/Coord Science 1	60	46,200	314	40	30.97	10.33	51.62	17.22
	Int/Coord Science 2	60	3,759	315	52	31.07	11.89	51.79	19.81
	Int/Coord Science 3	60	968	311	44	27.99	10.85	46.65	18.08
	Int/Coord Science 4	60	65	285	29	22.28	7.57	37.13	12.62
Grade-Specific	Algebra I – 8	65	275,622	355	77	37.41	13.16	57.56	20.24
	Geometry – 9	65	143,855	349	66	41.75	12.30	64.22	18.92
	Algebra II – 10	65	131,287	344	67	38.70	11.90	59.55	18.31
	Summ. H.S. Math – 11	65	124,165	355	75	46.27	12.04	71.18	18.53
	World History – 10	60	421,807	347	74	38.73	12.04	64.55	20.07

* 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 the entire test-taking population and all the student records used in the August 30, 2012, 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%	22%	30%	29%	59%
	3	10%	13%	29%	29%	19%	48%
	4	3%	8%	22%	28%	39%	67%
	5	4%	8%	25%	32%	31%	62%
	6	3%	11%	27%	29%	30%	60%
	7	4%	10%	24%	33%	29%	62%
	8	6%	10%	25%	26%	33%	60%
	9	6%	11%	26%	28%	29%	57%
	10	8%	13%	28%	26%	24%	51%
	11	11%	13%	28%	26%	22%	48%
History–Social Science	8	12%	10%	26%	23%	29%	52%
	World History	18%	9%	27%	24%	22%	46%
	11	15%	10%	26%	25%	23%	49%
Mathematics	2	4%	12%	19%	29%	35%	64%
	3	2%	11%	17%	27%	42%	70%
	4	2%	10%	18%	27%	44%	71%
	5	3%	12%	20%	32%	33%	65%
	6	4%	15%	26%	31%	24%	54%
	7	5%	17%	26%	31%	21%	52%
	General Mathematics	14%	27%	31%	22%	6%	28%
	Algebra I	13%	29%	23%	23%	11%	35%
	Geometry	11%	30%	27%	22%	10%	32%
	Algebra II	14%	23%	29%	22%	12%	34%
	Summ. H.S. Math	4%	18%	25%	33%	20%	54%
	Integrated Math 1	21%	40%	26%	12%	2%	13%
	Integrated Math 2	11%	29%	33%	21%	6%	27%
	Integrated Math 3	11%	21%	26%	31%	11%	42%
Science	5	6%	9%	25%	35%	25%	59%
	8	8%	9%	16%	21%	45%	66%
	10 Life Science	10%	11%	26%	26%	27%	53%
	Biology	9%	10%	29%	26%	26%	52%
	Chemistry	11%	13%	33%	26%	17%	43%
	Earth Science	14%	12%	36%	25%	12%	38%
	Physics	6%	11%	31%	28%	25%	52%
	Int/Coord Science 1	19%	17%	44%	17%	3%	20%
	Int/Coord Science 2	23%	21%	32%	16%	8%	25%
	Int/Coord Science 3	22%	22%	38%	14%	4%	18%
	Int/Coord Science 4	40%	31%	26%	3%	0%	3%

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/ Advanced**
Grade-Specific	Algebra I – 8	7%	21%	23%	31%	18%	49%
	Geometry – 9	4%	18%	29%	34%	14%	48%
	Algebra II – 10	8%	19%	30%	28%	14%	42%
	Summ. H. S. Math – 11	4%	20%	27%	32%	17%	49%
	World History – 10	17%	9%	28%	24%	22%	46%

* 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 285 show the distributions of scale scores for each CST. Table 7.B.6 presents analogous information for the five grade-specific testing groups.

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.

Group Scores

Statistics summarizing student performance by content area and grade for selected groups of students are provided starting on page 289 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 all students tested 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 percent 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 hyphens. Percentages in these tables may not sum up to 100 due to rounding.

Table 7.3 Subgroup Definitions

Subgroup	Definition
Gender	• Male • Female
Ethnicity	• American Indian or Alaska Native • Asian – Asian Indian – Cambodian – Chinese – Hmong – Japanese – Korean – Laotian – Vietnamese – Other Asian

Subgroup	Definition
	• Pacific Islander – Guamanian – Native Hawaiian – Samoan – Tahitian – Other Pacific Islander • Filipino • Hispanic or Latino • African American • White (not Hispanic)
English-language Fluency	• English only • Initially fluent English proficient • English learner • Reclassified fluent English proficient
Economic Status	• Not economically disadvantaged • Economically disadvantaged
Special Services	• 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 on the next page.

Table 7.4 Types of CST Reports

1. Summary Reports	▪ STAR Student Master List Summary ▪ STAR Student Master List Summary, End-of-Course ▪ STAR Subgroup Summary (including the Ethnicity for Economic Status)
2. Individual Reports	▪ STAR Student Record Label ▪ STAR Student Master List ▪ STAR Student Report for CSTs
3. Internet Reports	▪ 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 test is incorporated into the overall score for the grade four or seven ELA test (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, these 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 365.

Score Report Applications

CST results provide parents and guardians with information about their child's progress. The results are a tool for increasing communication and collaboration between parents or guardians and teachers. Along with report cards from teachers and information from school and classroom tests, the STAR Student Report can be used by parents and guardians while talking with teachers about ways to improve their child's achievement of the California content standards.

Schools may use the 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 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 ELA 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, 2012a). 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 *2012 STAR Post-Test Guide* (CDE, 2012b).

References

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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.
- S*uggests* 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 Distribution Tables

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.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	2,289	1,020	1,857	544	307	1,781	263	1,520	266	446
540 – 569	N/A	N/A	2,631	1,901	1,104	N/A	938	N/A	1,050	N/A
510 – 539	5,515	3,019	4,033	N/A	2,267	2,657	2,203	5,712	N/A	1,058
480 – 509	8,951	5,593	11,870	9,908	8,906	9,508	9,296	4,852	6,296	2,311
450 – 479	24,381	18,471	25,255	17,942	13,925	23,120	25,176	21,028	13,028	16,264
420 – 449	45,008	25,371	52,548	48,006	48,798	41,298	45,582	40,389	29,319	28,669
390 – 419	75,514	58,789	78,008	66,043	68,112	69,633	72,763	73,248	60,931	61,531
360 – 389	77,585	72,292	78,163	93,045	86,019	89,313	75,048	84,645	86,088	76,952
330 – 359	75,954	84,487	73,883	79,357	81,196	73,222	77,053	88,271	92,724	75,266
300 – 329	58,952	70,423	54,926	59,209	63,613	58,210	58,593	63,812	67,585	70,006
270 – 299	42,198	43,566	32,484	34,400	42,567	36,618	39,521	42,368	51,275	44,339
240 – 269	35,935	37,042	11,785	16,365	15,265	19,470	22,717	29,955	33,548	36,653
210 – 239	9,868	17,223	736	2,077	1,700	5,082	5,116	5,202	10,699	21,464
180 – 209	377	3,014	18	60	38	510	305	420	838	3,085
150 – 179	30	97	4	11	13	19	27	52	74	224

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

Scale Score	Grade 8	World History	Grade 11
570 – 600	1,928	5,544	1,727
540 – 569	2,811	N/A	N/A
510 – 539	4,343	5,757	2,558
480 – 509	12,462	7,715	9,597
450 – 479	25,593	19,428	15,864
420 – 449	40,846	36,693	33,909
390 – 419	54,932	54,973	55,672
360 – 389	75,738	56,389	71,507
330 – 359	67,355	79,020	74,148
300 – 329	70,719	75,876	67,088
270 – 299	50,908	48,571	46,054
240 – 269	36,591	40,587	36,031
210 – 239	12,266	26,266	25,647
180 – 209	1,848	8,328	5,768
150 – 179	82	2,265	566

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	7,386	15,989	18,742	18,788	3,914	5,348
540 – 569	14,003	22,663	N/A	13,595	6,689	N/A
510 – 539	18,237	24,490	26,312	29,163	8,277	10,824
480 – 509	20,645	23,935	27,837	14,543	19,185	6,701
450 – 479	42,732	44,532	26,779	41,249	20,519	24,202
420 – 449	41,053	38,680	48,506	50,254	44,030	36,569
390 – 419	72,269	50,530	75,481	45,169	45,147	38,094
360 – 389	57,644	66,528	62,766	49,964	67,941	65,967
330 – 359	65,572	58,836	55,704	52,004	72,885	63,010
300 – 329	46,384	40,241	40,683	50,688	60,633	57,084
270 – 299	32,310	29,878	27,266	35,110	47,558	48,224
240 – 269	24,687	16,827	16,683	23,565	30,564	28,966
210 – 239	13,808	7,381	5,445	6,581	7,838	7,583
180 – 209	5,674	2,363	398	1,499	848	537
150 – 179	1,042	356	28	153	48	62

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	115	7,266	1,153	1,960	1,395	7	17	2
540 – 569	N/A	3,890	2,173	1,511	3,094	6	7	5
510 – 539	207	4,688	3,076	1,918	N/A	12	21	7
480 – 509	882	17,481	3,562	4,574	4,184	23	24	13
450 – 479	1,657	21,858	13,350	8,877	10,392	65	59	22
420 – 449	6,369	34,964	16,242	11,262	11,485	149	138	52
390 – 419	10,276	52,520	26,101	24,042	21,713	294	340	80
360 – 389	25,391	74,745	46,214	30,302	19,303	799	541	136
330 – 359	32,002	88,274	51,693	50,073	24,506	1,466	983	99
300 – 329	34,916	104,978	74,709	45,896	21,875	2,436	982	128
270 – 299	35,575	133,254	70,596	52,736	15,531	3,471	1,149	99
240 – 269	28,891	127,590	61,112	32,222	9,888	3,075	674	113
210 – 239	11,295	32,040	32,710	17,477	4,783	1,301	170	43
180 – 209	1,414	4,346	3,491	3,034	1,464	314	21	6
150 – 179	81	549	226	241	220	24	1	1

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	1,774	22,032	1,454	2,231	733	75	145
540 – 569	4,991	12,514	3,716	N/A	N/A	N/A	N/A
510 – 539	N/A	29,333	5,990	5,087	1,757	333	334
480 – 509	8,458	15,868	8,010	7,650	2,855	N/A	552
450 – 479	25,460	49,726	21,099	21,914	3,661	2,300	2,066
420 – 449	49,343	49,896	38,420	42,823	15,831	8,736	5,138
390 – 419	67,092	45,423	55,525	65,650	28,696	19,415	11,640
360 – 389	73,394	52,213	79,972	114,045	48,611	35,450	17,793
330 – 359	69,546	42,860	69,836	95,938	54,505	40,587	16,807
300 – 329	65,237	40,763	73,234	94,863	51,986	45,450	13,018
270 – 299	37,686	29,021	41,751	62,302	44,073	33,120	9,709
240 – 269	20,195	17,485	35,293	39,363	19,651	18,616	3,287
210 – 239	6,750	16,577	13,827	3,618	2,668	2,283	244
180 – 209	790	6,957	1,565	229	92	74	7
150 – 179	43	4,861	150	23	10	15	3

Scale Score	Integrated Science 1	Integrated Science 2	Integrated Science 3	Integrated Science 4
570 – 600	3	4	1	0
540 – 569	N/A	N/A	N/A	N/A
510 – 539	12	8	0	0
480 – 509	N/A	12	3	0
450 – 479	61	42	6	0
420 – 449	305	70	10	0
390 – 419	1,079	179	19	0
360 – 389	4,316	379	84	0
330 – 359	10,612	609	172	5
300 – 329	13,326	819	253	14
270 – 299	10,133	893	246	21
240 – 269	5,732	606	160	22
210 – 239	579	129	13	3
180 – 209	37	9	0	0
150 – 179	5	0	1	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	3,963	318	590	840	4,707
540 – 569	2,298	797	568	2,025	N/A
510 – 539	2,817	1,307	849	N/A	5,051
480 – 509	10,829	1,695	2,279	2,860	6,839
450 – 479	13,546	7,200	4,921	7,274	17,374
420 – 449	20,978	9,347	6,755	8,279	33,289
390 – 419	29,699	15,410	14,664	16,643	50,338
360 – 389	37,783	25,241	17,640	15,690	52,139
330 – 359	38,732	23,852	26,337	21,025	73,275
300 – 329	38,724	26,082	20,993	19,646	70,135
270 – 299	39,635	17,333	20,104	14,436	43,898
240 – 269	29,641	10,339	9,995	9,360	35,349
210 – 239	6,171	4,453	4,764	4,533	21,728
180 – 209	733	446	767	1,361	6,661
150 – 179	73	35	61	193	1,024

Appendix 7.C—Demographic Summaries

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

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	462,557	361	67	8%	12%	22%	30%	29%	72%	64%	68%	69%	62%
Male	236,396	356	67	9%	13%	23%	29%	26%	70%	62%	67%	66%	60%
Female	225,951	367	66	6%	10%	22%	31%	31%	74%	66%	69%	71%	65%
Gender unknown	210	339	65	12%	19%	24%	27%	19%	64%	58%	61%	60%	54%
American Indian	2,821	344	65	12%	15%	25%	29%	19%	66%	60%	63%	61%	56%
Asian American	40,901	404	68	2%	4%	12%	27%	54%	83%	76%	80%	82%	75%
Pacific Islander	2,511	359	60	6%	10%	26%	33%	25%	73%	63%	68%	69%	61%
Filipino	10,466	392	61	2%	4%	15%	33%	45%	82%	72%	77%	80%	71%
Hispanic	248,495	344	60	10%	15%	27%	30%	18%	67%	58%	62%	63%	56%
African American	28,006	344	63	11%	15%	25%	29%	19%	67%	57%	63%	63%	55%
White	115,084	384	66	4%	7%	16%	31%	42%	77%	73%	76%	75%	71%
Two or More Races	14,273	382	68	5%	7%	17%	30%	41%	77%	71%	75%	74%	69%
English Only	262,195	371	67	6%	9%	19%	31%	34%	74%	68%	72%	71%	66%
Initially Fluent English Prof.	18,914	405	65	2%	4%	12%	29%	54%	84%	77%	80%	82%	76%
English Learner	172,150	340	60	11%	16%	28%	29%	16%	66%	56%	59%	62%	54%
Reclassified Fluent Eng. Prof.	8,639	403	52	0%	2%	10%	35%	52%	85%	76%	81%	84%	77%
English Prof. unknown	659	338	67	15%	17%	24%	26%	18%	64%	58%	59%	59%	54%
No Special Ed Services	427,298	366	65	6%	11%	22%	31%	30%	73%	65%	69%	70%	64%
Special Ed Services	35,231	311	65	28%	23%	22%	17%	11%	53%	47%	49%	49%	43%
Special Ed unknown	28	303	64	36%	25%	14%	11%	14%	48%	47%	49%	44%	42%
Not Econ. Disadvantaged	172,261	393	65	3%	5%	14%	30%	47%	80%	74%	78%	78%	73%
Economically Disadvantaged	289,475	343	60	10%	15%	27%	30%	18%	67%	57%	61%	63%	56%
Unknown Economic Status	821	339	69	15%	16%	25%	23%	21%	64%	58%	61%	59%	54%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	844	368	65	6%	9%	20%	35%	29%	73%	68%	72%	70%	65%
Asian American	25,969	421	64	1%	2%	7%	23%	66%	87%	81%	84%	86%	80%
Pacific Islander	761	378	62	3%	7%	22%	33%	35%	78%	69%	74%	75%	67%
Filipino	6,529	400	61	2%	3%	12%	32%	51%	84%	75%	79%	83%	74%
Hispanic	40,090	370	63	5%	9%	20%	33%	33%	75%	67%	72%	72%	66%
African American	7,121	366	64	6%	9%	21%	33%	31%	74%	65%	71%	70%	64%
White	82,049	395	63	3%	5%	13%	31%	49%	80%	76%	79%	78%	75%
Two or More Races	8,898	400	65	2%	4%	13%	29%	52%	82%	77%	80%	80%	75%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,969	334	62	15%	17%	27%	26%	15%	63%	56%	59%	58%	53%
Asian American	14,873	374	64	5%	8%	20%	33%	34%	77%	67%	71%	74%	65%
Pacific Islander	1,743	351	58	8%	11%	28%	33%	20%	71%	60%	65%	66%	58%
Filipino	3,921	379	59	3%	6%	20%	35%	36%	79%	68%	73%	77%	67%
Hispanic	208,124	339	58	11%	16%	28%	29%	15%	66%	56%	60%	62%	54%
African American	20,820	336	61	13%	17%	27%	28%	15%	65%	55%	60%	60%	52%
White	32,836	356	64	9%	12%	23%	31%	25%	70%	63%	68%	66%	61%
Two or More Races	5,189	352	63	10%	12%	24%	32%	23%	69%	61%	66%	65%	59%
Primary Ethnicity—Unknown Economic Status													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	59	385	75	7%	8%	14%	25%	46%	77%	70%	75%	74%	70%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	16	352	63	6%	6%	38%	19%	31%	71%	64%	60%	66%	53%
Hispanic	281	327	61	16%	18%	30%	22%	14%	60%	54%	56%	57%	49%
African American	65	318	66	18%	26%	31%	14%	11%	57%	47%	53%	52%	45%
White	199	349	73	15%	12%	22%	24%	28%	66%	62%	65%	61%	59%
Two or More Races	186	339	68	15%	17%	21%	27%	20%	64%	59%	60%	59%	54%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	440,407	347	64	10%	13%	29%	29%	19%	74%	67%	68%	63%	64%
Male	221,321	343	65	11%	14%	29%	28%	17%	73%	66%	67%	61%	62%
Female	218,892	351	64	8%	12%	29%	30%	20%	75%	69%	70%	64%	66%
Gender unknown	194	320	66	22%	12%	32%	25%	9%	66%	60%	60%	53%	54%
American Indian	2,611	335	61	12%	16%	34%	27%	12%	71%	65%	66%	57%	60%
Asian American	40,154	385	66	4%	6%	19%	32%	39%	84%	77%	78%	75%	74%
Pacific Islander	2,389	343	58	8%	14%	34%	30%	15%	74%	66%	68%	62%	63%
Filipino	11,226	370	58	3%	7%	26%	37%	27%	82%	74%	76%	71%	71%
Hispanic	232,544	328	59	13%	18%	34%	25%	10%	69%	62%	62%	58%	58%
African American	26,676	331	61	13%	17%	32%	26%	11%	70%	62%	64%	58%	59%
White	112,140	373	61	4%	7%	23%	36%	30%	81%	76%	77%	69%	72%
Two or More Races	12,667	366	64	6%	8%	24%	34%	28%	80%	74%	75%	67%	70%
English Only	248,545	359	63	7%	10%	27%	33%	23%	78%	71%	73%	65%	68%
Initially Fluent English Prof.	19,950	387	62	2%	5%	19%	35%	39%	85%	78%	80%	74%	76%
English Learner	137,562	312	55	18%	22%	36%	19%	5%	64%	56%	56%	54%	53%
Reclassified Fluent Eng. Prof.	33,725	378	48	1%	3%	24%	45%	27%	84%	77%	80%	74%	75%
English Prof. unknown	625	320	67	22%	18%	26%	21%	12%	64%	59%	60%	54%	55%
No Special Ed Services	416,041	349	64	9%	13%	29%	30%	19%	75%	68%	69%	63%	65%
Special Ed Services	24,326	316	65	22%	20%	28%	20%	10%	64%	58%	57%	53%	53%
Special Ed unknown	40	282	46	28%	43%	23%	5%	3%	51%	49%	46%	43%	39%
Not Econ. Disadvantaged	168,324	378	61	3%	6%	22%	36%	33%	83%	77%	78%	71%	74%
Economically Disadvantaged	271,334	328	59	14%	18%	34%	25%	10%	69%	62%	62%	58%	58%
Unknown Economic Status	749	327	67	19%	17%	29%	23%	13%	68%	61%	62%	56%	57%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	908	358	60	6%	9%	30%	34%	21%	78%	73%	73%	64%	68%
Asian American	25,453	402	62	2%	3%	13%	32%	49%	88%	82%	83%	79%	79%
Pacific Islander	817	358	58	5%	10%	28%	35%	22%	79%	71%	74%	66%	68%
Filipino	7,006	380	56	2%	5%	23%	38%	33%	84%	76%	79%	74%	74%
Hispanic	38,013	356	60	6%	10%	29%	34%	21%	77%	71%	72%	65%	68%
African American	7,093	353	62	7%	12%	29%	32%	20%	77%	69%	71%	64%	66%
White	81,155	383	58	2%	5%	20%	37%	35%	84%	79%	80%	72%	76%
Two or More Races	7,879	383	59	2%	5%	20%	37%	36%	84%	79%	80%	72%	75%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,697	322	57	15%	19%	35%	23%	8%	67%	61%	62%	53%	56%
Asian American	14,648	354	63	7%	11%	28%	32%	21%	77%	69%	70%	67%	66%
Pacific Islander	1,566	334	57	10%	16%	37%	27%	11%	72%	63%	64%	60%	60%
Filipino	4,206	355	58	6%	11%	30%	35%	19%	78%	69%	72%	66%	67%
Hispanic	194,299	323	57	15%	19%	35%	24%	8%	67%	60%	60%	56%	56%
African American	19,510	323	58	16%	19%	33%	24%	8%	68%	60%	61%	55%	56%
White	30,803	345	60	9%	13%	32%	31%	16%	74%	68%	69%	61%	64%
Two or More Races	4,605	339	62	11%	13%	32%	29%	14%	72%	66%	67%	59%	61%
Primary Ethnicity—Unknown Economic Status													
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	53	348	73	17%	11%	19%	34%	19%	73%	65%	69%	64%	65%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	14	314	82	29%	7%	43%	14%	7%	61%	57%	58%	46%	54%
Hispanic	232	317	60	21%	19%	34%	19%	8%	65%	58%	58%	53%	56%
African American	73	317	61	21%	22%	26%	26%	5%	67%	55%	58%	54%	53%
White	182	340	70	16%	15%	26%	24%	19%	71%	66%	66%	59%	61%
Two or More Races	183	326	68	20%	16%	26%	22%	16%	68%	61%	62%	56%	56%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	428,201	375	59	3%	8%	22%	28%	39%	76%	66%	62%	67%	59%
Male	213,949	370	59	4%	9%	24%	28%	36%	75%	64%	61%	65%	57%
Female	214,144	380	59	2%	6%	21%	29%	42%	78%	67%	64%	69%	60%
Gender unknown	108	352	50	6%	11%	27%	30%	27%	69%	59%	55%	60%	51%
American Indian	2,651	360	56	4%	11%	27%	29%	28%	72%	61%	58%	61%	53%
Asian American	38,884	413	63	1%	3%	10%	21%	64%	86%	76%	73%	78%	71%
Pacific Islander	2,424	369	52	2%	8%	25%	32%	33%	76%	63%	60%	66%	56%
Filipino	11,156	397	53	1%	3%	14%	28%	55%	84%	72%	68%	75%	67%
Hispanic	225,039	358	53	4%	11%	29%	31%	26%	71%	60%	56%	62%	53%
African American	26,776	357	55	5%	11%	28%	29%	27%	71%	59%	57%	61%	52%
White	109,655	398	57	1%	3%	13%	26%	56%	84%	74%	71%	73%	66%
Two or More Races	11,616	394	59	2%	4%	15%	27%	52%	82%	71%	69%	72%	64%
English Only	239,182	386	59	2%	6%	18%	28%	46%	80%	69%	66%	70%	62%
Initially Fluent English Prof.	19,191	411	59	1%	2%	10%	23%	63%	86%	76%	74%	77%	70%
English Learner	116,658	336	45	6%	16%	39%	29%	10%	62%	52%	48%	55%	45%
Reclassified Fluent Eng. Prof.	52,603	403	45	0%	1%	8%	33%	58%	87%	75%	71%	78%	69%
English Prof. unknown	567	351	59	10%	14%	24%	26%	26%	67%	58%	54%	59%	51%
No Special Ed Services	405,330	377	59	3%	7%	22%	29%	39%	77%	66%	63%	67%	59%
Special Ed Services	20,895	351	59	7%	14%	29%	26%	24%	67%	58%	54%	58%	51%
Special Ed unknown	1,976	344	55	7%	15%	32%	25%	20%	66%	55%	51%	56%	49%
Not Econ. Disadvantaged	163,373	405	57	1%	3%	12%	24%	60%	85%	75%	72%	75%	69%
Economically Disadvantaged	264,171	357	52	4%	11%	29%	31%	25%	71%	60%	56%	62%	52%
Unknown Economic Status	657	360	60	8%	10%	24%	27%	31%	70%	61%	58%	61%	54%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	884	383	56	1%	6%	20%	29%	44%	80%	69%	66%	68%	61%
Asian American	24,430	431	59	1%	1%	6%	16%	77%	90%	81%	79%	83%	77%
Pacific Islander	794	389	53	0%	4%	19%	28%	49%	83%	71%	67%	72%	63%
Filipino	6,892	406	52	0%	2%	11%	25%	62%	86%	75%	71%	77%	70%
Hispanic	36,650	384	54	2%	5%	19%	31%	45%	80%	69%	66%	70%	62%
African American	7,172	380	57	2%	6%	20%	29%	42%	79%	67%	65%	68%	60%
White	79,252	409	54	1%	2%	10%	24%	64%	87%	77%	74%	76%	70%
Two or More Races	7,299	409	57	1%	2%	10%	24%	63%	87%	76%	74%	76%	70%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,759	348	52	5%	14%	31%	29%	21%	68%	57%	55%	58%	49%
Asian American	14,411	382	57	2%	6%	19%	30%	44%	79%	68%	64%	71%	62%
Pacific Islander	1,628	359	50	3%	10%	29%	34%	25%	73%	59%	57%	63%	53%
Filipino	4,251	383	51	1%	4%	19%	32%	44%	80%	68%	64%	71%	62%
Hispanic	188,159	353	51	4%	12%	31%	31%	22%	69%	58%	54%	61%	51%
African American	19,532	349	52	6%	13%	31%	29%	21%	69%	56%	54%	59%	49%
White	30,244	371	54	3%	7%	23%	32%	35%	76%	65%	62%	65%	57%
Two or More Races	4,187	367	54	3%	8%	25%	32%	33%	76%	63%	60%	64%	55%
Primary Ethnicity—Unknown Economic Status													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	43	393	62	5%	5%	9%	30%	51%	79%	73%	68%	72%	67%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	13	355	61	8%	15%	15%	46%	15%	69%	61%	49%	63%	52%
Hispanic	230	346	58	12%	12%	26%	28%	23%	65%	56%	54%	57%	50%
African American	72	347	59	13%	10%	32%	24%	22%	66%	54%	54%	57%	51%
White	159	379	58	2%	7%	23%	28%	40%	78%	69%	64%	66%	60%
Two or More Races	130	357	59	8%	12%	24%	23%	34%	70%	60%	58%	60%	54%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	428,868	366	57	4%	8%	25%	32%	31%	69%	72%	67%	72%	67%
Male	214,341	361	57	5%	9%	26%	31%	28%	69%	71%	65%	70%	64%
Female	214,414	371	56	3%	7%	24%	32%	33%	69%	72%	70%	75%	69%
Gender unknown	113	345	54	8%	13%	32%	27%	20%	63%	64%	61%	64%	60%
American Indian	2,571	353	52	6%	10%	30%	32%	21%	66%	69%	64%	67%	61%
Asian American	38,905	401	61	2%	3%	13%	26%	56%	78%	81%	76%	83%	77%
Pacific Islander	2,387	358	51	4%	9%	28%	35%	24%	68%	69%	65%	72%	63%
Filipino	11,770	385	50	1%	3%	18%	35%	43%	75%	78%	73%	80%	73%
Hispanic	223,580	349	51	6%	11%	32%	32%	18%	64%	66%	62%	68%	61%
African American	27,365	349	52	7%	11%	31%	31%	19%	65%	66%	63%	67%	60%
White	110,977	389	54	2%	4%	16%	32%	47%	76%	81%	76%	77%	74%
Two or More Races	11,313	384	56	2%	5%	18%	31%	44%	75%	78%	74%	76%	72%
English Only	238,457	376	56	3%	6%	21%	33%	37%	73%	76%	71%	74%	70%
Initially Fluent English Prof.	19,705	398	56	1%	3%	14%	30%	52%	78%	81%	77%	81%	77%
English Learner	93,779	320	42	12%	20%	44%	21%	4%	53%	54%	51%	59%	51%
Reclassified Fluent Eng. Prof.	76,433	383	44	0%	2%	19%	43%	36%	75%	78%	74%	79%	73%
English Prof. unknown	494	340	59	14%	11%	31%	26%	18%	60%	63%	58%	63%	58%
No Special Ed Services	406,223	368	56	4%	8%	25%	32%	31%	69%	72%	68%	73%	67%
Special Ed Services	20,465	340	57	11%	14%	32%	25%	17%	61%	62%	58%	63%	57%
Special Ed unknown	2,180	346	56	9%	13%	30%	28%	20%	63%	64%	61%	65%	60%
Not Econ. Disadvantaged	165,592	395	54	1%	3%	14%	31%	51%	78%	82%	77%	79%	76%
Economically Disadvantaged	262,687	348	51	6%	11%	33%	32%	18%	63%	65%	62%	68%	61%
Unknown Economic Status	589	345	61	12%	13%	28%	24%	23%	62%	64%	61%	64%	59%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	883	372	52	2%	6%	24%	33%	35%	71%	76%	71%	73%	69%
Asian American	24,172	418	56	1%	1%	7%	22%	68%	83%	86%	81%	86%	82%
Pacific Islander	805	378	49	1%	4%	20%	38%	38%	74%	77%	71%	77%	70%
Filipino	7,309	393	50	1%	2%	14%	33%	50%	77%	81%	75%	82%	76%
Hispanic	36,734	374	51	2%	5%	22%	36%	35%	72%	76%	71%	74%	70%
African American	7,634	371	53	3%	6%	23%	35%	32%	72%	74%	70%	73%	68%
White	80,997	399	51	1%	2%	12%	31%	55%	79%	84%	78%	80%	77%
Two or More Races	7,058	400	53	1%	3%	12%	30%	55%	80%	83%	78%	80%	77%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,679	342	49	8%	13%	34%	33%	13%	63%	65%	60%	64%	58%
Asian American	14,693	372	56	4%	6%	23%	32%	35%	70%	73%	67%	77%	68%
Pacific Islander	1,578	348	49	5%	11%	33%	33%	17%	64%	65%	62%	69%	60%
Filipino	4,456	371	49	2%	5%	24%	38%	32%	71%	74%	68%	77%	68%
Hispanic	186,636	344	49	7%	12%	34%	32%	15%	62%	64%	60%	67%	60%
African American	19,675	341	50	8%	13%	34%	30%	14%	62%	62%	60%	64%	57%
White	29,836	362	52	4%	8%	26%	35%	26%	69%	72%	67%	70%	65%
Two or More Races	4,134	359	52	5%	9%	27%	35%	25%	68%	70%	66%	70%	64%
Primary Ethnicity—Unknown Economic Status													
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	40	373	85	15%	13%	13%	13%	48%	67%	68%	66%	71%	69%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	210	334	55	13%	17%	30%	24%	15%	59%	59%	58%	62%	56%
African American	56	318	54	25%	16%	32%	13%	14%	53%	53%	52%	55%	49%
White	144	364	55	6%	7%	22%	36%	29%	69%	75%	68%	69%	66%
Two or More Races	121	348	63	12%	10%	32%	21%	24%	62%	65%	63%	64%	61%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	433,830	364	57	3%	11%	27%	29%	30%	69%	60%	66%	71%	62%
Male	217,321	360	57	4%	12%	27%	28%	28%	68%	58%	64%	69%	61%
Female	216,374	369	56	2%	9%	26%	30%	33%	69%	62%	68%	73%	64%
Gender unknown	135	340	54	8%	20%	30%	24%	18%	60%	51%	59%	64%	53%
American Indian	2,755	352	53	4%	14%	31%	29%	22%	66%	56%	63%	66%	58%
Asian American	40,763	400	61	1%	4%	14%	25%	56%	78%	71%	75%	81%	75%
Pacific Islander	2,508	356	51	3%	11%	31%	31%	24%	67%	57%	64%	70%	60%
Filipino	12,089	383	51	1%	5%	19%	33%	42%	75%	66%	72%	78%	70%
Hispanic	223,420	347	50	4%	14%	34%	30%	18%	62%	54%	60%	67%	56%
African American	27,931	346	52	5%	15%	32%	29%	19%	63%	54%	61%	65%	55%
White	113,366	387	55	1%	5%	17%	30%	47%	78%	68%	74%	76%	70%
Two or More Races	10,998	382	56	2%	6%	20%	29%	43%	76%	66%	72%	75%	68%
English Only	241,924	374	56	2%	8%	23%	30%	37%	73%	64%	70%	73%	66%
Initially Fluent English Prof.	30,526	390	57	1%	5%	18%	30%	47%	76%	69%	74%	78%	71%
English Learner	74,682	313	39	10%	29%	43%	14%	3%	49%	41%	47%	57%	43%
Reclassified Fluent Eng. Prof.	86,106	372	45	0%	4%	26%	40%	30%	71%	63%	68%	76%	67%
English Prof. unknown	592	336	61	12%	22%	24%	22%	19%	57%	50%	57%	61%	53%
No Special Ed Services	412,602	366	56	3%	10%	26%	30%	31%	69%	61%	67%	72%	63%
Special Ed Services	19,992	331	54	10%	22%	33%	21%	14%	57%	48%	55%	59%	50%
Special Ed unknown	1,236	334	53	9%	21%	32%	22%	15%	58%	50%	55%	61%	51%
Not Econ. Disadvantaged	171,473	392	55	1%	4%	16%	29%	50%	78%	69%	75%	78%	72%
Economically Disadvantaged	261,757	346	50	5%	15%	34%	29%	18%	62%	54%	60%	67%	56%
Unknown Economic Status	600	346	56	6%	19%	29%	26%	21%	62%	54%	61%	64%	56%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,015	373	53	2%	7%	24%	33%	35%	74%	63%	70%	72%	66%
Asian American	25,104	418	57	1%	2%	8%	21%	68%	84%	76%	81%	85%	80%
Pacific Islander	885	375	52	2%	6%	21%	35%	36%	74%	64%	71%	75%	66%
Filipino	7,557	392	50	0%	3%	15%	32%	49%	78%	69%	75%	80%	73%
Hispanic	39,009	371	52	2%	7%	24%	33%	34%	72%	63%	69%	73%	65%
African American	8,277	365	54	3%	9%	25%	32%	31%	70%	61%	68%	71%	62%
White	82,714	397	53	1%	3%	14%	29%	54%	81%	71%	77%	79%	74%
Two or More Races	6,912	396	54	1%	4%	14%	28%	54%	80%	71%	77%	79%	73%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,736	339	49	5%	19%	35%	27%	14%	61%	51%	59%	63%	53%
Asian American	15,612	372	56	2%	8%	23%	31%	35%	70%	62%	67%	75%	66%
Pacific Islander	1,613	346	48	4%	14%	36%	29%	17%	63%	53%	61%	67%	56%
Filipino	4,516	368	50	2%	8%	26%	35%	30%	70%	61%	67%	74%	64%
Hispanic	184,228	342	48	5%	16%	36%	29%	15%	60%	52%	58%	66%	55%
African American	19,589	338	49	6%	18%	35%	27%	14%	60%	52%	58%	62%	52%
White	30,514	361	52	3%	10%	28%	32%	27%	69%	59%	66%	69%	61%
Two or More Races	3,949	358	52	3%	11%	30%	31%	26%	68%	58%	65%	69%	60%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Unknown Economic Status													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	47	358	70	11%	15%	17%	23%	34%	60%	61%	62%	67%	63%
Pacific Islander	10	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	16	361	41	0%	6%	31%	31%	31%	64%	63%	65%	74%	63%
Hispanic	183	335	48	7%	21%	38%	22%	13%	58%	50%	56%	62%	52%
African American	65	313	46	15%	34%	25%	22%	5%	50%	44%	47%	54%	42%
White	138	368	55	2%	10%	23%	33%	31%	73%	61%	70%	69%	64%
Two or More Races	137	346	57	5%	20%	29%	24%	22%	62%	54%	62%	64%	55%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	430,441	367	61	4%	10%	24%	33%	29%	75%	70%	64%	70%	61%
Male	216,018	360	62	6%	12%	24%	32%	26%	73%	70%	61%	67%	59%
Female	214,301	373	60	3%	8%	23%	34%	32%	76%	70%	67%	72%	63%
Gender unknown	122	328	64	18%	15%	30%	25%	12%	63%	60%	52%	58%	48%
American Indian	2,806	354	57	6%	12%	27%	35%	20%	73%	67%	62%	66%	56%
Asian American	37,893	406	65	2%	4%	11%	27%	55%	83%	79%	73%	81%	74%
Pacific Islander	2,501	358	56	5%	11%	28%	35%	22%	72%	67%	60%	70%	58%
Filipino	12,565	388	54	1%	4%	16%	37%	41%	81%	76%	69%	78%	68%
Hispanic	220,729	347	54	6%	14%	30%	34%	16%	69%	65%	58%	65%	55%
African American	28,334	347	57	7%	14%	28%	33%	17%	71%	64%	59%	65%	54%
White	115,193	392	58	2%	5%	15%	33%	46%	83%	77%	72%	76%	69%
Two or More Races	10,420	385	61	3%	6%	17%	34%	41%	81%	75%	70%	75%	67%
English Only	242,524	378	60	3%	7%	20%	34%	36%	79%	73%	68%	72%	64%
Initially Fluent English Prof.	33,079	391	60	2%	5%	17%	34%	43%	81%	76%	71%	76%	69%
English Learner	62,383	305	43	16%	30%	39%	14%	2%	54%	51%	42%	53%	41%
Reclassified Fluent Eng. Prof.	91,732	371	47	1%	5%	26%	44%	25%	77%	72%	65%	73%	63%
English Prof. unknown	723	330	64	16%	18%	24%	28%	13%	63%	59%	53%	58%	49%
No Special Ed Services	410,191	369	61	4%	9%	23%	34%	30%	75%	70%	64%	71%	62%
Special Ed Services	19,066	325	59	15%	21%	31%	23%	11%	62%	58%	50%	57%	48%
Special Ed unknown	1,184	346	62	9%	15%	28%	29%	19%	68%	64%	58%	64%	54%
Not Econ. Disadvantaged	174,493	396	59	2%	4%	14%	33%	48%	83%	77%	73%	77%	70%
Economically Disadvantaged	255,257	347	55	6%	14%	30%	34%	16%	69%	65%	57%	65%	55%
Unknown Economic Status	691	344	63	10%	16%	24%	31%	19%	69%	64%	59%	62%	53%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,087	373	56	3%	8%	20%	38%	31%	78%	72%	68%	71%	62%
Asian American	22,979	425	61	1%	2%	6%	22%	69%	88%	83%	78%	85%	79%
Pacific Islander	957	376	55	3%	7%	21%	36%	34%	78%	72%	66%	74%	64%
Filipino	7,932	398	52	1%	3%	12%	36%	48%	83%	78%	72%	81%	71%
Hispanic	41,465	372	55	3%	7%	22%	38%	30%	77%	72%	67%	71%	63%
African American	8,771	368	57	4%	8%	23%	36%	29%	77%	70%	66%	71%	62%
White	84,716	402	56	1%	3%	11%	32%	53%	85%	79%	75%	79%	72%
Two or More Races	6,586	401	57	1%	3%	12%	32%	51%	85%	79%	75%	79%	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	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,707	342	54	8%	14%	31%	33%	13%	69%	63%	58%	62%	53%
Asian American	14,867	376	61	4%	7%	19%	35%	35%	76%	72%	65%	75%	65%
Pacific Islander	1,535	346	53	6%	13%	33%	34%	15%	68%	64%	56%	67%	54%
Filipino	4,615	371	52	2%	7%	22%	40%	29%	77%	72%	63%	74%	63%
Hispanic	179,031	342	52	7%	15%	32%	33%	13%	68%	63%	55%	63%	53%
African American	19,513	338	54	9%	16%	31%	32%	12%	68%	61%	56%	62%	51%
White	30,298	364	57	4%	10%	24%	37%	26%	76%	70%	65%	68%	60%
Two or More Races	3,691	359	57	5%	10%	25%	37%	23%	74%	68%	63%	68%	58%
Primary Ethnicity—Unknown Economic Status													
American Indian	12	341	53	8%	17%	17%	42%	17%	71%	68%	60%	56%	53%
Asian American	47	365	81	13%	15%	11%	30%	32%	70%	67%	60%	71%	62%
Pacific Islander	9	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	18	366	66	6%	11%	17%	44%	22%	74%	70%	65%	70%	60%
Hispanic	233	327	58	13%	18%	32%	27%	10%	63%	60%	54%	56%	49%
African American	50	340	58	8%	20%	24%	34%	14%	69%	64%	57%	61%	52%
White	179	368	58	3%	9%	20%	37%	31%	76%	72%	67%	69%	61%
Two or More Races	143	334	64	15%	20%	22%	28%	16%	66%	61%	55%	60%	49%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	434,601	365	62	6%	10%	25%	26%	33%	68%	68%	66%	68%	61%
Male	217,858	358	62	7%	12%	26%	25%	30%	68%	67%	64%	65%	58%
Female	216,623	372	60	4%	8%	24%	27%	37%	69%	70%	68%	71%	64%
Gender unknown	120	323	52	15%	18%	38%	20%	10%	55%	57%	52%	53%	46%
American Indian	2,936	351	59	8%	13%	29%	25%	25%	65%	64%	62%	63%	55%
Asian American	38,132	406	65	2%	4%	13%	21%	60%	78%	78%	77%	79%	74%
Pacific Islander	2,620	357	58	6%	11%	27%	29%	27%	66%	66%	63%	66%	59%
Filipino	12,922	387	55	2%	5%	18%	29%	47%	75%	74%	72%	76%	69%
Hispanic	221,653	347	55	7%	13%	31%	27%	21%	63%	64%	60%	63%	56%
African American	29,087	345	58	9%	15%	29%	26%	21%	62%	63%	59%	62%	54%
White	117,481	388	59	3%	5%	17%	27%	48%	76%	75%	73%	75%	68%
Two or More Races	9,770	381	62	4%	7%	19%	26%	44%	74%	73%	71%	73%	66%
English Only	243,707	375	61	4%	8%	22%	27%	39%	72%	71%	69%	71%	64%
Initially Fluent English Prof.	36,703	389	61	2%	5%	18%	27%	47%	75%	75%	73%	75%	69%
English Learner	55,462	302	41	21%	30%	37%	10%	2%	47%	48%	43%	47%	40%
Reclassified Fluent Eng. Prof.	98,055	369	50	2%	6%	28%	34%	30%	70%	71%	67%	70%	64%
English Prof. unknown	674	329	63	17%	20%	29%	18%	17%	56%	56%	53%	55%	50%
No Special Ed Services	414,946	367	61	5%	10%	24%	27%	34%	69%	69%	66%	69%	62%
Special Ed Services	19,634	321	57	18%	21%	32%	18%	12%	56%	54%	51%	52%	46%
Special Ed unknown	21	306	48	24%	29%	24%	19%	5%	46%	54%	44%	46%	41%
Not Econ. Disadvantaged	180,801	392	60	2%	5%	16%	26%	50%	77%	75%	74%	76%	70%
Economically Disadvantaged	253,099	346	56	8%	14%	31%	27%	21%	63%	63%	60%	62%	55%
Unknown Economic Status	701	336	63	15%	17%	28%	22%	19%	60%	59%	56%	58%	52%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,136	368	59	4%	9%	24%	28%	34%	71%	70%	68%	68%	62%
Asian American	23,164	424	60	1%	2%	8%	17%	72%	83%	82%	82%	84%	80%
Pacific Islander	1,055	376	59	4%	8%	20%	30%	39%	72%	71%	69%	72%	65%
Filipino	8,217	396	54	1%	3%	14%	28%	53%	77%	77%	75%	78%	72%
Hispanic	43,904	369	57	4%	8%	24%	30%	34%	70%	70%	67%	69%	63%
African American	9,896	364	59	5%	10%	24%	29%	32%	68%	68%	65%	68%	61%
White	87,235	397	56	1%	3%	14%	26%	55%	79%	77%	76%	77%	71%
Two or More Races	6,194	397	59	2%	4%	14%	26%	54%	78%	77%	76%	77%	71%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,792	339	56	11%	15%	32%	24%	19%	62%	61%	58%	59%	52%
Asian American	14,935	377	62	4%	8%	20%	27%	41%	71%	72%	69%	72%	66%
Pacific Islander	1,562	345	54	7%	14%	32%	28%	19%	62%	63%	59%	63%	54%
Filipino	4,697	373	55	3%	7%	23%	30%	36%	71%	71%	68%	72%	65%
Hispanic	177,496	342	54	8%	15%	33%	27%	18%	61%	62%	58%	61%	54%
African American	19,117	335	55	11%	17%	32%	24%	16%	59%	60%	55%	58%	51%
White	30,084	361	58	6%	10%	26%	29%	30%	69%	68%	65%	66%	59%
Two or More Races	3,416	355	59	7%	11%	27%	28%	27%	67%	66%	63%	65%	58%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Unknown Economic Status													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	33	370	62	3%	15%	15%	30%	36%	67%	72%	63%	70%	65%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	8	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	253	323	60	21%	20%	25%	23%	12%	55%	55%	50%	54%	47%
African American	74	308	52	27%	23%	28%	16%	5%	51%	51%	46%	50%	40%
White	162	359	61	7%	10%	27%	23%	32%	67%	66%	64%	67%	59%
Two or More Races	160	339	64	10%	14%	38%	19%	19%	60%	60%	57%	58%	52%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	461,474	361	62	6%	11%	26%	28%	29%	61%	68%	68%	65%	60%
Male	233,180	356	63	7%	13%	26%	27%	26%	60%	66%	66%	62%	58%
Female	228,161	368	61	4%	10%	26%	29%	32%	62%	69%	70%	68%	62%
Gender unknown	133	319	63	23%	22%	26%	14%	15%	48%	51%	54%	53%	45%
American Indian	3,315	352	59	7%	13%	27%	29%	24%	59%	65%	66%	62%	57%
Asian American	41,039	402	67	2%	5%	14%	24%	55%	71%	79%	78%	77%	72%
Pacific Islander	2,653	352	57	6%	13%	31%	27%	23%	57%	65%	66%	63%	57%
Filipino	13,501	384	54	1%	5%	19%	33%	41%	68%	76%	75%	73%	67%
Hispanic	237,263	343	54	8%	15%	32%	28%	17%	55%	62%	63%	59%	55%
African American	30,168	339	57	10%	17%	31%	26%	17%	53%	61%	61%	58%	53%
White	122,030	386	60	3%	6%	17%	29%	45%	70%	75%	76%	72%	67%
Two or More Races	11,505	379	64	4%	8%	20%	28%	41%	67%	73%	73%	70%	65%
English Only	255,695	372	62	4%	9%	22%	29%	36%	65%	71%	72%	68%	63%
Initially Fluent English Prof.	34,732	386	63	3%	6%	19%	30%	43%	68%	75%	75%	72%	67%
English Learner	63,094	300	40	19%	32%	38%	9%	2%	39%	46%	47%	46%	40%
Reclassified Fluent Eng. Prof.	107,040	366	49	2%	6%	30%	37%	25%	62%	71%	71%	67%	62%
English Prof. unknown	913	321	58	18%	23%	28%	19%	12%	48%	54%	54%	52%	47%
No Special Ed Services	438,075	364	61	5%	10%	26%	29%	30%	62%	69%	69%	66%	61%
Special Ed Services	23,362	312	55	20%	26%	30%	15%	8%	45%	50%	52%	48%	44%
Special Ed unknown	37	296	47	19%	43%	24%	11%	3%	38%	46%	45%	41%	40%
Not Econ. Disadvantaged	204,913	386	61	3%	6%	18%	29%	45%	69%	75%	76%	72%	67%
Economically Disadvantaged	255,866	342	55	8%	15%	32%	28%	17%	54%	62%	62%	59%	54%
Unknown Economic Status	695	334	60	13%	20%	27%	23%	18%	53%	58%	60%	56%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,598	370	58	4%	9%	22%	31%	34%	65%	71%	72%	67%	63%
Asian American	24,956	421	63	1%	2%	8%	20%	68%	77%	84%	83%	82%	77%
Pacific Islander	1,174	368	58	3%	9%	26%	31%	31%	63%	70%	71%	67%	62%
Filipino	9,294	391	53	1%	4%	16%	32%	47%	70%	78%	77%	75%	69%
Hispanic	55,762	361	57	5%	10%	26%	31%	27%	61%	68%	69%	65%	60%
African American	11,304	356	58	6%	12%	27%	30%	25%	60%	66%	67%	63%	59%
White	93,331	395	58	2%	4%	15%	29%	51%	73%	78%	78%	75%	70%
Two or More Races	7,494	395	61	2%	4%	15%	27%	51%	72%	78%	78%	75%	70%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,706	335	55	11%	16%	33%	27%	14%	53%	59%	61%	56%	51%
Asian American	16,056	372	61	4%	8%	23%	29%	36%	62%	72%	72%	69%	64%
Pacific Islander	1,478	340	53	8%	16%	36%	25%	16%	53%	61%	62%	59%	53%
Filipino	4,201	367	53	3%	8%	26%	34%	30%	62%	71%	70%	68%	62%
Hispanic	181,219	337	52	8%	16%	34%	27%	13%	53%	60%	61%	58%	53%
African American	18,810	329	54	12%	20%	33%	23%	12%	50%	57%	58%	55%	50%
White	28,543	357	57	6%	11%	26%	31%	26%	61%	67%	68%	64%	58%
Two or More Races	3,853	349	59	8%	13%	28%	29%	21%	58%	64%	65%	61%	56%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Unknown Economic Status													
American Indian	11	337	41	9%	0%	55%	27%	9%	58%	57%	64%	58%	53%
Asian American	27	336	63	7%	33%	19%	19%	22%	50%	59%	57%	59%	51%
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	6	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	282	321	55	15%	24%	30%	20%	11%	46%	54%	56%	51%	47%
African American	54	318	58	15%	31%	30%	9%	15%	49%	52%	52%	50%	47%
White	156	358	62	10%	9%	21%	29%	31%	65%	67%	68%	62%	59%
Two or More Races	158	337	60	11%	19%	27%	27%	16%	54%	59%	61%	58%	52%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	453,721	348	59	8%	13%	28%	26%	24%	69%	68%	64%	67%	63%
Male	228,180	342	60	11%	15%	27%	25%	22%	68%	66%	62%	64%	61%
Female	225,344	355	56	5%	12%	28%	28%	27%	69%	70%	66%	70%	66%
Gender unknown	197	304	54	25%	26%	27%	14%	8%	53%	53%	50%	50%	46%
American Indian	3,317	338	56	11%	15%	30%	27%	18%	66%	65%	62%	63%	60%
Asian American	42,396	385	61	3%	6%	17%	25%	49%	78%	80%	74%	76%	76%
Pacific Islander	2,607	340	55	9%	15%	30%	27%	18%	66%	65%	61%	65%	61%
Filipino	13,483	370	51	2%	6%	23%	33%	36%	77%	76%	70%	74%	72%
Hispanic	226,177	332	52	10%	18%	34%	25%	14%	63%	63%	59%	62%	57%
African American	29,618	328	55	13%	19%	31%	23%	14%	62%	60%	58%	60%	56%
White	125,495	368	57	5%	8%	21%	30%	37%	75%	74%	71%	73%	71%
Two or More Races	10,628	361	60	7%	10%	23%	28%	33%	73%	72%	68%	70%	68%
English Only	253,148	356	59	7%	11%	25%	28%	29%	71%	70%	67%	69%	66%
Initially Fluent English Prof.	33,005	372	58	3%	7%	22%	29%	38%	76%	76%	71%	74%	72%
English Learner	58,245	290	39	25%	36%	32%	6%	1%	48%	47%	45%	46%	41%
Reclassified Fluent Eng. Prof.	108,613	354	47	3%	8%	35%	32%	21%	71%	72%	66%	70%	66%
English Prof. unknown	710	318	56	20%	20%	30%	19%	11%	58%	58%	55%	55%	51%
No Special Ed Services	430,154	351	58	7%	12%	28%	27%	25%	70%	69%	65%	68%	64%
Special Ed Services	23,538	298	51	28%	28%	27%	11%	5%	51%	49%	48%	47%	45%
Special Ed unknown	29	286	44	38%	21%	31%	10%	0%	43%	43%	44%	45%	43%
Not Econ. Disadvantaged	206,680	370	58	4%	8%	21%	29%	38%	75%	75%	71%	73%	71%
Economically Disadvantaged	246,309	331	53	11%	18%	34%	24%	13%	63%	63%	59%	61%	57%
Unknown Economic Status	732	317	56	18%	23%	29%	19%	10%	58%	57%	55%	54%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,617	354	55	7%	10%	27%	29%	27%	71%	70%	66%	69%	66%
Asian American	25,001	403	56	2%	3%	11%	23%	62%	84%	84%	79%	81%	81%
Pacific Islander	1,168	355	55	7%	10%	26%	31%	27%	71%	70%	66%	70%	66%
Filipino	9,318	377	50	2%	5%	20%	33%	40%	79%	78%	72%	76%	74%
Hispanic	54,116	347	54	7%	13%	29%	29%	22%	69%	68%	64%	67%	63%
African American	11,906	342	56	9%	14%	29%	27%	21%	67%	65%	63%	65%	62%
White	96,600	376	55	3%	6%	18%	31%	42%	78%	77%	73%	75%	73%
Two or More Races	6,954	375	57	4%	7%	19%	29%	42%	77%	76%	73%	75%	73%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,693	323	52	15%	19%	32%	24%	10%	61%	60%	57%	58%	54%
Asian American	17,360	360	57	5%	10%	26%	28%	31%	71%	73%	67%	70%	68%
Pacific Islander	1,431	328	51	11%	19%	34%	24%	12%	62%	61%	58%	61%	56%
Filipino	4,155	355	51	4%	10%	29%	32%	25%	72%	72%	65%	70%	67%
Hispanic	171,804	327	51	11%	19%	36%	23%	11%	62%	61%	57%	60%	55%
African American	17,642	318	52	16%	22%	33%	20%	9%	58%	57%	55%	57%	53%
White	28,725	341	56	10%	14%	29%	28%	19%	67%	66%	62%	64%	61%
Two or More Races	3,499	336	57	11%	16%	30%	26%	17%	64%	64%	61%	62%	59%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Unknown Economic Status													
American Indian	7	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	35	324	71	20%	20%	29%	11%	20%	56%	60%	56%	55%	52%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	10	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	257	310	54	23%	24%	28%	18%	7%	56%	54%	52%	52%	49%
African American	70	295	50	24%	33%	30%	10%	3%	51%	47%	52%	44%	42%
White	170	334	55	9%	22%	25%	28%	16%	65%	63%	61%	61%	58%
Two or More Races	175	316	53	19%	19%	34%	19%	9%	58%	58%	54%	54%	51%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
All valid scores	438,268	345	63	11%	13%	28%	26%	22%	71%	65%	62%	71%	64%
Male	220,145	339	65	14%	14%	27%	24%	21%	69%	64%	61%	69%	61%
Female	218,003	350	60	8%	13%	29%	27%	24%	73%	66%	62%	74%	67%
Gender unknown	120	301	54	30%	20%	30%	14%	6%	57%	52%	49%	56%	50%
American Indian	3,212	335	62	14%	16%	30%	23%	18%	69%	62%	60%	69%	60%
Asian American	42,462	377	63	5%	7%	19%	27%	42%	79%	75%	70%	79%	73%
Pacific Islander	2,764	333	59	13%	15%	32%	25%	15%	68%	62%	59%	69%	60%
Filipino	13,591	364	54	4%	8%	26%	33%	29%	78%	72%	67%	78%	70%
Hispanic	212,098	328	57	14%	17%	33%	24%	12%	66%	60%	56%	67%	60%
African American	29,071	322	61	18%	18%	30%	21%	12%	64%	58%	56%	65%	56%
White	125,803	365	62	7%	8%	22%	29%	34%	78%	71%	68%	77%	69%
Two or More Races	9,267	355	66	10%	10%	24%	27%	29%	74%	68%	65%	74%	66%
English Only	247,914	353	64	10%	11%	25%	27%	27%	74%	68%	65%	74%	66%
Initially Fluent English Prof.	37,868	366	60	5%	8%	24%	30%	32%	77%	72%	67%	77%	71%
English Learner	49,883	280	43	35%	34%	26%	5%	1%	49%	44%	41%	50%	44%
Reclassified Fluent Eng. Prof.	102,049	349	51	4%	11%	36%	31%	18%	74%	67%	62%	74%	67%
English Prof. unknown	554	310	63	27%	17%	27%	19%	10%	59%	55%	52%	60%	53%
No Special Ed Services	414,599	348	62	9%	13%	28%	27%	23%	72%	66%	62%	72%	65%
Special Ed Services	23,641	289	57	37%	24%	24%	10%	5%	51%	47%	46%	53%	45%
Special Ed unknown	28	271	47	46%	36%	11%	7%	0%	46%	39%	39%	48%	42%
Not Econ. Disadvantaged	204,658	365	62	7%	8%	23%	29%	33%	77%	71%	68%	77%	69%
Economically Disadvantaged	233,036	327	58	15%	17%	32%	23%	12%	66%	60%	56%	66%	59%
Unknown Economic Status	574	313	62	24%	20%	25%	21%	10%	61%	56%	53%	61%	53%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,694	350	61	8%	12%	30%	26%	23%	73%	67%	64%	74%	65%
Asian American	24,523	394	59	3%	4%	14%	26%	54%	84%	80%	75%	84%	78%
Pacific Islander	1,324	346	59	9%	13%	30%	28%	21%	72%	66%	63%	73%	64%
Filipino	9,409	370	52	3%	6%	24%	35%	33%	80%	74%	69%	80%	72%
Hispanic	51,617	343	59	10%	13%	30%	28%	19%	71%	65%	61%	71%	63%
African American	11,825	337	61	13%	14%	29%	26%	18%	69%	63%	60%	69%	61%
White	98,304	373	60	5%	7%	20%	30%	38%	80%	73%	70%	79%	71%
Two or More Races	5,962	369	63	7%	7%	20%	30%	36%	78%	73%	69%	78%	70%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,515	318	60	20%	20%	29%	19%	12%	63%	57%	55%	63%	54%
Asian American	17,925	353	61	8%	12%	27%	28%	26%	72%	68%	63%	73%	68%
Pacific Islander	1,435	321	57	17%	17%	34%	22%	9%	64%	58%	55%	65%	57%
Filipino	4,170	350	55	7%	11%	31%	31%	21%	74%	68%	63%	74%	66%
Hispanic	160,277	323	56	15%	19%	34%	22%	10%	65%	59%	55%	65%	58%
African American	17,198	312	58	21%	20%	32%	18%	8%	61%	55%	52%	62%	53%
White	27,361	337	62	13%	14%	29%	26%	18%	69%	63%	60%	69%	61%
Two or More Races	3,155	331	62	15%	16%	30%	22%	16%	67%	61%	58%	67%	59%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—Unknown Economic Status													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	14	302	72	21%	36%	29%	0%	14%	48%	56%	46%	49%	51%
Pacific Islander	5	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	12	324	55	8%	33%	25%	25%	8%	74%	57%	54%	78%	53%
Hispanic	204	304	58	25%	25%	26%	18%	6%	57%	52%	50%	58%	52%
African American	48	284	52	35%	29%	21%	15%	0%	52%	45%	44%	55%	42%
White	138	337	58	12%	14%	26%	30%	17%	69%	64%	61%	69%	60%
Two or More Races	150	312	67	30%	13%	24%	23%	11%	62%	55%	52%	60%	53%

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

				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	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	458,422	357	70	12%	10%	26%	23%	29%	63%	63%	67%	62%	65%
Male	233,883	359	75	14%	9%	23%	22%	32%	64%	64%	66%	63%	64%
Female	224,390	355	65	10%	10%	29%	25%	26%	63%	63%	67%	62%	65%
Gender unknown	149	309	61	30%	15%	30%	17%	8%	52%	50%	53%	47%	49%
American Indian	3,175	338	65	17%	13%	29%	21%	20%	59%	58%	61%	57%	59%
Asian American	38,778	405	74	4%	4%	14%	21%	56%	74%	76%	77%	75%	79%
Pacific Islander	2,737	351	64	12%	10%	29%	26%	24%	63%	63%	65%	60%	63%
Filipino	13,168	384	64	4%	5%	21%	28%	43%	71%	72%	75%	70%	73%
Hispanic	236,740	337	62	16%	13%	31%	23%	18%	59%	58%	62%	57%	58%
African American	31,781	333	64	20%	13%	29%	21%	17%	58%	57%	60%	55%	58%
White	121,872	382	69	7%	6%	20%	25%	43%	70%	70%	73%	70%	73%
Two or More Races	10,171	374	72	9%	7%	21%	24%	39%	68%	68%	71%	67%	70%
English Only	256,308	366	71	10%	8%	23%	24%	34%	66%	66%	69%	65%	68%
Initially Fluent English Prof.	37,238	385	71	5%	6%	21%	25%	43%	71%	71%	74%	70%	73%
English Learner	64,951	294	47	36%	22%	30%	9%	3%	46%	44%	47%	43%	43%
Reclassified Fluent Eng. Prof.	99,196	363	59	5%	7%	31%	29%	27%	65%	66%	70%	65%	67%
English Prof. unknown	729	318	64	27%	18%	25%	17%	13%	54%	52%	56%	50%	51%
No Special Ed Services	414,161	363	68	9%	9%	26%	25%	31%	65%	65%	69%	64%	67%
Special Ed Services	44,077	297	60	41%	19%	23%	10%	7%	47%	44%	47%	44%	44%
Special Ed unknown	184	271	44	59%	22%	13%	4%	2%	40%	35%	40%	35%	37%
Not Econ. Disadvantaged	186,270	387	70	6%	5%	19%	25%	46%	71%	71%	74%	71%	74%
Economically Disadvantaged	271,374	336	62	17%	13%	31%	22%	17%	58%	58%	61%	56%	58%
Unknown Economic Status	778	320	65	28%	15%	25%	18%	14%	54%	53%	57%	50%	52%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,200	359	66	10%	9%	25%	25%	30%	65%	64%	67%	64%	66%
Asian American	23,409	426	70	2%	2%	9%	18%	69%	80%	81%	82%	80%	84%
Pacific Islander	1,097	369	65	8%	6%	25%	28%	33%	67%	67%	71%	66%	69%
Filipino	8,356	394	63	3%	3%	18%	28%	49%	73%	75%	77%	73%	76%
Hispanic	45,903	362	65	9%	8%	25%	27%	30%	65%	65%	69%	64%	67%
African American	10,482	355	67	13%	9%	25%	25%	28%	64%	63%	66%	62%	65%
White	89,503	393	67	4%	4%	17%	25%	49%	73%	73%	76%	73%	76%
Two or More Races	6,320	393	69	5%	5%	17%	24%	49%	73%	73%	76%	73%	76%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,967	325	61	21%	15%	32%	19%	14%	55%	54%	57%	53%	55%
Asian American	15,333	374	69	8%	7%	22%	26%	37%	67%	70%	70%	67%	71%
Pacific Islander	1,636	339	61	15%	12%	31%	24%	17%	60%	60%	62%	56%	59%
Filipino	4,803	367	62	6%	8%	25%	28%	32%	67%	68%	71%	65%	68%
Hispanic	190,559	331	60	18%	14%	32%	22%	15%	57%	56%	60%	55%	56%
African American	21,221	322	60	23%	15%	31%	19%	12%	55%	54%	57%	51%	54%
White	32,188	349	65	13%	10%	27%	25%	24%	62%	62%	65%	61%	63%
Two or More Races	3,667	342	65	17%	10%	28%	24%	21%	60%	60%	63%	58%	60%

				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	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—Unknown Economic Status													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	36	348	78	22%	6%	28%	17%	28%	61%	60%	59%	58%	65%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	278	309	60	34%	14%	26%	15%	10%	50%	49%	54%	48%	48%
African American	78	300	57	38%	23%	17%	14%	8%	48%	48%	50%	42%	46%
White	181	340	66	17%	12%	27%	24%	21%	60%	59%	64%	56%	60%
Two or More Races	184	321	66	25%	17%	24%	20%	13%	55%	53%	56%	51%	52%

Table 7.C.12 Demographic Summary for World History

				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	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	467,412	346	76	18%	9%	27%	24%	22%	66%	66%	64%	63%	61%
Grade 9	32,809	351	89	22%	7%	20%	21%	29%	67%	65%	65%	63%	62%
Grade 10	421,807	347	74	17%	9%	28%	24%	22%	67%	66%	65%	64%	62%
Grade 11	12,796	285	72	49%	11%	22%	11%	7%	47%	48%	46%	45%	44%
Male	237,171	353	82	19%	7%	23%	24%	27%	66%	67%	67%	65%	62%
Female	230,080	338	68	17%	10%	32%	24%	17%	66%	64%	61%	61%	60%
Gender unknown	161	303	66	42%	12%	20%	17%	9%	54%	53%	51%	52%	48%
American Indian	3,397	336	74	22%	10%	27%	22%	19%	63%	64%	61%	60%	58%
Asian American	43,273	392	78	6%	4%	19%	27%	44%	76%	77%	76%	75%	74%
Pacific Islander	2,661	336	68	18%	11%	31%	26%	15%	65%	64%	62%	61%	58%
Filipino	14,033	369	67	7%	6%	27%	31%	29%	72%	73%	71%	70%	69%
Hispanic	234,365	326	68	24%	11%	31%	21%	13%	62%	60%	59%	58%	56%
African American	30,955	315	69	30%	12%	29%	18%	11%	59%	58%	55%	54%	51%
White	128,084	369	76	11%	6%	23%	28%	32%	71%	73%	71%	70%	68%
Two or More Races	10,644	361	77	13%	7%	25%	27%	28%	70%	70%	68%	67%	65%
English Only	259,470	354	77	16%	8%	26%	26%	25%	68%	68%	66%	65%	63%
Initially Fluent English Prof.	33,848	373	76	9%	6%	25%	27%	33%	73%	73%	71%	70%	69%
English Learner	62,466	284	54	48%	16%	25%	8%	3%	49%	46%	46%	45%	42%
Reclassified Fluent Eng. Prof.	110,918	353	66	10%	8%	33%	28%	21%	69%	68%	67%	66%	65%
English Prof. unknown	710	310	69	35%	12%	27%	15%	11%	56%	54%	54%	52%	51%
No Special Ed Services	428,369	351	74	15%	8%	28%	25%	23%	68%	67%	66%	65%	63%
Special Ed Services	38,934	285	67	52%	13%	20%	9%	6%	47%	47%	46%	46%	42%
Special Ed unknown	109	252	49	77%	6%	10%	6%	0%	38%	34%	37%	36%	33%
Not Econ. Disadvantaged	211,457	370	76	11%	6%	24%	27%	32%	72%	72%	71%	70%	68%
Economically Disadvantaged	255,241	325	69	24%	11%	30%	21%	13%	61%	60%	58%	57%	56%
Unknown Economic Status	714	308	69	35%	12%	26%	15%	12%	55%	54%	54%	53%	50%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,664	356	75	14%	8%	26%	26%	26%	68%	69%	67%	66%	64%
Asian American	25,486	411	75	3%	2%	14%	26%	54%	80%	81%	81%	79%	79%
Pacific Islander	1,207	352	72	15%	8%	27%	29%	21%	68%	68%	66%	66%	63%
Filipino	9,732	376	67	5%	5%	26%	32%	32%	74%	75%	73%	72%	71%
Hispanic	55,518	344	71	17%	9%	30%	25%	20%	66%	66%	64%	63%	61%
African American	12,361	331	71	23%	10%	30%	22%	16%	63%	63%	60%	59%	56%
White	98,470	379	74	8%	5%	22%	29%	36%	73%	75%	74%	72%	70%
Two or More Races	7,019	376	75	9%	5%	22%	29%	35%	73%	74%	73%	72%	69%

				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	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	1,728	317	69	29%	12%	29%	19%	12%	59%	58%	56%	54%	53%
Asian American	17,752	365	74	11%	7%	26%	28%	29%	71%	71%	69%	69%	68%
Pacific Islander	1,446	323	60	20%	13%	35%	23%	9%	62%	61%	58%	57%	54%
Filipino	4,289	354	64	10%	9%	31%	30%	21%	69%	69%	67%	66%	65%
Hispanic	178,583	321	66	26%	12%	31%	20%	11%	60%	58%	57%	56%	54%
African American	18,523	305	65	35%	13%	28%	16%	7%	57%	55%	52%	51%	48%
White	29,460	337	72	20%	9%	29%	24%	18%	64%	64%	62%	61%	59%
Two or More Races	3,460	332	71	22%	10%	29%	23%	16%	63%	63%	60%	59%	57%
Primary Ethnicity—Unknown Economic Status													
American Indian	5	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	35	312	81	31%	11%	31%	9%	17%	56%	59%	54%	51%	51%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	12	347	63	17%	8%	25%	17%	33%	65%	62%	69%	68%	60%
Hispanic	264	302	67	39%	11%	25%	15%	9%	53%	52%	53%	51%	49%
African American	71	271	54	59%	15%	17%	6%	3%	44%	44%	41%	42%	39%
White	154	330	70	24%	10%	30%	18%	19%	61%	60%	61%	59%	58%
Two or More Races	165	313	65	30%	16%	26%	17%	11%	58%	57%	53%	55%	51%

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

				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
All valid scores	446,136	347	70	15%	10%	26%	25%	23%	61%	64%	62%	62%	61%
Male	225,871	352	76	17%	9%	22%	24%	28%	62%	65%	62%	65%	62%
Female	220,139	342	64	14%	12%	30%	26%	19%	60%	63%	61%	59%	61%
Gender unknown	126	297	64	39%	13%	25%	16%	6%	46%	48%	49%	49%	46%
American Indian	3,281	339	69	17%	12%	27%	24%	20%	60%	62%	60%	60%	59%
Asian American	42,410	383	70	7%	5%	18%	27%	42%	71%	74%	71%	72%	71%
Pacific Islander	2,773	336	64	17%	11%	31%	24%	17%	59%	61%	59%	59%	59%
Filipino	13,634	365	61	6%	6%	27%	32%	28%	66%	71%	67%	68%	67%
Hispanic	217,601	330	65	19%	13%	30%	23%	15%	56%	59%	57%	58%	56%
African American	29,969	321	66	24%	13%	28%	21%	13%	54%	56%	55%	53%	55%
White	127,162	368	70	10%	7%	21%	28%	34%	68%	70%	68%	67%	68%
Two or More Races	9,306	358	72	13%	9%	22%	27%	29%	65%	67%	65%	64%	65%
English Only	252,011	355	71	13%	9%	24%	27%	27%	64%	66%	64%	63%	64%
Initially Fluent English Prof.	37,997	370	68	8%	7%	23%	29%	33%	68%	71%	68%	68%	68%
English Learner	53,595	283	50	44%	22%	25%	8%	2%	42%	44%	43%	45%	40%
Reclassified Fluent Eng. Prof.	101,989	354	60	8%	9%	32%	30%	22%	63%	67%	64%	65%	63%
English Prof. unknown	544	308	65	33%	14%	26%	19%	9%	50%	53%	51%	50%	50%
No Special Ed Services	409,911	352	69	12%	10%	26%	27%	25%	63%	66%	63%	63%	63%
Special Ed Services	36,149	287	62	47%	18%	20%	10%	6%	44%	45%	43%	45%	43%
Special Ed unknown	76	266	41	55%	25%	16%	4%	0%	39%	38%	37%	39%	36%
Not Econ. Disadvantaged	206,207	368	70	9%	7%	22%	28%	34%	68%	70%	68%	67%	68%
Economically Disadvantaged	239,361	328	65	20%	13%	29%	23%	15%	56%	59%	57%	57%	56%
Unknown Economic Status	568	311	67	31%	15%	24%	20%	10%	52%	54%	51%	51%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,740	354	68	12%	10%	25%	27%	26%	64%	66%	64%	64%	64%
Asian American	24,465	400	67	4%	3%	14%	27%	52%	76%	79%	75%	76%	75%
Pacific Islander	1,326	347	64	13%	9%	30%	26%	22%	62%	64%	62%	62%	62%
Filipino	9,426	371	59	5%	5%	25%	34%	31%	68%	72%	69%	70%	69%
Hispanic	52,391	345	67	14%	10%	27%	27%	21%	61%	64%	61%	62%	61%
African American	12,023	337	68	18%	11%	27%	25%	18%	59%	61%	60%	58%	60%
White	98,876	377	68	7%	6%	20%	29%	38%	71%	72%	70%	69%	70%
Two or More Races	5,960	372	69	9%	6%	20%	29%	36%	69%	71%	69%	68%	69%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,538	322	66	23%	14%	29%	20%	14%	54%	57%	55%	55%	54%
Asian American	17,933	360	68	11%	8%	24%	28%	28%	64%	68%	65%	67%	64%
Pacific Islander	1,442	325	62	21%	13%	31%	23%	12%	56%	57%	56%	56%	55%
Filipino	4,195	352	61	10%	9%	31%	30%	21%	62%	67%	63%	65%	63%
Hispanic	164,999	325	63	21%	14%	30%	22%	13%	55%	58%	56%	57%	55%
African American	17,898	311	62	29%	15%	29%	19%	9%	51%	53%	52%	50%	52%
White	28,158	338	69	19%	11%	26%	25%	20%	59%	61%	60%	59%	59%
Two or More Races	3,198	333	69	20%	13%	26%	24%	17%	58%	59%	58%	57%	58%

				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—Unknown Economic Status													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	12	324	92	25%	17%	25%	17%	17%	59%	53%	54%	52%	53%
Pacific Islander	5	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	13	309	39	15%	15%	62%	8%	0%	51%	56%	48%	52%	51%
Hispanic	211	305	65	33%	18%	22%	18%	8%	48%	51%	49%	50%	49%
African American	48	277	58	50%	27%	8%	8%	6%	41%	43%	40%	41%	39%
White	128	331	63	20%	11%	27%	28%	13%	59%	61%	58%	57%	56%
Two or More Races	148	314	69	34%	11%	23%	22%	10%	53%	55%	52%	50%	53%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Addition, and Subtraction	Multiplication, Division, and Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	463,446	383	87	4%	12%	19%	29%	35%	74%	76%	78%	79%	74%
Male	237,165	383	89	5%	12%	18%	28%	36%	74%	76%	78%	79%	73%
Female	226,071	382	84	4%	12%	20%	30%	34%	73%	76%	78%	79%	75%
Gender unknown	210	349	82	9%	18%	25%	27%	21%	65%	69%	73%	73%	66%
American Indian	2,827	361	82	6%	17%	23%	30%	25%	68%	72%	74%	76%	69%
Asian American	40,936	440	87	2%	4%	9%	22%	63%	86%	86%	88%	87%	84%
Pacific Islander	2,511	375	81	3%	14%	21%	31%	31%	73%	75%	77%	78%	72%
Filipino	10,456	414	82	2%	6%	13%	30%	50%	82%	82%	85%	84%	80%
Hispanic	249,025	362	80	6%	16%	23%	30%	25%	69%	72%	74%	76%	70%
African American	28,074	349	83	9%	19%	23%	27%	22%	66%	69%	71%	72%	67%
White	115,304	410	83	2%	7%	14%	29%	48%	80%	82%	83%	84%	80%
Two or More Races	14,313	404	88	3%	9%	15%	28%	45%	78%	80%	82%	83%	78%
English Only	262,673	392	87	4%	10%	17%	29%	40%	76%	78%	79%	81%	76%
Initially Fluent English Prof.	18,911	434	83	1%	4%	10%	26%	59%	84%	86%	87%	87%	84%
English Learner	172,560	361	82	6%	17%	23%	29%	25%	69%	72%	74%	75%	70%
Reclassified Fluent Eng. Prof.	8,643	432	74	0%	2%	10%	29%	59%	85%	87%	88%	87%	85%
English Prof. unknown	659	349	89	10%	20%	22%	26%	22%	65%	68%	72%	72%	66%
No Special Ed Services	427,038	388	84	3%	11%	19%	30%	37%	75%	78%	79%	80%	76%
Special Ed Services	36,380	317	91	23%	23%	19%	19%	15%	57%	59%	63%	64%	58%
Special Ed unknown	28	291	84	39%	14%	21%	18%	7%	50%	53%	54%	59%	54%
Not Econ. Disadvantaged	172,490	419	84	2%	6%	12%	28%	53%	82%	83%	84%	85%	82%
Economically Disadvantaged	290,131	361	81	6%	16%	23%	30%	25%	69%	72%	74%	75%	70%
Unknown Economic Status	825	348	90	11%	18%	22%	25%	24%	64%	68%	70%	73%	66%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	845	387	84	4%	11%	18%	31%	37%	74%	78%	79%	81%	75%
Asian American	25,981	460	81	1%	2%	5%	18%	73%	89%	89%	91%	89%	88%
Pacific Islander	764	396	80	2%	9%	16%	32%	41%	79%	79%	82%	82%	77%
Filipino	6,521	424	80	1%	4%	11%	28%	56%	84%	84%	86%	86%	82%
Hispanic	40,175	390	82	3%	10%	18%	32%	38%	76%	78%	79%	81%	76%
African American	7,130	376	85	5%	13%	19%	30%	32%	73%	75%	77%	77%	73%
White	82,173	424	80	1%	4%	11%	28%	55%	82%	85%	85%	86%	83%
Two or More Races	8,901	427	83	1%	5%	11%	27%	56%	83%	85%	86%	86%	83%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,974	350	78	7%	19%	25%	29%	19%	65%	70%	72%	74%	67%
Asian American	14,896	403	86	3%	8%	15%	28%	46%	80%	80%	83%	82%	78%
Pacific Islander	1,740	366	80	4%	16%	23%	30%	27%	71%	73%	75%	77%	70%
Filipino	3,919	397	81	2%	8%	16%	33%	40%	79%	79%	82%	82%	77%
Hispanic	208,566	357	79	6%	17%	24%	30%	23%	68%	71%	73%	75%	69%
African American	20,878	340	80	10%	21%	24%	26%	18%	64%	67%	69%	70%	65%
White	32,932	377	81	4%	12%	20%	32%	31%	73%	76%	77%	79%	73%
Two or More Races	5,226	368	82	5%	15%	21%	31%	28%	71%	74%	75%	77%	71%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Addition, and Subtraction	Multiplication, Division, and Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Unknown Economic Status													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	59	415	105	8%	5%	14%	12%	61%	81%	79%	85%	82%	79%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	16	360	83	13%	6%	13%	44%	25%	73%	72%	76%	72%	70%
Hispanic	284	332	86	13%	21%	25%	24%	17%	60%	65%	66%	69%	62%
African American	66	308	87	23%	24%	20%	21%	12%	53%	59%	61%	62%	57%
White	199	365	85	6%	14%	23%	30%	28%	68%	73%	73%	77%	71%
Two or More Races	186	350	85	10%	19%	20%	29%	22%	64%	69%	72%	74%	67%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Fractions, and Decimals	Addition, Subtraction, Multiplication, Division	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	443,229	399	89	2%	11%	17%	27%	42%	77%	76%	82%	81%	87%
Male	223,638	402	91	3%	10%	17%	27%	44%	78%	75%	83%	81%	86%
Female	219,385	397	87	2%	11%	18%	28%	41%	76%	76%	81%	81%	88%
Gender unknown	206	352	84	5%	26%	21%	24%	24%	67%	63%	72%	72%	80%
American Indian	2,635	377	85	4%	15%	21%	28%	33%	73%	70%	78%	78%	84%
Asian American	40,246	461	89	1%	3%	7%	18%	71%	87%	88%	91%	89%	92%
Pacific Islander	2,386	390	85	2%	11%	19%	30%	38%	76%	74%	80%	79%	86%
Filipino	11,243	431	85	1%	5%	11%	25%	58%	83%	83%	88%	86%	90%
Hispanic	234,253	379	83	3%	14%	21%	29%	33%	73%	72%	78%	78%	85%
African American	26,737	367	84	5%	17%	22%	28%	28%	71%	68%	75%	75%	82%
White	112,977	423	86	1%	6%	13%	27%	54%	82%	80%	87%	85%	90%
Two or More Races	12,752	415	90	2%	8%	14%	26%	50%	80%	78%	85%	83%	89%
English Only	250,106	407	89	2%	9%	16%	27%	46%	79%	77%	83%	82%	88%
Initially Fluent English Prof.	19,996	450	89	0%	4%	9%	21%	66%	85%	86%	90%	88%	93%
English Learner	138,773	366	80	4%	16%	24%	29%	27%	71%	69%	75%	76%	83%
Reclassified Fluent Eng. Prof.	33,713	448	78	0%	2%	8%	25%	66%	86%	88%	91%	89%	93%
English Prof. unknown	641	362	91	7%	19%	21%	26%	28%	69%	66%	74%	73%	80%
No Special Ed Services	415,738	402	89	2%	10%	17%	28%	44%	78%	76%	82%	82%	87%
Special Ed Services	27,398	358	91	8%	19%	22%	24%	26%	69%	65%	72%	72%	79%
Special Ed unknown	93	317	69	10%	38%	24%	19%	10%	61%	52%	63%	65%	70%
Not Econ. Disadvantaged	169,062	434	88	1%	5%	11%	25%	59%	84%	83%	88%	86%	91%
Economically Disadvantaged	273,394	378	84	3%	14%	21%	29%	32%	73%	71%	78%	78%	84%
Unknown Economic Status	773	364	90	6%	20%	19%	27%	28%	70%	66%	75%	74%	80%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	910	407	83	1%	8%	14%	30%	46%	79%	77%	85%	82%	90%
Asian American	25,490	482	82	0%	1%	4%	14%	80%	90%	91%	94%	91%	94%
Pacific Islander	818	409	85	1%	9%	17%	26%	48%	79%	78%	84%	83%	88%
Filipino	7,012	443	82	0%	3%	9%	24%	64%	85%	86%	90%	87%	92%
Hispanic	38,213	406	85	1%	8%	16%	29%	45%	79%	78%	84%	82%	88%
African American	7,112	393	87	3%	11%	19%	28%	40%	77%	75%	81%	79%	86%
White	81,599	435	84	1%	4%	10%	25%	60%	84%	83%	89%	87%	92%
Two or More Races	7,908	437	86	1%	4%	10%	24%	60%	84%	83%	89%	87%	92%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,719	362	82	5%	18%	24%	27%	26%	70%	66%	74%	75%	82%
Asian American	14,704	425	89	1%	6%	13%	25%	55%	82%	83%	86%	84%	89%
Pacific Islander	1,562	380	83	3%	12%	20%	32%	33%	74%	72%	78%	78%	85%
Filipino	4,216	413	86	1%	8%	15%	27%	49%	80%	80%	85%	83%	88%
Hispanic	195,797	374	82	3%	15%	22%	30%	30%	72%	71%	77%	77%	84%
African American	19,552	357	81	5%	19%	24%	27%	24%	69%	66%	73%	73%	80%
White	31,192	389	84	3%	11%	19%	30%	38%	76%	73%	81%	80%	86%
Two or More Races	4,652	380	84	3%	13%	21%	29%	34%	74%	71%	79%	78%	85%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Place Value, Fractions, and Decimals	Addition, Subtraction, Multiplication, Division	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Unknown Economic Status													
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	52	448	99	2%	2%	10%	25%	62%	86%	85%	88%	85%	90%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	15	354	114	20%	13%	0%	47%	20%	67%	69%	72%	68%	61%
Hispanic	243	355	78	5%	22%	20%	28%	24%	69%	66%	73%	72%	81%
African American	73	331	76	12%	23%	22%	27%	15%	64%	57%	68%	68%	73%
White	186	369	92	6%	18%	20%	25%	31%	72%	66%	77%	74%	81%
Two or More Races	192	364	91	6%	21%	20%	24%	29%	70%	65%	75%	74%	81%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Decimals, Fractions, and Negative Numbers	Operations and Factoring	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	432,630	395	81	2%	10%	18%	27%	44%	83%	80%	82%	75%	80%
Male	217,388	395	83	2%	10%	18%	26%	44%	83%	79%	81%	74%	79%
Female	215,134	396	79	1%	9%	18%	27%	44%	82%	81%	82%	75%	81%
Gender unknown	108	359	65	4%	14%	28%	26%	29%	77%	73%	73%	67%	72%
American Indian	2,675	369	77	3%	15%	23%	28%	30%	78%	73%	76%	68%	74%
Asian American	39,065	454	82	0%	2%	7%	17%	73%	91%	92%	92%	86%	88%
Pacific Islander	2,443	388	76	2%	9%	20%	30%	39%	81%	80%	81%	74%	78%
Filipino	11,220	423	76	1%	4%	12%	25%	59%	88%	88%	88%	81%	84%
Hispanic	227,702	378	75	2%	13%	22%	29%	34%	79%	77%	78%	71%	77%
African American	26,998	365	76	4%	17%	23%	27%	29%	76%	72%	75%	67%	74%
White	110,794	414	79	1%	6%	13%	26%	54%	87%	84%	86%	79%	85%
Two or More Races	11,733	410	82	1%	7%	14%	26%	51%	86%	83%	85%	77%	83%
English Only	241,540	401	81	2%	9%	16%	27%	47%	84%	81%	83%	76%	82%
Initially Fluent English Prof.	19,250	438	84	0%	4%	10%	21%	65%	89%	88%	89%	84%	87%
English Learner	118,636	359	69	3%	17%	27%	30%	24%	75%	73%	74%	66%	73%
Reclassified Fluent Eng. Prof.	52,624	437	73	0%	2%	8%	24%	67%	90%	91%	91%	85%	87%
English Prof. unknown	580	362	77	5%	17%	23%	26%	29%	76%	72%	73%	66%	72%
No Special Ed Services	405,185	398	81	1%	9%	18%	27%	45%	83%	81%	82%	75%	81%
Special Ed Services	25,157	360	78	5%	18%	24%	26%	27%	76%	70%	73%	65%	72%
Special Ed unknown	2,288	351	73	5%	21%	27%	26%	21%	73%	69%	71%	63%	70%
Not Econ. Disadvantaged	164,624	426	80	1%	4%	11%	24%	60%	89%	87%	88%	81%	86%
Economically Disadvantaged	267,338	377	75	2%	13%	22%	29%	34%	79%	76%	78%	71%	76%
Unknown Economic Status	668	364	83	6%	16%	23%	26%	29%	76%	72%	73%	65%	73%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	888	390	75	1%	10%	18%	31%	40%	83%	79%	81%	73%	79%
Asian American	24,521	472	78	0%	1%	4%	13%	82%	94%	94%	94%	89%	91%
Pacific Islander	799	408	76	1%	5%	15%	28%	51%	86%	84%	85%	78%	83%
Filipino	6,930	432	75	0%	3%	10%	23%	64%	90%	89%	90%	82%	85%
Hispanic	36,994	401	76	1%	8%	16%	29%	46%	84%	82%	84%	76%	82%
African American	7,223	389	79	2%	10%	19%	28%	41%	81%	79%	81%	73%	80%
White	79,917	426	77	0%	4%	11%	24%	61%	89%	87%	88%	82%	87%
Two or More Races	7,352	428	80	1%	4%	10%	24%	61%	89%	87%	88%	81%	86%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,779	359	75	4%	18%	26%	27%	25%	76%	70%	73%	66%	72%
Asian American	14,502	423	79	1%	4%	12%	25%	59%	87%	88%	88%	80%	84%
Pacific Islander	1,642	378	74	2%	11%	22%	31%	33%	79%	77%	79%	71%	76%
Filipino	4,276	410	76	1%	5%	15%	28%	51%	86%	85%	86%	78%	82%
Hispanic	190,471	373	74	2%	14%	23%	29%	32%	78%	76%	77%	70%	76%
African American	19,701	356	73	5%	19%	25%	27%	24%	74%	70%	72%	65%	72%
White	30,719	383	75	2%	11%	20%	29%	38%	82%	77%	79%	72%	79%
Two or More Races	4,248	379	74	2%	12%	21%	31%	34%	80%	77%	79%	71%	77%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Decimals, Fractions, and Negative Numbers	Operations and Factoring	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Unknown Economic Status													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	42	458	86	0%	2%	10%	14%	74%	91%	91%	94%	85%	87%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	14	338	77	7%	29%	14%	43%	7%	66%	70%	68%	56%	63%
Hispanic	237	348	72	7%	21%	24%	27%	21%	73%	68%	70%	61%	70%
African American	74	342	85	15%	14%	27%	23%	22%	71%	65%	69%	57%	62%
White	158	377	85	4%	15%	21%	27%	34%	80%	73%	76%	69%	81%
Two or More Races	133	365	76	5%	16%	23%	26%	31%	77%	73%	73%	68%	73%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	432,325	395	92	3%	12%	20%	32%	33%	70%	70%	73%	67%	81%
Male	217,130	395	95	4%	13%	19%	31%	33%	69%	69%	73%	67%	80%
Female	215,082	396	90	3%	12%	20%	33%	33%	70%	71%	74%	67%	82%
Gender unknown	113	345	74	6%	26%	23%	31%	14%	59%	57%	63%	58%	69%
American Indian	2,607	365	84	5%	19%	24%	31%	21%	64%	63%	67%	61%	76%
Asian American	39,102	467	94	1%	3%	8%	23%	64%	82%	85%	86%	81%	90%
Pacific Islander	2,404	387	87	3%	13%	21%	34%	29%	68%	69%	73%	65%	80%
Filipino	11,804	431	89	1%	5%	14%	32%	48%	76%	79%	81%	75%	88%
Hispanic	225,991	375	85	4%	15%	23%	33%	24%	66%	66%	70%	62%	78%
African American	27,421	360	84	7%	19%	24%	30%	20%	62%	62%	66%	59%	74%
White	111,634	416	90	2%	8%	16%	33%	42%	74%	75%	78%	73%	86%
Two or More Races	11,362	411	94	3%	10%	17%	31%	40%	72%	73%	76%	71%	84%
English Only	239,912	401	92	3%	11%	18%	32%	35%	71%	71%	75%	69%	83%
Initially Fluent English Prof.	19,760	442	96	1%	6%	12%	28%	53%	78%	80%	82%	77%	89%
English Learner	95,669	344	75	7%	23%	29%	29%	12%	59%	59%	62%	54%	71%
Reclassified Fluent Eng. Prof.	76,484	430	85	1%	4%	14%	35%	47%	77%	79%	81%	75%	89%
English Prof. unknown	500	350	84	10%	21%	24%	28%	17%	59%	59%	63%	57%	72%
No Special Ed Services	406,014	398	92	3%	12%	19%	32%	34%	70%	71%	74%	68%	82%
Special Ed Services	24,006	352	87	9%	21%	25%	27%	18%	60%	60%	63%	57%	72%
Special Ed unknown	2,305	359	85	6%	20%	25%	31%	18%	62%	61%	65%	59%	74%
Not Econ. Disadvantaged	166,357	430	92	1%	6%	14%	31%	48%	76%	78%	80%	75%	87%
Economically Disadvantaged	265,371	373	85	4%	16%	23%	32%	24%	65%	65%	69%	62%	78%
Unknown Economic Status	597	352	90	10%	20%	26%	25%	18%	59%	59%	63%	58%	71%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	901	391	89	2%	14%	21%	33%	30%	69%	69%	72%	67%	81%
Asian American	24,249	490	87	0%	2%	5%	19%	74%	86%	89%	89%	86%	93%
Pacific Islander	805	410	86	2%	8%	17%	37%	37%	72%	74%	77%	71%	85%
Filipino	7,320	442	87	1%	4%	11%	31%	53%	78%	81%	83%	77%	89%
Hispanic	37,007	399	87	2%	10%	19%	35%	34%	71%	72%	75%	68%	83%
African American	7,638	388	89	4%	12%	21%	33%	30%	68%	69%	73%	65%	80%
White	81,357	430	88	1%	5%	13%	33%	48%	76%	78%	80%	76%	88%
Two or More Races	7,080	432	91	1%	6%	13%	31%	49%	77%	78%	80%	76%	88%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,697	352	78	6%	22%	26%	30%	16%	61%	59%	64%	58%	73%
Asian American	14,812	429	93	2%	6%	14%	30%	48%	76%	78%	80%	74%	86%
Pacific Islander	1,595	376	85	4%	15%	23%	33%	25%	66%	67%	70%	62%	77%
Filipino	4,479	412	88	1%	8%	17%	34%	40%	73%	75%	78%	71%	85%
Hispanic	188,766	370	83	5%	16%	24%	33%	22%	65%	65%	69%	61%	77%
African American	19,729	350	80	8%	22%	26%	29%	16%	60%	59%	64%	57%	72%
White	30,134	378	86	4%	14%	23%	33%	26%	66%	66%	70%	64%	79%
Two or More Races	4,159	375	86	5%	15%	23%	32%	25%	66%	65%	69%	63%	78%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Estimation, Percents, and Factoring	Operations with Fractions and Decimals	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Unknown Economic Status													
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	41	444	112	2%	12%	10%	20%	56%	76%	80%	78%	80%	78%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	218	341	81	12%	19%	32%	23%	14%	57%	56%	61%	56%	68%
African American	54	306	64	17%	31%	24%	22%	6%	49%	46%	54%	44%	61%
White	143	369	86	6%	14%	24%	37%	19%	62%	65%	66%	63%	78%
Two or More Races	123	351	88	10%	22%	25%	22%	21%	59%	59%	63%	57%	73%

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

				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
All valid scores	436,076	367	76	4%	15%	26%	31%	24%	65%	68%	71%	61%	64%
Male	219,143	367	78	5%	16%	25%	31%	24%	65%	69%	71%	61%	62%
Female	216,803	367	75	4%	15%	26%	31%	23%	66%	68%	70%	61%	65%
Gender unknown	130	331	67	12%	25%	28%	23%	12%	55%	57%	60%	53%	53%
American Indian	2,752	345	69	7%	21%	29%	29%	14%	59%	62%	66%	55%	58%
Asian American	40,886	431	84	1%	5%	12%	28%	55%	80%	83%	85%	77%	77%
Pacific Islander	2,519	357	68	4%	17%	28%	34%	17%	63%	67%	69%	58%	61%
Filipino	12,120	391	74	2%	8%	20%	36%	34%	72%	75%	77%	68%	70%
Hispanic	225,215	346	66	6%	20%	30%	30%	14%	61%	63%	65%	56%	58%
African American	27,956	336	67	9%	24%	30%	26%	12%	57%	60%	62%	52%	55%
White	113,618	389	74	2%	9%	21%	36%	33%	70%	75%	77%	67%	71%
Two or More Races	11,010	382	77	3%	11%	23%	33%	30%	68%	73%	75%	65%	68%
English Only	242,587	374	76	4%	13%	24%	33%	26%	66%	70%	73%	63%	66%
Initially Fluent English Prof.	30,569	400	82	2%	8%	19%	32%	39%	73%	76%	78%	70%	73%
English Learner	76,172	314	56	12%	33%	33%	18%	5%	52%	53%	55%	47%	46%
Reclassified Fluent Eng. Prof.	86,161	383	69	1%	8%	26%	38%	27%	71%	73%	76%	65%	68%
English Prof. unknown	587	336	74	11%	25%	28%	22%	14%	56%	58%	63%	52%	54%
No Special Ed Services	412,277	369	76	4%	15%	25%	32%	24%	66%	69%	71%	62%	64%
Special Ed Services	22,536	325	68	13%	29%	28%	20%	10%	53%	56%	58%	50%	50%
Special Ed unknown	1,263	326	68	12%	29%	29%	19%	11%	53%	56%	58%	51%	51%
Not Econ. Disadvantaged	171,806	399	78	2%	8%	19%	34%	38%	73%	77%	79%	69%	73%
Economically Disadvantaged	263,678	346	67	6%	20%	30%	29%	14%	60%	63%	65%	55%	58%
Unknown Economic Status	592	336	69	10%	23%	29%	25%	12%	56%	58%	63%	53%	55%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,016	370	70	3%	13%	25%	36%	22%	65%	70%	73%	62%	66%
Asian American	25,151	453	80	0%	2%	8%	24%	66%	84%	87%	89%	82%	82%
Pacific Islander	896	377	71	3%	10%	24%	38%	25%	68%	73%	74%	64%	67%
Filipino	7,571	402	73	1%	6%	18%	36%	39%	74%	78%	80%	71%	73%
Hispanic	39,176	370	70	3%	13%	26%	35%	23%	66%	70%	72%	62%	66%
African American	8,277	358	72	5%	17%	28%	31%	19%	63%	67%	68%	59%	62%
White	82,807	400	72	1%	6%	18%	37%	38%	73%	78%	80%	70%	74%
Two or More Races	6,912	400	77	2%	7%	19%	34%	39%	72%	77%	79%	70%	73%
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,732	331	63	9%	26%	31%	24%	9%	55%	58%	61%	52%	54%
Asian American	15,688	396	78	2%	8%	20%	33%	37%	74%	76%	78%	69%	70%
Pacific Islander	1,613	346	64	5%	21%	30%	31%	13%	61%	64%	66%	55%	57%
Filipino	4,533	375	72	3%	12%	24%	35%	25%	68%	71%	73%	64%	66%
Hispanic	185,855	341	64	7%	22%	31%	28%	12%	59%	61%	64%	54%	56%
African American	19,617	327	62	10%	27%	31%	23%	8%	54%	58%	59%	50%	52%
White	30,673	358	67	4%	16%	28%	33%	18%	62%	66%	70%	59%	62%
Two or More Races	3,967	352	68	5%	18%	29%	31%	16%	61%	65%	68%	57%	60%

				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—Unknown Economic Status													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	47	390	85	6%	6%	21%	32%	34%	73%	76%	76%	68%	65%
Pacific Islander	10	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	16	326	56	19%	13%	31%	31%	6%	55%	50%	64%	47%	56%
Hispanic	184	323	56	10%	29%	34%	20%	7%	55%	54%	59%	48%	50%
African American	62	294	47	24%	32%	27%	16%	0%	41%	46%	48%	44%	43%
White	138	351	68	4%	20%	29%	32%	15%	59%	63%	69%	54%	62%
Two or More Races	131	343	76	11%	21%	27%	24%	17%	57%	61%	65%	56%	56%

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

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	393,171	360	73	5%	17%	26%	31%	21%	61%	58%	64%	65%	63%	69%
Male	197,134	360	75	6%	17%	25%	31%	22%	61%	57%	62%	66%	63%	68%
Female	195,918	361	71	5%	16%	27%	32%	21%	60%	60%	65%	64%	62%	70%
Gender unknown	119	327	71	13%	33%	24%	14%	16%	51%	46%	51%	55%	53%	57%
American Indian	2,659	344	66	7%	21%	29%	29%	14%	56%	53%	59%	60%	59%	64%
Asian American	28,238	419	81	1%	5%	13%	30%	49%	76%	75%	78%	79%	76%	80%
Pacific Islander	2,327	354	68	5%	18%	27%	33%	18%	59%	58%	63%	63%	60%	68%
Filipino	10,696	388	72	2%	9%	20%	36%	33%	68%	67%	72%	72%	70%	77%
Hispanic	209,972	344	65	7%	21%	30%	29%	14%	56%	54%	59%	60%	58%	65%
African American	27,075	332	65	10%	25%	29%	26%	11%	52%	52%	57%	56%	53%	61%
White	102,892	383	72	2%	10%	21%	36%	31%	68%	63%	69%	72%	70%	75%
Two or More Races	9,312	374	74	4%	13%	22%	34%	28%	65%	62%	68%	69%	67%	72%
English Only	220,298	367	73	4%	14%	25%	33%	24%	63%	60%	65%	67%	65%	71%
Initially Fluent English Prof.	27,562	385	78	2%	11%	22%	33%	32%	67%	65%	70%	71%	69%	74%
English Learner	62,508	311	56	14%	34%	30%	17%	5%	45%	44%	49%	49%	48%	54%
Reclassified Fluent Eng. Prof.	82,094	373	67	2%	11%	27%	37%	23%	65%	63%	68%	69%	66%	73%
English Prof. unknown	709	330	71	14%	26%	25%	24%	11%	51%	48%	54%	55%	55%	59%
No Special Ed Services	372,674	363	73	5%	16%	26%	32%	22%	61%	59%	64%	65%	63%	70%
Special Ed Services	19,404	320	65	15%	29%	28%	20%	9%	48%	45%	51%	52%	51%	56%
Special Ed unknown	1,093	331	68	11%	25%	28%	25%	11%	52%	49%	55%	56%	54%	60%
Not Econ. Disadvantaged	150,456	388	74	2%	9%	20%	35%	33%	69%	65%	71%	73%	70%	76%
Economically Disadvantaged	242,039	343	66	7%	21%	29%	29%	14%	55%	54%	59%	60%	58%	65%
Unknown Economic Status	676	337	71	10%	24%	28%	26%	12%	53%	49%	56%	58%	57%	62%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	996	363	69	4%	15%	28%	33%	21%	62%	58%	64%	66%	65%	70%
Asian American	15,854	439	78	1%	3%	9%	27%	60%	81%	79%	83%	84%	81%	84%
Pacific Islander	875	373	72	3%	14%	23%	34%	27%	64%	62%	67%	69%	66%	73%
Filipino	6,616	398	71	1%	6%	17%	37%	38%	71%	70%	75%	75%	72%	80%
Hispanic	38,235	363	68	4%	14%	26%	34%	21%	62%	59%	65%	66%	64%	71%
African American	8,123	352	68	6%	18%	28%	31%	17%	58%	57%	63%	62%	59%	67%
White	74,122	394	71	1%	7%	19%	37%	36%	71%	66%	72%	75%	72%	78%
Two or More Races	5,635	392	73	2%	8%	18%	36%	35%	70%	66%	72%	74%	71%	77%
Primary Ethnicity—Economically Disadvantaged														
American Indian	1,650	333	62	9%	25%	30%	26%	10%	52%	50%	56%	56%	56%	61%
Asian American	12,339	392	76	2%	9%	19%	34%	36%	70%	69%	72%	73%	70%	75%
Pacific Islander	1,443	344	63	6%	20%	29%	32%	12%	55%	56%	60%	60%	57%	65%
Filipino	4,067	371	71	3%	13%	25%	35%	24%	63%	63%	68%	68%	65%	73%
Hispanic	171,500	339	64	7%	22%	30%	28%	12%	54%	53%	58%	58%	57%	64%
African American	18,900	324	62	12%	28%	30%	23%	8%	49%	50%	55%	53%	51%	59%
White	28,601	355	67	5%	17%	28%	33%	18%	59%	56%	62%	64%	62%	68%
Two or More Races	3,539	348	67	6%	19%	28%	31%	15%	56%	55%	61%	62%	60%	66%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Unknown Economic Status														
American Indian	13	326	49	0%	38%	31%	31%	0%	52%	53%	55%	51%	54%	62%
Asian American	45	417	89	0%	13%	11%	31%	44%	76%	75%	78%	77%	74%	75%
Pacific Islander	9	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	13	330	50	8%	8%	69%	8%	8%	49%	46%	55%	54%	55%	75%
Hispanic	237	319	64	14%	27%	33%	18%	8%	47%	45%	51%	52%	52%	58%
African American	52	316	55	12%	31%	33%	19%	6%	48%	42%	52%	50%	50%	60%
White	169	350	65	5%	18%	27%	36%	13%	59%	50%	60%	64%	62%	65%
Two or More Races	138	336	70	12%	25%	22%	28%	13%	54%	46%	57%	59%	57%	60%

Table 7.C.20 Demographic Summary for General Mathematics

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
All valid scores	189,071	318	56	14%	27%	31%	22%	6%	52%	45%	52%	57%	45%	59%
Grade 8	144,746	324	57	12%	25%	32%	25%	7%	54%	48%	54%	59%	47%	61%
Grade 9	44,325	300	51	21%	34%	28%	15%	3%	46%	38%	47%	51%	40%	52%
Male	104,102	316	58	16%	28%	29%	22%	6%	52%	45%	51%	57%	46%	57%
Female	84,846	321	54	12%	26%	33%	24%	6%	53%	46%	54%	57%	45%	62%
Gender unknown	123	302	58	22%	32%	31%	11%	5%	45%	39%	47%	52%	43%	51%
American Indian	2,001	310	55	17%	30%	29%	19%	4%	49%	43%	50%	54%	44%	55%
Asian American	6,036	346	65	8%	19%	26%	31%	16%	62%	56%	62%	65%	53%	66%
Pacific Islander	968	319	56	13%	29%	30%	23%	6%	53%	47%	53%	56%	45%	58%
Filipino	2,896	340	58	7%	17%	33%	31%	11%	60%	54%	60%	64%	52%	66%
Hispanic	109,166	311	52	15%	30%	32%	19%	4%	50%	43%	50%	55%	42%	57%
African American	15,236	303	52	21%	31%	29%	16%	3%	47%	40%	49%	51%	39%	54%
White	48,272	334	59	10%	21%	30%	30%	10%	57%	51%	57%	62%	52%	65%
Two or More Races	4,496	328	60	12%	23%	30%	26%	9%	55%	49%	55%	60%	49%	62%
English Only	107,395	322	58	13%	25%	30%	25%	7%	53%	47%	54%	58%	47%	61%
Initially Fluent English Prof.	8,855	334	57	7%	21%	34%	28%	10%	57%	51%	58%	63%	51%	64%
English Learner	46,118	294	46	22%	38%	28%	11%	1%	45%	37%	45%	48%	36%	50%
Reclassified Fluent Eng. Prof.	26,165	337	50	4%	18%	38%	32%	8%	59%	52%	59%	64%	51%	66%
English Prof. unknown	538	305	54	20%	31%	27%	18%	4%	48%	40%	48%	54%	42%	53%
No Special Ed Services	147,269	328	55	9%	24%	34%	27%	7%	56%	49%	56%	61%	49%	63%
Special Ed Services	41,641	281	46	32%	39%	20%	8%	1%	40%	33%	40%	43%	33%	46%
Special Ed unknown	161	270	38	41%	39%	17%	3%	0%	37%	29%	35%	39%	30%	43%
Not Econ. Disadvantaged	62,190	335	59	9%	21%	30%	30%	10%	57%	51%	57%	62%	52%	65%
Economically Disadvantaged	126,355	310	53	16%	30%	31%	19%	4%	50%	43%	50%	54%	42%	56%
Unknown Economic Status	526	307	59	21%	29%	26%	18%	5%	48%	41%	49%	53%	44%	55%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	669	322	57	11%	27%	31%	22%	8%	53%	47%	53%	59%	48%	60%
Asian American	2,576	363	68	6%	13%	22%	35%	24%	66%	63%	67%	69%	59%	70%
Pacific Islander	348	329	58	10%	23%	31%	30%	7%	55%	51%	57%	60%	49%	61%
Filipino	1,731	348	59	6%	14%	32%	34%	14%	62%	56%	63%	66%	55%	68%
Hispanic	19,901	322	56	12%	25%	32%	24%	6%	54%	47%	54%	58%	47%	61%
African American	4,507	315	55	15%	27%	30%	23%	5%	52%	45%	52%	55%	44%	59%
White	30,207	342	59	7%	18%	29%	33%	12%	59%	54%	59%	65%	55%	68%
Two or More Races	2,251	340	61	8%	19%	30%	31%	12%	59%	53%	59%	64%	54%	66%

				Percent in Performance Level					Mean Percent Correct in Reporting Cluster					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Rational Numbers	Exponents, Powers, and Roots	Quant. Relationships and Evaluating Expressions	Multistep Problems, Graphing, and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Economically Disadvantaged														
American Indian	1,325	303	53	20%	32%	28%	18%	3%	47%	41%	48%	52%	42%	53%
Asian American	3,447	334	60	9%	23%	30%	28%	10%	58%	52%	58%	61%	49%	63%
Pacific Islander	618	313	54	14%	32%	29%	20%	5%	52%	45%	52%	55%	43%	57%
Filipino	1,161	329	56	9%	22%	34%	27%	8%	57%	50%	57%	60%	48%	63%
Hispanic	89,058	308	51	16%	31%	32%	18%	3%	50%	42%	49%	54%	41%	56%
African American	10,691	297	50	23%	33%	28%	13%	2%	46%	38%	47%	49%	37%	52%
White	17,942	320	57	13%	26%	31%	24%	6%	53%	46%	52%	58%	48%	60%
Two or More Races	2,113	316	57	16%	27%	30%	20%	6%	51%	45%	52%	56%	45%	58%
Primary Ethnicity—Unknown Economic Status														
American Indian	7	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	13	329	68	15%	31%	23%	15%	15%	60%	49%	57%	59%	46%	56%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	207	302	58	23%	30%	28%	14%	5%	45%	39%	47%	53%	41%	53%
African American	38	285	55	34%	34%	21%	8%	3%	39%	28%	42%	46%	38%	48%
White	123	317	63	18%	26%	22%	28%	7%	52%	44%	50%	58%	48%	59%
Two or More Races	132	309	55	17%	31%	29%	19%	5%	49%	41%	52%	51%	44%	56%

Table 7.C.21 Demographic Summary for Algebra I

				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 and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
All valid scores	708,443	330	75	13%	29%	23%	23%	11%	60%	49%	49%	42%
Grade 7	37,880	434	82	1%	4%	10%	33%	53%	83%	76%	77%	68%
Grade 8	275,622	355	77	7%	21%	23%	31%	18%	66%	56%	57%	49%
Grade 9	242,125	312	58	15%	34%	26%	21%	4%	56%	45%	44%	37%
Grade 10	103,609	292	48	22%	41%	24%	12%	1%	51%	39%	37%	32%
Grade 11	49,207	285	48	27%	43%	19%	9%	1%	49%	36%	35%	30%
Male	365,102	326	75	15%	30%	23%	22%	11%	59%	48%	48%	41%
Female	343,133	335	74	11%	28%	24%	25%	12%	61%	51%	51%	43%
Gender unknown	208	288	57	25%	48%	13%	11%	2%	49%	37%	36%	32%
American Indian	5,171	314	63	16%	34%	25%	20%	6%	57%	45%	44%	38%
Asian American	49,118	407	95	4%	11%	16%	29%	41%	76%	68%	69%	62%
Pacific Islander	4,385	326	66	12%	29%	26%	25%	8%	59%	49%	49%	40%
Filipino	18,637	361	77	6%	19%	23%	32%	20%	68%	58%	59%	50%
Hispanic	389,139	314	64	16%	34%	24%	20%	6%	56%	45%	45%	38%
African American	49,732	306	62	20%	36%	22%	17%	5%	53%	43%	42%	36%
White	176,665	348	76	9%	22%	24%	29%	16%	66%	54%	54%	47%
Two or More Races	15,596	339	78	12%	25%	23%	26%	14%	63%	52%	52%	44%
English Only	388,294	334	75	12%	27%	24%	25%	12%	61%	50%	50%	43%
Initially Fluent English Prof.	52,393	358	88	8%	22%	22%	27%	21%	66%	56%	57%	49%
English Learner	109,060	290	53	25%	43%	19%	10%	2%	47%	39%	37%	32%
Reclassified Fluent Eng. Prof.	157,437	341	73	8%	26%	26%	27%	13%	63%	52%	53%	44%
English Prof. unknown	1,259	300	65	24%	38%	18%	14%	5%	51%	41%	40%	35%
No Special Ed Services	668,222	333	75	12%	28%	24%	24%	12%	61%	50%	50%	43%
Special Ed Services	40,083	288	57	30%	40%	17%	10%	3%	47%	38%	37%	32%
Special Ed unknown	138	350	101	23%	21%	7%	21%	28%	62%	55%	54%	48%
Not Econ. Disadvantaged	282,353	353	82	9%	22%	23%	28%	18%	66%	55%	55%	48%
Economically Disadvantaged	424,928	315	66	16%	34%	24%	20%	7%	56%	46%	45%	38%
Unknown Economic Status	1,162	297	64	26%	37%	18%	14%	4%	51%	40%	39%	35%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	2,211	327	65	11%	29%	27%	24%	9%	60%	49%	48%	41%
Asian American	27,912	432	94	2%	7%	12%	27%	52%	81%	74%	75%	68%
Pacific Islander	1,805	337	69	9%	25%	27%	27%	11%	63%	51%	51%	43%
Filipino	11,958	368	77	5%	17%	23%	34%	22%	70%	60%	61%	52%
Hispanic	83,072	325	68	13%	30%	25%	24%	9%	59%	48%	48%	41%
African American	17,527	318	67	16%	32%	24%	21%	8%	57%	46%	46%	39%
White	128,490	359	77	7%	19%	23%	32%	19%	68%	57%	57%	50%
Two or More Races	9,378	357	81	8%	20%	22%	29%	20%	67%	56%	56%	49%

				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 and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
Primary Ethnicity—Economically Disadvantaged												
American Indian	2,945	304	59	19%	37%	23%	17%	4%	54%	42%	41%	35%
Asian American	21,163	373	85	6%	16%	21%	31%	26%	70%	61%	62%	54%
Pacific Islander	2,577	319	63	13%	32%	26%	23%	6%	57%	47%	47%	38%
Filipino	6,669	348	74	8%	23%	24%	30%	15%	64%	55%	55%	47%
Hispanic	305,620	312	62	17%	35%	24%	19%	5%	55%	45%	44%	37%
African American	32,078	299	58	22%	38%	22%	15%	4%	51%	41%	40%	34%
White	47,929	321	66	14%	31%	25%	22%	8%	58%	47%	46%	40%
Two or More Races	5,947	314	66	17%	33%	23%	20%	7%	56%	45%	44%	38%
Primary Ethnicity—Unknown Economic Status												
American Indian	15	271	36	47%	47%	0%	7%	0%	44%	31%	30%	27%
Asian American	43	372	98	12%	19%	12%	30%	28%	68%	58%	59%	57%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–
Filipino	10	–	–	–	–	–	–	–	–	–	–	–
Hispanic	447	286	56	31%	40%	15%	11%	2%	47%	37%	36%	32%
African American	127	262	35	47%	41%	9%	3%	0%	39%	32%	28%	25%
White	246	316	64	16%	33%	24%	20%	7%	57%	46%	44%	40%
Two or More Races	271	302	61	20%	37%	24%	16%	3%	54%	41%	40%	35%

Table 7.C.22 Demographic Summary for Geometry

				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	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
All valid scores	406,408	323	70	11%	30%	27%	22%	10%	58%	53%	53%	57%
Grade 8	29,099	426	71	0%	2%	10%	36%	51%	84%	82%	81%	84%
Grade 9	143,855	349	66	4%	18%	29%	34%	14%	66%	63%	61%	66%
Grade 10	155,617	300	52	14%	39%	30%	15%	2%	51%	46%	46%	50%
Grade 11	77,837	282	45	22%	46%	23%	8%	1%	46%	40%	40%	43%
Male	199,206	325	72	12%	28%	27%	23%	11%	58%	55%	54%	57%
Female	207,121	320	68	11%	32%	27%	21%	9%	57%	52%	52%	57%
Gender unknown	81	295	49	17%	38%	32%	11%	1%	51%	43%	45%	46%
American Indian	2,603	313	60	12%	33%	30%	20%	6%	56%	51%	50%	53%
Asian American	41,654	381	85	4%	14%	20%	30%	32%	72%	70%	69%	73%
Pacific Islander	2,551	309	60	12%	37%	28%	18%	5%	54%	49%	49%	53%
Filipino	14,143	340	67	6%	23%	30%	29%	13%	63%	59%	59%	63%
Hispanic	196,448	301	56	15%	38%	27%	16%	3%	51%	46%	47%	51%
African American	25,295	291	55	21%	40%	23%	12%	3%	48%	43%	43%	46%
White	114,240	343	68	6%	21%	29%	30%	14%	65%	61%	59%	63%
Two or More Races	9,474	342	71	7%	23%	27%	29%	14%	64%	60%	59%	62%
English Only	225,712	330	69	9%	27%	28%	25%	11%	60%	56%	55%	59%
Initially Fluent English Prof.	33,162	348	80	7%	24%	26%	26%	18%	64%	61%	60%	64%
English Learner	41,894	275	53	31%	45%	15%	7%	2%	42%	37%	39%	42%
Reclassified Fluent Eng. Prof.	105,208	319	64	9%	33%	29%	20%	8%	57%	52%	52%	56%
English Prof. unknown	432	295	59	20%	40%	24%	12%	3%	49%	44%	45%	48%
No Special Ed Services	391,600	324	70	11%	30%	27%	22%	10%	58%	54%	53%	57%
Special Ed Services	14,799	280	58	30%	41%	17%	9%	3%	44%	40%	40%	43%
Special Ed unknown	9	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	192,890	345	74	6%	22%	28%	28%	16%	65%	61%	60%	63%
Economically Disadvantaged	213,090	303	59	16%	37%	26%	16%	4%	52%	47%	47%	51%
Unknown Economic Status	428	301	61	16%	40%	22%	17%	5%	52%	47%	47%	49%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	1,404	325	60	7%	27%	33%	25%	7%	60%	55%	54%	57%
Asian American	24,448	403	84	2%	9%	17%	31%	41%	77%	76%	74%	78%
Pacific Islander	1,152	322	65	10%	30%	30%	22%	8%	58%	53%	53%	57%
Filipino	9,650	346	67	5%	20%	30%	31%	14%	65%	61%	60%	65%
Hispanic	48,313	315	60	11%	33%	30%	21%	6%	56%	51%	51%	55%
African American	10,346	304	60	16%	35%	27%	17%	4%	53%	48%	47%	51%
White	90,898	350	68	4%	19%	29%	32%	16%	67%	63%	61%	64%
Two or More Races	6,679	354	71	4%	18%	27%	33%	17%	67%	64%	63%	66%

				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	Logic and Geometric Proofs	Volume and Area Formulas	Angle Relationships, Constructions, and Lines	Trigonometry
Primary Ethnicity—Economically Disadvantaged												
American Indian	1,198	298	57	17%	39%	27%	14%	4%	51%	46%	45%	49%
Asian American	17,181	348	76	7%	22%	25%	29%	17%	64%	61%	61%	66%
Pacific Islander	1,389	299	55	14%	42%	27%	15%	2%	51%	46%	46%	49%
Filipino	4,484	328	65	8%	27%	31%	25%	9%	59%	55%	55%	60%
Hispanic	147,989	296	54	17%	40%	26%	14%	3%	50%	45%	45%	49%
African American	14,912	282	50	25%	43%	21%	9%	1%	45%	41%	40%	44%
White	23,236	317	60	10%	31%	30%	22%	6%	57%	52%	52%	55%
Two or More Races	2,701	314	63	13%	33%	28%	20%	6%	56%	52%	50%	53%
Primary Ethnicity—Unknown Economic Status												
American Indian	1	–	–	–	–	–	–	–	–	–	–	–
Asian American	25	357	81	8%	20%	16%	32%	24%	66%	62%	69%	66%
Pacific Islander	10	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–
Hispanic	146	290	57	21%	42%	19%	16%	1%	48%	42%	43%	46%
African American	37	283	53	30%	38%	19%	14%	0%	48%	43%	38%	44%
White	106	312	59	10%	39%	26%	17%	8%	54%	54%	51%	50%
Two or More Races	94	301	59	16%	43%	24%	13%	4%	53%	46%	46%	48%

Table 7.C.23 Demographic Summary for Algebra II

				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	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
All valid scores	286,125	331	71	14%	23%	29%	22%	12%	62%	51%	58%	50%
Grade 8	745	439	94	2%	4%	12%	23%	58%	85%	77%	81%	74%
Grade 9	32,423	396	84	4%	8%	19%	31%	38%	77%	68%	75%	65%
Grade 10	131,287	344	67	8%	19%	30%	28%	14%	66%	54%	63%	53%
Grade 11	121,670	300	52	22%	32%	30%	13%	2%	53%	42%	49%	41%
Male	135,797	335	74	14%	22%	28%	23%	14%	62%	52%	59%	51%
Female	150,276	328	68	14%	24%	30%	22%	11%	62%	49%	58%	48%
Gender unknown	52	294	62	31%	37%	15%	13%	4%	48%	42%	46%	41%
American Indian	1,544	318	60	15%	27%	30%	22%	6%	59%	47%	55%	47%
Asian American	38,732	384	85	5%	12%	22%	28%	33%	75%	65%	72%	61%
Pacific Islander	1,639	317	60	16%	28%	30%	20%	6%	59%	47%	55%	45%
Filipino	11,545	341	66	9%	21%	31%	26%	13%	65%	53%	62%	52%
Hispanic	123,401	311	59	19%	29%	30%	18%	5%	57%	44%	53%	44%
African American	16,146	298	59	27%	30%	26%	14%	4%	51%	41%	49%	41%
White	86,520	341	67	8%	20%	31%	27%	13%	65%	54%	62%	53%
Two or More Races	6,598	343	72	10%	20%	29%	26%	15%	65%	54%	62%	53%
English Only	159,809	334	69	12%	22%	30%	24%	12%	63%	51%	59%	51%
Initially Fluent English Prof.	27,668	352	81	10%	20%	26%	24%	20%	67%	56%	64%	54%
English Learner	18,379	290	64	37%	29%	19%	10%	5%	49%	40%	45%	36%
Reclassified Fluent Eng. Prof.	79,981	328	69	14%	25%	30%	21%	11%	62%	49%	58%	48%
English Prof. unknown	288	300	64	27%	29%	25%	12%	6%	52%	42%	47%	42%
No Special Ed Services	279,017	332	71	13%	23%	29%	22%	12%	62%	51%	59%	50%
Special Ed Services	7,102	288	66	39%	27%	18%	11%	5%	47%	40%	45%	38%
Special Ed unknown	6	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	151,639	347	74	9%	20%	29%	26%	17%	66%	55%	63%	54%
Economically Disadvantaged	134,221	313	63	19%	28%	29%	18%	7%	57%	45%	53%	44%
Unknown Economic Status	265	305	65	26%	28%	23%	17%	7%	54%	44%	50%	44%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	971	327	60	11%	25%	33%	24%	8%	62%	49%	58%	49%
Asian American	23,969	400	85	3%	9%	19%	29%	41%	78%	70%	76%	65%
Pacific Islander	854	323	63	15%	26%	29%	22%	8%	60%	48%	57%	47%
Filipino	8,306	346	67	7%	19%	31%	28%	15%	67%	55%	64%	53%
Hispanic	32,075	322	61	14%	26%	31%	21%	8%	60%	48%	56%	48%
African American	7,416	310	62	21%	28%	28%	17%	6%	55%	45%	53%	44%
White	73,027	345	67	7%	19%	31%	28%	14%	66%	55%	63%	54%
Two or More Races	5,021	350	73	8%	18%	29%	28%	17%	67%	56%	64%	55%

				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	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
Primary Ethnicity—Economically Disadvantaged												
American Indian	571	305	58	21%	31%	27%	18%	4%	53%	43%	51%	44%
Asian American	14,741	357	76	8%	17%	27%	28%	21%	70%	58%	66%	54%
Pacific Islander	783	311	57	17%	30%	32%	17%	4%	57%	45%	53%	43%
Filipino	3,227	327	62	12%	24%	33%	23%	9%	62%	49%	58%	48%
Hispanic	91,249	307	58	21%	29%	29%	16%	5%	56%	43%	51%	43%
African American	8,707	288	54	33%	31%	23%	11%	2%	48%	39%	46%	39%
White	13,432	324	61	13%	26%	32%	22%	8%	60%	49%	56%	49%
Two or More Races	1,511	321	65	16%	26%	30%	20%	8%	59%	47%	56%	47%
Primary Ethnicity—Unknown Economic Status												
American Indian	2	–	–	–	–	–	–	–	–	–	–	–
Asian American	22	370	86	9%	18%	5%	23%	45%	74%	66%	66%	58%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–
Filipino	12	310	50	8%	42%	33%	8%	8%	55%	51%	44%	48%
Hispanic	77	294	53	26%	35%	18%	19%	1%	51%	38%	48%	42%
African American	23	272	67	52%	26%	9%	9%	4%	43%	35%	39%	34%
White	61	309	56	21%	21%	33%	23%	2%	56%	45%	51%	46%
Two or More Races	66	306	66	26%	26%	30%	12%	6%	53%	45%	51%	43%

Table 7.C.24 Demographic Summary for Summative High School Mathematics

				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
All valid scores	149,833	363	78	4%	18%	25%	33%	20%	76%	73%	73%	64%
Grade 9	879	438	92	4%	3%	8%	28%	58%	89%	85%	87%	77%
Grade 10	24,789	400	75	1%	7%	17%	40%	35%	84%	81%	82%	72%
Grade 11	124,165	355	75	4%	20%	27%	32%	17%	74%	71%	71%	62%
Male	71,847	374	79	3%	14%	22%	35%	25%	79%	75%	75%	68%
Female	77,970	352	74	4%	21%	28%	32%	16%	74%	71%	71%	60%
Gender unknown	16	333	102	13%	44%	0%	19%	25%	67%	62%	61%	63%
American Indian	638	350	71	4%	21%	27%	34%	14%	73%	71%	70%	62%
Asian American	35,751	405	78	1%	7%	17%	37%	38%	85%	81%	83%	72%
Pacific Islander	717	339	66	4%	23%	31%	33%	9%	71%	68%	68%	56%
Filipino	6,792	354	66	3%	18%	30%	36%	14%	75%	73%	72%	60%
Hispanic	45,212	327	66	7%	28%	31%	27%	7%	69%	65%	64%	52%
African American	5,423	317	68	11%	31%	29%	23%	7%	65%	61%	61%	51%
White	51,719	370	73	2%	14%	25%	37%	22%	78%	75%	75%	70%
Two or More Races	3,581	371	76	3%	14%	24%	36%	23%	78%	75%	75%	69%
English Only	86,179	365	75	3%	16%	25%	35%	20%	76%	74%	73%	67%
Initially Fluent English Prof.	20,464	385	82	2%	13%	21%	34%	30%	80%	77%	78%	67%
English Learner	3,286	316	81	18%	29%	20%	22%	11%	64%	59%	61%	45%
Reclassified Fluent Eng. Prof.	39,831	350	76	5%	22%	27%	30%	16%	74%	70%	70%	56%
English Prof. unknown	73	336	77	14%	23%	22%	30%	11%	70%	67%	66%	52%
No Special Ed Services	148,475	363	77	4%	18%	25%	33%	20%	76%	73%	73%	64%
Special Ed Services	1,357	331	89	16%	24%	20%	25%	15%	67%	63%	64%	54%
Special Ed unknown	1	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	96,148	378	77	2%	13%	23%	36%	26%	79%	76%	77%	70%
Economically Disadvantaged	53,612	335	71	6%	26%	29%	28%	10%	70%	66%	66%	53%
Unknown Economic Status	73	322	70	15%	25%	29%	22%	10%	68%	62%	62%	50%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	433	360	72	3%	17%	26%	37%	17%	75%	74%	72%	65%
Asian American	24,702	418	76	1%	5%	14%	36%	45%	87%	83%	86%	76%
Pacific Islander	453	349	66	2%	21%	30%	34%	12%	73%	71%	70%	60%
Filipino	5,079	359	66	2%	16%	29%	38%	15%	76%	74%	74%	61%
Hispanic	13,409	343	67	4%	22%	31%	32%	11%	72%	69%	68%	59%
African American	2,963	330	68	6%	28%	30%	27%	9%	68%	65%	65%	56%
White	46,207	373	73	2%	13%	25%	38%	23%	78%	76%	75%	71%
Two or More Races	2,902	377	76	3%	12%	23%	37%	25%	79%	77%	76%	71%

				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	205	328	64	6%	30%	29%	27%	7%	68%	66%	64%	55%
Asian American	11,042	376	73	2%	13%	24%	38%	24%	80%	76%	78%	63%
Pacific Islander	264	322	62	7%	27%	32%	30%	4%	68%	63%	64%	50%
Filipino	1,713	340	65	4%	24%	31%	31%	9%	71%	69%	68%	54%
Hispanic	31,780	321	64	8%	31%	31%	25%	6%	67%	63%	62%	48%
African American	2,457	301	64	16%	35%	28%	18%	4%	61%	57%	56%	45%
White	5,489	347	70	4%	22%	29%	32%	13%	73%	70%	69%	62%
Two or More Races	662	346	73	5%	22%	28%	31%	15%	72%	68%	69%	59%
Primary Ethnicity—Unknown Economic Status												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	7	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	23	302	59	17%	30%	35%	13%	4%	64%	54%	59%	39%
African American	3	–	–	–	–	–	–	–	–	–	–	–
White	23	315	74	17%	30%	22%	26%	4%	63%	63%	60%	51%
Two or More Races	17	333	68	12%	18%	35%	24%	12%	74%	66%	63%	59%

Table 7.C.25 Demographic Summary for Integrated Mathematics 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	Number Properties, Operations, and Linear Equations	Graphing	Quadratics and Polynomials	Functions and Rational Expressions	Geometry
All valid scores	13,442	292	51	21%	40%	26%	12%	2%	57%	44%	39%	37%	34%
Grade 8	145	326	87	21%	28%	13%	21%	17%	60%	54%	47%	42%	49%
Grade 9	1,036	301	61	20%	35%	26%	15%	4%	58%	48%	43%	39%	36%
Grade 10	5,958	290	49	21%	40%	27%	11%	1%	57%	44%	39%	37%	33%
Grade 11	6,303	291	49	20%	42%	26%	11%	1%	58%	43%	38%	36%	34%
Male	7,256	291	52	22%	40%	25%	12%	2%	57%	43%	39%	35%	35%
Female	6,183	293	50	19%	41%	27%	12%	1%	58%	45%	40%	39%	33%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	120	291	51	23%	34%	32%	11%	1%	58%	44%	39%	36%	33%
Asian American	380	305	52	13%	37%	29%	18%	2%	61%	49%	44%	41%	36%
Pacific Islander	96	296	50	18%	34%	33%	13%	2%	60%	45%	42%	38%	33%
Filipino	255	310	54	12%	31%	35%	20%	2%	64%	49%	44%	41%	38%
Hispanic	7,762	287	47	22%	42%	25%	10%	1%	56%	43%	38%	36%	33%
African American	1,294	279	46	28%	43%	22%	7%	0%	52%	40%	35%	34%	31%
White	3,182	306	57	15%	35%	29%	17%	4%	62%	46%	43%	39%	38%
Two or More Races	353	293	50	18%	42%	28%	9%	2%	59%	42%	39%	35%	35%
English Only	7,830	295	53	19%	39%	27%	12%	2%	58%	44%	40%	37%	35%
Initially Fluent English Prof.	829	302	52	17%	36%	29%	17%	1%	62%	46%	41%	39%	36%
English Learner	2,183	270	40	33%	47%	16%	4%	0%	49%	38%	33%	33%	28%
Reclassified Fluent Eng. Prof.	2,573	298	46	15%	40%	31%	13%	1%	60%	47%	41%	39%	34%
English Prof. unknown	27	264	35	37%	52%	11%	0%	0%	47%	35%	28%	34%	29%
No Special Ed Services	11,904	295	51	18%	40%	28%	13%	2%	59%	45%	40%	37%	35%
Special Ed Services	1,530	266	42	38%	45%	12%	4%	0%	47%	35%	32%	30%	29%
Special Ed unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	4,541	302	54	16%	38%	29%	15%	3%	61%	46%	42%	39%	37%
Economically Disadvantaged	8,874	287	48	23%	42%	25%	10%	1%	56%	43%	38%	36%	33%
Unknown Economic Status	27	266	50	41%	41%	15%	4%	0%	45%	34%	31%	30%	33%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	58	294	49	21%	33%	34%	12%	0%	60%	43%	41%	37%	33%
Asian American	164	311	53	12%	33%	31%	21%	3%	64%	49%	45%	42%	38%
Pacific Islander	34	286	38	18%	32%	44%	6%	0%	55%	40%	40%	36%	31%
Filipino	149	314	51	8%	32%	37%	21%	2%	65%	50%	46%	42%	39%
Hispanic	1,486	294	50	18%	41%	27%	12%	2%	58%	44%	40%	38%	35%
African American	406	285	46	22%	45%	23%	9%	0%	56%	41%	37%	35%	32%
White	2,051	310	58	13%	35%	29%	18%	4%	63%	47%	44%	40%	39%
Two or More Races	193	296	52	18%	37%	32%	11%	3%	61%	42%	40%	34%	37%

				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	62	288	52	24%	35%	29%	10%	2%	56%	45%	37%	35%	33%
Asian American	215	301	50	14%	40%	28%	16%	1%	59%	48%	44%	41%	34%
Pacific Islander	62	301	55	18%	35%	27%	16%	3%	62%	47%	43%	40%	34%
Filipino	103	306	57	17%	30%	33%	17%	2%	64%	49%	41%	40%	37%
Hispanic	6,265	286	46	23%	43%	24%	9%	1%	55%	43%	37%	35%	32%
African American	885	277	46	31%	42%	21%	6%	1%	51%	39%	35%	33%	31%
White	1,127	299	56	19%	35%	28%	15%	3%	59%	45%	41%	38%	37%
Two or More Races	155	290	47	19%	48%	24%	8%	2%	58%	43%	38%	36%	33%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	3	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	11	265	53	45%	27%	27%	0%	0%	47%	37%	29%	32%	30%
African American	3	–	–	–	–	–	–	–	–	–	–	–	–
White	4	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	5	–	–	–	–	–	–	–	–	–	–	–	–

Table 7.C.26 Demographic Summary for Integrated Mathematics 2

				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	Logic and Geometric Proofs	Angle Relationships, Constructions, and Lines	Trigonometry	Algebra II/ Probability and Statistics
All valid scores	5,127	323	57	11%	29%	33%	21%	6%	48%	45%	44%	45%	33%
Grade 8	6	–	–	–	–	–	–	–	–	–	–	–	–
Grade 9	255	368	65	4%	12%	24%	40%	21%	63%	58%	59%	61%	42%
Grade 10	1,479	339	68	9%	23%	32%	24%	12%	53%	49%	49%	51%	37%
Grade 11	3,387	312	46	12%	33%	35%	19%	2%	45%	42%	41%	42%	30%
Male	2,534	325	58	11%	27%	33%	23%	6%	49%	46%	45%	45%	34%
Female	2,591	321	55	10%	30%	34%	20%	5%	48%	44%	43%	46%	32%
Gender unknown	2	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	43	336	57	9%	16%	40%	28%	7%	51%	51%	50%	49%	33%
Asian American	384	340	71	9%	24%	28%	28%	12%	55%	49%	49%	49%	35%
Pacific Islander	41	317	50	10%	34%	32%	22%	2%	46%	43%	39%	50%	30%
Filipino	169	344	70	8%	24%	29%	27%	13%	56%	50%	51%	53%	35%
Hispanic	2,524	317	53	12%	31%	34%	19%	4%	47%	43%	41%	44%	32%
African American	428	309	53	16%	34%	31%	14%	5%	44%	40%	40%	40%	33%
White	1,347	331	57	8%	25%	35%	25%	7%	50%	48%	48%	48%	34%
Two or More Races	191	325	46	7%	29%	34%	27%	3%	48%	47%	46%	45%	33%
English Only	3,136	326	56	9%	27%	34%	24%	6%	49%	46%	46%	46%	34%
Initially Fluent English Prof.	324	320	53	13%	28%	35%	19%	6%	47%	44%	43%	47%	32%
English Learner	557	300	54	21%	41%	24%	9%	5%	42%	38%	36%	37%	27%
Reclassified Fluent Eng. Prof.	1,099	326	57	9%	27%	36%	21%	7%	51%	45%	44%	46%	33%
English Prof. unknown	11	325	63	9%	36%	18%	27%	9%	50%	42%	47%	48%	45%
No Special Ed Services	4,809	325	57	10%	28%	34%	22%	6%	49%	46%	45%	46%	33%
Special Ed Services	318	291	40	21%	45%	25%	8%	1%	38%	35%	35%	34%	27%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	2,270	332	59	9%	24%	34%	26%	7%	51%	48%	48%	48%	35%
Economically Disadvantaged	2,852	316	53	12%	33%	33%	18%	5%	47%	43%	41%	43%	31%
Unknown Economic Status	5	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	24	340	48	8%	13%	38%	38%	4%	54%	53%	49%	50%	33%
Asian American	162	357	80	9%	12%	30%	33%	16%	59%	53%	54%	54%	42%
Pacific Islander	20	333	62	15%	20%	25%	35%	5%	53%	45%	43%	62%	33%
Filipino	113	341	67	8%	22%	31%	28%	11%	54%	50%	50%	52%	34%
Hispanic	620	326	55	10%	26%	33%	26%	5%	49%	46%	45%	47%	33%
African American	210	314	54	14%	32%	32%	17%	5%	45%	42%	43%	41%	34%
White	993	334	58	7%	23%	36%	25%	8%	51%	49%	49%	48%	35%
Two or More Races	128	328	45	8%	24%	34%	34%	1%	50%	48%	46%	46%	34%

				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	Logic and Geometric Proofs	Angle Relationships, Constructions, and Lines	Trigonometry	Algebra II/ Probability and Statistics
Primary Ethnicity—Economically Disadvantaged													
American Indian	19	331	67	11%	21%	42%	16%	11%	47%	49%	51%	48%	35%
Asian American	222	328	61	9%	32%	26%	23%	9%	52%	46%	45%	45%	29%
Pacific Islander	21	303	30	5%	48%	38%	10%	0%	40%	42%	35%	39%	27%
Filipino	56	351	76	7%	27%	25%	23%	18%	59%	50%	52%	54%	38%
Hispanic	1,904	314	52	13%	33%	34%	16%	4%	46%	42%	40%	43%	31%
African American	215	305	52	17%	37%	30%	12%	5%	43%	39%	38%	38%	32%
White	354	321	50	10%	29%	33%	25%	4%	47%	45%	44%	46%	33%
Two or More Races	61	319	46	5%	39%	36%	15%	5%	45%	46%	45%	43%	30%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	–
African American	3	–	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	2	–	–	–	–	–	–	–	–	–	–	–	–

Table 7.C.27 Demographic Summary for Integrated Mathematics 3

				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	Geometry	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
All valid scores	806	338	72	11%	21%	26%	31%	11%	63%	55%	45%	54%	44%
Grade 8	2	–	–	–	–	–	–	–	–	–	–	–	–
Grade 9	74	402	82	3%	8%	16%	36%	36%	76%	69%	63%	72%	56%
Grade 10	162	363	72	6%	15%	23%	36%	20%	65%	63%	50%	61%	53%
Grade 11	568	324	63	14%	24%	28%	29%	5%	60%	52%	42%	50%	40%
Male	441	342	74	11%	20%	24%	33%	12%	66%	56%	46%	55%	45%
Female	365	334	69	12%	22%	28%	29%	9%	59%	55%	44%	53%	44%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	105	363	83	7%	17%	24%	32%	20%	67%	61%	53%	59%	49%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	53	350	69	6%	21%	23%	38%	13%	66%	62%	46%	56%	47%
Hispanic	363	328	66	14%	20%	32%	26%	8%	58%	54%	42%	51%	43%
African American	46	322	70	22%	20%	22%	35%	2%	50%	50%	43%	53%	40%
White	199	346	71	8%	24%	20%	36%	13%	70%	55%	48%	57%	45%
Two or More Races	29	339	89	7%	31%	17%	34%	10%	68%	52%	45%	51%	50%
English Only	500	340	71	10%	23%	23%	34%	10%	65%	55%	46%	56%	44%
Initially Fluent English Prof.	67	341	81	16%	18%	24%	25%	16%	64%	58%	46%	51%	46%
English Learner	46	306	78	35%	20%	24%	11%	11%	52%	45%	41%	46%	30%
Reclassified Fluent Eng. Prof.	193	340	68	8%	18%	34%	28%	11%	58%	58%	44%	54%	47%
English Prof. unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	773	341	71	10%	21%	26%	32%	11%	63%	56%	46%	55%	45%
Special Ed Services	33	288	77	39%	30%	9%	15%	6%	45%	40%	37%	42%	28%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	476	346	75	10%	22%	20%	35%	14%	67%	57%	48%	57%	45%
Economically Disadvantaged	329	328	65	13%	20%	34%	25%	7%	57%	54%	42%	51%	43%
Unknown Economic Status	1	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	79	371	87	6%	18%	18%	33%	25%	67%	63%	55%	63%	49%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	39	350	68	5%	21%	23%	38%	13%	66%	61%	48%	56%	46%
Hispanic	114	331	67	14%	23%	25%	29%	10%	64%	54%	42%	52%	41%
African American	31	322	66	26%	16%	13%	45%	0%	54%	50%	44%	53%	39%
White	179	349	72	8%	22%	19%	36%	15%	71%	56%	48%	58%	46%
Two or More Races	27	338	92	7%	33%	15%	33%	11%	67%	50%	46%	51%	51%

				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	Geometry	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
Primary Ethnicity—Economically Disadvantaged													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	26	337	64	8%	15%	42%	31%	4%	65%	53%	46%	50%	49%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	14	352	73	7%	21%	21%	36%	14%	69%	64%	42%	57%	51%
Hispanic	249	327	65	14%	19%	35%	24%	7%	56%	54%	42%	51%	43%
African American	15	321	82	13%	27%	40%	13%	7%	43%	50%	39%	52%	42%
White	19	316	51	5%	37%	26%	32%	0%	63%	48%	42%	46%	37%
Two or More Races	2	–	–	–	–	–	–	–	–	–	–	–	–
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

				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	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	430,759	367	66	6%	9%	25%	35%	25%	75%	70%	71%	73%	69%	65%
Male	215,753	370	69	7%	8%	23%	34%	27%	75%	71%	71%	73%	70%	66%
Female	214,894	364	64	6%	9%	27%	35%	23%	75%	68%	71%	72%	69%	65%
Gender unknown	112	339	59	13%	14%	33%	27%	13%	67%	63%	65%	63%	61%	55%
American Indian	2,585	355	62	9%	10%	29%	36%	17%	72%	66%	68%	70%	67%	61%
Asian American	38,964	408	71	3%	4%	13%	31%	49%	85%	80%	80%	82%	78%	78%
Pacific Islander	2,390	354	60	7%	11%	31%	34%	17%	73%	66%	68%	69%	67%	62%
Filipino	11,796	388	59	2%	4%	19%	41%	34%	82%	75%	77%	79%	75%	73%
Hispanic	224,922	347	59	9%	12%	32%	33%	14%	70%	65%	66%	67%	65%	59%
African American	27,466	345	62	11%	13%	31%	32%	14%	70%	62%	65%	65%	64%	58%
White	111,280	396	63	2%	4%	16%	38%	40%	83%	77%	78%	81%	77%	75%
Two or More Races	11,356	388	66	4%	5%	19%	36%	36%	81%	75%	76%	79%	74%	72%
English Only	239,243	379	65	4%	6%	21%	37%	31%	79%	73%	74%	76%	73%	70%
Initially Fluent English Prof.	19,722	403	66	2%	3%	16%	35%	44%	84%	79%	80%	82%	78%	76%
English Learner	94,866	317	50	17%	20%	39%	20%	4%	60%	56%	56%	57%	56%	48%
Reclassified Fluent Eng. Prof.	76,434	383	55	1%	3%	24%	44%	28%	81%	75%	76%	78%	75%	71%
English Prof. unknown	494	338	63	16%	14%	27%	31%	13%	67%	62%	63%	63%	61%	57%
No Special Ed Services	405,790	369	66	6%	8%	25%	35%	25%	76%	70%	71%	73%	70%	66%
Special Ed Services	22,687	340	69	16%	14%	28%	26%	16%	66%	61%	62%	64%	61%	57%
Special Ed unknown	2,282	341	66	14%	14%	28%	29%	15%	68%	62%	63%	65%	62%	57%
Not Econ. Disadvantaged	165,969	401	64	2%	3%	15%	37%	43%	84%	78%	79%	82%	77%	76%
Economically Disadvantaged	264,204	347	59	9%	12%	32%	33%	14%	70%	64%	66%	67%	64%	58%
Unknown Economic Status	586	344	67	15%	11%	27%	31%	16%	69%	64%	64%	65%	62%	58%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	895	380	62	3%	6%	22%	39%	30%	79%	73%	75%	77%	73%	70%
Asian American	24,195	429	66	1%	2%	8%	28%	62%	90%	84%	84%	87%	82%	83%
Pacific Islander	802	380	58	2%	5%	24%	39%	30%	81%	74%	75%	76%	73%	70%
Filipino	7,314	398	58	1%	3%	16%	41%	40%	85%	78%	79%	81%	77%	77%
Hispanic	36,862	375	60	4%	6%	23%	40%	27%	78%	72%	74%	76%	72%	69%
African American	7,653	368	63	6%	7%	25%	38%	24%	77%	68%	72%	73%	70%	67%
White	81,174	407	60	1%	2%	12%	38%	47%	86%	80%	81%	84%	79%	79%
Two or More Races	7,074	406	63	2%	3%	13%	36%	46%	86%	79%	80%	83%	78%	78%
Primary Ethnicity—Economically Disadvantaged														
American Indian	1,681	342	58	11%	12%	32%	34%	10%	68%	62%	65%	66%	63%	57%
Asian American	14,729	375	66	5%	8%	22%	36%	29%	77%	72%	73%	74%	71%	68%
Pacific Islander	1,584	342	56	9%	14%	35%	31%	11%	69%	62%	64%	65%	63%	57%
Filipino	4,477	372	56	3%	6%	25%	42%	23%	78%	71%	73%	74%	72%	68%
Hispanic	187,848	342	57	10%	13%	34%	32%	11%	68%	63%	64%	65%	63%	57%
African American	19,763	335	58	13%	15%	33%	29%	10%	68%	59%	62%	62%	61%	55%
White	29,963	366	60	6%	7%	26%	40%	22%	76%	70%	71%	73%	69%	65%
Two or More Races	4,159	359	59	7%	9%	28%	37%	19%	74%	67%	70%	71%	67%	63%

				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	Physical Science, Grade Five	Physical Science, Grade Four	Life Science, Grade Five	Life Science, Grade Four	Earth Science, Grade Five	Earth Science, Grade Four
Primary Ethnicity—Unknown Economic Status														
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	40	375	82	13%	8%	15%	33%	33%	75%	73%	71%	72%	69%	68%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	212	329	59	19%	13%	28%	31%	9%	64%	60%	60%	61%	59%	53%
African American	50	312	58	28%	18%	30%	18%	6%	58%	49%	54%	55%	54%	49%
White	143	368	65	7%	6%	24%	37%	25%	77%	70%	70%	74%	69%	66%
Two or More Races	123	348	67	13%	13%	27%	31%	16%	70%	67%	66%	65%	61%	61%

Table 7.C.29 Demographic Summary for Science, Grade Eight

				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	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
All valid scores	435,529	395	99	8%	9%	16%	21%	45%	67%	74%	71%	74%	67%	75%
Male	218,680	399	104	10%	8%	15%	20%	48%	68%	76%	71%	75%	67%	75%
Female	216,730	390	94	7%	9%	18%	23%	42%	67%	73%	71%	72%	67%	76%
Gender unknown	119	329	81	17%	20%	20%	25%	18%	56%	61%	59%	63%	54%	61%
American Indian	2,946	368	94	12%	12%	19%	22%	35%	62%	70%	66%	69%	63%	70%
Asian American	38,194	465	98	2%	3%	7%	14%	73%	79%	85%	83%	83%	80%	88%
Pacific Islander	2,629	380	93	10%	10%	19%	23%	39%	66%	72%	69%	71%	64%	73%
Filipino	12,935	431	88	3%	4%	12%	20%	61%	73%	81%	79%	81%	74%	84%
Hispanic	222,398	367	90	11%	12%	21%	24%	33%	63%	70%	66%	70%	62%	69%
African American	29,162	357	92	14%	13%	21%	23%	29%	61%	67%	64%	67%	61%	68%
White	117,499	430	95	4%	5%	11%	20%	61%	73%	81%	78%	79%	74%	83%
Two or More Races	9,766	416	100	6%	6%	13%	20%	54%	71%	78%	75%	77%	71%	80%
English Only	243,963	407	99	7%	7%	15%	21%	50%	69%	77%	74%	76%	70%	78%
Initially Fluent English Prof.	36,743	430	98	4%	5%	12%	20%	59%	73%	80%	78%	80%	74%	82%
English Learner	56,119	307	76	26%	22%	26%	16%	10%	53%	57%	52%	58%	49%	54%
Reclassified Fluent Eng. Prof.	98,033	402	85	4%	7%	18%	26%	46%	69%	77%	73%	76%	69%	78%
English Prof. unknown	671	341	96	20%	16%	20%	20%	25%	58%	64%	60%	64%	56%	63%
No Special Ed Services	414,039	398	98	8%	8%	16%	22%	46%	68%	75%	72%	74%	68%	76%
Special Ed Services	21,457	330	98	25%	17%	20%	17%	21%	55%	60%	58%	63%	55%	58%
Special Ed unknown	33	299	86	33%	21%	24%	6%	15%	49%	54%	50%	62%	45%	54%
Not Econ. Disadvantaged	180,873	435	96	4%	4%	11%	19%	62%	74%	81%	79%	80%	75%	84%
Economically Disadvantaged	253,942	366	91	12%	12%	21%	23%	33%	63%	70%	66%	69%	62%	69%
Unknown Economic Status	714	341	99	21%	14%	20%	20%	25%	58%	64%	60%	63%	57%	64%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,141	395	94	8%	8%	15%	23%	47%	66%	75%	72%	74%	68%	77%
Asian American	23,185	491	89	1%	1%	4%	10%	83%	83%	89%	87%	87%	84%	92%
Pacific Islander	1,056	408	91	5%	6%	15%	23%	51%	70%	77%	74%	77%	70%	80%
Filipino	8,228	442	85	2%	3%	10%	19%	67%	75%	83%	81%	83%	77%	86%
Hispanic	43,969	397	92	7%	8%	16%	24%	46%	67%	75%	72%	75%	68%	77%
African American	9,915	384	94	9%	9%	17%	24%	41%	65%	72%	70%	72%	66%	74%
White	87,194	445	91	3%	3%	9%	18%	67%	75%	83%	80%	82%	77%	86%
Two or More Races	6,185	441	95	4%	4%	9%	18%	65%	75%	82%	79%	81%	76%	85%
Primary Ethnicity—Economically Disadvantaged														
American Indian	1,797	351	90	15%	14%	21%	22%	28%	60%	66%	63%	65%	60%	66%
Asian American	14,974	424	96	5%	6%	12%	19%	58%	73%	79%	77%	78%	73%	82%
Pacific Islander	1,569	362	89	12%	12%	21%	23%	31%	63%	69%	65%	68%	60%	69%
Filipino	4,699	411	89	4%	6%	15%	23%	52%	70%	78%	75%	77%	71%	80%
Hispanic	178,169	359	88	12%	13%	22%	24%	29%	62%	68%	64%	68%	61%	68%
African American	19,174	343	87	17%	15%	23%	22%	23%	59%	64%	61%	64%	58%	64%
White	30,139	387	93	9%	9%	17%	24%	42%	66%	74%	70%	73%	66%	75%
Two or More Races	3,421	374	94	11%	10%	19%	24%	36%	64%	71%	67%	70%	64%	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	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
Primary Ethnicity—Unknown Economic Status														
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	35	404	109	9%	9%	17%	17%	49%	73%	73%	70%	74%	71%	80%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	8	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	260	321	99	30%	12%	20%	18%	20%	54%	59%	56%	59%	51%	59%
African American	73	294	78	32%	22%	27%	10%	10%	48%	53%	49%	53%	50%	52%
White	166	373	95	11%	12%	15%	27%	35%	64%	71%	66%	69%	65%	73%
Two or More Races	160	346	93	14%	17%	23%	23%	24%	57%	66%	62%	66%	58%	63%

Table 7.C.30 Demographic Summary for Grade Ten Life Science

				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	Cell Biology	Genetics	Physiology	Ecology	Evolution	Investigation and Experimentation
All valid scores	449,842	357	69	10%	11%	26%	26%	27%	56%	61%	69%	68%	66%	75%
Male	226,278	359	73	12%	10%	24%	25%	29%	58%	60%	69%	69%	66%	72%
Female	223,389	355	65	8%	11%	29%	28%	24%	55%	61%	68%	67%	66%	77%
Gender unknown	175	318	65	22%	23%	24%	18%	13%	44%	48%	59%	54%	53%	57%
American Indian	3,269	348	67	13%	11%	27%	27%	22%	54%	56%	67%	67%	63%	71%
Asian American	42,258	401	73	4%	4%	16%	25%	51%	70%	73%	78%	79%	76%	87%
Pacific Islander	2,581	344	63	12%	12%	31%	26%	19%	53%	57%	65%	65%	62%	71%
Filipino	13,428	381	61	3%	5%	22%	32%	37%	64%	68%	76%	76%	73%	84%
Hispanic	224,183	337	60	13%	14%	32%	25%	15%	50%	55%	63%	62%	60%	69%
African American	29,168	331	62	17%	16%	31%	23%	14%	49%	53%	62%	60%	58%	64%
White	124,466	382	68	5%	6%	19%	29%	41%	64%	68%	76%	76%	73%	82%
Two or More Races	10,489	372	70	8%	8%	21%	29%	34%	61%	64%	73%	73%	70%	79%
English Only	250,555	367	70	8%	9%	23%	28%	32%	59%	63%	72%	71%	68%	77%
Initially Fluent English Prof.	32,822	383	70	5%	6%	21%	29%	39%	64%	68%	75%	75%	73%	83%
English Learner	57,893	295	46	30%	27%	31%	9%	3%	39%	42%	49%	47%	45%	51%
Reclassified Fluent Eng. Prof.	107,883	361	59	4%	8%	32%	32%	24%	57%	63%	70%	70%	68%	79%
English Prof. unknown	689	326	63	18%	19%	31%	19%	13%	48%	49%	61%	59%	56%	62%
No Special Ed Services	424,734	360	68	9%	10%	26%	27%	28%	57%	62%	70%	69%	67%	76%
Special Ed Services	25,070	306	62	31%	21%	26%	13%	9%	44%	44%	53%	52%	48%	52%
Special Ed unknown	38	281	44	45%	24%	26%	3%	3%	36%	39%	45%	41%	39%	41%
Not Econ. Disadvantaged	205,099	382	70	5%	6%	20%	28%	40%	64%	67%	75%	75%	73%	82%
Economically Disadvantaged	244,045	337	62	14%	14%	32%	25%	16%	50%	55%	63%	62%	60%	69%
Unknown Economic Status	698	325	63	18%	19%	31%	19%	13%	48%	50%	60%	59%	55%	61%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,606	364	67	9%	8%	24%	29%	30%	58%	62%	71%	72%	68%	77%
Asian American	24,939	421	69	2%	2%	10%	23%	63%	76%	78%	83%	83%	81%	91%
Pacific Islander	1,166	361	66	9%	9%	24%	30%	28%	58%	62%	71%	70%	67%	76%
Filipino	9,291	387	60	2%	4%	19%	33%	41%	66%	70%	78%	78%	75%	86%
Hispanic	53,542	354	64	9%	11%	28%	29%	24%	55%	60%	68%	68%	65%	74%
African American	11,758	346	65	12%	12%	29%	27%	20%	54%	57%	67%	65%	63%	70%
White	95,907	391	66	4%	4%	17%	29%	46%	66%	70%	78%	78%	76%	85%
Two or More Races	6,890	387	68	5%	5%	18%	30%	43%	66%	68%	77%	77%	74%	83%
Primary Ethnicity—Economically Disadvantaged														
American Indian	1,657	332	63	17%	15%	29%	25%	14%	49%	51%	62%	62%	58%	66%
Asian American	17,283	372	68	7%	7%	23%	29%	34%	62%	66%	71%	72%	70%	81%
Pacific Islander	1,406	330	57	14%	15%	36%	23%	12%	49%	53%	61%	60%	57%	66%
Filipino	4,127	366	61	5%	8%	28%	31%	28%	59%	63%	72%	71%	69%	79%
Hispanic	170,398	332	58	14%	16%	33%	24%	13%	49%	53%	61%	61%	58%	67%
African American	17,345	321	58	20%	18%	32%	20%	10%	46%	50%	59%	56%	54%	60%
White	28,397	352	66	11%	11%	27%	28%	24%	55%	58%	68%	68%	64%	73%
Two or More Races	3,432	343	65	14%	12%	28%	26%	19%	52%	55%	65%	65%	61%	70%

				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	Cell Biology	Genetics	Physiology	Ecology	Evolution	Investigation and Experimentation
Primary Ethnicity—Unknown Economic Status														
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	36	341	84	17%	17%	31%	17%	19%	52%	52%	63%	64%	59%	61%
Pacific Islander	9	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	10	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	243	316	60	23%	18%	35%	13%	11%	46%	47%	57%	55%	52%	58%
African American	65	304	53	34%	17%	26%	20%	3%	41%	46%	51%	51%	48%	54%
White	162	343	63	10%	16%	30%	23%	20%	52%	54%	67%	65%	61%	70%
Two or More Races	167	328	62	14%	22%	27%	25%	11%	48%	51%	61%	60%	56%	62%

Table 7.C.31 Demographic Summary for Biology

				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	Cell Biology	Genetics	Ecology and Evolution	Physiology	Investigation and Experimentation
All valid scores	555,736	355	61	9%	10%	29%	26%	26%	66%	63%	63%	68%	64%
Grade 9	228,552	366	62	7%	8%	26%	27%	33%	70%	67%	66%	71%	68%
Grade 10	227,663	343	56	11%	12%	34%	25%	18%	61%	59%	59%	64%	60%
Grade 11	99,521	357	66	11%	10%	26%	25%	28%	65%	62%	63%	69%	65%
Male	274,777	355	64	11%	10%	27%	25%	27%	66%	61%	63%	68%	64%
Female	280,784	355	58	7%	10%	31%	27%	25%	66%	64%	62%	68%	64%
Gender unknown	175	321	54	19%	22%	31%	17%	11%	56%	51%	49%	56%	48%
American Indian	3,769	349	57	10%	10%	30%	27%	22%	63%	60%	62%	67%	63%
Asian American	53,653	397	67	3%	4%	17%	24%	52%	79%	76%	75%	78%	78%
Pacific Islander	3,145	344	54	10%	11%	34%	26%	19%	63%	60%	59%	64%	61%
Filipino	17,397	375	54	3%	4%	24%	32%	37%	73%	71%	70%	75%	74%
Hispanic	277,551	336	52	13%	13%	36%	24%	14%	60%	56%	56%	62%	57%
African American	36,979	332	54	16%	14%	34%	22%	14%	59%	55%	54%	60%	54%
White	150,452	377	60	5%	5%	21%	29%	40%	72%	70%	71%	75%	73%
Two or More Races	12,790	372	62	6%	6%	24%	28%	36%	70%	69%	69%	73%	71%
English Only	307,879	364	61	8%	8%	26%	28%	31%	68%	66%	66%	71%	68%
Initially Fluent English Prof.	44,334	378	64	5%	5%	23%	28%	39%	73%	71%	70%	75%	72%
English Learner	70,003	300	39	28%	26%	35%	8%	2%	49%	43%	41%	47%	40%
Reclassified Fluent Eng. Prof.	132,695	356	52	5%	7%	35%	30%	22%	67%	64%	63%	70%	66%
English Prof. unknown	825	320	52	21%	18%	34%	17%	10%	55%	49%	50%	56%	50%
No Special Ed Services	516,112	359	60	7%	9%	29%	27%	28%	67%	64%	64%	69%	66%
Special Ed Services	39,523	302	49	33%	23%	28%	10%	6%	49%	42%	43%	49%	41%
Special Ed unknown	101	282	36	47%	32%	17%	4%	1%	41%	35%	35%	39%	34%
Not Econ. Disadvantaged	256,082	377	62	5%	5%	22%	28%	39%	72%	70%	71%	75%	72%
Economically Disadvantaged	298,917	336	53	13%	13%	35%	24%	15%	60%	57%	56%	62%	57%
Unknown Economic Status	737	328	55	18%	16%	33%	20%	13%	57%	53%	53%	59%	53%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,964	362	57	7%	8%	26%	30%	29%	67%	65%	67%	71%	68%
Asian American	32,369	415	65	1%	2%	10%	22%	64%	83%	81%	80%	83%	83%
Pacific Islander	1,460	357	57	8%	8%	30%	29%	26%	67%	65%	64%	69%	66%
Filipino	12,010	382	53	2%	3%	21%	32%	41%	75%	73%	72%	76%	76%
Hispanic	66,830	351	56	9%	9%	31%	28%	23%	65%	62%	62%	68%	63%
African American	15,020	344	57	12%	11%	31%	26%	20%	63%	60%	59%	64%	59%
White	117,731	385	59	3%	4%	19%	30%	44%	74%	73%	74%	77%	76%
Two or More Races	8,698	384	60	4%	4%	20%	28%	44%	74%	73%	73%	77%	75%

				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	Cell Biology	Genetics	Ecology and Evolution	Physiology	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,799	334	52	14%	13%	35%	25%	13%	58%	55%	57%	62%	57%
Asian American	21,251	369	60	5%	7%	26%	28%	34%	72%	69%	67%	71%	71%
Pacific Islander	1,678	333	49	12%	14%	38%	23%	12%	59%	57%	55%	59%	56%
Filipino	5,378	362	52	4%	7%	30%	32%	27%	69%	67%	65%	70%	69%
Hispanic	210,452	331	50	14%	14%	37%	23%	12%	58%	55%	54%	61%	55%
African American	21,887	323	50	19%	16%	36%	20%	10%	56%	52%	51%	57%	50%
White	32,561	351	57	10%	10%	30%	28%	23%	64%	61%	62%	67%	64%
Two or More Races	3,911	347	56	11%	10%	31%	28%	20%	63%	60%	61%	66%	62%
Primary Ethnicity—Unknown Economic Status													
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	33	340	57	12%	12%	30%	24%	21%	62%	60%	53%	64%	64%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	269	318	52	24%	16%	34%	17%	9%	52%	48%	50%	57%	49%
African American	72	307	39	22%	24%	38%	14%	3%	49%	47%	46%	49%	41%
White	160	349	58	10%	9%	33%	27%	21%	64%	60%	61%	67%	62%
Two or More Races	181	332	55	14%	20%	31%	20%	14%	58%	53%	55%	61%	54%

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	275,129	342	56	11%	13%	33%	26%	17%	57%	72%	65%	60%	57%	73%
Grade 9	5,408	349	66	17%	9%	22%	27%	25%	60%	71%	66%	61%	61%	72%
Grade 10	136,110	351	55	8%	10%	31%	30%	21%	60%	74%	69%	63%	61%	77%
Grade 11	133,611	333	54	14%	16%	35%	22%	12%	53%	69%	62%	56%	53%	69%
Male	129,582	348	60	12%	11%	29%	27%	21%	60%	73%	67%	61%	58%	73%
Female	145,514	337	51	11%	14%	36%	26%	13%	54%	71%	63%	58%	56%	72%
Gender unknown	33	322	58	18%	18%	39%	12%	12%	49%	63%	53%	55%	49%	63%
American Indian	1,450	339	48	10%	13%	37%	27%	13%	56%	72%	65%	58%	55%	73%
Asian American	38,247	377	61	4%	6%	23%	31%	37%	67%	81%	76%	71%	73%	84%
Pacific Islander	1,592	327	48	15%	16%	37%	23%	9%	51%	68%	59%	55%	52%	67%
Filipino	11,243	349	49	6%	10%	36%	31%	17%	58%	75%	68%	62%	61%	77%
Hispanic	121,174	322	48	17%	18%	37%	20%	7%	50%	65%	58%	52%	49%	65%
African American	16,386	315	47	22%	20%	35%	17%	6%	47%	63%	55%	50%	45%	61%
White	79,193	360	52	5%	7%	30%	34%	23%	64%	78%	72%	67%	63%	81%
Two or More Races	5,844	354	54	7%	9%	31%	31%	22%	61%	76%	70%	64%	62%	78%
English Only	150,969	349	54	8%	11%	32%	30%	19%	59%	74%	68%	63%	59%	76%
Initially Fluent English Prof.	27,410	357	60	7%	10%	30%	28%	25%	62%	76%	70%	64%	63%	78%
English Learner	17,980	290	41	43%	25%	23%	7%	2%	37%	51%	44%	39%	39%	46%
Reclassified Fluent Eng. Prof.	78,531	336	51	11%	16%	37%	24%	13%	54%	70%	63%	57%	55%	71%
English Prof. unknown	239	321	54	20%	20%	32%	21%	8%	49%	64%	58%	50%	50%	64%
No Special Ed Services	267,646	343	55	10%	13%	33%	27%	17%	57%	72%	66%	60%	58%	73%
Special Ed Services	7,479	299	54	41%	20%	21%	11%	6%	41%	54%	48%	43%	40%	51%
Special Ed unknown	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	143,767	359	56	6%	9%	30%	32%	24%	63%	77%	71%	66%	63%	79%
Economically Disadvantaged	131,133	324	49	17%	18%	36%	21%	8%	50%	66%	59%	53%	50%	66%
Unknown Economic Status	229	320	50	20%	17%	36%	20%	7%	47%	64%	58%	50%	50%	63%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	913	346	49	8%	10%	35%	31%	16%	59%	74%	68%	61%	58%	76%
Asian American	24,051	391	60	2%	4%	18%	31%	45%	72%	84%	79%	75%	77%	87%
Pacific Islander	814	336	50	12%	14%	34%	27%	13%	54%	71%	63%	58%	55%	71%
Filipino	8,088	353	49	4%	9%	35%	33%	19%	60%	76%	70%	64%	63%	79%
Hispanic	30,916	335	49	11%	14%	37%	26%	11%	55%	70%	63%	58%	54%	72%
African American	7,399	325	49	16%	17%	37%	22%	8%	50%	67%	59%	54%	49%	66%
White	67,228	363	52	4%	7%	29%	35%	25%	65%	78%	73%	68%	65%	82%
Two or More Races	4,358	362	53	5%	7%	29%	34%	25%	63%	78%	73%	67%	65%	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	537	326	45	15%	18%	39%	21%	8%	52%	68%	60%	53%	49%	67%
Asian American	14,180	355	54	6%	10%	31%	31%	22%	59%	75%	69%	64%	66%	77%
Pacific Islander	776	318	45	18%	18%	40%	18%	5%	47%	65%	55%	51%	48%	64%
Filipino	3,146	337	47	8%	15%	38%	27%	11%	54%	72%	64%	58%	57%	72%
Hispanic	90,169	318	46	19%	20%	37%	18%	6%	48%	64%	56%	50%	47%	63%
African American	8,971	307	44	27%	22%	33%	14%	4%	44%	60%	52%	47%	42%	57%
White	11,917	343	50	9%	11%	36%	31%	14%	58%	73%	66%	61%	57%	74%
Two or More Races	1,437	332	53	15%	14%	37%	23%	11%	53%	68%	61%	57%	53%	70%
Primary Ethnicity—Unknown Economic Status														
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	16	342	72	25%	6%	25%	13%	31%	52%	65%	67%	60%	59%	68%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	89	309	46	22%	24%	34%	17%	3%	45%	61%	54%	46%	46%	57%
African American	16	299	51	44%	13%	31%	6%	6%	44%	50%	51%	42%	44%	47%
White	48	326	45	15%	15%	35%	31%	4%	51%	70%	60%	52%	51%	68%
Two or More Races	49	336	47	10%	10%	43%	24%	12%	50%	72%	65%	56%	59%	71%

Table 7.C.33 Demographic Summary for Earth Science

				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	Astronomy and Cosmology	Solid Earth	The Earth's Energy	Investigation and Experimentation
All valid scores	206,454	335	50	14%	12%	36%	25%	12%	62%	61%	59%	64%
Grade 9	133,646	336	50	13%	12%	36%	26%	13%	63%	62%	59%	65%
Grade 10	30,580	331	50	17%	13%	36%	24%	11%	60%	59%	57%	62%
Grade 11	42,228	334	52	16%	13%	35%	25%	13%	60%	61%	59%	63%
Male	111,447	339	53	15%	11%	31%	27%	15%	64%	62%	60%	63%
Female	94,937	331	46	13%	14%	41%	24%	9%	59%	61%	57%	64%
Gender unknown	70	317	53	29%	20%	21%	23%	7%	52%	53%	53%	55%
American Indian	1,915	333	52	16%	12%	35%	25%	11%	60%	60%	58%	62%
Asian American	8,996	351	51	8%	8%	32%	31%	20%	67%	67%	65%	72%
Pacific Islander	1,279	330	47	14%	15%	39%	23%	9%	60%	60%	56%	62%
Filipino	3,899	354	46	5%	8%	35%	33%	19%	70%	69%	66%	74%
Hispanic	114,779	326	46	16%	15%	40%	22%	8%	59%	59%	55%	60%
African American	14,489	319	47	22%	16%	37%	19%	6%	56%	55%	52%	56%
White	56,359	353	52	9%	8%	29%	32%	22%	69%	67%	66%	71%
Two or More Races	4,738	345	52	12%	10%	32%	30%	17%	65%	64%	63%	68%
English Only	119,907	341	52	12%	11%	33%	28%	16%	65%	63%	61%	67%
Initially Fluent English Prof.	11,077	347	48	8%	9%	36%	31%	16%	67%	66%	63%	70%
English Learner	37,912	303	38	28%	22%	38%	10%	2%	49%	50%	45%	48%
Reclassified Fluent Eng. Prof.	37,246	343	43	6%	9%	43%	31%	11%	66%	66%	62%	70%
English Prof. unknown	312	324	46	20%	13%	35%	26%	6%	56%	56%	56%	59%
No Special Ed Services	180,172	339	49	11%	11%	37%	27%	14%	64%	63%	60%	66%
Special Ed Services	26,217	305	45	33%	20%	31%	12%	5%	50%	49%	46%	47%
Special Ed unknown	65	293	33	37%	23%	35%	3%	2%	44%	42%	43%	42%
Not Econ. Disadvantaged	80,192	351	51	9%	8%	31%	32%	20%	68%	66%	65%	71%
Economically Disadvantaged	125,905	325	47	17%	15%	39%	22%	8%	58%	58%	54%	60%
Unknown Economic Status	357	318	46	24%	13%	36%	22%	5%	55%	55%	52%	56%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	807	346	53	11%	9%	33%	32%	15%	65%	65%	63%	68%
Asian American	3,913	363	51	6%	5%	27%	35%	27%	72%	70%	70%	77%
Pacific Islander	504	339	46	9%	11%	40%	28%	12%	64%	64%	60%	67%
Filipino	2,486	359	46	4%	6%	32%	36%	22%	72%	70%	68%	77%
Hispanic	25,935	337	48	12%	11%	37%	28%	12%	63%	63%	60%	66%
African American	5,209	330	49	17%	13%	37%	24%	10%	61%	59%	56%	62%
White	38,695	360	51	7%	6%	27%	35%	25%	71%	69%	69%	75%
Two or More Races	2,643	356	52	8%	8%	28%	34%	23%	69%	68%	67%	73%
Primary Ethnicity—Economically Disadvantaged												
American Indian	1,101	324	49	19%	15%	37%	21%	8%	57%	57%	55%	58%
Asian American	5,078	342	49	10%	11%	36%	27%	15%	64%	64%	61%	68%
Pacific Islander	773	323	47	17%	17%	39%	20%	7%	57%	57%	54%	59%
Filipino	1,412	344	45	7%	11%	39%	29%	14%	66%	66%	62%	70%
Hispanic	88,702	322	45	18%	15%	40%	20%	6%	58%	57%	53%	59%
African American	9,260	312	44	25%	18%	37%	16%	4%	54%	53%	49%	53%
White	17,584	338	51	13%	12%	34%	27%	14%	63%	62%	60%	64%
Two or More Races	1,995	331	49	17%	12%	36%	25%	10%	61%	60%	57%	62%

				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	Astronomy and Cosmology	Solid Earth	The Earth's Energy	Investigation and Experimentation
Primary Ethnicity—Unknown Economic Status												
American Indian	7	–	–	–	–	–	–	–	–	–	–	–
Asian American	5	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–	–	–	–	–
Hispanic	142	313	46	27%	15%	33%	20%	4%	54%	54%	49%	54%
African American	20	300	45	40%	15%	30%	10%	5%	45%	51%	44%	48%
White	80	324	47	20%	11%	39%	24%	6%	58%	56%	55%	58%
Two or More Races	100	325	45	19%	10%	39%	26%	6%	58%	57%	56%	59%

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	80,743	355	53	6%	11%	31%	28%	25%	68%	64%	65%	60%	57%	66%
Grade 9	14,111	341	52	9%	16%	35%	24%	17%	62%	59%	57%	56%	52%	59%
Grade 10	9,942	349	54	7%	13%	33%	25%	22%	66%	62%	61%	58%	55%	64%
Grade 11	56,690	360	53	5%	9%	30%	29%	27%	69%	66%	67%	62%	59%	68%
Male	43,165	362	56	5%	9%	28%	27%	30%	71%	66%	68%	62%	58%	67%
Female	37,569	347	48	6%	12%	35%	28%	19%	64%	61%	61%	58%	55%	65%
Gender unknown	9	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	400	352	52	7%	13%	32%	25%	24%	67%	62%	63%	59%	56%	66%
Asian American	12,790	382	53	2%	4%	21%	31%	42%	77%	74%	74%	69%	67%	75%
Pacific Islander	478	341	49	8%	13%	37%	28%	14%	63%	59%	57%	56%	53%	60%
Filipino	3,458	361	46	2%	7%	32%	34%	25%	70%	67%	67%	64%	60%	69%
Hispanic	32,286	335	47	9%	17%	39%	23%	12%	59%	56%	56%	54%	51%	58%
African American	4,334	323	47	15%	22%	36%	19%	9%	55%	51%	52%	49%	46%	54%
White	24,852	372	50	2%	5%	26%	32%	34%	75%	71%	73%	66%	61%	73%
Two or More Races	2,145	365	53	4%	8%	28%	30%	31%	72%	68%	70%	64%	60%	70%
English Only	45,219	362	52	4%	8%	29%	30%	29%	70%	67%	68%	63%	59%	69%
Initially Fluent English Prof.	8,793	368	55	3%	8%	28%	30%	32%	72%	69%	69%	64%	62%	71%
English Learner	5,125	302	40	26%	33%	29%	9%	3%	46%	42%	39%	40%	40%	40%
Reclassified Fluent Eng. Prof.	21,521	349	48	4%	12%	38%	27%	19%	65%	62%	61%	59%	56%	64%
English Prof. unknown	85	332	50	11%	16%	40%	21%	12%	58%	56%	56%	52%	50%	52%
No Special Ed Services	78,287	357	53	5%	10%	32%	28%	25%	68%	65%	65%	61%	58%	67%
Special Ed Services	2,451	307	51	28%	29%	25%	10%	8%	48%	44%	43%	42%	40%	45%
Special Ed unknown	5	–	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	44,129	371	52	3%	6%	26%	31%	34%	74%	70%	72%	66%	62%	72%
Economically Disadvantaged	36,545	336	48	9%	17%	37%	23%	13%	60%	57%	56%	54%	51%	59%
Unknown Economic Status	69	335	52	10%	20%	33%	22%	14%	60%	58%	56%	50%	50%	57%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	261	360	52	5%	10%	28%	29%	28%	71%	65%	66%	62%	58%	69%
Asian American	8,075	392	53	1%	2%	17%	30%	50%	81%	78%	78%	72%	70%	79%
Pacific Islander	259	353	51	5%	10%	31%	33%	20%	68%	64%	63%	60%	57%	65%
Filipino	2,478	365	46	1%	6%	31%	34%	28%	71%	69%	69%	65%	61%	71%
Hispanic	8,379	348	48	6%	11%	36%	29%	18%	65%	61%	62%	58%	55%	65%
African American	1,768	338	48	8%	16%	38%	24%	14%	61%	57%	59%	55%	51%	61%
White	21,280	375	49	2%	4%	24%	33%	37%	76%	72%	74%	67%	63%	74%
Two or More Races	1,629	373	53	2%	6%	25%	31%	36%	74%	71%	73%	66%	62%	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	Motion and Forces	Conservation of Energy and Momentum	Heat and Thermodynamics	Waves	Electric and Magnetic Phenomena	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged														
American Indian	139	336	49	9%	19%	39%	17%	15%	61%	54%	58%	53%	52%	60%
Asian American	4,709	365	49	3%	7%	29%	32%	29%	72%	69%	66%	64%	63%	69%
Pacific Islander	219	328	43	11%	16%	44%	22%	6%	58%	53%	51%	52%	49%	55%
Filipino	978	352	44	3%	10%	36%	32%	19%	66%	64%	63%	60%	58%	66%
Hispanic	23,883	330	45	10%	19%	40%	22%	10%	58%	54%	54%	52%	49%	56%
African American	2,558	313	43	19%	26%	35%	16%	4%	50%	47%	47%	45%	42%	49%
White	3,557	352	49	5%	11%	34%	29%	22%	68%	63%	65%	59%	55%	65%
Two or More Races	502	341	48	8%	13%	37%	27%	15%	63%	58%	59%	55%	52%	62%
Primary Ethnicity—Unknown Economic Status														
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	6	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	24	321	41	13%	25%	38%	25%	0%	56%	53%	53%	42%	43%	55%
African American	8	–	–	–	–	–	–	–	–	–	–	–	–	–
White	15	344	46	7%	20%	20%	27%	27%	66%	63%	61%	56%	48%	68%
Two or More Races	14	354	44	0%	7%	43%	29%	21%	65%	71%	63%	58%	58%	62%

Table 7.C.35 Demographic Summary for Integrated/Coordinated Science 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
All valid scores	46,200	314	40	19%	17%	44%	17%	3%	58%	41%	60%	44%	58%
Grade 9	33,806	317	40	17%	16%	45%	18%	4%	59%	42%	61%	46%	59%
Grade 10	4,419	301	38	29%	19%	40%	10%	1%	54%	36%	53%	39%	51%
Grade 11	7,975	311	39	22%	17%	42%	17%	2%	59%	39%	58%	42%	56%
Male	24,784	315	42	20%	16%	42%	18%	4%	60%	42%	60%	44%	57%
Female	21,398	313	37	17%	18%	47%	15%	2%	57%	41%	59%	45%	59%
Gender unknown	18	296	32	33%	17%	39%	11%	0%	51%	34%	52%	37%	41%
American Indian	382	315	39	17%	16%	49%	14%	4%	60%	42%	60%	45%	58%
Asian American	2,667	336	48	11%	12%	38%	26%	13%	65%	50%	68%	53%	69%
Pacific Islander	270	308	38	22%	17%	47%	11%	3%	55%	40%	57%	41%	53%
Filipino	1,193	323	36	10%	14%	52%	20%	4%	62%	44%	64%	48%	64%
Hispanic	28,417	308	37	22%	19%	45%	13%	1%	55%	39%	57%	42%	54%
African American	3,400	302	37	27%	21%	42%	9%	1%	53%	37%	53%	40%	51%
White	8,837	332	40	10%	10%	44%	29%	6%	69%	48%	67%	51%	68%
Two or More Races	1,034	322	41	15%	14%	45%	21%	5%	63%	44%	64%	47%	62%
English Only	22,240	320	41	16%	14%	45%	21%	4%	62%	43%	62%	46%	61%
Initially Fluent English Prof.	3,108	327	41	11%	12%	48%	22%	7%	65%	46%	66%	49%	65%
English Learner	8,968	287	31	40%	27%	30%	3%	0%	42%	33%	46%	35%	41%
Reclassified Fluent Eng. Prof.	11,760	321	35	10%	15%	55%	18%	3%	61%	43%	63%	47%	63%
English Prof. unknown	124	292	36	36%	21%	35%	6%	2%	46%	34%	48%	36%	47%
No Special Ed Services	40,473	318	39	15%	16%	47%	18%	4%	60%	43%	61%	46%	60%
Special Ed Services	5,713	286	34	43%	24%	28%	4%	1%	44%	33%	46%	34%	40%
Special Ed unknown	14	276	30	64%	7%	29%	0%	0%	36%	33%	39%	31%	31%
Not Econ. Disadvantaged	16,005	328	41	12%	12%	45%	25%	6%	66%	46%	66%	49%	65%
Economically Disadvantaged	30,136	307	37	23%	19%	44%	12%	2%	54%	39%	56%	42%	54%
Unknown Economic Status	59	292	36	27%	34%	29%	10%	0%	47%	35%	46%	38%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	162	324	40	11%	10%	56%	17%	6%	64%	45%	65%	48%	62%
Asian American	1,348	348	50	7%	8%	36%	30%	19%	71%	55%	72%	57%	75%
Pacific Islander	107	319	39	17%	14%	47%	19%	4%	60%	44%	63%	46%	58%
Filipino	764	326	36	9%	13%	52%	22%	5%	64%	45%	65%	49%	65%
Hispanic	5,700	316	38	17%	16%	48%	18%	3%	60%	42%	61%	45%	59%
African American	1,148	310	39	22%	17%	45%	14%	2%	58%	40%	57%	42%	56%
White	6,205	338	39	7%	9%	43%	33%	8%	72%	50%	70%	53%	71%
Two or More Races	571	329	41	11%	12%	46%	26%	6%	67%	46%	67%	49%	66%
Primary Ethnicity—Economically Disadvantaged													
American Indian	220	309	38	21%	20%	45%	12%	2%	57%	39%	56%	43%	56%
Asian American	1,316	323	43	15%	16%	41%	21%	7%	60%	46%	63%	48%	62%
Pacific Islander	162	301	36	25%	19%	48%	6%	2%	52%	38%	53%	38%	50%
Filipino	426	318	35	12%	16%	53%	16%	3%	59%	43%	62%	45%	63%
Hispanic	22,690	305	36	23%	20%	44%	11%	1%	53%	38%	56%	41%	53%
African American	2,247	298	35	30%	22%	40%	7%	1%	50%	36%	51%	38%	49%
White	2,623	319	40	17%	14%	45%	20%	3%	62%	43%	61%	46%	61%
Two or More Races	452	314	40	20%	17%	45%	15%	4%	58%	41%	60%	44%	58%

				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—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	3	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	3	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	27	294	35	22%	37%	33%	7%	0%	49%	35%	47%	40%	45%
African American	5	–	–	–	–	–	–	–	–	–	–	–	–
White	9	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	11	295	32	27%	27%	36%	9%	0%	48%	35%	48%	38%	52%

Table 7.C.36 Demographic Summary for Integrated/Coordinated Science 2

				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
All valid scores	3,759	315	52	23%	21%	32%	16%	8%	54%	50%	59%	43%	55%
Grade 9	1,355	333	60	17%	17%	28%	22%	17%	58%	57%	66%	51%	63%
Grade 10	1,429	309	46	24%	23%	32%	15%	6%	53%	47%	57%	42%	52%
Grade 11	975	298	38	29%	24%	35%	10%	1%	49%	43%	54%	35%	49%
Male	2,033	315	54	25%	19%	30%	17%	9%	53%	49%	61%	43%	55%
Female	1,724	315	49	20%	23%	34%	15%	7%	55%	51%	58%	43%	55%
Gender unknown	2	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	29	309	56	38%	17%	17%	17%	10%	53%	50%	55%	43%	47%
Asian American	352	380	64	6%	6%	16%	28%	45%	73%	75%	81%	68%	80%
Pacific Islander	17	294	43	35%	18%	41%	0%	6%	47%	36%	51%	35%	54%
Filipino	55	338	45	11%	7%	36%	36%	9%	61%	64%	71%	54%	66%
Hispanic	2,260	302	42	27%	25%	34%	12%	3%	50%	45%	54%	38%	48%
African American	173	285	37	44%	28%	23%	3%	2%	42%	37%	44%	34%	42%
White	777	327	48	13%	18%	35%	25%	10%	59%	55%	67%	46%	64%
Two or More Races	96	330	45	11%	13%	38%	31%	7%	57%	58%	70%	49%	66%
English Only	1,847	317	53	22%	20%	32%	18%	9%	54%	51%	61%	43%	57%
Initially Fluent English Prof.	337	341	57	12%	13%	32%	23%	20%	63%	61%	71%	53%	67%
English Learner	635	279	32	49%	28%	20%	3%	0%	41%	35%	41%	32%	36%
Reclassified Fluent Eng. Prof.	933	325	47	10%	21%	40%	21%	9%	59%	54%	65%	47%	59%
English Prof. unknown	7	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	3,233	321	51	17%	20%	34%	18%	10%	57%	52%	62%	45%	58%
Special Ed Services	524	277	34	55%	26%	15%	3%	1%	39%	34%	41%	31%	37%
Special Ed unknown	2	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	1,499	335	58	14%	15%	31%	23%	17%	60%	58%	69%	50%	65%
Economically Disadvantaged	2,255	301	42	28%	25%	32%	12%	3%	50%	44%	53%	39%	48%
Unknown Economic Status	5	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	10	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	305	388	61	3%	4%	15%	29%	49%	75%	79%	84%	71%	83%
Pacific Islander	11	286	35	36%	27%	36%	0%	0%	46%	35%	50%	31%	44%
Filipino	44	344	44	9%	2%	39%	39%	11%	62%	67%	74%	57%	69%
Hispanic	419	304	44	26%	23%	35%	11%	5%	50%	46%	57%	38%	52%
African American	56	297	45	30%	34%	29%	4%	4%	45%	39%	54%	36%	49%
White	589	333	48	10%	16%	34%	28%	11%	61%	57%	70%	48%	67%
Two or More Races	65	338	46	9%	6%	40%	35%	9%	59%	63%	74%	51%	72%
Primary Ethnicity—Economically Disadvantaged													
American Indian	19	292	51	53%	21%	11%	11%	5%	46%	40%	46%	37%	39%
Asian American	47	323	60	28%	15%	17%	21%	19%	58%	54%	60%	47%	59%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	11	315	41	18%	27%	27%	27%	0%	53%	55%	62%	44%	55%
Hispanic	1,839	301	41	28%	25%	33%	12%	2%	50%	44%	54%	39%	48%
African American	117	279	32	50%	26%	21%	3%	1%	40%	36%	39%	33%	38%
White	188	309	43	22%	24%	36%	13%	5%	52%	48%	58%	40%	55%
Two or More Races	28	317	39	18%	18%	36%	25%	4%	53%	49%	64%	45%	57%

				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—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	2	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	3	–	–	–	–	–	–	–	–	–	–	–	–

Table 7.C.37 Demographic Summary for Integrated/Coordinated Science 3

				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
All valid scores	968	311	44	22%	22%	38%	14%	4%	54%	41%	56%	35%	56%
Grade 9	21	268	20	62%	33%	5%	0%	0%	33%	25%	33%	24%	33%
Grade 10	57	288	30	35%	33%	30%	2%	0%	43%	31%	46%	29%	44%
Grade 11	890	313	45	20%	21%	40%	15%	4%	55%	42%	57%	36%	58%
Male	570	314	48	21%	21%	37%	15%	6%	55%	42%	56%	37%	56%
Female	398	307	39	23%	23%	40%	13%	2%	52%	39%	55%	33%	57%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	5	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	26	313	35	19%	15%	54%	8%	4%	53%	42%	57%	33%	66%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	23	309	34	22%	9%	57%	13%	0%	53%	40%	58%	28%	62%
Hispanic	522	299	36	27%	27%	36%	9%	1%	48%	36%	51%	32%	51%
African American	43	299	38	30%	23%	37%	7%	2%	47%	37%	54%	30%	50%
White	329	329	51	14%	15%	40%	23%	9%	62%	47%	63%	42%	64%
Two or More Races	16	332	53	19%	6%	38%	31%	6%	68%	50%	67%	34%	63%
English Only	534	321	47	16%	18%	41%	18%	7%	60%	44%	60%	39%	61%
Initially Fluent English Prof.	81	310	39	21%	15%	43%	20%	1%	52%	41%	57%	35%	57%
English Learner	165	280	29	45%	31%	22%	2%	0%	36%	31%	43%	24%	41%
Reclassified Fluent Eng. Prof.	187	308	36	18%	27%	43%	11%	2%	52%	39%	55%	34%	56%
English Prof. unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	815	316	45	18%	20%	41%	16%	5%	56%	42%	58%	36%	59%
Special Ed Services	153	285	32	41%	30%	24%	5%	0%	40%	31%	45%	28%	42%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	489	320	48	17%	19%	40%	18%	7%	58%	44%	60%	38%	61%
Economically Disadvantaged	475	301	38	27%	24%	37%	11%	1%	48%	37%	52%	32%	52%
Unknown Economic Status	4	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	5	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	15	310	31	20%	13%	60%	7%	0%	54%	39%	59%	30%	64%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	14	308	38	29%	0%	57%	14%	0%	54%	39%	55%	31%	57%
Hispanic	165	304	37	22%	27%	39%	10%	2%	51%	38%	52%	33%	54%
African American	17	301	38	24%	29%	35%	12%	0%	50%	36%	52%	29%	57%
White	262	332	53	12%	16%	39%	23%	11%	63%	48%	65%	43%	65%
Two or More Races	8	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Economically Disadvantaged													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	11	317	42	18%	18%	45%	9%	9%	52%	47%	53%	36%	68%
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	356	297	36	29%	28%	35%	8%	1%	46%	36%	50%	31%	49%
African American	26	299	39	35%	19%	38%	4%	4%	45%	38%	55%	31%	45%
White	65	318	42	20%	11%	45%	22%	3%	59%	43%	58%	37%	60%
Two or More Races	7	–	–	–	–	–	–	–	–	–	–	–	–

				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—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	1	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	2	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	1	–	–	–	–	–	–	–	–	–	–	–	–

Table 7.C.38 Demographic Summary for Integrated/Coordinated Science 4

				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
All valid scores	65	285	29	40%	31%	26%	3%	0%	46%	34%	44%	26%	35%
Grade 9	34	283	26	41%	35%	21%	3%	0%	48%	34%	44%	23%	28%
Grade 10	14	271	23	57%	29%	14%	0%	0%	35%	29%	36%	25%	33%
Grade 11	17	300	34	24%	24%	47%	6%	0%	50%	38%	51%	34%	49%
Male	37	287	31	41%	24%	30%	5%	0%	48%	35%	48%	26%	32%
Female	28	281	27	39%	39%	21%	0%	0%	43%	32%	40%	27%	38%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	4	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	30	275	28	57%	23%	17%	3%	0%	40%	32%	38%	24%	30%
African American	1	–	–	–	–	–	–	–	–	–	–	–	–
White	25	290	23	24%	44%	32%	0%	0%	50%	34%	49%	26%	33%
Two or More Races	2	–	–	–	–	–	–	–	–	–	–	–	–
English Only	39	291	28	28%	36%	33%	3%	0%	49%	36%	48%	29%	37%
Initially Fluent English Prof.	2	–	–	–	–	–	–	–	–	–	–	–	–
English Learner	13	269	17	69%	23%	8%	0%	0%	37%	32%	30%	22%	31%
Reclassified Fluent Eng. Prof.	11	287	32	45%	18%	27%	9%	0%	45%	30%	52%	24%	39%
English Prof. unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	41	289	29	37%	27%	34%	2%	0%	45%	36%	46%	28%	39%
Special Ed Services	24	278	29	46%	38%	13%	4%	0%	46%	30%	41%	24%	28%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	27	279	28	44%	33%	22%	0%	0%	42%	30%	43%	25%	33%
Economically Disadvantaged	38	288	30	37%	29%	29%	5%	0%	48%	36%	45%	28%	36%
Unknown Economic Status	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	7	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	18	289	24	28%	44%	28%	0%	0%	48%	33%	50%	26%	35%
Two or More Races	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Economically Disadvantaged													
American Indian	2	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	3	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	23	279	26	52%	26%	17%	4%	0%	43%	34%	41%	24%	33%
African American	1	–	–	–	–	–	–	–	–	–	–	–	–
White	7	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	2	–	–	–	–	–	–	–	–	–	–	–	–

				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—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	0	–	–	–	–	–	–	–	–	–	–	–	–

Appendix 7.D—Types of Score Reports

Table 7.D.1 Score Reports Reflecting CST Results

2012 STAR CST Printed Reports	
Description	**Distribution**
The CST Student Report	
This report provides parents/guardians and teachers with the student's results, presented in tables and graphs. Data presented include the following: • 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	This report includes individual student results and is not distributed beyond parents/guardians and the student's school. Two copies of this report are provided for each student. One is for the student's current teacher and one is distributed by the school district to parents/ guardians.
Student Record Label	
These reports are printed on adhesive labels to be affixed to the student's permanent school records. Each student shall have an individual record of accomplishment that includes STAR testing results (see California *EC* Section 60607[a]). Data presented include the following for each content area tested: • Scale scores • Performance levels • Student's CRL Number	This report includes individual student results and is not distributed beyond the student's school.
Student Master List	
This report is an alphabetical roster that presents individual student results. Data include the following: • 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	This report provides administrators and teachers with all students' results within each grade or within each grade and year-round schedule at a school. Because this report includes individual student results, it is not distributed beyond the student's school. It is recommended that Student Master List reports be retained until the grade level exits the school.
Student Master List Summary	
This report summarizes student results at the school, district, county, and state levels for each grade. It does not include any individual student information. ***Note:*** Summaries for specific CSTs for mathematics, science, and history–social science across grades are provided in the Student Master List Summary—End-of-Course report.	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is packaged for the school and one for the school district. This report is also produced for school districts, counties, and the state.

2012 STAR CST Printed Reports	
Description	**Distribution**
For each content area tested, the following data are summarized: • 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	***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. It is recommended that summary reports be retained for at least five years.
Student Master List Summary—End-of-Course	
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. At grades seven through eleven, CSTs for end-of-course mathematics are given in the following content areas: • 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). At grades nine through eleven, CSTs for end-of-course science are offered in the following content areas: • Biology • Chemistry • Physics • Earth Science • Integrated/Coordinated Science 1, 2, 3, and 4 Students in grades nine through eleven may also take the EOC CST for World History. For each of these CSTs, the following data are summarized by grade and content area: • Number of students enrolled	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is packaged for the school and one for the school district. This report is also produced for school districts, counties, and the state. ***Note:*** The data on this report may be shared with parents/guardians, community members, and the media only if the data are for 11 or more students. It is recommended that summary reports be retained for at least five years.

2012 STAR CST Printed Reports	
Description	**Distribution**
• 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 For each reporting cluster: • Number of items • Mean percent correct	
Subgroup Summary	
This set of reports disaggregates and reports results by the following subgroups: • All students • Disability status • Economic status • Gender • English proficiency • Primary ethnicity These reports contain no individual student-identifying information and are aggregated at the school, district, county, and state levels. For each subgroup within a report and for the total number of students, the following data are included: • Total number tested in the subgroup • Percent tested in the subgroup as a percent of all students tested • Number and percent of valid scores • Number tested who received scores • Mean scale score • Standard deviation of scale score • Number and percent of students scoring at each performance level	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is packaged for the school and one for the school district. This report is also produced for school districts, counties, and the state. ***Note:*** The data on this report may be shared with parents/guardians, community members, and the media only if the data are for 11 or more students. It is recommended that summary reports be retained for at least five years.
Subgroup Summary—Ethnicity for Economic Status	
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 school diploma or the student is eligible to participate in the free or reduced-price lunch program also known as the National School Lunch	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is packaged for the school, and one for the school district. This report is also produced for school districts, counties, and the state. ***Note:*** The data on this report may be shared with parents/guardians, community members, and the media only if the data are for 11 or more students. It

2012 STAR CST Printed Reports	
Description	**Distribution**
Program (NSLP). 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. For each subgroup within a report, and for the total number of students, the following data are included: • Total number tested in the subgroup • Percent tested in the subgroup as a percent of all students tested • Number and percent of valid scores • Number tested who received scores • Mean scale score • Standard deviation of scale score • Number and percent of students scoring at each performance level	is recommended that summary reports be retained for at least five years.

Chapter 8: Analyses

This chapter summarizes the item- and test-level statistics obtained for the CSTs administered during the spring of 2012.

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 400 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*-value and Pt-Bis for the operational tests are presented in Table 8.1 on page 371.
2. Appendix 8.B on page 412 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 490 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 534 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 394; these linking items were used in the equating process discussed later in this chapter.
5. Appendix 8.E on page 585 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, the content area correlations presented in Appendix 8.C, the IRT results presented in Appendix 8.D, and the item-level

DIF results presented in Appendix 8.E were calculated using the sample of student data that was the last "daily feed" data received on July 2, 2012, which comprised approximately 90–99 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.

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.

Classical Item Analyses

Multiple-Choice Items

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

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

where,

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

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

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

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

where,

$cov(X_i, T)$ is the covariance between the score of item *i* and total score T,

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

s_T is the standard deviation for total score T.

The classical statistics for the overall test are presented in Table 8.1. The item-by-item values for the indices are presented in Table 8.A.1 through Table 8.A.7, which start on page 400.

Table 8.1 Mean and Median Proportion Correct and Point-Biserial

				Mean		Median	
Content Area	**CST***	**No. of Items**	**No. of Examinees**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
English–Language Arts	2	65	462,557	0.68	0.48	0.70	0.48
	3	65	440,407	0.68	0.44	0.69	0.45
	4**	75	428,201	0.67	0.44	0.68	0.45
	5	75	428,868	0.69	0.42	0.70	0.42
	6	75	433,830	0.65	0.42	0.67	0.42
	7**	75	430,441	0.68	0.41	0.69	0.43
	8	75	434,601	0.66	0.43	0.68	0.43
	9	75	461,474	0.65	0.42	0.67	0.42
	10	75	453,721	0.66	0.43	0.65	0.44
	11	75	438,268	0.65	0.42	0.66	0.43
History–Social Science	8	75	458,422	0.64	0.43	0.63	0.43
	World History	60	467,412	0.64	0.44	0.65	0.45
	11	60	446,136	0.62	0.43	0.62	0.44
Mathematics	2	65	463,446	0.76	0.45	0.80	0.45
	3	65	443,229	0.79	0.44	0.83	0.45
	4	65	432,630	0.80	0.47	0.83	0.47
	5	65	432,325	0.71	0.46	0.72	0.46
	6	65	436,076	0.66	0.45	0.70	0.45
	7	65	393,171	0.63	0.44	0.64	0.44
	General Mathematics	65	189,071	0.52	0.39	0.51	0.39
	Algebra I	65	708,443	0.51	0.42	0.51	0.42
	Geometry	65	406,408	0.56	0.43	0.57	0.43
	Algebra II	65	286,125	0.56	0.41	0.56	0.40
	Summ. H.S Math	65	149,833	0.73	0.43	0.74	0.44
	Integrated Math 1	65	13,442	0.42	0.30	0.40	0.31
	Integrated Math 2	65	5,127	0.45	0.35	0.46	0.34
	Integrated Math 3	65	806	0.52	0.38	0.54	0.40
Science	5	60	430,759	0.71	0.42	0.71	0.43
	8	60	435,529	0.71	0.44	0.73	0.44
	10 Life Science	60	449,842	0.65	0.45	0.65	0.46
	Biology	60	555,736	0.64	0.45	0.67	0.47
	Chemistry	60	275,129	0.63	0.42	0.66	0.43
	Earth Science	60	206,454	0.60	0.41	0.62	0.41
	Physics	60	80,743	0.63	0.42	0.64	0.43
	Int/Coord Science 1	60	46,200	0.52	0.36	0.54	0.38
	Int/Coord Science 2	60	3,759	0.52	0.41	0.53	0.41
	Int/Coord Science 3	60	968	0.47	0.37	0.46	0.39
	Int/Coord Science 4	60	65	0.37	0.26	0.35	0.23
Grade-Specific	Algebra I – 8	65	275,622	0.58	0.42	0.59	0.43
	Geometry – 9	65	143,855	0.64	0.42	0.66	0.42
	Algebra II – 10	65	131,287	0.60	0.39	0.61	0.40
	Summ. H.S. Math – 11	65	124,165	0.71	0.42	0.72	0.44
	World History –10	60	421,807	0.65	0.43	0.65	0.43

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

** MC only

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 409. 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:

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

where,

n is the number of items,

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

s_t^2 is the variance of the total score.

The standard error of measurement (SEM) provides a measure of score instability in the score metric. The SEM is defined by:

$$s_e = s_t\sqrt{1-\alpha} \tag{8.4}$$

where,

α is the reliability estimated in equation 8.3, and

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

The SEM is particularly useful in determining the confidence interval (CI) that captures an examinee's true score. Assuming that measurement error is normally distributed, it can be said that upon infinite replications of the testing occasion, approximately 95 percent of the CIs of ± 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.

Given the small sample size for each accommodation or modification, reliability analyses were not conducted for these tests. (See sample sizes for all accommodations and modifications in Table 2.D.1 to Table 2.D.31.)

Table 8.2 Reliabilities and SEMs for the CSTs

					Scale Score			Raw Score		
Content Area	**CST***	**No. of Items**	**No. of Examinees**	**Reliab.**	**Mean**	**Std. Dev.**	**SEM**	**Mean**	**Std. Dev.**	**SEM**
English–Language Arts	2	65	462,557	0.95	361	67	15.42	43.99	14.07	3.25
	3	65	440,407	0.93	347	64	16.54	44.34	12.71	3.26
	4**	75	428,201	0.94	375	59	14.42	50.02	14.63	3.56
	5	75	428,868	0.94	366	57	14.36	52.11	13.87	3.52
	6	75	433,830	0.93	364	57	14.50	49.05	14.08	3.59
	7**	75	430,441	0.93	367	61	15.87	50.63	13.66	3.54
	8	75	434,601	0.94	365	62	15.48	49.56	14.46	3.62
	9	75	461,474	0.94	361	62	15.66	48.42	14.47	3.66
	10	75	453,721	0.94	348	59	14.31	49.31	14.77	3.61
	11	75	438,268	0.94	345	63	16.03	49.02	14.38	3.66
History–Social Science	8	75	458,422	0.94	357	70	17.36	47.74	14.96	3.69
	World History	60	467,412	0.93	346	76	20.12	38.43	12.36	3.29
	11	60	446,136	0.92	347	70	19.38	37.30	12.02	3.31
Mathematics	2	65	463,446	0.94	383	87	21.73	49.52	11.76	2.95
	3	65	443,229	0.94	399	89	22.60	51.52	11.13	2.81
	4	65	432,630	0.94	395	81	19.26	52.13	11.68	2.78
	5	65	432,325	0.94	395	92	22.36	46.04	13.02	3.15
	6	65	436,076	0.94	367	76	19.01	43.09	13.10	3.27
	7	65	393,171	0.93	360	73	18.66	40.79	13.39	3.42
	General Math	65	189,071	0.91	318	56	16.86	33.63	12.17	3.64
	Algebra I	65	708,443	0.93	330	75	20.41	32.90	13.13	3.58

					Scale Score			Raw Score		
Content Area	CST*	No. of Items	No. of Examinees	Reliab.	Mean	Std. Dev.	SEM	Mean	Std. Dev.	SEM
Mathematics (cont.)	Geometry	65	406,408	0.93	323	70	18.27	36.14	13.42	3.51
	Algebra II	65	286,125	0.92	331	71	19.88	36.12	12.56	3.53
	Summ. H.S. Math	65	149,833	0.93	363	78	20.51	47.46	11.95	3.16
	Integrated Math 1	65	13,442	0.85	292	51	19.95	27.40	9.34	3.66
	Integrated Math 2	65	5,127	0.89	323	57	18.78	29.28	11.01	3.65
	Integrated Math 3	65	806	0.91	338	72	21.52	33.58	11.97	3.59
Science	5	60	430,759	0.92	367	66	18.78	42.45	11.14	3.15
	8	60	435,529	0.93	395	99	27.13	42.85	11.23	3.07
	10 Life Science	60	449,842	0.93	357	69	18.00	38.97	12.25	3.20
	Biology	60	555,736	0.93	355	61	15.91	38.56	12.49	3.25
	Chemistry	60	275,129	0.92	342	56	15.54	37.92	11.90	3.33
	Earth Science	60	206,454	0.92	335	50	14.57	36.25	11.78	3.43
	Physics	60	80,743	0.92	355	53	15.11	37.88	11.76	3.34
	Int/Coord Science 1	60	46,200	0.88	314	40	13.64	30.97	10.33	3.53
	Int/Coord Science 2	60	3,759	0.91	315	52	15.08	31.07	11.89	3.47
	Int/Coord Science 3	60	968	0.90	311	44	14.28	27.99	10.85	3.48
	Int/Coord Science 4	60	65	0.78	285	29	13.68	22.28	7.57	3.56
Grade-Specific	Algebra I – 8	65	275,622	0.93	355	77	20.65	37.41	13.16	3.52
	Geometry – 9	65	143,855	0.92	349	66	18.21	41.75	12.30	3.39
	Algebra II – 10	65	131,287	0.91	344	67	19.54	38.70	11.90	3.48
	Summ. H.S. Math – 11	65	124,165	0.93	355	75	20.26	46.27	12.04	3.23
	World History – 10	60	421,807	0.93	347	74	20.17	38.73	12.04	3.29

* 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 412. 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. The 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-level reliabilities for the subgroups based on primary ethnicity within economic status.

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

Conditional Standard Errors of Measurement

As part of the IRT-based equating procedures, scale-score conversion tables and conditional standard errors of measurement (CSEMs) are produced. CSEMs for 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:

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

where,

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

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

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

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

Table 8.3 presents the scale score CSEMs at the lowest score required for a student to be classified in the below basic, basic, proficient, and advanced performance levels for each 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 19 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 at 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	13	393	14
	5	271	13	300	12	350	13	395	15
	6	268	14	300	13	350	13	394	15
	7	263	15	300	14	350	15	401	16
	8	266	15	300	14	350	14	395	16
	9	265	15	300	13	350	14	397	17
	10	263	13	300	13	350	14	392	17
	11	259	15	300	14	350	15	396	19
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	24
	3	236	16	300	17	350	18	414	24
	4	245	14	300	14	350	16	401	20
	5	248	19	300	18	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	25
	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	15	350	17	410	22
	8	253	23	300	23	350	24	403	27
	10 Life Science	269	16	300	15	350	16	399	19
	Biology	276	15	300	13	350	14	394	17
	Chemistry	276	13	300	13	350	14	394	18
	Earth Science	277	14	300	14	350	14	393	18
	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.849 in Appendix 8.B. 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 by substituting sample estimates into the following definitional formula for composite reliability (Feldt & Brennan, 1989):

$$\alpha_c = 1 - \frac{\sum_{j=1}^{k} \left(w_j \sigma_{e_j}\right)^2}{\sigma_c^2} \tag{8.6}$$

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 ($(Corr_{Writing\text{-}MC})^2/Rel_{MC}$) (Sax, 1989), and substituting sample estimates into it.

The SEM for writing (that is, the CR portion of the test) can then be estimated by substituting sample estimates into the following equation:

$$\sigma_{e_{CR}} = \sigma_{CR} * \sqrt{1 - reliability_{CR}} \tag{8.7}$$

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 0.30 and 0.26 for the two grades, respectively. The composite reliability estimates for the combined MC and essay scores were 0.89 and 0.88.

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 coefficient (ICC) which incorporates the exact agreement between raters over and above that expected by chance. The index is defined as the following:

$$ICC = r_I = (ms_{between} - ms_{within})/(ms_{between} + [k - 1]ms_{within}) \tag{8.8}$$

where,

$ms_{between}$ is the mean-square estimate of between-subjects variance, and

ms_{within} is the mean-square estimate of within-subjects variance.

For categorical ratings, Cohen's Kappa statistic 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 279 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:

Design = (Person : Task) x 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 489.

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

Reporting cluster scores, also called subscores, are used to draw inferences about a student's achievement in each of several specific knowledge or skill areas covered by each test. Reporting cluster results compare an individual student's percent-correct score to the average-percent correct for the state as a whole. The range of scores for students who scored proficient on the total test is also provided for each cluster using a percent-correct metric. The reference points for this range are: (1) the average-percent correct for students who received the lowest score qualifying for the proficient performance level; and (2) the average-percent correct for students who received the lowest score qualifying for the advanced performance level, minus one percent. A detailed description of the uses and applications of CST scores is presented in Chapter 7, which starts on page 276.

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 those students whose parents/guardians have submitted written requests to exempt them from STAR Program testing do not take the tests.

Validity Evidence Collected

Evidence Based on Content

According to *The Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), analyses that demonstrate a strong relationship between 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 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 190. 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 item development process for the CSTs is presented in Chapter 3, starting on page 190.

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 undergo multiple review cycles and involve multiple groups of reviewers. One of the reviews is carried out by an external reviewer, that is, the ARPs. The ARPs are responsible for reviewing all newly developed items for alignment to the California content standards.

Form construction process—For each test, the content standards, blueprints, and test specifications are used as the basis for choosing items. Additional targets for item difficulty and discrimination that are used for test construction were defined in light of what are desirable statistical characteristics in test items and statistical evaluations of the 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 202.

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 197.

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, & 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 585. 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-area Test Scores

To the degree that students' content-area test scores correlate as expected, evidence of the validity in regarding those scores as measures of the intended constructs is provided. Table 8.4 on page 386 provides the correlations between scores on the 2012 CST content-area tests and the numbers of students on which these correlations were based. Sample sizes for individual tests are shown in bold font on the diagonals of the correlation matrices, and the numbers of students on which the correlations were based are shown on the lower off-diagonals. The correlations are provided in the upper off-diagonals. Results are based on all students with valid CST scores and are provided by grade to account for different course-taking patterns in the upper grades.

Results for these students 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 test score correlations by gender, ethnicity, English-language fluency, 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, while the correlations are reported only for samples that comprise 11 or more examinees, results based on samples that contain 50 or fewer examinees should be interpreted with caution due to small sample sizes. Correlations between scores on any two content-area tests where 10 or fewer examinees took the tests are expressed as hyphens. Correlations between scores on two content-area tests that cannot be administered together to the same group of students are expressed as "N/A."

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.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**462,557**	0.78					
	2. Mathematics	461,505	**463,446**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**440,407**	0.77					
	2. Mathematics	438,498	**443,229**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**428,201**	0.74					
	2. Mathematics	426,734	**432,630**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**428,868**	0.73	0.81				
	2. Mathematics	426,848	**432,325**	0.71				
	3. Science	427,574	428,132	**430,759**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**433,830**	0.79					
	2. Mathematics	431,453	**436,076**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**430,441**	0.74	0.59				
	2. Mathematics	389,606	**393,171**	N/A				
	3. Algebra I	37,846	N/A	**37,880**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**434,601**	0.81	0.66	0.67	0.59	0.63	0.79
	2. History–Social Science	433,013	**458,422**	0.63	0.62	0.55	0.67	0.81
	3. General Mathematics	126,602	143,594	**144,746**	N/A	N/A	N/A	0.70
	4. Algebra I	274,126	275,074	N/A	**275,622**	N/A	N/A	0.69
	5. Geometry	29,077	29,067	N/A	N/A	**29,099**	N/A	0.64
	6. Algebra II	745	745	N/A	N/A	N/A	**745**	0.71
	7. Science	432,054	434,605	127,467	274,319	29,059	745	**435,529**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**461,474**	0.80	0.63	0.58	0.68	0.65	0.67	0.81	0.81	0.74	0.77
	2. World History	31,747	**32,809**	0.56	0.59	0.68	0.64	0.58	0.82	0.80	0.77	0.71
	3. General Mathematics	36,865	2,383	**44,325**	N/A	N/A	N/A	N/A	0.64	0.62	0.63	0.58
	4. Algebra I	238,535	11,486	N/A	**242,125**	N/A	N/A	N/A	0.62	0.69	0.54	0.69
	5. Geometry	143,528	12,961	N/A	N/A	**143,855**	N/A	N/A	0.70	0.83	0.63	0.77
9	**6. Algebra II**	32,360	4,448	N/A	N/A	N/A	**32,423**	N/A	0.66	0.79	0.58	0.75
	7. Summ. H.S. Mathematics	878	197	N/A	N/A	N/A	N/A	**879**	0.60	0.76	0.72	0.58
	8. Biology	223,503	20,036	7,288	88,782	101,917	24,930	600	**228,552**	N/A	N/A	N/A
	9. Chemistry	5,314	1,303	74	721	2,504	1,826	116	N/A	**5,408**	N/A	N/A
	10. Earth Science	125,284	3,256	15,205	91,432	19,165	1,412	43	N/A	N/A	**133,646**	N/A
	11. Physics	13,854	793	74	4,832	6,529	2,277	77	N/A	N/A	N/A	**14,111**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**453,721**	0.75	0.52	0.61	0.58	0.57	0.80	0.78	0.72	0.71	0.76
	2. World History	405,486	**421,807**	0.46	0.54	0.51	0.51	0.77	0.76	0.68	0.74	0.71
	3. Algebra I	101,135	92,849	**103,609**	N/A	N/A	N/A	0.50	0.53	0.59	0.49	0.60
	4. Geometry	154,459	145,179	N/A	**155,617**	N/A	N/A	0.63	0.64	0.72	0.57	0.76
	5. Algebra II	130,833	121,721	N/A	N/A	**131,287**	N/A	0.58	0.61	0.70	0.51	0.67
10	**6. Summ. H.S. Mathematics**	24,761	22,179	N/A	N/A	N/A	**24,789**	0.57	0.64	0.68	0.44	0.68
	7. Life Science	445,328	404,167	99,623	153,322	130,279	24,680	**449,842**	0.87	0.77	0.76	0.78
	8. Biology	218,271	214,247	63,565	94,562	41,195	5,276	217,609	**227,663**	N/A	N/A	N/A
	9. Chemistry	135,364	124,891	4,555	33,997	77,404	17,108	134,931	N/A	**136,110**	N/A	N/A
	10. Earth Science	28,135	27,708	13,510	9,185	2,409	200	27,893	N/A	N/A	**30,580**	N/A
	11. Physics	9,851	8,465	749	3,120	4,229	1,500	9,795	N/A	N/A	N/A	**9,942**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**438,268**	0.59	0.79	0.49	0.53	0.46	0.58	0.80	0.69	0.71	0.70
	2. World History	12,064	**12,796**	0.65	0.39	0.42	0.32	0.32	0.65	0.39	0.64	0.47
	3. History–Social Science	431,013	11,475	**446,136**	0.45	0.49	0.44	0.53	0.79	0.68	0.74	0.68
	4. Algebra I	47,850	3,917	47,504	**49,207**	N/A	N/A	N/A	0.50	0.55	0.45	0.67
	5. Geometry	76,836	2,509	76,649	N/A	**77,837**	N/A	N/A	0.57	0.61	0.54	0.66
11	**6. Algebra II**	120,457	1,361	120,774	N/A	N/A	**121,670**	N/A	0.50	0.61	0.39	0.63
	7. Summ. H.S. Mathematics	123,938	595	123,559	N/A	N/A	N/A	**124,165**	0.64	0.74	0.48	0.70
	8. Biology	96,209	3,450	98,196	13,967	19,243	21,385	31,465	**99,521**	N/A	N/A	N/A
	9. Chemistry	132,271	1,336	132,761	3,283	19,746	61,313	40,746	N/A	**133,611**	N/A	N/A
	10. Earth Science	39,377	1,817	41,439	10,816	11,086	6,013	3,833	N/A	N/A	**42,228**	N/A
	11. Physics	56,232	421	56,357	902	4,176	14,146	34,890	N/A	N/A	N/A	**56,690**

Correlations between the reporting cluster scores 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 .55 and .80. As also would be expected, the correlations were higher among clusters that assessed more similar skills than they were among clusters that assessed somewhat dissimilar skills. For example, in mathematics, the clusters related to number sense correlated more highly with the cluster Algebra and Data Analysis than they did with Measurement and Geometry.

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 378. Details about the results can be found in Table 8.B.94 and Table 8.B.95 on page 489.

A decision study (d-study) was conducted to look at the generalizability-coefficient (g-coefficient) for the writing scores; the g-coefficient was 0.76 for grade four and 0.73 for 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 and 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 (Landis & Koch, 1977). 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 68 percent for grade seven. The percentage of essay responses for which there was exact or adjacent agreement between the two sets of ratings was 99 percent for both grades four and seven.

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. As shown in Table 8.1, the mean point-biserial was greater than or equal to 0.40 for 31 out of 38 CSTs and was between 0.35 and 0.39 for five CSTs. The point biserials for the individual items in the CSTs are presented in Table 8.A.1 through Table 8.A.7.

Also germane to the validity of a score interpretation are the ranges of item difficulty for the items on which a test score will be based. The finding that items have difficulties that span the range of examinee ability provides evidence that examinees at all levels of ability are adequately measured by the items. Information on average item *p*-values is given in Table 8.1; individual *p*-values are presented in Table 8.A.1 through Table 8.A.7. (The distributions of IRT difficulty indicator *b*-values are given in Table 8.D.45 through Table 8.D.49 for operational items.)

The data in Table 8.1 indicate that 27 of the CSTs had *p*-values with means ranging from 0.50 to 0.70; out of those, 19 CSTs had mean *p*-values ranging from 0.50 to 0.65. Taken together with the distribution of item *b*-values provided in Table 8.D.45 through Table 8.D.49, these results indicate 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 0.90 to 0.93. Reliability estimates for all but four of the EOC CSTs also tended to be high as well, ranging in the low 0.90s. The exceptions were Integrated Mathematics 1 and 2 and the Integrated/Coordinated Science 1 and 4 tests, which ranged from the 0.78 to 0.89.

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 376. 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 473. When the classifications 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 0.98 across all CSTs. Similarly, the proportion of students that were classified consistently ranged from 0.87 to 0.97for 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., 2010; 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

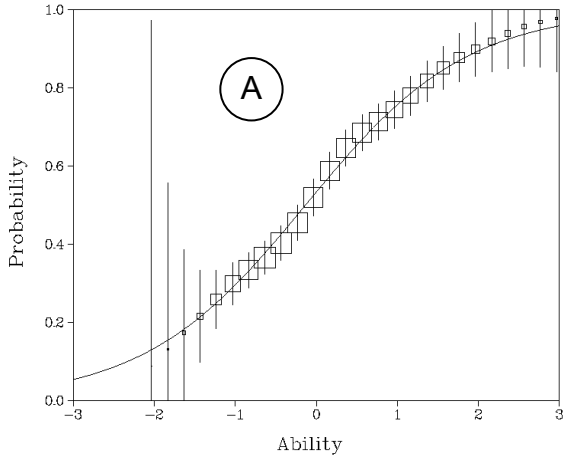
The CSTs are equated to a reference form using a common-item nonequivalent groups design and methods based on IRT. The "base" or "reference" calibrations for the CSTs were established by calibrating samples of data from a specific administration. Doing so established a scale to which subsequent item calibrations could be linked. The 2012 items were placed on the reference scale through a set of linking items that appeared in the 2011 operational forms and were readministered in 2012.

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 15.

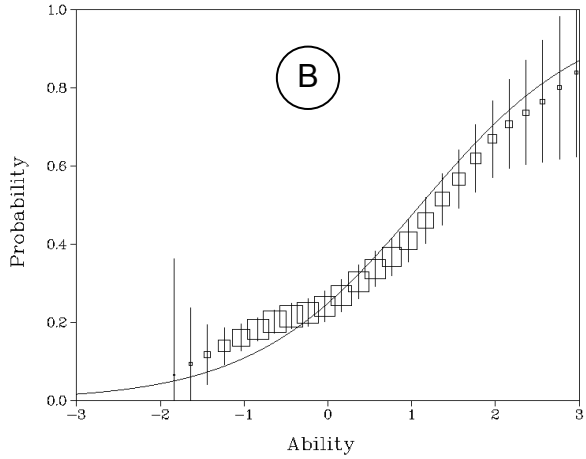
IRT Model-Data Fit Analyses

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 393. 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.

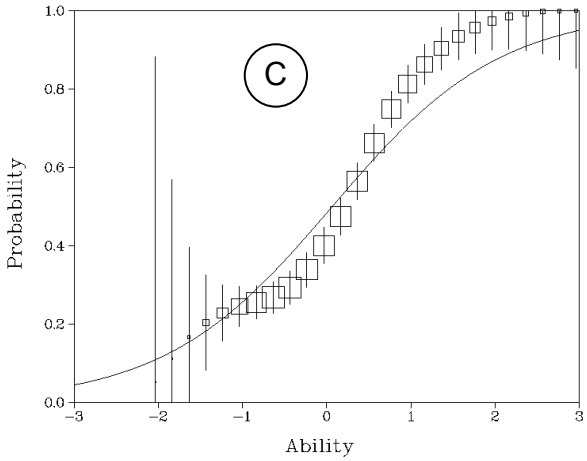
Figure 8.3 Items from the 2005 History–Social Science Grade Ten Field-test Calibration



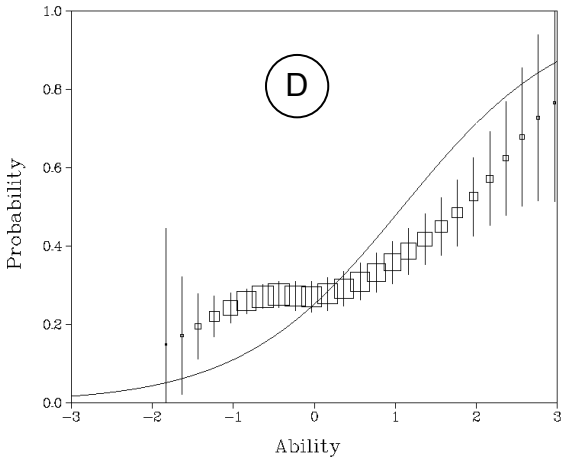
Version 30, Seq 29 (#236) CSV23487 4-Choice P+ = 0.563
a = 0.588 F, b = –0.135, c = 0.000 F, CHI = 5.41, N = 5,912



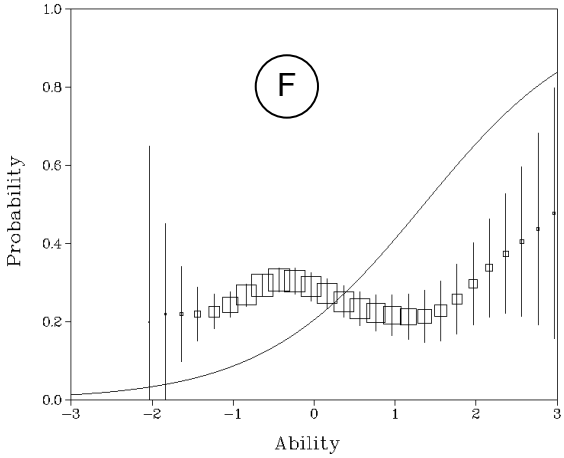
Version 1, Seq 28 (#61) CSV22589 4 Choice P+ = 0.307
a = 0.588 F, b = 1.104, c = 0.000 F, CHI = 66.70, N = 6,348



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 534. 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 535.

Evaluation of Scaling

Calibrations of the 2012 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 16 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 item characteristic curves 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 2012 form (new) and the test form to which it was linked (2011); 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 19 of Chapter 2.

It should also be noted that, although no items were removed due to WRMSD, items affected by security breaches in this test administration were removed from the linking set to provide the most valid and reliable results.

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	0.01
	3	28	0	0.99	0.02
	4	32	0	0.99	0.02
	5	32	0	0.99	0.02
	6	32	0	0.99	0.02
	7	32	0	0.99	0.02
	8	27	0	0.99	0.02
	9	32	0	0.99	0.02
	10	30	0	0.99	0.02
	11	30	0	0.98	0.02
History–Social Science	8	36	0	0.98	0.02
	World History	27	0	0.99	0.01
	11	29	0	0.99	0.01
Mathematics	2	32	0	0.99	0.02
	3	31	0	0.98	0.02
	4	36	0	0.99	0.02
	5	32	0	0.99	0.02
	6	32	0	1.00	0.01
	7	32	0	0.99	0.01

Content Area	CST*	# of Linking Items	Linking Items Removed	Final Correlation	WRMSD**
Mathematics (cont.)	General Mathematics	32	0	0.99	0.02
	Algebra I	31	0	0.99	0.02
	Geometry	34	0	0.99	0.02
	Algebra II	30	0	0.99	0.02
	Summative H.S. Mathematics	33	0	0.99	0.02
	Integrated Mathematics 1	32	0	0.99	0.02
	Integrated Mathematics 2	31	0	0.99	0.02
	Integrated Mathematics 3	27	0	0.96	0.05
Science	5	32	0	0.99	0.02
	8	29	0	0.99	0.01
	10 Life Science	31	0	0.99	0.02
	Biology	33	0	0.99	0.02
	Chemistry	30	0	0.95	0.03
	Earth Sciences	31	0	0.96	0.02
	Physics	30	0	0.96	0.03
	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, the field-test items, and for each reporting cluster (operational items). 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 “greater than or equal to 3.5” to “less than –3.5” points within each interval.

Post-equating Results

As described on page 15 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 2012 forms were taken from one of the 2002, 2003, 2004, or 2006 forms (see Chapter 10 starting on page 618 for specifics on the base years).

Complete raw-to-scale score conversion tables for the 2012 CSTs are presented in Table 8.D.55 through Table 8.D.85 starting on page 551. The raw scores and corresponding transformed scale scores are listed on those tables. The scale scores were truncated at both ends of the scale so that the minimum reported scale score was 150 and the maximum reported scale score was 600. The scale scores defining the various performance-level cut points are presented in Table 2.1, which is in Chapter 2 on page 17.

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:

$$\alpha_{MH} = \frac{\left(\sum_m R_{rm} \frac{W_{fm}}{N_{tm}}\right)}{\left(\sum_m R_{fm} \frac{W_{rm}}{N_{tm}}\right)} \tag{8.9}$$

$$MH\ D\text{-}DIF = -2.35 \ln[\alpha_{MH}] \tag{8.10}$$

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

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

The factors considered in the DIF analyses included gender, ethnicity, level of English-language fluency, and primary disability. The results of the DIF analyses are presented in Appendix 8.E, which starts on page 585. 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 585 lists the operational items exhibiting significant DIF (C-DIF). Table 8.E.2 on page 586 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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Appendix 8.A—Classical Analyses

Table 8.A.1 Item-by-item *p*-value and Point-Biserial for ELA

Item-by-item *p*-value and Point-Biserial for ELA																				
CSTs	**Grade 2**		**Grade 3**		**Grade 4**		**Grade 5**		**Grade 6**		**Grade 7**		**Grade 8**		**Grade 9**		**Grade 10**		**Grade 11**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.64	0.52	0.82	0.41	0.57	0.47	0.60	0.50	0.79	0.32	0.42	0.35	0.63	0.40	0.82	0.50	0.78	0.44	0.80	0.25
2	0.70	0.39	0.67	0.47	0.84	0.41	0.68	0.40	0.58	0.49	0.43	0.32	0.41	0.42	0.64	0.36	0.62	0.44	0.70	0.34
3	0.78	0.40	0.74	0.46	0.88	0.40	0.67	0.36	0.67	0.30	0.65	0.39	0.40	0.40	0.89	0.42	0.44	0.24	0.72	0.34
4	0.77	0.32	0.68	0.43	0.51	0.34	0.75	0.37	0.91	0.39	0.81	0.45	0.64	0.42	0.65	0.46	0.67	0.36	0.52	0.36
5	0.78	0.52	0.67	0.54	0.47	0.28	0.66	0.49	0.52	0.38	0.74	0.36	0.68	0.36	0.76	0.24	0.75	0.41	0.79	0.43
6	0.82	0.55	0.55	0.43	0.68	0.47	0.80	0.36	0.55	0.42	0.82	0.45	0.67	0.29	0.62	0.32	0.30	0.20	0.54	0.28
7	0.82	0.59	0.62	0.47	0.66	0.46	0.82	0.39	0.59	0.37	0.61	0.53	0.61	0.45	0.55	0.45	0.70	0.50	0.68	0.53
8	0.81	0.54	0.81	0.33	0.61	0.48	0.69	0.42	0.54	0.54	0.40	0.44	0.84	0.35	0.69	0.47	0.87	0.42	0.57	0.36
9	0.78	0.46	0.68	0.57	0.48	0.40	0.59	0.31	0.45	0.43	0.52	0.31	0.70	0.46	0.77	0.52	0.70	0.42	0.64	0.35
10	0.69	0.39	0.72	0.36	0.89	0.46	0.78	0.30	0.35	0.28	0.53	0.34	0.67	0.36	0.71	0.54	0.70	0.35	0.62	0.45
11	0.60	0.49	0.33	0.43	0.71	0.52	0.64	0.41	0.73	0.56	0.59	0.43	0.73	0.47	0.60	0.35	0.62	0.42	0.44	0.29
12	0.63	0.41	0.78	0.49	0.47	0.36	0.50	0.40	0.81	0.38	0.41	0.23	0.80	0.46	0.52	0.41	0.60	0.52	0.60	0.38
13	0.82	0.57	0.88	0.50	0.61	0.41	0.92	0.32	0.80	0.41	0.67	0.43	0.89	0.41	0.53	0.54	0.77	0.53	0.55	0.39
14	0.71	0.50	0.62	0.42	0.57	0.46	0.86	0.53	0.79	0.48	0.88	0.44	0.71	0.37	0.76	0.49	0.74	0.37	0.86	0.51
15	0.78	0.61	0.77	0.56	0.70	0.43	0.73	0.45	0.78	0.34	0.79	0.44	0.54	0.41	0.81	0.49	0.50	0.42	0.71	0.56
16	0.57	0.41	0.78	0.57	0.45	0.31	0.67	0.39	0.52	0.48	0.75	0.38	0.47	0.23	0.80	0.35	0.85	0.45	0.43	0.33
17	0.48	0.39	0.55	0.35	0.68	0.34	0.77	0.51	0.71	0.50	0.62	0.38	0.73	0.57	0.71	0.49	0.80	0.55	0.54	0.38
18	0.44	0.34	0.57	0.34	0.69	0.48	0.65	0.42	0.74	0.53	0.88	0.51	0.80	0.45	0.58	0.43	0.65	0.37	0.57	0.33
19	0.76	0.45	0.70	0.56	0.73	0.55	0.71	0.40	0.87	0.46	0.89	0.37	0.53	0.41	0.41	0.23	0.80	0.52	0.42	0.40
20	0.79	0.33	0.92	0.47	0.79	0.54	0.78	0.45	0.65	0.43	0.92	0.41	0.76	0.50	0.76	0.54	0.76	0.41	0.79	0.54
21	0.74	0.49	0.70	0.43	0.69	0.54	0.75	0.35	0.67	0.45	0.82	0.45	0.73	0.46	0.63	0.41	0.54	0.41	0.68	0.40
22	0.76	0.50	0.76	0.50	0.61	0.30	0.74	0.54	0.36	0.31	0.80	0.42	0.67	0.42	0.84	0.49	0.72	0.43	0.74	0.54
23	0.54	0.44	0.56	0.45	0.80	0.41	0.81	0.53	0.49	0.39	0.69	0.48	0.47	0.34	0.73	0.46	0.69	0.47	0.56	0.40
24	0.60	0.48	0.88	0.46	0.81	0.51	0.57	0.45	0.60	0.44	0.69	0.42	0.77	0.45	0.82	0.44	0.61	0.41	0.62	0.48
25	0.66	0.43	0.60	0.36	0.75	0.35	0.83	0.45	0.57	0.37	0.80	0.49	0.75	0.47	0.62	0.43	0.80	0.51	0.62	0.46
26	0.79	0.58	0.82	0.45	0.44	0.34	0.61	0.51	0.72	0.41	0.61	0.54	0.75	0.35	0.62	0.44	0.57	0.37	0.77	0.49
27	0.58	0.52	0.88	0.45	0.77	0.47	0.61	0.47	0.75	0.53	0.59	0.32	0.76	0.53	0.43	0.31	0.60	0.46	0.59	0.30
28	0.46	0.35	0.67	0.60	0.42	0.30	0.43	0.34	0.53	0.47	0.88	0.39	0.51	0.30	0.67	0.48	0.70	0.50	0.62	0.34
29	0.72	0.55	0.77	0.45	0.64	0.51	0.79	0.52	0.56	0.45	0.84	0.48	0.69	0.51	0.83	0.58	0.54	0.30	0.73	0.50
30	0.52	0.43	0.66	0.44	0.49	0.38	0.85	0.53	0.78	0.32	0.55	0.31	0.49	0.45	0.75	0.59	0.66	0.43	0.54	0.38
31	0.61	0.46	0.85	0.37	0.81	0.37	0.70	0.57	0.80	0.49	0.81	0.50	0.71	0.57	0.49	0.44	0.71	0.39	0.66	0.49
32	0.58	0.43	0.67	0.50	0.56	0.43	0.90	0.48	0.51	0.39	0.65	0.54	0.62	0.25	0.46	0.41	0.61	0.38	0.82	0.58
33	0.70	0.55	0.72	0.54	0.43	0.33	0.79	0.43	0.55	0.41	0.60	0.41	0.51	0.34	0.45	0.30	0.77	0.55	0.77	0.51
34	0.67	0.48	0.44	0.28	0.66	0.35	0.66	0.44	0.60	0.40	0.74	0.52	0.83	0.50	0.55	0.50	0.54	0.33	0.72	0.48
35	0.76	0.45	0.81	0.52	0.42	0.44	0.69	0.31	0.56	0.37	0.57	0.43	0.78	0.43	0.70	0.32	0.63	0.35	0.40	0.37
36	0.81	0.48	0.84	0.34	0.65	0.38	0.74	0.43	0.75	0.50	0.68	0.39	0.43	0.41	0.69	0.46	0.68	0.45	0.75	0.51
37	0.70	0.58	0.65	0.37	0.37	0.29	0.91	0.43	0.74	0.55	0.51	0.51	0.82	0.45	0.39	0.40	0.60	0.47	0.40	0.34
38	0.69	0.52	0.84	0.53	0.55	0.36	0.81	0.44	0.55	0.40	0.87	0.39	0.68	0.41	0.71	0.34	0.73	0.47	0.70	0.43
39	0.59	0.46	0.54	0.37	0.71	0.39	0.64	0.43	0.48	0.38	0.87	0.38	0.74	0.55	0.67	0.34	0.90	0.45	0.66	0.48

Item-by-item *p*-value and Point-Biserial for ELA																				
CSTs	**Grade 2**		**Grade 3**		**Grade 4**		**Grade 5**		**Grade 6**		**Grade 7**		**Grade 8**		**Grade 9**		**Grade 10**		**Grade 11**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
40	0.50	0.35	0.71	0.50	0.76	0.45	0.53	0.42	0.43	0.43	0.64	0.37	0.88	0.35	0.55	0.36	0.75	0.50	0.42	0.22
41	0.69	0.52	0.70	0.46	0.82	0.50	0.76	0.38	0.67	0.42	0.45	0.37	0.65	0.38	0.71	0.49	0.61	0.41	0.57	0.44
42	0.83	0.52	0.62	0.31	0.64	0.39	0.57	0.43	0.67	0.53	0.79	0.42	0.70	0.48	0.85	0.51	0.60	0.44	0.75	0.49
43	0.75	0.44	0.50	0.38	0.81	0.44	0.52	0.38	0.76	0.40	0.69	0.51	0.55	0.38	0.51	0.40	0.62	0.46	0.63	0.38
44	0.84	0.56	0.81	0.55	0.60	0.46	0.60	0.47	0.89	0.31	0.45	0.39	0.62	0.49	0.48	0.36	0.67	0.56	0.53	0.15
45	0.70	0.57	0.52	0.29	0.73	0.43	0.56	0.44	0.68	0.46	0.64	0.47	0.78	0.48	0.65	0.35	0.62	0.46	0.65	0.39
46	0.66	0.51	0.75	0.40	0.68	0.55	0.83	0.46	0.56	0.43	0.56	0.48	0.75	0.42	0.55	0.38	0.80	0.36	0.75	0.32
47	0.51	0.47	0.69	0.55	0.42	0.27	0.54	0.41	0.65	0.44	0.78	0.31	0.73	0.56	0.60	0.45	0.55	0.35	0.61	0.38
48	0.82	0.44	0.53	0.50	0.81	0.47	0.65	0.35	0.77	0.53	0.40	0.29	0.64	0.45	0.42	0.32	0.55	0.43	0.70	0.51
49	0.72	0.45	0.80	0.39	0.89	0.37	0.91	0.32	0.72	0.34	0.76	0.46	0.56	0.40	0.33	0.28	0.78	0.55	0.62	0.27
50	0.65	0.55	0.60	0.42	0.67	0.51	0.75	0.52	0.63	0.45	0.73	0.47	0.54	0.40	0.62	0.40	0.61	0.47	0.71	0.43
51	0.61	0.45	0.65	0.54	0.90	0.48	0.85	0.39	0.71	0.41	0.64	0.49	0.52	0.44	0.74	0.44	0.51	0.37	0.55	0.48
52	0.70	0.59	0.74	0.53	0.84	0.50	0.91	0.39	0.59	0.23	0.75	0.41	0.53	0.49	0.66	0.47	0.64	0.55	0.73	0.44
53	0.60	0.51	0.60	0.46	0.76	0.49	0.83	0.40	0.46	0.35	0.66	0.43	0.56	0.43	0.45	0.40	0.76	0.47	0.79	0.47
54	0.48	0.42	0.61	0.44	0.75	0.52	0.68	0.54	0.48	0.38	0.87	0.45	0.51	0.36	0.73	0.47	0.37	0.43	0.75	0.48
55	0.77	0.57	0.52	0.30	0.75	0.58	0.75	0.52	0.50	0.33	0.40	0.38	0.69	0.36	0.61	0.33	0.59	0.37	0.66	0.42
56	0.77	0.52	0.52	0.38	0.64	0.35	0.68	0.41	0.62	0.54	0.50	0.33	0.75	0.58	0.60	0.38	0.85	0.50	0.51	0.39
57	0.63	0.48	0.73	0.36	0.83	0.51	0.57	0.27	0.77	0.44	0.72	0.46	0.69	0.43	0.58	0.40	0.75	0.55	0.72	0.57
58	0.71	0.53	0.79	0.51	0.63	0.50	0.61	0.28	0.87	0.45	0.80	0.45	0.64	0.36	0.62	0.37	0.66	0.49	0.68	0.47
59	0.62	0.42	0.36	0.34	0.78	0.53	0.81	0.46	0.38	0.38	0.70	0.45	0.71	0.49	0.53	0.39	0.49	0.43	0.61	0.48
60	0.55	0.45	0.38	0.38	0.76	0.49	0.49	0.42	0.67	0.50	0.61	0.38	0.46	0.31	0.70	0.57	0.86	0.55	0.51	0.37
61	0.57	0.46	0.57	0.42	0.88	0.49	0.74	0.45	0.62	0.54	0.51	0.35	0.48	0.44	0.69	0.50	0.55	0.42	0.61	0.43
62	0.75	0.56	0.61	0.48	0.69	0.54	0.72	0.54	0.85	0.48	0.88	0.27	0.64	0.45	0.61	0.37	0.64	0.44	0.85	0.51
63	0.69	0.60	0.85	0.43	0.58	0.42	0.52	0.37	0.68	0.33	0.66	0.43	0.53	0.45	0.48	0.32	0.85	0.55	0.88	0.47
64	0.42	0.38	0.78	0.47	0.76	0.50	0.42	0.29	0.83	0.35	0.86	0.44	0.74	0.48	0.73	0.43	0.37	0.26	0.67	0.49
65	0.80	0.58	0.84	0.47	0.73	0.48	0.57	0.46	0.35	0.34	0.54	0.36	0.55	0.44	0.77	0.50	0.55	0.37	0.47	0.32
66	.	.	.	.	0.77	0.56	0.72	0.54	0.56	0.46	0.71	0.50	0.72	0.32	0.67	0.32	0.82	0.46	0.73	0.48
67	.	.	.	.	0.58	0.44	0.50	0.30	0.90	0.42	0.87	0.43	0.66	0.40	0.79	0.57	0.60	0.46	0.78	0.50
68	.	.	.	.	0.73	0.50	0.69	0.41	0.87	0.42	0.85	0.45	0.60	0.32	0.70	0.50	0.54	0.38	0.56	0.32
69	.	.	.	.	0.64	0.36	0.54	0.37	0.36	0.26	0.72	0.50	0.68	0.50	0.72	0.40	0.80	0.51	0.75	0.50
70	.	.	.	.	0.57	0.44	0.78	0.55	0.89	0.38	0.76	0.39	0.67	0.31	0.77	0.46	0.56	0.36	0.79	0.42
71	.	.	.	.	0.66	0.36	0.46	0.27	0.83	0.40	0.52	0.33	0.76	0.48	0.71	0.40	0.71	0.49	0.84	0.45
72	.	.	.	.	0.57	0.50	0.75	0.49	0.69	0.39	0.52	0.27	0.89	0.47	0.73	0.38	0.59	0.46	0.61	0.48
73	.	.	.	.	0.57	0.33	0.78	0.38	0.78	0.35	0.69	0.47	0.85	0.50	0.78	0.57	0.54	0.37	0.69	0.41
74	.	.	.	.	0.71	0.53	0.56	0.31	0.66	0.48	0.40	0.34	0.59	0.42	0.67	0.35	0.63	0.48	0.73	0.48
75	.	.	.	.	0.57	0.46	0.85	0.39	0.77	0.46	0.71	0.47	0.80	0.52	0.46	0.34	0.71	0.42	0.76	0.49

Table 8.A.2 Item-by-item *p*-value and Point-Biserial for History–Social Science

Item-by-item *p*-value and Point-Biserial for History–Social Science						
CSTs	**Grade 8**		**World History**		**Grade 11**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.81	0.31	0.75	0.47	0.78	0.35
2	0.69	0.41	0.73	0.45	0.57	0.39
3	0.56	0.28	0.66	0.43	0.57	0.42
4	0.41	0.22	0.74	0.31	0.59	0.47
5	0.70	0.40	0.46	0.35	0.53	0.47
6	0.58	0.40	0.60	0.39	0.36	0.26
7	0.51	0.42	0.62	0.44	0.46	0.29
8	0.56	0.34	0.86	0.45	0.76	0.54
9	0.59	0.31	0.82	0.40	0.84	0.45
10	0.80	0.40	0.37	0.34	0.68	0.52
11	0.50	0.35	0.59	0.26	0.53	0.30
12	0.62	0.45	0.67	0.49	0.64	0.45
13	0.60	0.44	0.73	0.55	0.71	0.46
14	0.78	0.46	0.83	0.48	0.69	0.34
15	0.86	0.39	0.48	0.38	0.68	0.53
16	0.57	0.42	0.56	0.45	0.57	0.41
17	0.57	0.43	0.66	0.49	0.50	0.50
18	0.69	0.31	0.68	0.43	0.78	0.59
19	0.63	0.32	0.73	0.50	0.56	0.42
20	0.54	0.51	0.76	0.57	0.42	0.30
21	0.51	0.33	0.63	0.43	0.72	0.57
22	0.40	0.31	0.67	0.33	0.90	0.44
23	0.59	0.45	0.57	0.36	0.62	0.47
24	0.70	0.50	0.77	0.51	0.43	0.42
25	0.74	0.56	0.59	0.46	0.50	0.35
26	0.67	0.44	0.60	0.55	0.62	0.52
27	0.74	0.42	0.61	0.39	0.75	0.52
28	0.65	0.54	0.55	0.49	0.68	0.44
29	0.84	0.50	0.65	0.41	0.81	0.42
30	0.60	0.37	0.69	0.45	0.61	0.43
31	0.85	0.52	0.76	0.50	0.74	0.55
32	0.73	0.42	0.64	0.49	0.61	0.38
33	0.56	0.43	0.67	0.47	0.36	0.27
34	0.69	0.52	0.67	0.42	0.66	0.37
35	0.72	0.34	0.49	0.40	0.63	0.44
36	0.65	0.44	0.60	0.26	0.60	0.38
37	0.54	0.36	0.68	0.60	0.39	0.30
38	0.77	0.51	0.66	0.53	0.45	0.37
39	0.61	0.39	0.44	0.36	0.68	0.54
40	0.53	0.43	0.63	0.51	0.68	0.53
41	0.39	0.31	0.53	0.35	0.79	0.44
42	0.50	0.43	0.79	0.43	0.70	0.62
43	0.79	0.45	0.65	0.44	0.62	0.46
44	0.59	0.39	0.67	0.47	0.50	0.28
45	0.53	0.42	0.64	0.52	0.56	0.54
46	0.65	0.51	0.63	0.44	0.62	0.31
47	0.61	0.49	0.57	0.42	0.74	0.43
48	0.61	0.38	0.53	0.43	0.84	0.57
49	0.70	0.49	0.68	0.42	0.61	0.44
50	0.69	0.44	0.76	0.56	0.63	0.29
51	0.52	0.50	0.64	0.48	0.65	0.54
52	0.60	0.53	0.67	0.48	0.65	0.38
53	0.67	0.44	0.57	0.45	0.40	0.22
54	0.65	0.47	0.56	0.35	0.53	0.46
55	0.58	0.33	0.70	0.60	0.61	0.54
56	0.80	0.53	0.40	0.35	0.85	0.50
57	0.37	0.31	0.51	0.35	0.57	0.39
58	0.52	0.32	0.66	0.46	0.42	0.34
59	0.71	0.39	0.62	0.55	0.62	0.43
60	0.83	0.52	0.81	0.48	0.69	0.56

Item-by-item *p*-value and Point-Biserial for History–Social Science						
CSTs	**Grade 8**		**World History**		**Grade 11**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
61	0.74	0.54	.	.	.	.
62	0.64	0.40	.	.	.	.
63	0.74	0.43	.	.	.	.
64	0.65	0.44	.	.	.	.
65	0.59	0.39	.	.	.	.
66	0.75	0.55	.	.	.	.
67	0.55	0.55	.	.	.	.
68	0.60	0.46	.	.	.	.
69	0.71	0.50	.	.	.	.
70	0.66	0.46	.	.	.	.
71	0.70	0.55	.	.	.	.
72	0.57	0.48	.	.	.	.
73	0.63	0.49	.	.	.	.
74	0.47	0.43	.	.	.	.
75	0.81	0.53	.	.	.	.

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

Item-by-item *p*-value and Point-Biserial for Mathematics														
CSTs	**Grade 2**		**Grade 3**		**Grade 4**		**Grade 5**		**Grade 6**		**Grade 7**		**General Math**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.69	0.52	0.82	0.52	0.90	0.44	0.91	0.37	0.91	0.25	0.70	0.45	0.71	0.38
2	0.76	0.48	0.74	0.55	0.86	0.43	0.72	0.46	0.52	0.41	0.61	0.43	0.51	0.28
3	0.92	0.44	0.87	0.37	0.89	0.37	0.78	0.46	0.59	0.44	0.77	0.35	0.74	0.44
4	0.78	0.54	0.64	0.54	0.90	0.33	0.77	0.44	0.59	0.43	0.61	0.24	0.44	0.37
5	0.89	0.35	0.82	0.48	0.77	0.47	0.74	0.46	0.72	0.39	0.59	0.49	0.56	0.39
6	0.84	0.50	0.90	0.44	0.84	0.40	0.75	0.29	0.84	0.46	0.67	0.54	0.31	0.34
7	0.90	0.47	0.70	0.48	0.79	0.48	0.82	0.42	0.74	0.43	0.59	0.36	0.45	0.47
8	0.73	0.46	0.89	0.46	0.78	0.54	0.67	0.46	0.46	0.43	0.52	0.43	0.55	0.48
9	0.87	0.53	0.83	0.43	0.75	0.54	0.72	0.53	0.71	0.47	0.57	0.56	0.34	0.29
10	0.71	0.64	0.83	0.46	0.75	0.55	0.72	0.52	0.83	0.43	0.35	0.41	0.56	0.27
11	0.66	0.52	0.89	0.43	0.90	0.41	0.89	0.33	0.62	0.39	0.33	0.44	0.52	0.44
12	0.43	0.38	0.85	0.43	0.91	0.38	0.78	0.45	0.61	0.41	0.68	0.32	0.43	0.49
13	0.85	0.48	0.61	0.54	0.93	0.40	0.65	0.60	0.71	0.45	0.65	0.52	0.62	0.44
14	0.75	0.44	0.95	0.43	0.79	0.50	0.68	0.50	0.43	0.42	0.66	0.55	0.51	0.47
15	0.88	0.39	0.63	0.60	0.79	0.58	0.66	0.47	0.70	0.46	0.74	0.45	0.52	0.43
16	0.74	0.47	0.59	0.50	0.89	0.42	0.54	0.46	0.75	0.42	0.67	0.50	0.55	0.41
17	0.77	0.48	0.93	0.38	0.54	0.45	0.81	0.47	0.83	0.27	0.67	0.46	0.52	0.41
18	0.88	0.42	0.86	0.48	0.88	0.37	0.78	0.52	0.68	0.48	0.57	0.39	0.44	0.43
19	0.50	0.45	0.77	0.56	0.76	0.51	0.73	0.45	0.61	0.56	0.59	0.54	0.36	0.44
20	0.80	0.50	0.81	0.47	0.87	0.48	0.48	0.51	0.72	0.44	0.53	0.62	0.48	0.26
21	0.61	0.52	0.68	0.49	0.89	0.41	0.74	0.31	0.52	0.47	0.60	0.42	0.29	0.38
22	0.62	0.47	0.64	0.56	0.73	0.57	0.64	0.39	0.59	0.58	0.48	0.53	0.39	0.43
23	0.52	0.47	0.84	0.39	0.75	0.53	0.69	0.57	0.74	0.58	0.53	0.42	0.58	0.25
24	0.76	0.38	0.53	0.50	0.87	0.44	0.65	0.54	0.57	0.54	0.71	0.52	0.51	0.37
25	0.66	0.49	0.83	0.52	0.81	0.56	0.69	0.57	0.59	0.48	0.69	0.49	0.43	0.29
26	0.71	0.43	0.59	0.52	0.91	0.43	0.67	0.50	0.84	0.45	0.48	0.47	0.63	0.40
27	0.83	0.39	0.94	0.42	0.90	0.41	0.43	0.48	0.61	0.31	0.66	0.37	0.57	0.29
28	0.72	0.44	0.33	0.39	0.78	0.57	0.64	0.47	0.70	0.57	0.77	0.46	0.81	0.47
29	0.79	0.51	0.81	0.54	0.49	0.38	0.51	0.38	0.74	0.39	0.66	0.40	0.56	0.34
30	0.74	0.57	0.89	0.36	0.85	0.49	0.65	0.49	0.74	0.43	0.53	0.45	0.65	0.42
31	0.87	0.52	0.75	0.37	0.78	0.58	0.83	0.56	0.75	0.57	0.74	0.47	0.54	0.47
32	0.88	0.48	0.66	0.46	0.87	0.48	0.62	0.46	0.48	0.46	0.47	0.48	0.49	0.39
33	0.84	0.51	0.77	0.52	0.86	0.58	0.85	0.35	0.75	0.45	0.62	0.39	0.31	0.34
34	0.59	0.43	0.74	0.46	0.80	0.48	0.71	0.35	0.36	0.34	0.56	0.40	0.55	0.43
35	0.89	0.47	0.80	0.48	0.89	0.50	0.70	0.54	0.70	0.58	0.64	0.53	0.38	0.27
36	0.56	0.50	0.84	0.52	0.91	0.43	0.97	0.21	0.80	0.48	0.78	0.49	0.47	0.42
37	0.87	0.43	0.87	0.46	0.71	0.43	0.59	0.55	0.85	0.37	0.66	0.45	0.73	0.46
38	0.77	0.51	0.78	0.45	0.80	0.44	0.78	0.43	0.75	0.54	0.77	0.37	0.76	0.48
39	0.91	0.35	0.62	0.45	0.63	0.50	0.80	0.41	0.79	0.48	0.45	0.38	0.41	0.30
40	0.79	0.44	0.89	0.43	0.90	0.49	0.44	0.49	0.75	0.49	0.55	0.43	0.56	0.44
41	0.89	0.41	0.86	0.47	0.82	0.54	0.66	0.55	0.86	0.51	0.82	0.41	0.46	0.28

Item-by-item *p*-value and Point-Biserial for Mathematics														
CSTs	**Grade 2**		**Grade 3**		**Grade 4**		**Grade 5**		**Grade 6**		**Grade 7**		**General Math**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
42	0.88	0.52	0.88	0.48	0.86	0.54	0.58	0.55	0.78	0.44	0.67	0.50	0.52	0.42
43	0.58	0.43	0.91	0.41	0.85	0.46	0.90	0.45	0.89	0.49	0.66	0.48	0.62	0.49
44	0.62	0.51	0.84	0.55	0.85	0.58	0.87	0.46	0.30	0.44	0.76	0.46	0.48	0.24
45	0.88	0.41	0.95	0.24	0.86	0.54	0.83	0.47	0.76	0.27	0.68	0.46	0.54	0.35
46	0.87	0.35	0.90	0.36	0.89	0.55	0.70	0.38	0.77	0.40	0.77	0.44	0.51	0.47
47	0.88	0.34	0.58	0.53	0.87	0.54	0.61	0.49	0.43	0.39	0.44	0.34	0.58	0.37
48	0.83	0.37	0.65	0.47	0.72	0.62	0.72	0.50	0.34	0.46	0.83	0.45	0.48	0.44
49	0.89	0.39	0.78	0.53	0.63	0.48	0.60	0.51	0.69	0.52	0.44	0.37	0.42	0.52
50	0.81	0.38	0.87	0.18	0.83	0.44	0.43	0.45	0.61	0.50	0.77	0.47	0.43	0.39
51	0.85	0.39	0.89	0.39	0.66	0.38	0.81	0.40	0.63	0.46	0.55	0.46	0.44	0.37
52	0.84	0.34	0.84	0.35	0.65	0.34	0.67	0.43	0.61	0.36	0.80	0.43	0.50	0.31
53	0.82	0.49	0.84	0.39	0.50	0.49	0.34	0.42	0.63	0.40	0.62	0.44	0.46	0.31
54	0.86	0.34	0.93	0.35	0.77	0.47	0.50	0.56	0.62	0.48	0.63	0.42	0.30	0.26
55	0.49	0.34	0.91	0.39	0.81	0.50	0.80	0.37	0.46	0.40	0.54	0.31	0.45	0.44
56	0.54	0.40	0.69	0.34	0.72	0.54	0.63	0.43	0.66	0.45	0.66	0.41	0.43	0.34
57	0.66	0.45	0.87	0.41	0.88	0.40	0.86	0.28	0.90	0.40	0.56	0.43	0.64	0.39
58	0.85	0.46	0.61	0.53	0.76	0.54	0.73	0.56	0.79	0.43	0.50	0.44	0.40	0.44
59	0.90	0.42	0.85	0.37	0.68	0.41	0.72	0.57	0.46	0.42	0.44	0.36	0.67	0.38
60	0.51	0.56	0.80	0.33	0.83	0.36	0.81	0.53	0.78	0.58	0.81	0.47	0.55	0.29
61	0.49	0.50	0.90	0.29	0.85	0.44	0.83	0.42	0.50	0.40	0.77	0.37	0.77	0.46
62	0.88	0.45	0.88	0.45	0.74	0.40	0.85	0.44	0.49	0.44	0.59	0.36	0.34	0.32
63	0.84	0.44	0.76	0.37	0.70	0.39	0.79	0.35	0.80	0.52	0.51	0.41	0.67	0.37
64	0.63	0.43	0.93	0.43	0.88	0.42	0.77	0.51	0.66	0.47	0.76	0.50	0.64	0.40
65	0.93	0.37	0.88	0.40	0.89	0.36	0.85	0.44	0.50	0.52	0.81	0.47	0.64	0.48

Table 8.A.4 Item-by-item *p*-value and Point-Biserial for Mathematics [continued]

Item-by-item *p*-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	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.85	0.39	0.70	0.49	0.86	0.37	0.85	0.36	0.83	0.36	0.54	0.33	0.59	0.37
2	0.46	0.48	0.77	0.41	0.62	0.49	0.72	0.48	0.52	0.33	0.41	0.36	0.84	0.47
3	0.56	0.44	0.67	0.32	0.83	0.32	0.65	0.31	0.53	0.32	0.75	0.32	0.60	0.32
4	0.59	0.36	0.52	0.48	0.27	0.36	0.79	0.40	0.53	0.34	0.53	0.37	0.55	0.17
5	0.62	0.45	0.81	0.37	0.71	0.50	0.67	0.51	0.67	0.31	0.54	0.45	0.55	0.37
6	0.71	0.46	0.50	0.36	0.43	0.47	0.67	0.54	0.49	0.35	0.63	0.36	0.81	0.40
7	0.69	0.40	0.64	0.29	0.38	0.24	0.89	0.34	0.88	0.23	0.43	0.32	0.80	0.46
8	0.47	0.34	0.58	0.45	0.71	0.44	0.82	0.47	0.47	0.37	0.43	0.45	0.85	0.46
9	0.38	0.39	0.67	0.50	0.65	0.48	0.84	0.40	0.69	0.42	0.54	0.31	0.56	0.54
10	0.62	0.43	0.49	0.43	0.64	0.58	0.81	0.31	0.55	0.38	0.40	0.34	0.29	0.22
11	0.61	0.46	0.47	0.37	0.61	0.46	0.51	0.46	0.55	0.39	0.30	0.28	0.65	0.54
12	0.59	0.43	0.46	0.32	0.38	0.38	0.84	0.39	0.40	0.29	0.56	0.44	0.78	0.43
13	0.68	0.37	0.31	0.25	0.60	0.43	0.63	0.41	0.64	0.38	0.53	0.44	0.60	0.55
14	0.52	0.35	0.48	0.57	0.70	0.52	0.75	0.50	0.29	0.26	0.44	0.28	0.36	0.34
15	0.34	0.37	0.61	0.43	0.36	0.37	0.79	0.42	0.56	0.41	0.52	0.44	0.29	0.34
16	0.57	0.39	0.66	0.54	0.83	0.32	0.72	0.52	0.51	0.34	0.37	0.29	0.24	0.22
17	0.89	0.24	0.67	0.33	0.85	0.37	0.82	0.44	0.38	0.30	0.49	0.39	0.54	0.42
18	0.51	0.58	0.58	0.55	0.69	0.53	0.90	0.27	0.30	0.27	0.46	0.25	0.37	0.45
19	0.42	0.36	0.46	0.32	0.64	0.48	0.56	0.34	0.39	0.46	0.30	0.28	0.53	0.38
20	0.38	0.41	0.60	0.45	0.55	0.30	0.62	0.34	0.55	0.35	0.47	0.43	0.60	0.48
21	0.41	0.47	0.44	0.43	0.49	0.32	0.77	0.46	0.47	0.42	0.56	0.47	0.58	0.59
22	0.53	0.42	0.44	0.51	0.48	0.40	0.89	0.38	0.54	0.28	0.48	0.21	0.55	0.39
23	0.61	0.35	0.74	0.47	0.49	0.34	0.73	0.50	0.45	0.32	0.71	0.43	0.59	0.48
24	0.59	0.32	0.65	0.50	0.46	0.53	0.41	0.34	0.34	0.37	0.50	0.34	0.54	0.57
25	0.46	0.42	0.64	0.46	0.34	0.28	0.79	0.38	0.29	0.27	0.54	0.34	0.43	0.21
26	0.46	0.40	0.67	0.39	0.47	0.53	0.77	0.27	0.48	0.46	0.61	0.42	0.60	0.41
27	0.56	0.51	0.63	0.44	0.43	0.33	0.58	0.49	0.37	0.27	0.37	0.27	0.49	0.33
28	0.45	0.48	0.58	0.56	0.74	0.42	0.78	0.46	0.61	0.47	0.29	0.35	0.43	0.36
29	0.61	0.39	0.36	0.52	0.36	0.35	0.81	0.48	0.50	0.46	0.23	0.10	0.39	0.47
30	0.35	0.34	0.51	0.43	0.59	0.43	0.73	0.46	0.41	0.31	0.54	0.29	0.72	0.50
31	0.57	0.48	0.41	0.42	0.56	0.46	0.54	0.28	0.56	0.44	0.32	0.48	0.42	0.49
32	0.39	0.43	0.52	0.32	0.51	0.41	0.78	0.51	0.46	0.31	0.38	0.47	0.46	0.41

Item-by-item *p*-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	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
33	0.42	0.32	0.72	0.54	0.56	0.49	0.84	0.49	0.37	0.28	0.39	0.32	0.56	0.44
34	0.50	0.34	0.20	0.33	0.35	0.42	0.84	0.49	0.29	0.33	0.39	0.30	0.36	0.28
35	0.51	0.48	0.34	0.30	0.68	0.40	0.74	0.29	0.26	0.25	0.47	0.32	0.41	0.16
36	0.40	0.36	0.79	0.39	0.48	0.29	0.82	0.43	0.26	0.13	0.32	0.26	0.36	0.22
37	0.51	0.40	0.64	0.44	0.70	0.35	0.82	0.35	0.38	0.40	0.53	0.47	0.50	0.45
38	0.53	0.45	0.27	0.42	0.63	0.49	0.77	0.53	0.23	0.30	0.55	0.50	0.28	0.25
39	0.40	0.49	0.59	0.36	0.50	0.49	0.71	0.49	0.25	0.23	0.40	0.23	0.52	0.52
40	0.55	0.45	0.27	0.28	0.68	0.37	0.72	0.49	0.24	0.31	0.35	0.29	0.30	0.10
41	0.66	0.50	0.71	0.49	0.55	0.44	0.74	0.48	0.34	0.27	0.36	0.38	0.55	0.53
42	0.42	0.44	0.57	0.60	0.43	0.41	0.88	0.34	0.36	0.34	0.65	0.41	0.58	0.31
43	0.47	0.50	0.52	0.42	0.65	0.47	0.70	0.41	0.38	0.26	0.58	0.37	0.59	0.50
44	0.60	0.54	0.59	0.40	0.43	0.51	0.84	0.49	0.50	0.44	0.64	0.43	0.61	0.48
45	0.30	0.22	0.44	0.40	0.64	0.43	0.70	0.44	0.48	0.30	0.22	0.17	0.49	0.45
46	0.54	0.46	0.41	0.43	0.69	0.48	0.86	0.40	0.23	0.20	0.17	0.20	0.59	0.49
47	0.51	0.50	0.47	0.49	0.63	0.51	0.60	0.44	0.18	0.25	0.29	0.28	0.45	0.27
48	0.65	0.47	0.65	0.49	0.49	0.38	0.76	0.46	0.25	0.11	0.38	0.51	0.67	0.44
49	0.36	0.52	0.56	0.45	0.68	0.40	0.83	0.44	0.37	0.32	0.55	0.46	0.65	0.37
50	0.71	0.41	0.64	0.49	0.57	0.47	0.70	0.43	0.32	0.25	0.70	0.40	0.59	0.39
51	0.34	0.45	0.54	0.46	0.60	0.39	0.73	0.55	0.36	0.31	0.68	0.51	0.50	0.54
52	0.55	0.58	0.61	0.50	0.67	0.40	0.74	0.51	0.49	0.40	0.41	0.46	0.47	0.49
53	0.33	0.28	0.57	0.42	0.25	0.35	0.81	0.46	0.38	0.28	0.23	0.30	0.45	0.34
54	0.47	0.47	0.43	0.33	0.47	0.41	0.75	0.50	0.29	0.24	0.52	0.36	0.56	0.45
55	0.48	0.31	0.62	0.32	0.67	0.30	0.54	0.49	0.28	0.08	0.52	0.43	0.48	0.45
56	0.43	0.46	0.59	0.44	0.50	0.41	0.73	0.45	0.35	0.22	0.45	0.42	0.43	0.26
57	0.35	0.49	0.79	0.50	0.35	0.29	0.71	0.51	0.14	-.03	0.39	0.34	0.60	0.51
58	0.41	0.34	0.63	0.44	0.50	0.38	0.74	0.49	0.42	0.24	0.48	0.42	0.32	0.23
59	0.44	0.44	0.51	0.44	0.54	0.35	0.65	0.32	0.41	0.26	0.39	0.29	0.37	0.34
60	0.31	0.33	0.34	0.39	0.31	0.39	0.53	0.41	0.41	0.30	0.46	0.31	0.46	0.26
61	0.25	0.26	0.53	0.56	0.56	0.37	0.55	0.40	0.47	0.26	0.48	0.37	0.26	0.21
62	0.52	0.42	0.57	0.39	0.28	0.31	0.66	0.48	0.39	0.31	0.28	0.26	0.64	0.30
63	0.48	0.32	0.53	0.52	0.44	0.28	0.51	0.35	0.37	0.14	0.37	0.23	0.66	0.31
64	0.53	0.51	0.54	0.40	0.70	0.34	0.82	0.44	0.31	0.16	0.19	0.22	0.22	0.22
65	0.47	0.40	0.72	0.50	0.70	0.47	0.64	0.44	0.40	0.21	0.33	0.28	0.45	0.31

Table 8.A.5 Item-by-item *p*-value and Point-Biserial for Science

Item-by-item *p*-value and Point-Biserial for Science														
CSTs	**Grade 5 Science**		**Grade 8 Science**		**Grade 10 Life Science**		**Biology**		**Chemistry**		**Earth Science**		**Physics**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.77	0.49	0.87	0.41	0.71	0.35	0.68	0.35	0.49	0.45	0.79	0.34	0.70	0.44
2	0.74	0.39	0.51	0.26	0.81	0.38	0.83	0.35	0.52	0.31	0.55	0.33	0.68	0.56
3	0.85	0.38	0.81	0.32	0.77	0.43	0.70	0.35	0.76	0.46	0.63	0.41	0.57	0.34
4	0.71	0.47	0.80	0.44	0.60	0.38	0.57	0.33	0.62	0.44	0.69	0.40	0.78	0.43
5	0.84	0.45	0.52	0.41	0.66	0.43	0.58	0.32	0.67	0.42	0.62	0.29	0.63	0.51
6	0.68	0.37	0.57	0.34	0.36	0.38	0.66	0.48	0.61	0.37	0.67	0.41	0.65	0.27
7	0.69	0.39	0.71	0.44	0.64	0.40	0.79	0.55	0.55	0.43	0.63	0.40	0.85	0.42
8	0.60	0.43	0.59	0.36	0.58	0.34	0.53	0.42	0.70	0.36	0.61	0.33	0.72	0.35
9	0.69	0.51	0.53	0.50	0.43	0.38	0.58	0.44	0.38	0.38	0.60	0.36	0.70	0.48
10	0.61	0.48	0.75	0.50	0.31	0.39	0.75	0.35	0.76	0.38	0.75	0.32	0.67	0.45
11	0.68	0.41	0.86	0.52	0.63	0.59	0.67	0.56	0.78	0.42	0.64	0.49	0.62	0.34
12	0.77	0.37	0.63	0.42	0.63	0.39	0.61	0.47	0.80	0.41	0.66	0.41	0.53	0.41
13	0.72	0.40	0.87	0.52	0.62	0.48	0.71	0.45	0.79	0.37	0.55	0.41	0.63	0.40
14	0.61	0.34	0.89	0.43	0.80	0.44	0.66	0.41	0.70	0.37	0.71	0.44	0.71	0.50
15	0.88	0.39	0.72	0.32	0.43	0.51	0.47	0.45	0.72	0.54	0.61	0.34	0.73	0.47
16	0.66	0.30	0.79	0.36	0.40	0.28	0.63	0.52	0.67	0.46	0.53	0.36	0.62	0.47
17	0.69	0.45	0.69	0.46	0.57	0.52	0.69	0.45	0.60	0.27	0.50	0.47	0.87	0.51
18	0.82	0.36	0.76	0.43	0.43	0.27	0.61	0.35	0.63	0.32	0.55	0.35	0.60	0.42
19	0.76	0.33	0.85	0.49	0.58	0.51	0.35	0.35	0.81	0.45	0.79	0.46	0.61	0.50
20	0.76	0.51	0.57	0.35	0.58	0.43	0.69	0.40	0.61	0.48	0.68	0.55	0.58	0.35
21	0.70	0.47	0.80	0.48	0.82	0.43	0.87	0.47	0.72	0.44	0.51	0.48	0.64	0.50
22	0.70	0.33	0.78	0.49	0.77	0.52	0.54	0.48	0.74	0.34	0.43	0.40	0.60	0.46

Item-by-item *p*-value and Point-Biserial for Science														
CSTs	**Grade 5 Science**		**Grade 8 Science**		**Grade 10 Life Science**		**Biology**		**Chemistry**		**Earth Science**		**Physics**	
Items	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
23	0.80	0.43	0.84	0.40	0.78	0.48	0.69	0.55	0.61	0.39	0.53	0.44	0.68	0.50
24	0.68	0.33	0.71	0.43	0.63	0.47	0.72	0.45	0.68	0.47	0.62	0.37	0.58	0.38
25	0.47	0.29	0.81	0.53	0.62	0.46	0.47	0.43	0.68	0.47	0.62	0.38	0.61	0.41
26	0.61	0.34	0.80	0.48	0.61	0.35	0.70	0.54	0.48	0.28	0.72	0.40	0.65	0.35
27	0.84	0.40	0.77	0.49	0.49	0.40	0.36	0.49	0.68	0.43	0.63	0.44	0.70	0.49
28	0.60	0.35	0.72	0.52	0.80	0.42	0.48	0.38	0.62	0.40	0.56	0.26	0.58	0.41
29	0.67	0.49	0.52	0.44	0.75	0.51	0.58	0.36	0.70	0.40	0.57	0.41	0.66	0.46
30	0.74	0.39	0.67	0.50	0.64	0.37	0.54	0.42	0.47	0.33	0.59	0.44	0.44	0.44
31	0.83	0.45	0.85	0.47	0.82	0.51	0.77	0.50	0.70	0.58	0.49	0.41	0.67	0.44
32	0.84	0.34	0.70	0.40	0.49	0.49	0.67	0.49	0.66	0.35	0.45	0.24	0.81	0.40
33	0.80	0.52	0.75	0.36	0.84	0.52	0.50	0.31	0.48	0.29	0.49	0.43	0.73	0.43
34	0.52	0.37	0.69	0.56	0.64	0.46	0.63	0.41	0.51	0.30	0.58	0.40	0.32	0.36
35	0.73	0.46	0.36	0.30	0.71	0.54	0.69	0.58	0.68	0.46	0.60	0.42	0.64	0.44
36	0.71	0.51	0.79	0.51	0.67	0.42	0.61	0.31	0.72	0.41	0.71	0.48	0.64	0.31
37	0.81	0.50	0.72	0.47	0.68	0.59	0.70	0.48	0.75	0.49	0.62	0.53	0.68	0.55
38	0.79	0.44	0.87	0.51	0.80	0.49	0.65	0.48	0.69	0.46	0.63	0.38	0.79	0.50
39	0.73	0.54	0.75	0.43	0.55	0.39	0.63	0.52	0.47	0.42	0.66	0.49	0.51	0.35
40	0.72	0.48	0.81	0.50	0.64	0.36	0.73	0.48	0.60	0.50	0.61	0.43	0.55	0.39
41	0.51	0.39	0.88	0.43	0.75	0.57	0.54	0.50	0.65	0.38	0.49	0.42	0.57	0.34
42	0.62	0.43	0.57	0.41	0.37	0.28	0.55	0.40	0.55	0.47	0.62	0.46	0.65	0.52
43	0.58	0.41	0.73	0.45	0.85	0.50	0.73	0.54	0.66	0.34	0.47	0.34	0.62	0.36
44	0.70	0.43	0.52	0.35	0.60	0.42	0.50	0.47	0.64	0.53	0.62	0.46	0.69	0.45
45	0.46	0.30	0.71	0.46	0.76	0.53	0.68	0.42	0.59	0.41	0.74	0.48	0.55	0.59
46	0.78	0.40	0.73	0.57	0.67	0.50	0.78	0.51	0.62	0.48	0.45	0.27	0.37	0.25
47	0.82	0.49	0.65	0.47	0.75	0.56	0.71	0.57	0.52	0.38	0.49	0.40	0.65	0.32
48	0.80	0.48	0.83	0.47	0.44	0.34	0.80	0.53	0.39	0.48	0.62	0.44	0.52	0.52
49	0.70	0.42	0.88	0.41	0.64	0.36	0.77	0.53	0.65	0.43	0.64	0.48	0.57	0.32
50	0.58	0.30	0.63	0.39	0.41	0.38	0.47	0.36	0.58	0.37	0.65	0.52	0.69	0.54
51	0.63	0.50	0.55	0.41	0.73	0.50	0.69	0.49	0.62	0.60	0.75	0.52	0.79	0.48
52	0.87	0.47	0.85	0.51	0.83	0.52	0.79	0.49	0.38	0.25	0.45	0.30	0.61	0.43
53	0.73	0.42	0.64	0.43	0.81	0.56	0.80	0.47	0.70	0.47	0.42	0.27	0.42	0.31
54	0.79	0.52	0.80	0.41	0.77	0.56	0.69	0.53	0.70	0.49	0.77	0.47	0.54	0.34
55	0.75	0.44	0.49	0.38	0.75	0.47	0.48	0.27	0.71	0.54	0.66	0.44	0.77	0.43
56	0.69	0.44	0.60	0.36	0.72	0.55	0.77	0.57	0.62	0.51	0.55	0.42	0.62	0.27
57	0.63	0.41	0.74	0.41	0.65	0.48	0.65	0.51	0.36	0.48	0.60	0.44	0.46	0.36
58	0.82	0.49	0.75	0.44	0.65	0.56	0.51	0.39	0.70	0.53	0.57	0.38	0.63	0.35
59	0.68	0.54	0.61	0.45	0.73	0.48	0.71	0.57	0.73	0.47	0.65	0.55	0.51	0.43
60	0.52	0.39	0.72	0.41	0.78	0.52	0.66	0.44	0.76	0.45	0.67	0.37	0.71	0.36

Table 8.A.6 Item-by-item *p*-value and Point-Biserial for Science [continued]

Item-by-item *p*-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	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.59	0.36	0.85	0.39	0.66	0.50	0.43	0.11
2	0.60	0.38	0.69	0.33	0.74	0.34	0.26	0.15
3	0.64	0.43	0.71	0.45	0.69	0.50	0.22	0.17
4	0.57	0.43	0.53	0.49	0.45	0.46	0.55	0.15
5	0.69	0.46	0.64	0.38	0.65	0.46	0.58	0.48
6	0.49	0.39	0.46	0.42	0.71	0.50	0.34	0.11
7	0.48	0.32	0.54	0.31	0.47	0.45	0.22	0.00
8	0.41	0.38	0.54	0.35	0.33	0.34	0.48	0.41
9	0.57	0.46	0.49	0.28	0.46	0.39	0.26	0.16
10	0.56	0.28	0.46	0.47	0.53	0.41	0.25	0.14
11	0.38	0.22	0.51	0.45	0.61	0.47	0.31	0.32
12	0.58	0.26	0.47	0.47	0.67	0.42	0.35	0.23
13	0.37	0.27	0.58	0.44	0.26	0.18	0.38	0.08
14	0.47	0.27	0.48	0.40	0.39	0.41	0.54	0.43
15	0.44	0.30	0.70	0.49	0.49	0.36	0.48	0.41
16	0.16	0.08	0.72	0.46	0.39	0.30	0.57	0.25
17	0.29	0.30	0.51	0.38	0.47	0.38	0.55	0.32

Item-by-item *p*-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	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
18	0.76	0.40	0.48	0.42	0.39	0.42	0.42	0.17
19	0.56	0.32	0.55	0.47	0.49	0.46	0.52	0.40
20	0.66	0.44	0.58	0.40	0.40	0.34	0.48	0.40
21	0.69	0.45	0.58	0.54	0.58	0.42	0.55	0.29
22	0.64	0.40	0.65	0.48	0.65	0.43	0.38	0.32
23	0.60	0.42	0.37	0.34	0.71	0.49	0.28	0.32
24	0.53	0.37	0.55	0.29	0.51	0.37	0.32	0.08
25	0.55	0.43	0.42	0.40	0.65	0.52	0.28	0.22
26	0.47	0.40	0.55	0.46	0.45	0.38	0.22	0.15
27	0.53	0.29	0.42	0.29	0.61	0.44	0.31	0.35
28	0.27	0.18	0.65	0.52	0.45	0.39	0.32	0.44
29	0.54	0.40	0.39	0.31	0.36	0.21	0.23	0.37
30	0.48	0.21	0.46	0.43	0.39	0.31	0.49	0.53
31	0.38	0.41	0.45	0.32	0.36	0.36	0.54	0.54
32	0.46	0.32	0.61	0.47	0.39	0.22	0.63	0.46
33	0.54	0.29	0.60	0.55	0.51	0.30	0.48	0.23
34	0.67	0.50	0.56	0.48	0.52	0.51	0.55	0.32
35	0.63	0.40	0.49	0.39	0.49	0.44	0.45	0.50
36	0.25	0.20	0.44	0.23	0.44	0.40	0.42	0.22
37	0.59	0.55	0.47	0.40	0.57	0.52	0.45	0.55
38	0.43	0.35	0.23	0.34	0.65	0.56	0.35	0.31
39	0.34	0.34	0.56	0.45	0.40	0.39	0.26	0.16
40	0.59	0.47	0.52	0.36	0.26	0.48	0.38	0.43
41	0.36	0.05	0.47	0.42	0.49	0.45	0.32	0.10
42	0.34	0.23	0.62	0.45	0.18	0.25	0.28	0.28
43	0.54	0.39	0.61	0.43	0.43	0.34	0.35	0.11
44	0.47	0.40	0.54	0.42	0.33	0.37	0.31	0.13
45	0.47	0.30	0.57	0.48	0.38	0.25	0.51	0.42
46	0.73	0.46	0.65	0.46	0.46	0.32	0.29	0.16
47	0.60	0.44	0.53	0.42	0.45	0.43	0.32	0.22
48	0.56	0.32	0.57	0.48	0.20	0.21	0.37	0.36
49	0.72	0.48	0.63	0.55	0.41	0.31	0.38	0.20
50	0.49	0.43	0.39	0.38	0.44	0.40	0.49	0.36
51	0.77	0.47	0.33	0.44	0.46	0.41	0.26	0.19
52	0.50	0.34	0.35	0.31	0.30	0.35	0.17	0.14
53	0.34	0.25	0.34	0.39	0.46	0.32	0.28	0.46
54	0.52	0.42	0.27	0.25	0.60	0.46	0.26	-.12
55	0.63	0.37	0.33	0.35	0.53	0.41	0.26	0.28
56	0.42	0.35	0.49	0.38	0.42	0.18	0.20	0.06
57	0.55	0.40	0.53	0.38	0.36	0.22	0.28	0.05
58	0.55	0.43	0.43	0.39	0.24	0.03	0.28	0.13
59	0.51	0.30	0.55	0.41	0.29	0.20	0.29	0.12
60	0.44	0.38	0.41	0.34	0.38	0.30	0.29	0.22

Table 8.A.7 Item-by-item *p*-value and Point-Biserial for Grade-specific CSTs

Item-by-item *p*-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	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
1	0.90	0.37	0.81	0.44	0.89	0.34	0.84	0.36	0.75	0.46
2	0.53	0.49	0.85	0.39	0.67	0.47	0.69	0.47	0.74	0.43
3	0.62	0.45	0.73	0.30	0.87	0.29	0.63	0.30	0.66	0.42
4	0.66	0.36	0.62	0.46	0.28	0.36	0.77	0.39	0.74	0.29
5	0.67	0.46	0.86	0.34	0.76	0.48	0.65	0.51	0.46	0.34
6	0.76	0.46	0.57	0.34	0.47	0.46	0.64	0.53	0.60	0.38
7	0.76	0.39	0.70	0.28	0.40	0.23	0.88	0.34	0.63	0.43
8	0.52	0.35	0.68	0.43	0.76	0.40	0.81	0.47	0.87	0.42
9	0.45	0.42	0.77	0.47	0.70	0.46	0.83	0.40	0.82	0.38
10	0.68	0.42	0.58	0.41	0.70	0.55	0.80	0.30	0.37	0.34
11	0.67	0.47	0.54	0.37	0.65	0.44	0.49	0.44	0.59	0.24
12	0.65	0.43	0.51	0.32	0.42	0.38	0.83	0.39	0.68	0.48

Item-by-item *p*-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	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**	***p*-value**	**Pt-Bis**
13	0.74	0.36	0.35	0.25	0.64	0.43	0.61	0.39	0.74	0.54
14	0.59	0.32	0.61	0.53	0.76	0.50	0.73	0.50	0.84	0.47
15	0.39	0.42	0.70	0.40	0.39	0.36	0.78	0.42	0.48	0.37
16	0.64	0.39	0.79	0.50	0.87	0.28	0.70	0.51	0.56	0.44
17	0.92	0.19	0.73	0.31	0.89	0.33	0.81	0.44	0.66	0.49
18	0.59	0.58	0.71	0.52	0.75	0.50	0.90	0.27	0.69	0.42
19	0.47	0.38	0.51	0.31	0.69	0.44	0.55	0.34	0.73	0.49
20	0.47	0.41	0.70	0.43	0.58	0.29	0.60	0.34	0.76	0.56
21	0.48	0.47	0.54	0.45	0.52	0.32	0.75	0.45	0.63	0.42
22	0.60	0.43	0.55	0.50	0.51	0.39	0.88	0.38	0.67	0.32
23	0.66	0.35	0.83	0.41	0.52	0.34	0.72	0.50	0.58	0.35
24	0.65	0.30	0.76	0.48	0.51	0.51	0.39	0.32	0.78	0.49
25	0.53	0.43	0.74	0.44	0.35	0.27	0.78	0.37	0.59	0.45
26	0.53	0.42	0.75	0.38	0.52	0.54	0.76	0.26	0.61	0.55
27	0.63	0.52	0.72	0.42	0.46	0.33	0.56	0.48	0.62	0.38
28	0.54	0.47	0.72	0.55	0.79	0.40	0.76	0.46	0.55	0.49
29	0.65	0.39	0.47	0.49	0.38	0.36	0.80	0.48	0.65	0.40
30	0.40	0.36	0.61	0.42	0.64	0.42	0.71	0.46	0.69	0.44
31	0.65	0.49	0.48	0.43	0.61	0.44	0.52	0.27	0.77	0.48
32	0.47	0.45	0.58	0.33	0.54	0.41	0.76	0.50	0.64	0.48
33	0.49	0.35	0.83	0.51	0.61	0.49	0.83	0.49	0.67	0.46
34	0.55	0.35	0.24	0.37	0.38	0.44	0.82	0.49	0.68	0.41
35	0.62	0.50	0.39	0.33	0.73	0.40	0.73	0.29	0.49	0.39
36	0.46	0.39	0.86	0.34	0.51	0.27	0.80	0.44	0.60	0.24
37	0.60	0.38	0.73	0.41	0.73	0.32	0.81	0.35	0.69	0.59
38	0.62	0.47	0.33	0.45	0.67	0.48	0.75	0.52	0.67	0.52
39	0.47	0.53	0.65	0.35	0.55	0.49	0.69	0.48	0.45	0.35
40	0.65	0.43	0.31	0.29	0.71	0.35	0.70	0.49	0.63	0.50
41	0.75	0.46	0.81	0.46	0.60	0.42	0.72	0.47	0.53	0.35
42	0.50	0.46	0.71	0.57	0.46	0.43	0.87	0.34	0.80	0.41
43	0.54	0.51	0.61	0.42	0.71	0.46	0.68	0.39	0.65	0.44
44	0.69	0.54	0.67	0.38	0.48	0.51	0.82	0.49	0.68	0.46
45	0.33	0.23	0.52	0.42	0.69	0.41	0.68	0.42	0.65	0.51
46	0.63	0.47	0.49	0.42	0.74	0.47	0.85	0.39	0.64	0.43
47	0.60	0.49	0.57	0.47	0.68	0.50	0.58	0.44	0.58	0.41
48	0.73	0.44	0.75	0.45	0.53	0.35	0.74	0.46	0.53	0.42
49	0.47	0.55	0.65	0.43	0.72	0.39	0.82	0.44	0.69	0.40
50	0.77	0.36	0.74	0.44	0.62	0.44	0.68	0.43	0.77	0.55
51	0.42	0.49	0.64	0.47	0.64	0.37	0.71	0.54	0.64	0.48
52	0.65	0.57	0.72	0.48	0.71	0.37	0.71	0.50	0.68	0.46
53	0.38	0.30	0.65	0.42	0.26	0.36	0.80	0.46	0.57	0.44
54	0.56	0.48	0.49	0.28	0.50	0.40	0.73	0.49	0.56	0.34
55	0.53	0.31	0.67	0.31	0.70	0.27	0.51	0.48	0.71	0.59
56	0.51	0.48	0.67	0.42	0.55	0.40	0.71	0.44	0.40	0.35
57	0.43	0.52	0.88	0.46	0.37	0.29	0.69	0.50	0.51	0.35
58	0.49	0.34	0.72	0.43	0.54	0.37	0.72	0.48	0.66	0.44
59	0.51	0.47	0.59	0.45	0.59	0.34	0.63	0.30	0.62	0.54
60	0.36	0.35	0.41	0.38	0.33	0.39	0.50	0.40	0.81	0.47
61	0.30	0.30	0.66	0.54	0.59	0.36	0.53	0.39	.	.
62	0.59	0.44	0.64	0.39	0.31	0.30	0.64	0.47	.	.
63	0.53	0.32	0.65	0.50	0.48	0.26	0.50	0.34	.	.
64	0.62	0.52	0.62	0.40	0.74	0.31	0.80	0.44	.	.
65	0.56	0.42	0.82	0.47	0.75	0.44	0.62	0.43	.	.

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	0.19	0.07	0.12	0.09	0.00	0.08	0.01	0.07	0.12
2	1.12	0.43	0.70	0.39	0.01	0.71	0.01	0.14	0.99
4	11.96	4.77	7.18	5.28	0.23	5.81	0.64	2.14	9.82
6	56.23	27.34	28.89	29.99	2.17	17.00	7.07	18.35	37.88
8	30.50	17.55	12.95	20.04	2.14	3.49	4.83	17.73	12.77
Total*	100.0	50.16	49.84	55.79	4.55	27.09	12.57	38.42	61.58

Score	No Spec. Services	Spec. Services	American Indian	Asian	Pacific Islander	Filipino	Hispanic	African American	White
0	0.17	0.02	0.00	0.03	0.00	0.00	0.10	0.01	0.05
2	0.96	0.15	0.01	0.06	0.01	0.01	0.82	0.10	0.14
4	10.88	1.00	0.10	0.52	0.06	0.16	8.38	0.97	1.88
6	53.35	2.59	0.36	4.12	0.33	1.37	33.37	3.71	13.12
8	29.48	0.94	0.15	4.73	0.17	1.17	11.30	1.48	11.20
Total*	94.84	4.71	0.62	9.46	0.58	2.71	53.97	6.26	26.40

* Note: The marginal percentage for each subgroup is the percentage of examinees in that subgroup who obtained 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	0.21	0.08	0.13	0.11	0.01	0.08	0.02	0.07	0.14
2	0.13	0.04	0.09	0.03	0.00	0.08	0.00	0.02	0.10
4	6.19	1.82	4.38	2.80	0.23	2.45	0.71	1.30	4.89
6	40.37	17.80	22.57	20.84	2.55	8.14	8.83	12.19	28.17
8	53.11	30.27	22.83	32.40	5.05	3.46	12.21	27.26	25.85
Total*	100.0	50.00	50.00	56.18	7.83	14.22	21.76	40.84	59.16

Score	No Spec. Services	Spec. Services	American Indian	Asian	Pacific Islander	Filipino	Hispanic	African American	White
0	0.18	0.03	0.00	0.03	0.00	0.00	0.11	0.01	0.05
2	0.10	0.02	0.00	0.02	0.00	0.00	0.08	0.01	0.02
4	5.42	0.75	0.06	0.33	0.03	0.11	4.06	0.55	1.09
6	38.16	2.09	0.30	2.31	0.25	0.93	24.78	3.03	8.94
8	51.79	1.20	0.29	6.49	0.31	2.00	23.47	2.96	17.37
Total*	95.64	4.09	0.65	9.18	0.59	3.04	52.50	6.56	27.48

* Note: The marginal percentage for each subgroup is the percentage of examinees in that subgroup who obtained 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
413,458	6.31	207,364	6.47	206,069	6.16	230,508	6.49	18,796	6.83	111,938	5.71	51,939	6.66	158,751	6.79	254,442	6.02

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	N	Mean
392,119	6.34	19,456	5.82	2,492	6.09	38,051	6.85	2,323	6.35	10,912	6.72	217,188	6.04	25,209	6.09	106,224	6.67

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
415,706	6.92	207,855	7.13	207,819	6.72	233,337	7.04	32,541	7.22	59,062	6.09	90,393	7.05	169,674	7.26	245,756	6.69

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	N	Mean
397,594	6.95	16,990	6.16	2,637	6.69	37,244	7.32	2,405	6.95	12,345	7.24	213,058	6.72	26,621	6.72	111,503	7.17

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	–0.23	0.59	0.39	–0.26	0.59	–0.13	0.84	0.15	–0.74

	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	0.45	–0.13	0.25	–0.03	0.48	0.45	–0.58	–0.19	–0.49	0.04	0.00
	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	0.10	0.61	0.57	–0.30	0.23	0.19	0.51	0.47	–0.04	

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	–0.33	0.46	0.63	–0.15	0.76	–0.01	0.88	0.15	–0.78

	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	0.41	–0.12	0.19	–0.05	0.36	0.38	–0.53	–0.20	–0.47	–0.02	–0.02
	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	0.31	0.07	0.47	0.49	–0.25	0.17	0.18	0.40	0.41	0.00	

Appendix 8.B—Reliability Analyses

The reliabilities are reported only for samples that are comprised of 11 or more examinees. Also, in some cases in Appendix 8.B, score reliabilities were not estimable and are presented in the tables as hyphens.

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	1.83
2. Reading Comprehension	15	0.76	1.00	.	.	.	0.79	1.62
3. Literary Response and Analysis	6	0.70	0.70	1.00	.	.	0.66	0.96
4. Written and Oral Language Conventions	14	0.81	0.74	0.67	1.00	.	0.82	1.47
5. Writing Strategies	8	0.73	0.72	0.64	0.74	1.00	0.73	1.16
Grade 3		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	20	1.00	.	.	.	.	0.83	1.71
2. Reading Comprehension	15	0.76	1.00	.	.	.	0.77	1.55
3. Literary Response and Analysis	8	0.72	0.73	1.00	.	.	0.70	1.13
4. Written and Oral Language Conventions	13	0.73	0.68	0.63	1.00	.	0.72	1.50
5. Writing Strategies	9	0.70	0.69	0.65	0.67	1.00	0.67	1.28
Grade 4		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	18	1.00	.	.	.	.	0.84	1.55
2. Reading Comprehension	15	0.75	1.00	.	.	.	0.77	1.59
3. Literary Response and Analysis	9	0.65	0.66	1.00	.	.	0.65	1.29
4. Written and Oral Language Conventions	18	0.77	0.72	0.63	1.00	.	0.79	1.75
5. Writing Strategies	15	0.72	0.73	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	.	.	.	.	0.73	1.51
2. Reading Comprehension	16	0.74	1.00	.	.	.	0.81	1.56
3. Literary Response and Analysis	12	0.69	0.72	1.00	.	.	0.71	1.44
4. Written and Oral Language Conventions	17	0.68	0.70	0.65	1.00	.	0.75	1.62
5. Writing Strategies	16	0.69	0.74	0.69	0.72	1.00	0.77	1.66
Grade 6		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	13	1.00	.	.	.	.	0.74	1.43
2. Reading Comprehension	17	0.73	1.00	.	.	.	0.77	1.76
3. Literary Response and Analysis	12	0.72	0.72	1.00	.	.	0.70	1.43
4. Written and Oral Language Conventions	16	0.68	0.66	0.64	1.00	.	0.73	1.60
5. Writing Strategies	17	0.74	0.76	0.72	0.70	1.00	0.80	1.74
Grade 7		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	11	1.00	.	.	.	.	0.71	1.26
2. Reading Comprehension	18	0.72	1.00	.	.	.	0.77	1.67
3. Literary Response and Analysis	13	0.69	0.72	1.00	.	.	0.74	1.53
4. Written and Oral Language Conventions	16	0.67	0.66	0.64	1.00	.	0.73	1.60
5. Writing Strategies	17	0.70	0.73	0.71	0.70	1.00	0.79	1.75

Subscore Reliabilities and Intercorrelations for ELA								
Subscore Area	**N of Items**	**Intercorrelation**					**Reliab.**	**SEM**
Grade 8		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	9	1.00	.	.	.	.	0.62	1.22
2. Reading Comprehension	18	0.67	1.00	.	.	.	0.78	1.73
3. Literary Response and Analysis	15	0.67	0.74	1.00	.	.	0.77	1.61
4. Written and Oral Language Conventions	16	0.65	0.71	0.71	1.00	.	0.77	1.66
5. Writing Strategies	17	0.65	0.73	0.75	0.77	1.00	0.80	1.78
Grade 9		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.61	1.22
2. Reading Comprehension	18	0.66	1.00	.	.	.	0.81	1.72
3. Literary Response and Analysis	16	0.66	0.77	1.00	.	.	0.78	1.63
4. Written and Oral Language Conventions	13	0.61	0.68	0.66	1.00	.	0.70	1.56
5. Writing Strategies	20	0.67	0.76	0.74	0.72	1.00	0.79	1.92
Grade 10		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.61	1.17
2. Reading Comprehension	18	0.67	1.00	.	.	.	0.82	1.74
3. Literary Response and Analysis	16	0.66	0.75	1.00	.	.	0.73	1.70
4. Written and Oral Language Conventions	13	0.64	0.72	0.68	1.00	.	0.74	1.47
5. Writing Strategies	20	0.69	0.78	0.75	0.77	1.00	0.83	1.87
Grade 11		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.65	1.14
2. Reading Comprehension	19	0.69	1.00	.	.	.	0.81	1.84
3. Literary Response and Analysis	17	0.66	0.77	1.00	.	.	0.74	1.77
4. Written and Oral Language Conventions	9	0.62	0.66	0.63	1.00	.	0.66	1.19
5. Writing Strategies	22	0.68	0.76	0.72	0.72	1.00	0.82	2.01

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	1.73
2. Late Antiquity and the Middle Ages	14	0.71	1.00	.	.	.	0.75	1.60
3. Renaissance/Reformation	10	0.67	0.71	1.00	.	.	0.69	1.32
4. U.S. Constitution and the Early Republic	22	0.72	0.75	0.72	1.00	.	0.83	1.99
5. Civil War and Its Aftermath	13	0.68	0.71	0.69	0.79	1.00	0.79	1.49
World History		**1**	**2**	**3**	**4**	**5**		
1. Development of Modern Political Thought	13	1.00	.	.	.	.	0.72	1.50
2. Industrial Expansion and Imperialism	10	0.68	1.00	.	.	.	0.69	1.33
3. Causes and Effects of World War I	14	0.69	0.70	1.00	.	.	0.78	1.59
4. Causes and Effects of World War II	13	0.67	0.68	0.75	1.00	.	0.76	1.53
5. International Developments in the Post-World War II Era	10	0.65	0.65	0.70	0.71	1.00	0.72	1.34
Grade 11 (U.S. History)		**1**	**2**	**3**	**4**	**5**		
1. Foundations of American Political and Social Thought	10	1.00	.	.	.	.	0.66	1.34
2. Industrialization and the U.S. role as a World Power	13	0.68	1.00	.	.	.	0.75	1.51
3. United States between the World Wars	12	0.65	0.72	1.00	.	.	0.71	1.48
4. World War II and Foreign Affairs	12	0.64	0.70	0.68	1.00	.	0.73	1.46
5. Post-World War II Domestic Affairs	13	0.66	0.71	0.70	0.70	1.00	0.73	1.56

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	1.45
2. Number Sense: Multiplication, Division, and Fractions	23	0.80	1.00	.	.	.	.	0.86	1.74
3. Algebra and Functions	6	0.66	0.67	1.00	.	.	.	0.59	0.87
4. Measurement and Geometry	14	0.68	0.73	0.58	1.00	.	.	0.71	1.34
5. Statistics, Data Analysis, and Probability	7	0.68	0.71	0.58	0.64	1.00	.	0.63	0.95
Grade 3		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Place Value, Fractions, and Decimals	16	1.00	.	.	.	.	.	0.78	1.40
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.78	1.00	.	.	.	.	0.85	1.44
3. Algebra and Functions	12	0.73	0.75	1.00	.	.	.	0.78	1.16
4. Measurement and Geometry	16	0.70	0.69	0.67	1.00	.	.	0.74	1.38
5. Statistics, Data Analysis, and Probability	5	0.52	0.51	0.52	0.53	1.00	.	0.54	0.67
Grade 4		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	1.00	.	.	.	.	.	0.79	1.34
2. Number Sense: Operations, and Factoring	14	0.74	1.00	.	.	.	.	0.84	1.26
3. Algebra and Functions	18	0.76	0.79	1.00	.	.	.	0.86	1.38
4. Measurement and Geometry	12	0.68	0.68	0.72	1.00	.	.	0.75	1.31
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	.	.	.	.	.	0.75	1.37
2. Number Sense: Operations with Fractions and Decimals	17	0.73	1.00	.	.	.	.	0.83	1.63
3. Algebra and Functions	17	0.71	0.76	1.00	.	.	.	0.82	1.55
4. Measurement and Geometry	15	0.71	0.75	0.75	1.00	.	.	0.80	1.53
5. Statistics, Data Analysis, and Probability	4	0.52	0.55	0.60	0.57	1.00	.	0.54	0.68
Grade 6		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	1.00	.	.	.	.	.	0.78	1.60
2. Number Sense: Operations and Problem Solving with Fractions	10	0.72	1.00	.	.	.	.	0.72	1.28
3. Algebra and Functions	19	0.75	0.73	1.00	.	.	.	0.84	1.65
4. Measurement and Geometry	10	0.68	0.63	0.68	1.00	.	.	0.69	1.35
5. Statistics, Data Analysis, and Probability	11	0.69	0.66	0.72	0.64	1.00	.	0.75	1.34

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	.	.	.	.	.	0.79	1.59
2. Number Sense: Exponent, Powers and Roots	8	0.68	1.00	.	.	.	.	0.68	1.20
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.67	0.65	1.00	.	.	.	0.67	1.36
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.75	0.65	0.71	1.00	.	.	0.79	1.60
5. Measurement and Geometry	13	0.69	0.61	0.66	0.73	1.00	.	0.73	1.53
6. Statistics, Data Analysis, and Probability	5	0.54	0.51	0.55	0.58	0.57	1.00	0.56	0.89
General Mathematics		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Rational Numbers	14	1.00	.	.	.	.	.	0.69	1.69
2. Number Sense: Exponent, Powers and Roots	10	0.62	1.00	.	.	.	.	0.70	1.40
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.60	0.58	1.00	.	.	.	0.61	1.50
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.61	0.57	0.60	1.00	.	.	0.64	1.40
5. Measurement and Geometry	11	0.60	0.57	0.56	0.62	1.00	.	0.66	1.51
6. Statistics, Data Analysis, and Probability	9	0.53	0.49	0.55	0.56	0.56	1.00	0.66	1.29
Algebra I		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Properties, Operations, and Linear Equations	17	1.00	.	.	.	.	.	0.76	1.78
2. Graphing and Systems of Linear Equations	14	0.69	1.00	.	.	.	.	0.75	1.67
3. Quadratics and Polynomials	21	0.74	0.74	1.00	.	.	.	0.83	2.01
4. Functions and Rational Expressions	13	0.64	0.65	0.72	1.00	.	.	0.70	1.62
Geometry		**1**	**2**	**3**	**4**	**5**	**6**		
1. Logic and Geometric Proofs	23	1.00	.	.	.	.	.	0.82	2.09
2. Volume and Area Formulas	11	0.74	1.00	.	.	.	.	0.73	1.41
3. Angle Relationships, Constructions, and Lines	16	0.77	0.72	1.00	.	.	.	0.77	1.73
4. Trigonometry	15	0.74	0.69	0.74	1.00	.	.	0.78	1.68
Algebra II		**1**	**2**	**3**	**4**	**5**	**6**		
1. Polynomials and Rational Expressions	19	1.00	.	.	.	.	.	0.81	1.78
2. Quadratics, Conics, and Complex Numbers	16	0.71	1.00	.	.	.	.	0.75	1.79
3. Exponents and Logarithms	16	0.72	0.69	1.00	.	.	.	0.79	1.75
4. Series, Combinatorics, and Probability and Statistics	14	0.64	0.64	0.63	1.00	.	.	0.68	1.66
Summative High School Mathematics		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I	18	1.00	.	.	.	.	.	0.79	1.60
2. Geometry	19	0.73	1.00	.	.	.	.	0.78	1.71
3. Algebra II	23	0.79	0.75	1.00	.	.	.	0.85	1.87
4. Probability and Statistics	5	0.56	0.57	0.59	1.00	.	.	0.56	0.94
Integrated Mathematics 1		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I: Number Properties, Operations and Linear Equations	15	1.00	.	.	.	.	.	0.67	1.71
2. Algebra I: Graphing	9	0.51	1.00	.	.	.	.	0.57	1.37
3. Algebra I: Quadratics and Polynomials	14	0.56	0.52	1.00	.	.	.	0.63	1.68
4. Algebra I: Functions and Relations Expressions	7	0.40	0.39	0.49	1.00	.	.	0.47	1.18
5. Geometry	20	0.43	0.37	0.42	0.29	1.00	.	0.54	2.02

Subscore Reliabilities and Intercorrelations for Mathematics									
Subscore Area	**N of Items**	**Intercorrelation**						**Reliab.**	**SEM**
Integrated Mathematics 2		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I	20	1.00	.	.	.	.	.	0.74	2.05
2. Geometry: Logic and Geometric Proofs	22	0.67	1.00	.	.	.	.	0.74	2.13
3. Geometry: Angle Relationships, Construction, and Lines	8	0.54	0.61	1.00	.	.	.	0.54	1.21
4. Trigonometry	10	0.58	0.60	0.53	1.00	.	.	0.65	1.41
5. Algebra II: Probability and Statistics	5	0.38	0.38	0.31	0.34	1.00	.	0.37	0.97
Integrated Mathematics 3		**1**	**2**	**3**	**4**	**5**	**6**		
1. Geometry	5	1.00	.	.	.	.	.	0.48	0.97
2. Algebra II: Polynomials and Relations Expressions	19	0.48	1.00	.	.	.	.	0.82	1.83
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	0.40	0.66	1.00	.	.	.	0.69	1.82
4. Algebra II: Exponents and Logarithms	16	0.42	0.73	0.65	1.00	.	.	0.78	1.79
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.36	0.54	0.50	0.55	1.00	.	0.46	1.35

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	.	.	.	.	.	0.70	1.29
2. Physical Science (Grade 4)	8	0.61	1.00	.	.	.	.	0.63	1.16
3. Life Science (Grade 5)	13	0.68	0.61	1.00	.	.	.	0.70	1.48
4. Life Science (Grade 4)	9	0.65	0.60	0.67	1.00	.	.	0.66	1.19
5. Earth Science (Grade 5)	11	0.63	0.57	0.66	0.63	1.00	.	0.66	1.34
6. Earth Science (Grade 4)	8	0.63	0.58	0.66	0.64	0.64	1.00	0.65	1.19
Grade 8 Science		**1**	**2**	**3**	**4**	**5**	**6**		
1. Motion	8	1.00	.	.	.	.	.	0.55	1.19
2. Forces, Density, and Buoyancy	13	0.61	1.00	.	.	.	.	0.74	1.40
3. Structure of Matter and Periodic Table	16	0.60	0.73	1.00	.	.	.	0.80	1.56
4. Earth in the Solar System	7	0.50	0.62	0.65	1.00	.	.	0.60	1.01
5. Reactions and the Chemistry of Living Systems	10	0.56	0.67	0.70	0.60	1.00	.	0.67	1.32
6. Investigation and Experimentation	6	0.57	0.68	0.68	0.55	0.64	1.00	0.64	0.90
Grade 10 Life Science		**1**	**2**	**3**	**4**	**5**	**6**		
1. Cell Biology	10	1.00	.	.	.	.	.	0.66	1.36
2. Genetics	12	0.66	1.00	.	.	.	.	0.76	1.45
3. Physiology	10	0.61	0.64	1.00	.	.	.	0.68	1.30
4. Ecology	11	0.62	0.65	0.68	1.00	.	.	0.74	1.32
5. Evolution	11	0.62	0.68	0.67	0.72	1.00	.	0.74	1.36
6. Investigation and Experimentation	6	0.53	0.61	0.62	0.67	0.70	1.00	0.75	0.86
Biology		**1**	**2**	**3**	**4**	**5**	**6**		
1. Cell Biology	9	1.00	.	.	.	.	.	0.62	1.28
2. Genetics	18	0.69	1.00	.	.	.	.	0.82	1.77
3. Ecology and Evolution	16	0.65	0.76	1.00	.	.	.	0.79	1.71
4. Physiology	11	0.59	0.69	0.73	1.00	.	.	0.73	1.33
5. Investigation and Experimentation	6	0.56	0.67	0.70	0.67	1.00	.	0.68	0.97

Subscore Reliabilities and Intercorrelations for Science									
Subscore Area	**N of Items**	**Intercorrelation**						**Reliab.**	**SEM**
Chemistry		**1**	**2**	**3**	**4**	**5**	**6**		
1. Atomic and Molecular Structure	8	1.00	.	.	.	.	.	0.60	1.26
2. Chemical Bonds, Biochemistry	9	0.55	1.00	.	.	.	.	0.62	1.23
3. Kinetics, Thermodynamics	14	0.61	0.63	1.00	.	.	.	0.73	1.62
4. Chemical Reactions	13	0.61	0.61	0.70	1.00	.	.	0.72	1.59
5. Conservation of Matter and Stoichiometry	10	0.58	0.57	0.66	0.65	1.00	.	0.76	1.31
6. Investigation and Experimentation	6	0.54	0.59	0.65	0.63	0.60	1.00	0.63	0.95
Earth Science		**1**	**2**	**3**	**4**	**5**	**6**		
1. Astronomy and Cosmology	12	1.00	.	.	.	.	.	0.71	1.52
2. Solid Earth	14	0.66	1.00	.	.	.	.	0.69	1.66
3. The Earth's Energy	28	0.74	0.73	1.00	.	.	.	0.83	2.35
4. Investigation and Experimentation	6	0.61	0.64	0.69	1.00	.	.	0.61	1.04
Physics		**1**	**2**	**3**	**4**	**5**	**6**		
1. Motion and Forces	12	1.00	.	.	.	.	.	0.71	1.46
2. Conservation of Energy and Momentum	12	0.72	1.00	.	.	.	.	0.73	1.47
3. Heat and Thermodynamics	9	0.67	0.68	1.00	.	.	.	0.70	1.23
4. Waves	10	0.62	0.64	0.61	1.00	.	.	0.65	1.39
5. Electric and Magnetic Phenomena	11	0.61	0.64	0.59	0.60	1.00	.	0.66	1.49
6. Investigation and Experimentation	6	0.57	0.59	0.59	0.52	0.51	1.00	0.53	1.05
Integrated/Coordinated Science 1		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	10	1.00	.	.	.	.	.	0.65	1.41
2. Chemistry	15	0.52	1.00	.	.	.	.	0.54	1.79
3. Earth Sciences	17	0.66	0.56	1.00	.	.	.	0.74	1.84
4. Physics	12	0.53	0.50	0.59	1.00	.	.	0.56	1.60
5. Investigation and Experimentation	6	0.60	0.51	0.64	0.54	1.00	.	0.59	1.06
Integrated/Coordinated Science 2		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	15	1.00	.	.	.	.	.	0.73	1.71
2. Chemistry	6	0.58	1.00	.	.	.	.	0.52	1.12
3. Earth Sciences	15	0.68	0.61	1.00	.	.	.	0.80	1.67
4. Physics	18	0.63	0.60	0.64	1.00	.	.	0.74	1.92
5. Investigation and Experimentation	6	0.59	0.55	0.64	0.60	1.00	.	0.58	1.07
Integrated/Coordinated Science 3		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	16	1.00	.	.	.	.	.	0.77	1.77
2. Chemistry	23	0.67	1.00	.	.	.	.	0.77	2.14
3. Earth Sciences	7	0.61	0.57	1.00	.	.	.	0.59	1.18
4. Physics	8	0.44	0.43	0.34	1.00	.	.	0.38	1.29
5. Investigation and Experimentation	6	0.64	0.54	0.59	0.36	1.00	.	0.59	1.06
Integrated/Coordinated Science 4		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	13	1.00	.	.	.	.	.	0.55	1.68
2. Chemistry	10	0.36	1.00	.	.	.	.	0.46	1.43
3. Earth Sciences	15	0.58	0.33	1.00	.	.	.	0.62	1.81
4. Physics	16	0.36	0.27	0.36	1.00	.	.	0.42	1.73
5. Investigation and Experimentation	6	0.20	0.12	0.09	0.20	1.00	.	0.48	1.07

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	.	.	.	.	.	0.76	1.72
2. Graphing and Systems of Linear Equations	14	0.69	1.00	.	.	.	.	0.76	1.65
3. Quadratics and Polynomials	21	0.74	0.74	1.00	.	.	.	0.84	1.98
4. Functions and Rational Expressions	13	0.66	0.66	0.73	1.00	.	.	0.72	1.62
Geometry – 9		**1**	**2**	**3**	**4**	**5**	**6**		
1. Logic and Geometric Proofs	23	1.00	.	.	.	.	.	0.80	2.02
2. Volume and Area Formulas	11	0.72	1.00	.	.	.	.	0.72	1.35
3. Angle Relationships, Constructions, and Lines	16	0.75	0.70	1.00	.	.	.	0.76	1.69
4. Trigonometry	15	0.72	0.66	0.71	1.00	.	.	0.77	1.62
Algebra II – 10		**1**	**2**	**3**	**4**	**5**	**6**		
1. Polynomials and Rational Expressions	19	1.00	.	.	.	.	.	0.79	1.74
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.00	.	.	.	.	0.74	1.78
3. Exponents and Logarithms	16	0.70	0.68	1.00	.	.	.	0.77	1.72
4. Series, Combinatorics, and Probability and Statistics	14	0.61	0.61	0.60	1.00	.	.	0.66	1.66
Summative High School Mathematics – 11		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I	18	1.00	.	.	.	.	.	0.78	1.64
2. Geometry	19	0.72	1.00	.	.	.	.	0.78	1.74
3. Algebra II	23	0.78	0.75	1.00	.	.	.	0.85	1.92
4. Probability and Statistics	5	0.55	0.56	0.58	1.00	.	.	0.55	0.95
World History – 10		**1**	**2**	**3**	**4**	**5**	**6**		
1. Development of Modern Political Thought	13	1.00	.	.	.	.	.	0.70	1.50
2. Industrial Expansion and Imperialism	10	0.67	1.00	.	.	.	.	0.68	1.33
3. Causes and Effects of World War I	14	0.67	0.69	1.00	.	.	.	0.77	1.59
4. Causes and Effects of World War II	13	0.65	0.67	0.74	1.00	.	.	0.75	1.53
5. International Developments in the Post-World War II Era	10	0.64	0.64	0.69	0.69	1.00	.	0.71	1.34

Table 8.B.6 Reliabilities and SEMs for the CSTs by Gender

		Male			Female		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	236,396	0.95	3.29	225,951	0.94	3.21
	3	221,321	0.94	3.29	218,892	0.93	3.22
	4**	213,949	0.94	3.60	214,144	0.94	3.52
	5	214,341	0.94	3.56	214,414	0.93	3.46
	6	217,321	0.94	3.63	216,374	0.93	3.55
	7**	216,018	0.94	3.58	214,301	0.93	3.49
	8	217,858	0.94	3.67	216,623	0.93	3.57
	9	233,180	0.94	3.69	228,161	0.93	3.62
	10	228,180	0.94	3.65	225,344	0.93	3.57
	11	220,145	0.94	3.68	218,003	0.93	3.63
History–Social Science	8	233,883	0.95	3.65	224,390	0.93	3.73
	World History	237,171	0.94	3.21	230,080	0.91	3.36
	11	225,871	0.93	3.26	220,139	0.91	3.35
Mathematics	2	237,165	0.94	2.93	226,071	0.93	2.95
	3	223,638	0.94	2.80	219,385	0.93	2.82
	4	217,388	0.95	2.78	215,134	0.94	2.77
	5	217,130	0.94	3.15	215,082	0.94	3.14
	6	219,143	0.94	3.27	216,803	0.93	3.27
	7	197,134	0.94	3.41	195,918	0.93	3.43
	General Math	104,102	0.91	3.64	84,846	0.90	3.63
	Algebra I	365,102	0.93	3.57	343,133	0.92	3.57
	Geometry	199,206	0.93	3.49	207,121	0.93	3.53
	Algebra II	135,797	0.93	3.51	150,276	0.92	3.54
	Summ. H.S. Math	71,847	0.93	3.06	77,970	0.93	3.25
	Integrated Math 1	7,256	0.85	3.66	6,183	0.84	3.66
	Integrated Math 2	2,534	0.89	3.64	2,591	0.88	3.66
	Integrated Math 3	441	0.92	3.57	365	0.90	3.61
Science	5	215,753	0.93	3.11	214,894	0.91	3.18
	8	218,680	0.93	3.02	216,730	0.91	3.12
	10 Life Science	226,278	0.94	3.16	223,389	0.92	3.22
	Biology	274,777	0.94	3.24	280,784	0.93	3.27
	Chemistry	129,582	0.93	3.26	145,514	0.91	3.38
	Earth Science	111,447	0.93	3.37	94,937	0.90	3.49
	Physics	43,165	0.93	3.28	37,569	0.91	3.41
	Integrated Science 1	24,784	0.89	3.51	21,398	0.87	3.55
	Integrated Science 2	2,033	0.92	3.44	1,724	0.91	3.50
	Integrated Science 3	570	0.91	3.47	398	0.88	3.50
	Integrated Science 4	37	0.81	3.55	28	0.72	3.56
Grade-Specific	Algebra I – 8	134,950	0.93	3.53	140,627	0.93	3.52
	Geometry – 9	67,401	0.93	3.36	76,433	0.92	3.41
	Algebra II – 10	60,702	0.92	3.47	70,560	0.91	3.50
	Summ. H. S. Math – 11	58,499	0.93	3.14	65,655	0.92	3.31
	World History – 10	212,888	0.94	3.21	208,775	0.91	3.36

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

** MC only

Table 8.B.7 Reliabilities and SEMs for the CSTs by Economic Status

		Not Econ. Disadvantaged			Econ. Disadvantaged		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	172,261	0.94	2.96	289,475	0.94	3.41
	3	168,324	0.92	2.98	271,334	0.93	3.41
	4**	163,373	0.93	3.26	264,171	0.93	3.73
	5	165,592	0.92	3.19	262,687	0.93	3.70
	6	171,473	0.93	3.33	261,757	0.92	3.74
	7**	174,493	0.92	3.27	255,257	0.92	3.70
	8	180,801	0.93	3.38	253,099	0.93	3.78
	9	204,913	0.93	3.44	255,866	0.92	3.82
	10	206,680	0.94	3.41	246,309	0.93	3.77
	11	204,658	0.93	3.48	233,036	0.93	3.81
History–Social Science	8	186,270	0.94	3.45	271,374	0.93	3.84
	World History	211,457	0.93	3.12	255,241	0.92	3.42
	11	206,207	0.92	3.17	239,361	0.92	3.41
Mathematics	2	172,490	0.93	2.63	290,131	0.93	3.11
	3	169,062	0.92	2.50	273,394	0.93	2.98
	4	164,624	0.93	2.44	267,338	0.94	2.96
	5	166,357	0.94	2.90	265,371	0.94	3.29
	6	171,806	0.93	3.04	263,678	0.93	3.41
	7	150,456	0.93	3.23	242,039	0.93	3.53
	General Mathematics	62,190	0.92	3.58	126,355	0.90	3.66
	Algebra I	282,353	0.94	3.50	424,928	0.91	3.62
	Geometry	192,890	0.93	3.40	213,090	0.91	3.61
	Algebra II	151,639	0.92	3.46	134,221	0.91	3.59
	Summ. H.S. Mathematics	96,148	0.92	3.03	53,612	0.93	3.37
	Integrated Mathematics 1	4,541	0.86	3.66	8,874	0.83	3.66
	Integrated Mathematics 2	2,270	0.90	3.64	2,852	0.88	3.66
	Integrated Mathematics 3	476	0.92	3.55	329	0.89	3.64
Science	5	165,969	0.90	2.82	264,204	0.91	3.33
	8	180,873	0.92	2.80	253,942	0.92	3.24
	10 Life Science	205,099	0.93	3.01	244,045	0.92	3.34
	Biology	256,082	0.93	3.07	298,917	0.92	3.40
	Chemistry	143,767	0.92	3.19	131,133	0.91	3.46
	Earth Science	80,192	0.92	3.30	125,905	0.91	3.50
	Physics	44,129	0.91	3.22	36,545	0.91	3.48
	Int/Coord Science 1	16,005	0.89	3.45	30,136	0.87	3.56
	Int/Coord Science 2	1,499	0.93	3.34	2,255	0.88	3.55
	Int/Coord Science 3	489	0.91	3.45	475	0.87	3.52
	Int/Coord Science 4	27	0.74	3.52	38	0.80	3.58
Grade-Specific	Algebra I – 8	116,553	0.93	3.41	158,718	0.92	3.60
	Geometry – 9	77,711	0.91	3.26	66,045	0.92	3.53
	Algebra II – 10	74,051	0.91	3.43	57,132	0.91	3.55
	Summ. H.S. Math – 11	77,810	0.92	3.12	46,298	0.92	3.42
	World History – 10	191,112	0.92	3.13	230,063	0.92	3.42

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

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

		No Special Services			Special Services		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	427,298	0.94	3.23	35,231	0.95	3.51
	3	416,041	0.93	3.25	24,326	0.94	3.46
	4**	405,330	0.94	3.55	20,895	0.94	3.74
	5	406,223	0.93	3.50	20,465	0.94	3.74
	6	412,602	0.93	3.58	19,992	0.93	3.81
	7**	410,191	0.93	3.52	19,066	0.93	3.81
	8	414,946	0.94	3.61	19,634	0.93	3.88
	9	438,075	0.93	3.64	23,362	0.92	3.92
	10	430,154	0.94	3.59	23,538	0.93	3.91
	11	414,599	0.93	3.64	23,641	0.92	3.94
History–Social Science	8	414,161	0.93	3.66	44,077	0.92	3.94
	World History	428,369	0.92	3.27	38,934	0.91	3.50
	11	409,911	0.92	3.28	36,149	0.90	3.51
Mathematics	2	427,038	0.93	2.91	36,380	0.95	3.33
	3	415,738	0.93	2.79	27,398	0.95	3.13
	4	405,185	0.94	2.75	25,157	0.95	3.12
	5	406,014	0.94	3.13	24,006	0.94	3.41
	6	412,277	0.94	3.26	22,536	0.93	3.51
	7	372,674	0.93	3.41	19,404	0.93	3.61
	General Mathematics	147,269	0.90	3.63	41,641	0.87	3.67
	Algebra I	668,222	0.93	3.57	40,083	0.88	3.62
	Geometry	391,600	0.93	3.51	14,799	0.91	3.62
	Algebra II	279,017	0.92	3.52	7,102	0.91	3.60
	Summ. H.S. Mathematics	148,475	0.93	3.16	1,357	0.95	3.32
	Integrated Mathematics 1	11,904	0.85	3.66	1,530	0.76	3.63
	Integrated Mathematics 2	4,809	0.89	3.65	318	0.79	3.66
	Integrated Mathematics 3	773	0.91	3.59	33	0.93	3.53
Science	5	405,790	0.92	3.14	22,687	0.93	3.32
	8	414,039	0.92	3.05	21,457	0.93	3.38
	10 Life Science	424,734	0.93	3.18	25,070	0.92	3.45
	Biology	516,112	0.93	3.23	39,523	0.91	3.51
	Chemistry	267,646	0.92	3.32	7,479	0.92	3.47
	Earth Science	180,172	0.91	3.41	26,217	0.90	3.56
	Physics	78,287	0.92	3.34	2,451	0.92	3.49
	Int/Coord Science 1	40,473	0.88	3.52	5,713	0.83	3.56
	Int/Coord Science 2	3,233	0.91	3.45	524	0.82	3.54
	Int/Coord Science 3	815	0.90	3.48	153	0.82	3.49
	Int/Coord Science 4	41	0.78	3.59	24	0.77	3.50
Grade-Specific	Algebra I – 8	266,859	0.93	3.52	8,751	0.92	3.61
	Geometry – 9	141,437	0.92	3.39	2,418	0.94	3.49
	Algebra II – 10	129,095	0.91	3.48	2,189	0.93	3.57
	Summ. H.S. Math – 11	122,976	0.93	3.23	1,188	0.95	3.37
	World History – 10	387,137	0.92	3.27	34,584	0.91	3.51

* 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

		English Only			Initially Desig. Fluent		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	262,195	0.95	3.16	18,914	0.93	2.82
	3	248,545	0.93	3.16	19,950	0.92	2.89
	4**	239,182	0.94	3.46	19,191	0.93	3.19
	5	238,457	0.93	3.40	19,705	0.92	3.16
	6	241,924	0.93	3.51	30,526	0.93	3.36
	7**	242,524	0.93	3.44	33,079	0.92	3.32
	8	243,707	0.94	3.54	36,703	0.93	3.41
	9	255,695	0.94	3.57	34,732	0.93	3.45
	10	253,148	0.94	3.54	33,005	0.93	3.38
	11	247,914	0.94	3.58	37,868	0.92	3.49
History–Social Science	8	256,308	0.94	3.62	37,238	0.93	3.49
	World History	259,470	0.93	3.23	33,848	0.92	3.11
	11	252,011	0.93	3.26	37,997	0.91	3.17
Mathematics	2	262,673	0.94	2.87	18,911	0.91	2.50
	3	250,106	0.94	2.74	19,996	0.92	2.36
	4	241,540	0.94	2.72	19,250	0.93	2.32
	5	239,912	0.94	3.12	19,760	0.94	2.80
	6	242,587	0.94	3.23	30,569	0.94	3.02
	7	220,298	0.93	3.38	27,562	0.94	3.26
	General Mathematics	107,395	0.92	3.62	8,855	0.91	3.60
	Algebra I	388,294	0.93	3.57	52,393	0.94	3.47
	Geometry	225,712	0.93	3.48	33,162	0.94	3.37
	Algebra II	159,809	0.92	3.53	27,668	0.93	3.41
	Summ. H.S. Mathematics	86,179	0.93	3.15	20,464	0.93	2.97
	Integrated Mathematics 1	7,830	0.86	3.66	829	0.86	3.66
	Integrated Mathematics 2	3,136	0.89	3.65	324	0.88	3.66
	Integrated Mathematics 3	500	0.91	3.58	67	0.93	3.55
Science	5	239,243	0.92	3.04	19,722	0.90	2.81
	8	243,963	0.92	2.99	36,743	0.92	2.85
	10 Life Science	250,555	0.93	3.12	32,822	0.93	3.01
	Biology	307,879	0.93	3.18	44,334	0.93	3.06
	Chemistry	150,969	0.92	3.28	27,410	0.92	3.21
	Earth Science	119,907	0.92	3.37	11,077	0.91	3.36
	Physics	45,219	0.92	3.29	8,793	0.92	3.24
	Int/Coord Science 1	22,240	0.89	3.49	3,108	0.89	3.47
	Int/Coord Science 2	1,847	0.92	3.45	337	0.93	3.31
	Int/Coord Science 3	534	0.91	3.44	81	0.88	3.52
	Int/Coord Science 4	39	0.77	3.60	2	–	–
Grade-Specific	Algebra I – 8	152,919	0.93	3.51	24,725	0.94	3.42
	Geometry – 9	81,957	0.92	3.34	13,367	0.93	3.27
	Algebra II – 10	74,702	0.91	3.48	12,535	0.92	3.40
	Summ. H.S. Math – 11	72,138	0.92	3.21	16,075	0.93	3.07
	World History – 10	235,533	0.93	3.23	29,825	0.92	3.13

* 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

		English Learner			Redesigned Fluent		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	172,150	0.94	3.43	8,639	0.89	2.83
	3	137,562	0.92	3.52	33,725	0.86	2.98
	4**	116,658	0.91	3.89	52,603	0.88	3.29
	5	93,779	0.90	3.93	76,433	0.88	3.36
	6	74,682	0.88	3.92	86,106	0.89	3.56
	7**	62,383	0.88	3.94	91,732	0.89	3.54
	8	55,462	0.87	4.00	98,055	0.90	3.64
	9	63,094	0.87	4.02	107,040	0.90	3.68
	10	58,245	0.88	3.99	108,613	0.91	3.61
	11	49,883	0.87	4.04	102,049	0.90	3.69
History–Social Science	8	64,951	0.88	4.01	99,196	0.91	3.70
	World History	62,466	0.88	3.58	110,918	0.90	3.29
	11	53,595	0.86	3.56	101,989	0.89	3.31
Mathematics	2	172,560	0.93	3.11	8,643	0.88	2.49
	3	138,773	0.93	3.07	33,713	0.88	2.33
	4	118,636	0.94	3.13	52,624	0.90	2.27
	5	95,669	0.92	3.46	76,484	0.92	2.90
	6	76,172	0.90	3.58	86,161	0.92	3.18
	7	62,508	0.90	3.67	82,094	0.92	3.38
	General Mathematics	46,118	0.87	3.69	26,165	0.89	3.61
	Algebra I	109,060	0.87	3.64	157,437	0.92	3.57
	Geometry	41,894	0.89	3.64	105,208	0.92	3.56
	Algebra II	18,379	0.91	3.61	79,981	0.92	3.54
	Summ. H.S. Mathematics	3,286	0.95	3.40	39,831	0.93	3.26
	Integrated Mathematics 1	2,183	0.76	3.64	2,573	0.82	3.67
	Integrated Mathematics 2	557	0.88	3.62	1,099	0.89	3.65
	Integrated Mathematics 3	46	0.92	3.62	193	0.90	3.59
Science	5	94,866	0.88	3.54	76,434	0.86	3.04
	8	56,119	0.89	3.52	98,033	0.89	3.06
	10 Life Science	57,893	0.87	3.55	107,883	0.90	3.20
	Biology	70,003	0.86	3.56	132,695	0.91	3.29
	Chemistry	17,980	0.88	3.56	78,531	0.91	3.40
	Earth Science	37,912	0.87	3.61	37,246	0.88	3.42
	Physics	5,125	0.88	3.55	21,521	0.90	3.42
	Int/Coord Science 1	8,968	0.80	3.59	11,760	0.85	3.54
	Int/Coord Science 2	635	0.79	3.57	933	0.89	3.46
	Int/Coord Science 3	165	0.74	3.51	187	0.85	3.55
	Int/Coord Science 4	13	0.31	3.52	11	0.83	3.54
Grade-Specific	Algebra I – 8	27,279	0.90	3.64	70,386	0.92	3.53
	Geometry – 9	7,688	0.93	3.59	40,710	0.92	3.47
	Algebra II – 10	6,116	0.92	3.58	37,817	0.91	3.50
	Summ. H.S. Math – 11	2,886	0.94	3.44	33,008	0.93	3.33
	World History – 10	55,261	0.88	3.58	100,610	0.90	3.30

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

** MC only

Table 8.B.11 Reliabilities and SEMs for the CSTs by Primary Ethnicity

		American Indian			Asian		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	2,821	0.95	3.39	40,901	0.94	2.82
	3	2,611	0.93	3.37	40,154	0.93	2.90
	4**	2,651	0.94	3.69	38,884	0.94	3.16
	5	2,571	0.93	3.65	38,905	0.94	3.10
	6	2,755	0.93	3.70	40,763	0.94	3.22
	7**	2,806	0.93	3.65	37,893	0.93	3.14
	8	2,936	0.93	3.74	38,132	0.94	3.22
	9	3,315	0.93	3.73	41,039	0.94	3.27
	10	3,317	0.94	3.70	42,396	0.94	3.22
	11	3,212	0.93	3.73	42,462	0.93	3.37
History–Social Science	8	3,175	0.93	3.82	38,778	0.94	3.26
	World History	3,397	0.93	3.34	43,273	0.92	2.96
	11	3,281	0.92	3.35	42,410	0.92	3.06
Mathematics	2	2,827	0.93	3.12	40,936	0.93	2.44
	3	2,635	0.94	2.99	40,246	0.93	2.24
	4	2,675	0.94	3.04	39,065	0.93	2.12
	5	2,607	0.93	3.35	39,102	0.94	2.57
	6	2,752	0.93	3.41	40,886	0.94	2.74
	7	2,659	0.93	3.53	28,238	0.94	2.97
	General Mathematics	2,001	0.91	3.66	6,036	0.93	3.50
	Algebra I	5,171	0.90	3.64	49,118	0.95	3.19
	Geometry	2,603	0.92	3.58	41,654	0.95	3.13
	Algebra II	1,544	0.90	3.59	38,732	0.94	3.22
	Summ. H. S. Mathematics	638	0.92	3.28	35,751	0.92	2.76
	Integrated Mathematics 1	120	0.85	3.67	380	0.86	3.66
	Integrated Mathematics 2	43	0.90	3.64	384	0.92	3.57
	Integrated Mathematics 3	3	–	–	105	0.93	3.51
Science	5	2,585	0.91	3.26	38,964	0.92	2.73
	8	2,946	0.92	3.22	38,194	0.92	2.58
	10 Life Science	3,269	0.93	3.25	42,258	0.93	2.85
	Biology	3,769	0.93	3.31	53,653	0.93	2.87
	Chemistry	1,450	0.91	3.37	38,247	0.92	3.01
	Earth Science	1,915	0.92	3.44	8,996	0.91	3.31
	Physics	400	0.92	3.36	12,790	0.91	3.10
	Int/Coord Science 1	382	0.88	3.52	2,667	0.91	3.39
	Int/Coord Science 2	29	0.94	3.44	352	0.94	2.95
	Int/Coord Science 3	5	–	–	26	0.86	3.53
	Int/Coord Science 4	3	–	–	4	–	–
Grade-Specific	Algebra I – 8	1,644	0.91	3.61	25,002	0.94	3.15
	Geometry – 9	816	0.92	3.45	20,406	0.92	3.09
	Algebra II – 10	674	0.89	3.56	20,121	0.92	3.26
	Summ. H.S. Math – 11	547	0.92	3.33	26,454	0.92	2.86
	World History – 10	3,105	0.93	3.33	37,662	0.92	2.99

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

** MC only

Table 8.B.12 Reliabilities and SEMs for the CSTs by Primary Ethnicity

		Pacific Islander			Filipino		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	2,511	0.94	3.28	10,466	0.93	2.96
	3	2,389	0.92	3.32	11,226	0.91	3.05
	4**	2,424	0.93	3.63	11,156	0.92	3.34
	5	2,387	0.92	3.60	11,770	0.92	3.30
	6	2,508	0.92	3.67	12,089	0.92	3.42
	7**	2,501	0.92	3.62	12,565	0.91	3.34
	8	2,620	0.93	3.71	12,922	0.92	3.43
	9	2,653	0.93	3.75	13,501	0.91	3.48
	10	2,607	0.94	3.69	13,483	0.92	3.41
	11	2,764	0.93	3.76	13,591	0.91	3.53
History–Social Science	8	2,737	0.93	3.76	13,168	0.92	3.50
	World History	2,661	0.92	3.38	14,033	0.90	3.17
	11	2,773	0.91	3.39	13,634	0.90	3.22
Mathematics	2	2,511	0.93	3.00	10,456	0.92	2.66
	3	2,386	0.93	2.87	11,243	0.92	2.51
	4	2,443	0.94	2.84	11,220	0.92	2.44
	5	2,404	0.94	3.21	11,804	0.93	2.89
	6	2,519	0.93	3.36	12,120	0.93	3.09
	7	2,327	0.93	3.47	10,696	0.93	3.24
	General Mathematics	968	0.91	3.64	2,896	0.91	3.56
	Algebra I	4,385	0.91	3.62	18,637	0.93	3.50
	Geometry	2,551	0.91	3.59	14,143	0.93	3.44
	Algebra II	1,639	0.90	3.59	11,545	0.91	3.50
	Summ. H.S. Mathematics	717	0.92	3.36	6,792	0.91	3.24
	Integrated Mathematics 1	96	0.84	3.66	255	0.86	3.66
	Integrated Mathematics 2	41	0.87	3.70	169	0.93	3.54
	Integrated Mathematics 3	8	–	–	53	0.91	3.55
Science	5	2,390	0.91	3.28	11,796	0.89	2.96
	8	2,629	0.92	3.16	12,935	0.90	2.85
	10 Life Science	2,581	0.92	3.30	13,428	0.91	3.04
	Biology	3,145	0.92	3.36	17,397	0.91	3.10
	Chemistry	1,592	0.91	3.45	11,243	0.90	3.31
	Earth Science	1,279	0.91	3.48	3,899	0.90	3.31
	Physics	478	0.91	3.45	3,458	0.89	3.34
	Int/Coord Science 1	270	0.87	3.56	1,193	0.86	3.51
	Int/Coord Science 2	17	0.89	3.49	55	0.90	3.42
	Int/Coord Science 3	4	–	–	23	0.85	3.52
	Int/Coord Science 4	0	–	–	0	–	–
Grade-Specific	Algebra I – 8	1,814	0.92	3.58	9,071	0.92	3.44
	Geometry – 9	800	0.92	3.48	6,377	0.91	3.35
	Algebra II – 10	668	0.90	3.54	5,875	0.90	3.46
	Summ. H.S. Math – 11	607	0.92	3.39	5,742	0.91	3.29
	World History – 10	2,390	0.91	3.38	12,636	0.90	3.18

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

** MC only

Table 8.B.13 Reliabilities and SEMs for the CSTs by Primary Ethnicity

		Hispanic			African American			White		
Content Area	CST*	N	Rel	SEM	N	Rel	SEM	N	Rel	SEM
English–Language Arts	2	248,495	0.94	3.40	28,006	0.95	3.38	115,084	0.94	3.04
	3	232,544	0.93	3.41	26,676	0.93	3.39	112,140	0.92	3.03
	4**	225,039	0.93	3.72	26,776	0.94	3.70	109,655	0.93	3.33
	5	223,580	0.93	3.69	27,365	0.93	3.68	110,977	0.93	3.25
	6	223,420	0.92	3.74	27,931	0.93	3.73	113,366	0.93	3.39
	7**	220,729	0.92	3.70	28,334	0.93	3.68	115,193	0.92	3.31
	8	221,653	0.93	3.77	29,087	0.93	3.78	117,481	0.93	3.42
	9	237,263	0.92	3.81	30,168	0.93	3.82	122,030	0.93	3.45
	10	226,177	0.93	3.76	29,618	0.94	3.78	125,495	0.94	3.42
	11	212,098	0.93	3.80	29,071	0.93	3.81	125,803	0.93	3.47
History–Social Science	8	236,740	0.93	3.84	31,781	0.93	3.85	121,872	0.94	3.49
	World History	234,365	0.92	3.42	30,955	0.92	3.44	128,084	0.93	3.13
	11	217,601	0.91	3.41	29,969	0.92	3.43	127,162	0.92	3.17
Mathematics	2	249,025	0.93	3.10	28,074	0.94	3.18	115,304	0.93	2.71
	3	234,253	0.93	2.97	26,737	0.94	3.06	112,977	0.93	2.60
	4	227,702	0.94	2.95	26,998	0.95	3.07	110,794	0.94	2.56
	5	225,991	0.93	3.28	27,421	0.94	3.36	111,634	0.94	3.01
	6	225,215	0.93	3.41	27,956	0.93	3.46	113,618	0.93	3.12
	7	209,972	0.92	3.53	27,075	0.93	3.57	102,892	0.93	3.28
	General Mathematics	109,166	0.90	3.66	15,236	0.90	3.67	48,272	0.92	3.58
	Algebra I	389,139	0.90	3.63	49,732	0.90	3.63	176,665	0.93	3.53
	Geometry	196,448	0.91	3.62	25,295	0.90	3.63	114,240	0.93	3.42
	Algebra II	123,401	0.90	3.61	16,146	0.90	3.63	86,520	0.91	3.51
	Summ. H.S. Math	45,212	0.92	3.44	5,423	0.92	3.49	51,719	0.92	3.11
	Integrated Math 1	7,762	0.82	3.66	1,294	0.81	3.66	3,182	0.88	3.65
	Integrated Math 2	2,524	0.88	3.67	428	0.88	3.65	1,347	0.89	3.64
	Integrated Math 3	363	0.90	3.62	46	0.90	3.65	199	0.91	3.56
Science	5	224,922	0.91	3.33	27,466	0.92	3.33	111,280	0.90	2.87
	8	222,398	0.91	3.24	29,162	0.92	3.28	117,499	0.92	2.84
	10 Life Science	224,183	0.92	3.34	29,168	0.92	3.37	124,466	0.93	2.99
	Biology	277,551	0.92	3.41	36,979	0.92	3.42	150,452	0.93	3.06
	Chemistry	121,174	0.91	3.48	16,386	0.91	3.50	79,193	0.91	3.19
	Earth Science	114,779	0.90	3.50	14,489	0.91	3.52	56,359	0.92	3.27
	Physics	32,286	0.90	3.50	4,334	0.91	3.52	24,852	0.90	3.21
	Int/Coord Science 1	28,417	0.87	3.56	3,400	0.86	3.57	8,837	0.89	3.42
	Int/Coord Science 2	2,260	0.88	3.54	173	0.84	3.55	777	0.91	3.42
	Int/Coord Science 3	522	0.86	3.53	43	0.87	3.49	329	0.92	3.39
	Int/Coord Science 4	30	0.75	3.52	1	–	–	25	0.66	3.59
Grade-Specific	Algebra I – 8	140,492	0.91	3.61	18,103	0.91	3.62	73,645	0.92	3.46
	Geometry – 9	60,145	0.91	3.55	6,932	0.91	3.58	44,572	0.91	3.26
	Algebra II – 10	51,828	0.90	3.57	6,449	0.90	3.60	42,455	0.90	3.46
	Summ. H.S. Math – 11	39,651	0.92	3.47	4,763	0.92	3.53	43,476	0.92	3.17
	World History – 10	211,511	0.91	3.41	27,453	0.92	3.44	117,531	0.92	3.13

* 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

		American Indian			Asian		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	844	0.94	3.22	25,969	0.93	2.62
	3	908	0.92	3.18	25,453	0.91	2.70
	4**	884	0.93	3.51	24,430	0.92	2.94
	5	883	0.93	3.46	24,172	0.92	2.86
	6	1,015	0.93	3.54	25,104	0.92	3.02
	7**	1,087	0.92	3.51	22,979	0.92	2.92
	8	1,136	0.93	3.61	23,164	0.92	3.00
	9	1,598	0.93	3.59	24,956	0.92	3.06
	10	1,617	0.94	3.56	25,001	0.92	3.00
	11	1,694	0.93	3.63	24,523	0.92	3.17
History–Social Science	8	1,200	0.93	3.69	23,409	0.93	3.04
	World History	1,664	0.93	3.23	25,486	0.91	2.79
	11	1,740	0.92	3.28	24,465	0.91	2.92
Mathematics	2	845	0.93	2.91	25,981	0.91	2.23
	3	910	0.93	2.74	25,490	0.91	2.01
	4	888	0.94	2.81	24,521	0.91	1.88
	5	901	0.94	3.19	24,249	0.93	2.34
	6	1,016	0.93	3.26	25,151	0.93	2.52
	7	996	0.93	3.42	15,854	0.93	2.77
	General Mathematics	669	0.91	3.64	2,576	0.93	3.39
	Algebra I	2,211	0.91	3.62	27,912	0.95	3.02
	Geometry	1,404	0.91	3.54	24,448	0.94	2.95
	Algebra II	971	0.90	3.56	23,969	0.93	3.11
	Summ. H.S. Mathematics	433	0.92	3.20	24,702	0.91	2.62
	Integrated Mathematics 1	58	0.84	3.67	164	0.86	3.66
	Integrated Mathematics 2	24	0.87	3.68	162	0.93	3.52
	Integrated Mathematics 3	3	–	–	79	0.93	3.44
Science	5	895	0.90	3.04	24,195	0.90	2.49
	8	1,141	0.92	3.07	23,185	0.90	2.36
	10 Life Science	1,606	0.93	3.13	24,939	0.92	2.66
	Biology	1,964	0.93	3.21	32,369	0.92	2.67
	Chemistry	913	0.91	3.32	24,051	0.91	2.86
	Earth Science	807	0.92	3.35	3,913	0.91	3.19
	Physics	261	0.92	3.30	8,075	0.90	2.99
	Int/Coord Science 1	162	0.88	3.49	1,348	0.91	3.28
	Int/Coord Science 2	10	–	–	305	0.92	2.87
	Int/Coord Science 3	5	–	–	15	0.82	3.58
	Int/Coord Science 4	1	–	–	1	–	–
Grade-Specific	Algebra I – 8	680	0.91	3.57	14,600	0.93	3.01
	Geometry – 9	486	0.91	3.39	12,737	0.91	2.97
	Algebra II – 10	415	0.89	3.51	12,667	0.91	3.19
	Summ. H.S. Math – 11	369	0.92	3.25	17,627	0.91	2.73
	World History – 10	1,543	0.92	3.23	21,589	0.91	2.81

* 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

		Pacific Islander			Filipino		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	761	0.93	3.12	6,529	0.92	2.87
	3	817	0.92	3.18	7,006	0.90	2.96
	4**	794	0.92	3.44	6,892	0.91	3.24
	5	805	0.91	3.40	7,309	0.91	3.20
	6	885	0.92	3.51	7,557	0.91	3.33
	7**	957	0.92	3.47	7,932	0.90	3.24
	8	1,055	0.93	3.55	8,217	0.91	3.35
	9	1,174	0.93	3.63	9,294	0.91	3.40
	10	1,168	0.94	3.55	9,318	0.91	3.34
	11	1,324	0.93	3.67	9,409	0.90	3.47
History–Social Science	8	1,097	0.93	3.63	8,356	0.92	3.41
	World History	1,207	0.92	3.27	9,732	0.90	3.11
	11	1,326	0.91	3.33	9,426	0.89	3.18
Mathematics	2	764	0.93	2.82	6,521	0.92	2.56
	3	818	0.93	2.72	7,012	0.91	2.39
	4	799	0.93	2.62	6,930	0.92	2.34
	5	805	0.93	3.06	7,320	0.93	2.80
	6	896	0.93	3.22	7,571	0.92	3.01
	7	875	0.93	3.34	6,616	0.92	3.15
	General Mathematics	348	0.91	3.61	1,731	0.91	3.52
	Algebra I	1,805	0.92	3.59	11,958	0.93	3.47
	Geometry	1,152	0.92	3.54	9,650	0.93	3.41
	Algebra II	854	0.91	3.58	8,306	0.91	3.48
	Summ. H.S. Mathematics	453	0.91	3.30	5,079	0.91	3.20
	Integrated Mathematics 1	34	0.72	3.73	149	0.85	3.67
	Integrated Mathematics 2	20	0.92	3.58	113	0.92	3.57
	Integrated Mathematics 3	4	–	–	39	0.91	3.56
Science	5	802	0.89	3.04	7,314	0.88	2.86
	8	1,056	0.91	2.98	8,228	0.89	2.76
	10 Life Science	1,166	0.93	3.18	9,291	0.90	2.98
	Biology	1,460	0.93	3.25	12,010	0.90	3.04
	Chemistry	814	0.92	3.38	8,088	0.90	3.27
	Earth Science	504	0.90	3.43	2,486	0.89	3.26
	Physics	259	0.91	3.37	2,478	0.89	3.30
	Int/Coord Science 1	107	0.88	3.53	764	0.86	3.49
	Int/Coord Science 2	11	0.83	3.52	44	0.89	3.37
	Int/Coord Science 3	3	–	–	14	0.87	3.53
	Int/Coord Science 4	0	–	–	0	–	–
Grade-Specific	Algebra I – 8	745	0.92	3.52	5,761	0.92	3.40
	Geometry – 9	414	0.92	3.40	4,527	0.91	3.32
	Algebra II – 10	376	0.90	3.52	4,320	0.90	3.43
	Summ. H.S. Math – 11	379	0.91	3.34	4,277	0.91	3.25
	World History – 10	1,080	0.92	3.26	8,751	0.89	3.13

* 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

		Hispanic			African American			White		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	40,090	0.94	3.18	7,121	0.94	3.20	82,049	0.93	2.93
	3	38,013	0.92	3.19	7,093	0.93	3.22	81,155	0.91	2.92
	4**	36,650	0.93	3.49	7,172	0.94	3.52	79,252	0.92	3.21
	5	36,734	0.92	3.44	7,634	0.93	3.48	80,997	0.91	3.12
	6	39,009	0.92	3.55	8,277	0.93	3.58	82,714	0.92	3.28
	7**	41,465	0.92	3.51	8,771	0.93	3.53	84,716	0.91	3.20
	8	43,904	0.93	3.61	9,896	0.93	3.65	87,235	0.92	3.32
	9	55,762	0.93	3.67	11,304	0.93	3.71	93,331	0.92	3.36
	10	54,116	0.93	3.64	11,906	0.94	3.68	96,600	0.93	3.33
	11	51,617	0.93	3.69	11,825	0.93	3.72	98,304	0.93	3.40
History–Social Science	8	45,903	0.93	3.67	10,482	0.94	3.72	89,503	0.93	3.39
	World History	55,518	0.92	3.32	12,361	0.93	3.37	98,470	0.92	3.06
	11	52,391	0.92	3.33	12,023	0.92	3.35	98,876	0.92	3.11
Mathematics	2	40,175	0.93	2.88	7,130	0.94	2.99	82,173	0.92	2.59
	3	38,213	0.93	2.75	7,112	0.94	2.85	81,599	0.92	2.47
	4	36,994	0.94	2.70	7,223	0.94	2.83	79,917	0.93	2.42
	5	37,007	0.94	3.13	7,638	0.94	3.20	81,357	0.93	2.90
	6	39,176	0.93	3.27	8,277	0.93	3.34	82,807	0.92	3.03
	7	38,235	0.93	3.42	8,123	0.93	3.48	74,122	0.92	3.19
	General Mathematics	19,901	0.91	3.64	4,507	0.91	3.64	30,207	0.92	3.55
	Algebra I	83,072	0.91	3.61	17,527	0.91	3.62	128,490	0.93	3.50
	Geometry	48,313	0.92	3.57	10,346	0.92	3.60	90,898	0.93	3.38
	Algebra II	32,075	0.90	3.58	7,416	0.91	3.61	73,027	0.91	3.49
	Summ. H.S. Math	13,409	0.92	3.34	2,963	0.92	3.42	46,207	0.92	3.08
	Integrated Math 1	1,486	0.84	3.67	406	0.82	3.66	2,051	0.88	3.64
	Integrated Math 2	620	0.88	3.67	210	0.89	3.65	993	0.90	3.64
	Integrated Math 3	114	0.90	3.58	31	0.90	3.65	179	0.92	3.54
Science	5	36,862	0.90	3.08	7,653	0.91	3.14	81,174	0.88	2.75
	8	43,969	0.91	3.06	9,915	0.92	3.13	87,194	0.91	2.73
	10 Life Science	53,542	0.92	3.23	11,758	0.93	3.28	95,907	0.92	2.92
	Biology	66,830	0.92	3.30	15,020	0.93	3.34	117,731	0.92	2.99
	Chemistry	30,916	0.91	3.40	7,399	0.91	3.46	67,228	0.90	3.16
	Earth Science	25,935	0.91	3.42	5,209	0.91	3.46	38,695	0.91	3.21
	Physics	8,379	0.91	3.42	1,768	0.91	3.47	21,280	0.90	3.18
	Int/Coord Science 1	5,700	0.88	3.52	1,148	0.88	3.54	6,205	0.88	3.39
	Int/Coord Science 2	419	0.89	3.52	56	0.88	3.52	589	0.91	3.38
	Int/Coord Science 3	165	0.86	3.55	17	0.88	3.46	262	0.92	3.37
	Int/Coord Science 4	7	–	–	0	–	–	18	0.69	3.58
Grade-Specific	Algebra I – 8	28,159	0.92	3.56	6,233	0.92	3.58	56,541	0.92	3.41
	Geometry – 9	15,975	0.91	3.46	3,094	0.91	3.52	37,556	0.90	3.23
	Algebra II – 10	14,081	0.90	3.54	3,170	0.91	3.57	36,515	0.90	3.44
	Summ. H.S. Math – 11	11,560	0.91	3.38	2,575	0.92	3.46	38,698	0.92	3.15
	World History – 10	50,246	0.92	3.31	11,062	0.92	3.37	90,535	0.92	3.06

* 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

		American Indian			Asian		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	1,969	0.94	3.46	14,873	0.94	3.13
	3	1,697	0.92	3.46	14,648	0.93	3.19
	4**	1,759	0.93	3.78	14,411	0.94	3.48
	5	1,679	0.92	3.75	14,693	0.94	3.44
	6	1,736	0.92	3.80	15,612	0.93	3.51
	7**	1,707	0.92	3.74	14,867	0.93	3.44
	8	1,792	0.93	3.82	14,935	0.94	3.51
	9	1,706	0.93	3.85	16,056	0.93	3.56
	10	1,693	0.93	3.82	17,360	0.94	3.51
	11	1,515	0.93	3.84	17,925	0.93	3.61
History–Social Science	8	1,967	0.93	3.89	15,333	0.94	3.56
	World History	1,728	0.92	3.43	17,752	0.92	3.18
	11	1,538	0.92	3.43	17,933	0.92	3.24
Mathematics	2	1,974	0.93	3.20	14,896	0.93	2.76
	3	1,719	0.93	3.11	14,704	0.93	2.58
	4	1,779	0.94	3.14	14,502	0.93	2.45
	5	1,697	0.93	3.43	14,812	0.94	2.89
	6	1,732	0.92	3.49	15,688	0.94	3.04
	7	1,650	0.92	3.59	12,339	0.94	3.20
	General Math	1,325	0.90	3.68	3,447	0.92	3.57
	Algebra I	2,945	0.89	3.65	21,163	0.94	3.41
	Geometry	1,198	0.91	3.63	17,181	0.94	3.37
	Algebra II	571	0.90	3.62	14,741	0.93	3.39
	Summ. H.S. Mathematics	205	0.92	3.44	11,042	0.92	3.04
	Integrated Mathematics 1	62	0.85	3.67	215	0.85	3.66
	Integrated Mathematics 2	19	0.92	3.60	222	0.91	3.61
	Integrated Mathematics 3	0	–	–	26	0.88	3.69
Science	5	1,681	0.91	3.36	14,729	0.92	3.08
	8	1,797	0.92	3.31	14,974	0.92	2.89
	10 Life Science	1,657	0.92	3.35	17,283	0.93	3.10
	Biology	1,799	0.92	3.42	21,251	0.93	3.15
	Chemistry	537	0.90	3.47	14,180	0.92	3.24
	Earth Science	1,101	0.91	3.50	5,078	0.91	3.39
	Physics	139	0.91	3.48	4,709	0.91	3.28
	Int/Coord Science 1	220	0.87	3.55	1,316	0.90	3.49
	Int/Coord Science 2	19	0.92	3.48	47	0.94	3.37
	Int/Coord Science 3	0	–	–	11	0.90	3.49
	Int/Coord Science 4	2	–	–	3	–	–
Grade-Specific	Algebra I – 8	961	0.91	3.64	10,383	0.93	3.34
	Geometry – 9	330	0.92	3.54	7,657	0.92	3.29
	Algebra II – 10	258	0.88	3.63	7,442	0.91	3.37
	Summ. H.S. Math – 11	178	0.91	3.48	8,825	0.92	3.11
	World History – 10	1,558	0.92	3.44	16,042	0.92	3.21

* 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

		Pacific Islander			Filipino		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	1,743	0.94	3.35	3,921	0.93	3.09
	3	1,566	0.92	3.38	4,206	0.92	3.20
	4**	1,628	0.93	3.71	4,251	0.93	3.49
	5	1,578	0.92	3.70	4,456	0.92	3.46
	6	1,613	0.91	3.75	4,516	0.92	3.56
	7**	1,535	0.92	3.71	4,615	0.91	3.50
	8	1,562	0.92	3.82	4,697	0.92	3.58
	9	1,478	0.92	3.84	4,201	0.91	3.64
	10	1,431	0.93	3.79	4,155	0.92	3.57
	11	1,435	0.92	3.84	4,170	0.92	3.66
History–Social Science	8	1,636	0.92	3.84	4,803	0.92	3.65
	World History	1,446	0.90	3.46	4,289	0.90	3.28
	11	1,442	0.91	3.44	4,195	0.90	3.31
Mathematics	2	1,740	0.93	3.08	3,919	0.93	2.81
	3	1,562	0.93	2.94	4,216	0.93	2.68
	4	1,642	0.94	2.94	4,276	0.93	2.60
	5	1,595	0.93	3.28	4,479	0.93	3.03
	6	1,613	0.92	3.43	4,533	0.93	3.23
	7	1,443	0.92	3.54	4,067	0.93	3.37
	General Mathematics	618	0.91	3.65	1,161	0.91	3.61
	Algebra I	2,577	0.90	3.64	6,669	0.92	3.55
	Geometry	1,389	0.90	3.64	4,484	0.92	3.51
	Algebra II	783	0.89	3.62	3,227	0.91	3.55
	Summ. H. S. Mathematics	264	0.92	3.45	1,713	0.91	3.35
	Integrated Mathematics 1	62	0.87	3.64	103	0.87	3.63
	Integrated Mathematics 2	21	0.64	3.80	56	0.94	3.49
	Integrated Mathematics 3	4	–	–	14	0.92	3.52
Science	5	1,584	0.90	3.38	4,477	0.89	3.13
	8	1,569	0.91	3.27	4,699	0.90	2.99
	10 Life Science	1,406	0.91	3.40	4,127	0.91	3.17
	Biology	1,678	0.91	3.45	5,378	0.91	3.23
	Chemistry	776	0.90	3.51	3,146	0.90	3.40
	Earth Science	773	0.90	3.51	1,412	0.90	3.40
	Physics	219	0.89	3.53	978	0.89	3.41
	Int/Coord Science 1	162	0.85	3.59	426	0.85	3.55
	Int/Coord Science 2	6	–	–	11	0.88	3.65
	Int/Coord Science 3	1	–	–	9	–	–
	Int/Coord Science 4	0	–	–	0	–	–
Grade-Specific	Algebra I – 8	1,067	0.91	3.62	3,307	0.92	3.50
	Geometry – 9	385	0.91	3.57	1,850	0.91	3.43
	Algebra II – 10	291	0.90	3.57	1,551	0.89	3.52
	Summ. H.S. Math – 11	228	0.92	3.46	1,465	0.91	3.41
	World History – 10	1,302	0.89	3.47	3,876	0.90	3.29

* 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

		Hispanic			African American			White		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	208,124	0.94	3.44	20,820	0.94	3.44	32,836	0.94	3.31
	3	194,299	0.92	3.45	19,510	0.93	3.44	30,803	0.93	3.29
	4**	188,159	0.93	3.76	19,532	0.93	3.77	30,244	0.93	3.61
	5	186,636	0.92	3.74	19,675	0.93	3.75	29,836	0.93	3.57
	6	184,228	0.92	3.78	19,589	0.92	3.79	30,514	0.93	3.64
	7**	179,031	0.92	3.74	19,513	0.92	3.75	30,298	0.93	3.57
	8	177,496	0.92	3.81	19,117	0.93	3.85	30,084	0.93	3.67
	9	181,219	0.92	3.85	18,810	0.92	3.88	28,543	0.93	3.71
	10	171,804	0.93	3.80	17,642	0.93	3.85	28,725	0.94	3.68
	11	160,277	0.92	3.83	17,198	0.93	3.88	27,361	0.94	3.71
History–Social Science	8	190,559	0.92	3.87	21,221	0.92	3.91	32,188	0.93	3.75
	World History	178,583	0.91	3.44	18,523	0.92	3.48	29,460	0.93	3.34
	11	164,999	0.91	3.43	17,898	0.91	3.47	28,158	0.92	3.35
Mathematics	2	208,566	0.93	3.14	20,878	0.94	3.24	32,932	0.93	3.00
	3	195,797	0.93	3.01	19,552	0.94	3.13	31,192	0.93	2.89
	4	190,471	0.94	2.99	19,701	0.94	3.16	30,719	0.94	2.88
	5	188,766	0.93	3.31	19,729	0.93	3.42	30,134	0.94	3.27
	6	185,855	0.92	3.44	19,617	0.92	3.51	30,673	0.93	3.36
	7	171,500	0.92	3.56	18,900	0.92	3.60	28,601	0.93	3.47
	General Mathematics	89,058	0.90	3.67	10,691	0.89	3.68	17,942	0.91	3.64
	Algebra I	305,620	0.90	3.64	32,078	0.89	3.64	47,929	0.91	3.62
	Geometry	147,989	0.90	3.64	14,912	0.89	3.65	23,236	0.92	3.57
	Algebra II	91,249	0.90	3.62	8,707	0.88	3.64	13,432	0.90	3.59
	Summ. H. S. Math	31,780	0.92	3.48	2,457	0.92	3.57	5,489	0.92	3.30
	Integrated Math 1	6,265	0.82	3.66	885	0.81	3.65	1,127	0.87	3.66
	Integrated Math 2	1,904	0.87	3.66	215	0.88	3.65	354	0.87	3.65
	Integrated Math 3	249	0.89	3.63	15	0.91	3.65	19	0.84	3.75
Science	5	187,848	0.90	3.38	19,763	0.91	3.40	29,963	0.91	3.17
	8	178,169	0.91	3.29	19,174	0.91	3.35	30,139	0.92	3.11
	10 Life Science	170,398	0.91	3.38	17,345	0.91	3.43	28,397	0.93	3.22
	Biology	210,452	0.91	3.44	21,887	0.91	3.47	32,561	0.93	3.29
	Chemistry	90,169	0.90	3.50	8,971	0.90	3.54	11,917	0.91	3.34
	Earth Science	88,702	0.90	3.52	9,260	0.90	3.56	17,584	0.92	3.40
	Physics	23,883	0.90	3.52	2,558	0.89	3.55	3,557	0.91	3.38
	Int/Coord Science 1	22,690	0.86	3.57	2,247	0.85	3.59	2,623	0.89	3.51
	Int/Coord Science 2	1,839	0.88	3.55	117	0.80	3.56	188	0.89	3.54
	Int/Coord Science 3	356	0.85	3.53	26	0.88	3.51	65	0.90	3.47
	Int/Coord Science 4	23	0.73	3.56	1	–	–	7	–	–
Grade-Specific	Algebra I – 8	112,212	0.91	3.62	11,821	0.91	3.64	17,025	0.92	3.59
	Geometry – 9	44,137	0.91	3.58	3,828	0.90	3.62	6,991	0.91	3.44
	Algebra II – 10	37,713	0.90	3.58	3,268	0.90	3.62	5,917	0.90	3.54
	Summ. H.S. Math – 11	28,073	0.91	3.50	2,185	0.91	3.59	4,757	0.92	3.35
	World History – 10	161,035	0.91	3.44	16,330	0.91	3.49	26,860	0.92	3.33

* 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	0.87	1.85	0.85	1.81	0.83	1.66	0.85	1.93
2. Reading Comprehension	15	0.79	1.63	0.78	1.61	0.77	1.48	0.75	1.69
3. Literary Response and Analysis	6	0.67	0.96	0.64	0.95	0.62	0.86	0.63	1.01
4. Written and Oral Language Conventions	14	0.82	1.50	0.81	1.44	0.80	1.33	0.80	1.55
5. Writing Strategies	8	0.73	1.17	0.73	1.15	0.72	1.06	0.70	1.21
Grade 3									
1. Word Analysis and Vocabulary Development	20	0.83	1.73	0.82	1.69	0.79	1.51	0.81	1.82
2. Reading Comprehension	15	0.78	1.57	0.77	1.54	0.74	1.42	0.75	1.63
3. Literary Response and Analysis	8	0.70	1.14	0.69	1.12	0.64	1.01	0.68	1.20
4. Written and Oral Language Conventions	13	0.73	1.52	0.72	1.48	0.70	1.43	0.70	1.54
5. Writing Strategies	9	0.67	1.29	0.66	1.27	0.62	1.18	0.64	1.34
Grade 4									
1. Word Analysis and Vocabulary Development	18	0.85	1.57	0.83	1.53	0.80	1.33	0.83	1.67
2. Reading Comprehension	15	0.78	1.61	0.76	1.58	0.73	1.47	0.75	1.66
3. Literary Response and Analysis	9	0.66	1.30	0.64	1.28	0.63	1.19	0.61	1.34
4. Written and Oral Language Conventions	18	0.79	1.78	0.78	1.71	0.77	1.61	0.77	1.83
5. Writing Strategies	15	0.76	1.70	0.75	1.68	0.75	1.60	0.71	1.74
Grade 5									
1. Word Analysis and Vocabulary Development	14	0.74	1.51	0.72	1.52	0.68	1.38	0.70	1.59
2. Reading Comprehension	16	0.82	1.56	0.80	1.55	0.77	1.36	0.79	1.67
3. Literary Response and Analysis	12	0.71	1.46	0.70	1.42	0.67	1.32	0.68	1.51
4. Written and Oral Language Conventions	17	0.76	1.67	0.73	1.58	0.71	1.48	0.73	1.70
5. Writing Strategies	16	0.77	1.69	0.76	1.64	0.74	1.54	0.74	1.74
Grade 6									
1. Word Analysis and Vocabulary Development	13	0.75	1.44	0.73	1.42	0.71	1.30	0.70	1.51
2. Reading Comprehension	17	0.77	1.78	0.77	1.74	0.75	1.67	0.74	1.81
3. Literary Response and Analysis	12	0.71	1.45	0.70	1.41	0.67	1.32	0.66	1.49
4. Written and Oral Language Conventions	16	0.74	1.63	0.70	1.56	0.70	1.47	0.71	1.67
5. Writing Strategies	17	0.80	1.75	0.79	1.73	0.78	1.62	0.77	1.81
Grade 7									
1. Word Analysis and Vocabulary Development	11	0.73	1.27	0.68	1.25	0.67	1.11	0.68	1.35
2. Reading Comprehension	18	0.78	1.67	0.75	1.66	0.73	1.54	0.75	1.74
3. Literary Response and Analysis	13	0.75	1.55	0.72	1.50	0.70	1.43	0.71	1.59
4. Written and Oral Language Conventions	16	0.74	1.64	0.71	1.57	0.71	1.48	0.70	1.68
5. Writing Strategies	17	0.79	1.77	0.78	1.74	0.78	1.65	0.74	1.82
Grade 8									
1. Word Analysis and Vocabulary Development	9	0.64	1.23	0.58	1.20	0.57	1.13	0.58	1.28
2. Reading Comprehension	18	0.79	1.74	0.76	1.72	0.74	1.61	0.76	1.80
3. Literary Response and Analysis	15	0.78	1.63	0.76	1.59	0.75	1.50	0.74	1.69
4. Written and Oral Language Conventions	16	0.78	1.70	0.76	1.62	0.76	1.54	0.75	1.74
5. Writing Strategies	17	0.80	1.80	0.79	1.75	0.79	1.69	0.77	1.84

Subscore Reliabilities and SEM for ELA by *Gender/Economic Status*									
Subscore Area	**N of**	**Male**		**Female**		**Not Econ. Dis.**		**Econ. Dis.**	
	Items	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 9									
1. Word Analysis and Vocabulary Development	8	0.62	1.22	0.61	1.21	0.60	1.16	0.56	1.26
2. Reading Comprehension	18	0.82	1.73	0.80	1.70	0.80	1.59	0.79	1.81
3. Literary Response and Analysis	16	0.79	1.65	0.76	1.62	0.75	1.53	0.76	1.71
4. Written and Oral Language Conventions	13	0.71	1.59	0.68	1.53	0.70	1.47	0.65	1.64
5. Writing Strategies	20	0.80	1.93	0.78	1.91	0.79	1.84	0.76	1.99
Grade 10									
1. Word Analysis and Vocabulary Development	8	0.64	1.17	0.57	1.17	0.58	1.10	0.57	1.23
2. Reading Comprehension	18	0.83	1.75	0.79	1.72	0.80	1.63	0.80	1.82
3. Literary Response and Analysis	16	0.75	1.72	0.71	1.69	0.72	1.61	0.69	1.78
4. Written and Oral Language Conventions	13	0.75	1.50	0.72	1.44	0.73	1.39	0.72	1.53
5. Writing Strategies	20	0.84	1.89	0.82	1.84	0.83	1.76	0.80	1.94
Grade 11									
1. Word Analysis and Vocabulary Development	8	0.68	1.14	0.60	1.13	0.63	1.05	0.62	1.20
2. Reading Comprehension	19	0.82	1.84	0.79	1.84	0.80	1.75	0.79	1.91
3. Literary Response and Analysis	17	0.75	1.77	0.73	1.76	0.72	1.71	0.71	1.82
4. Written and Oral Language Conventions	9	0.69	1.21	0.62	1.17	0.66	1.11	0.63	1.26
5. Writing Strategies	22	0.83	2.03	0.80	1.99	0.82	1.92	0.80	2.08

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**	**Male**		**Female**		**Not Econ. Dis.**		**Econ. Dis.**	
	Items	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Grade 8									
1. World History and Geography: Ancient Civilizations	16	0.74	1.71	0.68	1.75	0.70	1.63	0.67	1.79
2. Late Antiquity and the Middle Ages	14	0.78	1.57	0.71	1.62	0.73	1.50	0.72	1.66
3. Renaissance/Reformation	10	0.73	1.30	0.65	1.34	0.67	1.23	0.66	1.38
4. U.S. Constitution and the Early Republic	22	0.85	1.97	0.81	2.01	0.82	1.87	0.80	2.07
5. Civil War and Its Aftermath	13	0.82	1.47	0.77	1.51	0.79	1.37	0.76	1.56
World History									
1. Development of Modern Political Thought	13	0.74	1.50	0.68	1.51	0.70	1.43	0.70	1.56
2. Industrial Expansion and Imperialism	10	0.73	1.29	0.65	1.36	0.67	1.26	0.67	1.38
3. Causes and Effects of World War I	14	0.80	1.54	0.74	1.63	0.77	1.50	0.75	1.65
4. Causes and Effects of World War II	13	0.80	1.48	0.71	1.58	0.76	1.45	0.73	1.59
5. International Developments in the Post-World War II Era	10	0.76	1.31	0.67	1.37	0.72	1.28	0.69	1.39
Grade 11 (U.S. History)									
1. Foundations of American Political and Social Thought	10	0.69	1.33	0.63	1.36	0.66	1.28	0.62	1.39
2. Industrialization and the U.S. role as a World Power	13	0.77	1.49	0.72	1.53	0.74	1.44	0.73	1.56
3. United States between the World Wars	12	0.74	1.47	0.68	1.49	0.69	1.43	0.69	1.52
4. World War II and Foreign Affairs	12	0.77	1.42	0.68	1.50	0.73	1.41	0.72	1.50
5. Post-World War II Domestic Affairs	13	0.76	1.54	0.69	1.57	0.72	1.49	0.70	1.60

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	1.43	0.80	1.47	0.78	1.30	0.80	1.53
2. Number Sense: Multiplication, Division, and Fractions	23	0.86	1.73	0.85	1.75	0.83	1.54	0.85	1.84
3. Algebra and Functions	6	0.61	0.86	0.58	0.87	0.58	0.77	0.57	0.92
4. Measurement and Geometry	14	0.73	1.34	0.69	1.33	0.67	1.19	0.70	1.41
5. Statistics, Data Analysis, and Probability	7	0.65	0.96	0.61	0.94	0.60	0.87	0.61	0.98
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.39	0.77	1.41	0.74	1.27	0.77	1.47
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.85	1.44	0.84	1.43	0.83	1.30	0.84	1.51
3. Algebra and Functions	12	0.78	1.13	0.77	1.18	0.75	0.98	0.77	1.25
4. Measurement and Geometry	16	0.76	1.38	0.73	1.39	0.72	1.23	0.73	1.46
5. Statistics, Data Analysis, and Probability	5	0.57	0.67	0.51	0.66	0.48	0.58	0.55	0.72
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.80	1.32	0.78	1.36	0.75	1.15	0.79	1.44
2. Number Sense: Operations and Factoring	14	0.84	1.27	0.84	1.24	0.82	1.10	0.84	1.34
3. Algebra and Functions	18	0.87	1.39	0.85	1.37	0.84	1.19	0.86	1.48
4. Measurement and Geometry	12	0.76	1.31	0.74	1.31	0.73	1.19	0.74	1.37
5. Statistics, Data Analysis, and Probability	4	0.48	0.72	0.40	0.71	0.40	0.63	0.43	0.76
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.75	1.37	0.74	1.37	0.74	1.28	0.73	1.43
2. Number Sense: Operations with Fractions and Decimals	17	0.84	1.64	0.83	1.61	0.82	1.49	0.82	1.70
3. Algebra and Functions	17	0.82	1.55	0.81	1.54	0.80	1.43	0.81	1.61
4. Measurement and Geometry	15	0.81	1.52	0.79	1.54	0.80	1.41	0.78	1.59
5. Statistics, Data Analysis, and Probability	4	0.56	0.69	0.50	0.68	0.52	0.59	0.52	0.74
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.78	1.61	0.77	1.59	0.77	1.51	0.75	1.66
2. Number Sense: Operations and Problem Solving with Fractions	10	0.74	1.27	0.71	1.28	0.71	1.18	0.70	1.33
3. Algebra and Functions	19	0.84	1.64	0.83	1.67	0.82	1.49	0.82	1.75
4. Measurement and Geometry	10	0.70	1.34	0.69	1.35	0.71	1.27	0.65	1.39
5. Statistics, Data Analysis, and Probability	11	0.76	1.35	0.73	1.33	0.73	1.25	0.72	1.39
Grade 7									
1. Number Sense: Rational Numbers	14	0.79	1.58	0.79	1.59	0.78	1.51	0.77	1.63
2. Number Sense: Exponent, Powers and Roots	8	0.69	1.20	0.68	1.20	0.67	1.16	0.66	1.23
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.69	1.37	0.66	1.36	0.66	1.29	0.65	1.41
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.80	1.58	0.78	1.61	0.79	1.49	0.76	1.66
5. Measurement and Geometry	13	0.74	1.52	0.71	1.53	0.73	1.44	0.70	1.58
6. Statistics, Data Analysis, and Probability	5	0.58	0.90	0.54	0.89	0.54	0.83	0.54	0.93

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
General Mathematics									
1. Number Sense: Rational Numbers	14	0.70	1.68	0.67	1.68	0.70	1.66	0.67	1.70
2. Number Sense: Exponent, Powers and Roots	10	0.70	1.40	0.70	1.40	0.72	1.39	0.67	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.63	1.50	0.58	1.50	0.63	1.48	0.58	1.51
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.66	1.39	0.63	1.41	0.66	1.36	0.62	1.42
5. Measurement and Geometry	11	0.67	1.50	0.64	1.52	0.69	1.50	0.62	1.52
6. Statistics, Data Analysis, and Probability	9	0.67	1.30	0.63	1.27	0.68	1.25	0.64	1.31
Algebra I									
1. Number Properties, Operations, and Linear Equations	17	0.77	1.78	0.75	1.77	0.78	1.71	0.73	1.82
2. Graphing and Systems of Linear Equations	14	0.76	1.67	0.75	1.67	0.78	1.64	0.71	1.69
3. Quadratics and Polynomials	21	0.83	2.02	0.83	2.01	0.85	1.97	0.80	2.04
4. Functions and Rational Expressions	13	0.69	1.61	0.70	1.62	0.74	1.60	0.63	1.63
Geometry									
1. Logic and Geometric Proofs	23	0.83	2.08	0.82	2.10	0.82	2.02	0.79	2.16
2. Volume and Area Formulas	11	0.74	1.41	0.72	1.41	0.75	1.36	0.67	1.45
3. Angle Relationships, Constructions, and Lines	16	0.78	1.72	0.76	1.74	0.78	1.69	0.72	1.78
4. Trigonometry	15	0.80	1.67	0.77	1.69	0.79	1.63	0.75	1.73
Algebra II									
1. Polynomials and Rational Expressions	19	0.82	1.78	0.80	1.79	0.81	1.74	0.80	1.83
2. Quadratics, Conics, and Complex Numbers	16	0.76	1.78	0.74	1.80	0.77	1.76	0.70	1.82
3. Exponents and Logarithms	16	0.80	1.73	0.77	1.76	0.79	1.71	0.76	1.79
4. Series, Combinatorics, and Probability and Statistics	14	0.70	1.66	0.66	1.66	0.69	1.65	0.63	1.68
Summative High School Mathematics									
1. Algebra I	18	0.79	1.55	0.78	1.65	0.77	1.54	0.78	1.71
2. Geometry	19	0.78	1.66	0.78	1.76	0.76	1.64	0.78	1.82
3. Algebra II	23	0.86	1.81	0.85	1.92	0.85	1.79	0.84	2.00
4. Probability and Statistics	5	0.57	0.90	0.53	0.97	0.54	0.90	0.49	1.00
Integrated Mathematics 1									
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.69	1.71	0.65	1.71	0.69	1.69	0.66	1.73
2. Algebra I: Graphing	9	0.58	1.36	0.56	1.38	0.59	1.36	0.56	1.37
3. Algebra I: Quadratics and Polynomials	14	0.63	1.68	0.63	1.67	0.66	1.67	0.61	1.68
4. Algebra I: Functions and Relations Expressions	7	0.46	1.17	0.48	1.19	0.51	1.18	0.45	1.18
5. Geometry	20	0.57	2.03	0.50	2.01	0.59	2.04	0.50	2.01
Integrated Mathematics 2									
1. Algebra I	20	0.75	2.04	0.73	2.05	0.75	2.04	0.73	2.04
2. Geometry: Logic and Geometric Proofs	22	0.75	2.12	0.72	2.14	0.76	2.12	0.71	2.14
3. Geometry: Angle Relationships, Construction and Lines	8	0.56	1.22	0.52	1.21	0.56	1.21	0.50	1.22
4. Trigonometry	10	0.67	1.40	0.64	1.42	0.66	1.40	0.64	1.41
5. Algebra II: Probability and Statistics	5	0.38	0.98	0.36	0.96	0.43	0.97	0.31	0.98
Integrated Mathematics 3									
1. Geometry	5	0.54	0.94	0.36	1.01	0.42	0.96	0.51	0.98
2. Algebra II: Polynomials and Relations Expressions	19	0.82	1.82	0.81	1.83	0.83	1.80	0.79	1.86
3. Algebra II: Quadratics, Conics and Complex Numbers	16	0.70	1.82	0.67	1.83	0.71	1.81	0.62	1.84
4. Algebra II: Exponents and Logarithms	16	0.79	1.77	0.76	1.81	0.81	1.75	0.70	1.85
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.50	1.35	0.42	1.35	0.44	1.35	0.50	1.34

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	0.71	1.28	0.68	1.30	0.65	1.11	0.67	1.39
2. Physical Science (Grade 4)	8	0.64	1.13	0.61	1.18	0.59	1.05	0.60	1.22
3. Life Science (Grade 5)	13	0.72	1.46	0.69	1.49	0.65	1.34	0.68	1.56
4. Life Science (Grade 4)	9	0.68	1.17	0.65	1.20	0.61	1.04	0.63	1.27
5. Earth Science (Grade 5)	11	0.69	1.33	0.64	1.35	0.60	1.23	0.64	1.41
6. Earth Science (Grade 4)	8	0.67	1.17	0.63	1.21	0.62	1.08	0.60	1.26
Grade 8 Science									
1. Motion	8	0.57	1.18	0.52	1.20	0.55	1.12	0.50	1.23
2. Forces, Density, and Buoyancy	13	0.77	1.35	0.71	1.43	0.72	1.26	0.72	1.48
3. Structure of Matter and Periodic Table	16	0.81	1.54	0.78	1.57	0.78	1.41	0.78	1.65
4. Earth in the Solar System	7	0.64	0.98	0.55	1.03	0.57	0.92	0.58	1.06
5. Reactions and the Chemistry of Living Systems	10	0.71	1.29	0.63	1.34	0.65	1.22	0.64	1.38
6. Investigation and Experimentation	6	0.66	0.90	0.62	0.90	0.63	0.78	0.61	0.97
Grade 10 Life Science									
1. Cell Biology	10	0.69	1.34	0.63	1.38	0.67	1.32	0.60	1.39
2. Genetics	12	0.77	1.45	0.74	1.46	0.76	1.39	0.72	1.50
3. Physiology	10	0.72	1.28	0.64	1.32	0.67	1.21	0.65	1.37
4. Ecology	11	0.77	1.29	0.71	1.34	0.73	1.22	0.72	1.39
5. Evolution	11	0.76	1.34	0.71	1.37	0.73	1.27	0.71	1.43
6. Investigation and Experimentation	6	0.77	0.87	0.72	0.85	0.75	0.76	0.72	0.94
Biology									
1. Cell Biology	9	0.64	1.27	0.60	1.29	0.63	1.21	0.57	1.34
2. Genetics	18	0.83	1.78	0.81	1.77	0.82	1.69	0.79	1.84
3. Ecology and Evolution	16	0.81	1.69	0.78	1.73	0.78	1.62	0.76	1.79
4. Physiology	11	0.77	1.31	0.70	1.35	0.72	1.24	0.71	1.41
5. Investigation and Experimentation	6	0.71	0.96	0.65	0.97	0.67	0.90	0.65	1.02
Chemistry									
1. Atomic and Molecular Structure	8	0.62	1.24	0.58	1.27	0.58	1.24	0.56	1.28
2. Chemical Bonds, Biochemistry	9	0.66	1.20	0.58	1.26	0.59	1.16	0.60	1.30
3. Kinetics, Thermodynamics	14	0.77	1.57	0.69	1.66	0.71	1.55	0.70	1.69
4. Chemical Reactions	13	0.74	1.56	0.69	1.61	0.70	1.54	0.68	1.64
5. Conservation of Matter and Stoichiometry	10	0.78	1.30	0.74	1.33	0.76	1.27	0.72	1.36
6. Investigation and Experimentation	6	0.67	0.93	0.60	0.97	0.61	0.87	0.60	1.03
Earth Science									
1. Astronomy and Cosmology	12	0.74	1.48	0.67	1.55	0.71	1.46	0.69	1.55
2. Solid Earth	14	0.72	1.64	0.64	1.69	0.68	1.62	0.67	1.69
3. The Earth's Energy	28	0.85	2.32	0.81	2.39	0.84	2.27	0.81	2.41
4. Investigation and Experimentation	6	0.64	1.03	0.57	1.05	0.62	0.98	0.59	1.07
Physics									
1. Motion and Forces	12	0.73	1.41	0.68	1.50	0.68	1.38	0.68	1.54
2. Conservation of Energy and Momentum	12	0.74	1.44	0.71	1.50	0.71	1.42	0.70	1.54
3. Heat and Thermodynamics	9	0.72	1.19	0.67	1.26	0.68	1.16	0.66	1.30
4. Waves	10	0.68	1.36	0.60	1.42	0.62	1.35	0.63	1.43
5. Electric and Magnetic Phenomena	11	0.68	1.48	0.63	1.51	0.65	1.47	0.63	1.52
6. Investigation and Experimentation	6	0.55	1.03	0.51	1.06	0.49	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	0.67	1.40	0.62	1.43	0.66	1.35	0.61	1.45
2. Chemistry	15	0.56	1.79	0.50	1.79	0.58	1.78	0.48	1.79
3. Earth Sciences	17	0.77	1.82	0.70	1.86	0.74	1.78	0.72	1.87
4. Physics	12	0.58	1.60	0.53	1.61	0.59	1.60	0.53	1.61
5. Investigation and Experimentation	6	0.61	1.06	0.57	1.06	0.62	1.01	0.55	1.09
Integrated/Coordinated Science 2									
1. Biology/Life Sciences	15	0.74	1.71	0.72	1.71	0.74	1.68	0.70	1.73
2. Chemistry	6	0.56	1.11	0.47	1.14	0.60	1.08	0.39	1.15
3. Earth Sciences	15	0.82	1.64	0.78	1.71	0.82	1.56	0.76	1.74
4. Physics	18	0.75	1.91	0.72	1.93	0.80	1.88	0.63	1.94
5. Investigation and Experimentation	6	0.60	1.07	0.57	1.08	0.63	1.00	0.48	1.12
Integrated/Coordinated Science 3									
1. Biology/Life Sciences	16	0.79	1.74	0.74	1.80	0.79	1.72	0.73	1.80
2. Chemistry	23	0.79	2.14	0.73	2.15	0.80	2.14	0.71	2.14
3. Earth Sciences	7	0.62	1.16	0.55	1.20	0.62	1.15	0.55	1.20
4. Physics	8	0.43	1.30	0.27	1.28	0.39	1.30	0.34	1.27
5. Investigation and Experimentation	6	0.60	1.06	0.58	1.06	0.58	1.05	0.58	1.08
Integrated/Coordinated Science 4									
1. Biology/Life Sciences	13	0.58	1.69	0.49	1.68	0.52	1.66	0.56	1.69
2. Chemistry	10	0.58	1.40	0.23	1.46	0.54	1.38	0.38	1.48
3. Earth Sciences	15	0.70	1.80	0.36	1.83	0.65	1.79	0.60	1.82
4. Physics	16	0.44	1.73	0.42	1.73	–0.21	1.74	0.59	1.71
5. Investigation and Experimentation	6	0.42	1.07	0.56	1.07	0.58	1.01	0.41	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	0.77	1.73	0.76	1.72	0.76	1.64	0.74	1.78
2. Graphing and Systems of Linear Equations	14	0.77	1.65	0.75	1.65	0.77	1.61	0.73	1.69
3. Quadratics and Polynomials	21	0.84	1.98	0.83	1.97	0.84	1.92	0.82	2.02
4. Functions and Rational Expressions	13	0.72	1.62	0.72	1.62	0.73	1.59	0.67	1.64
Geometry – 9									
1. Logic and Geometric Proofs	23	0.80	2.00	0.80	2.03	0.77	1.93	0.78	2.11
2. Volume and Area Formulas	11	0.73	1.35	0.72	1.36	0.70	1.30	0.69	1.41
3. Angle Relationships, Constructions, and Lines	16	0.77	1.67	0.74	1.70	0.74	1.63	0.73	1.74
4. Trigonometry	15	0.78	1.61	0.76	1.63	0.75	1.56	0.75	1.69
Algebra II – 10									
1. Polynomials and Rational Expressions	19	0.80	1.73	0.79	1.75	0.77	1.70	0.80	1.79
2. Quadratics, Conics, and Complex Numbers	16	0.75	1.77	0.74	1.79	0.75	1.76	0.71	1.81
3. Exponents and Logarithms	16	0.79	1.71	0.76	1.74	0.76	1.69	0.76	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.65	0.65	1.65	0.66	1.64	0.64	1.67
Summative High School Mathematics – 11									
1. Algebra I	18	0.78	1.60	0.78	1.68	0.77	1.58	0.77	1.73
2. Geometry	19	0.78	1.69	0.77	1.79	0.76	1.68	0.77	1.85
3. Algebra II	23	0.86	1.86	0.84	1.96	0.84	1.84	0.84	2.03
4. Probability and Statistics	5	0.57	0.92	0.52	0.98	0.54	0.92	0.48	1.00

Subscore Reliabilities and SEM for Grade-specific CSTs by *Gender/Economic Status*									
Subscore Area	N of	Male		Female		Not Econ. Dis.		Econ. Dis.	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
World History – 10									
1. Development of Modern Political Thought	13	0.73	1.50	0.66	1.51	0.69	1.43	0.68	1.56
2. Industrial Expansion and Imperialism	10	0.72	1.29	0.64	1.36	0.65	1.26	0.66	1.38
3. Causes and Effects of World War I	14	0.79	1.54	0.73	1.64	0.76	1.51	0.74	1.65
4. Causes and Effects of World War II	13	0.79	1.48	0.70	1.58	0.75	1.45	0.72	1.59
5. International Developments in the Post-World War II Era	10	0.75	1.31	0.66	1.38	0.71	1.28	0.68	1.39

Table 8.B.25 Subscore Reliabilities and SEM for ELA by Special Services/English Fluency

Subscore Reliabilities and SEM for ELA by *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2													
1. Word Analysis and Vocabulary Development	22	0.85	1.82	0.87	2.03	0.86	1.78	0.81	1.56	0.85	1.95	0.72	1.53
2. Reading Comprehension	15	0.78	1.61	0.78	1.71	0.79	1.58	0.76	1.44	0.75	1.70	0.66	1.48
3. Literary Response and Analysis	6	0.64	0.95	0.67	1.04	0.66	0.92	0.58	0.84	0.62	1.02	0.46	0.85
4. Written and Oral Language Conventions	14	0.81	1.46	0.81	1.61	0.82	1.43	0.78	1.25	0.80	1.55	0.68	1.23
5. Writing Strategies	8	0.72	1.15	0.71	1.22	0.74	1.13	0.70	1.03	0.68	1.22	0.58	1.06
Grade 3													
1. Word Analysis and Vocabulary Development	20	0.82	1.70	0.84	1.86	0.82	1.64	0.78	1.45	0.79	1.90	0.64	1.50
2. Reading Comprehension	15	0.77	1.55	0.79	1.64	0.77	1.51	0.73	1.39	0.72	1.68	0.60	1.44
3. Literary Response and Analysis	8	0.69	1.13	0.71	1.20	0.68	1.09	0.63	0.99	0.65	1.24	0.51	1.03
4. Written and Oral Language Conventions	13	0.72	1.50	0.73	1.57	0.72	1.49	0.70	1.38	0.68	1.56	0.59	1.39
5. Writing Strategies	9	0.66	1.28	0.68	1.33	0.65	1.24	0.61	1.15	0.61	1.37	0.48	1.20
Grade 4													
1. Word Analysis and Vocabulary Development	18	0.84	1.54	0.85	1.69	0.83	1.47	0.79	1.30	0.79	1.82	0.63	1.33
2. Reading Comprehension	15	0.77	1.59	0.78	1.66	0.76	1.55	0.73	1.45	0.70	1.72	0.61	1.49
3. Literary Response and Analysis	9	0.65	1.29	0.65	1.33	0.65	1.26	0.63	1.17	0.51	1.37	0.53	1.24
4. Written and Oral Language Conventions	18	0.79	1.74	0.79	1.85	0.79	1.71	0.77	1.57	0.72	1.91	0.65	1.60
5. Writing Strategies	15	0.76	1.69	0.75	1.73	0.76	1.67	0.75	1.57	0.62	1.78	0.64	1.63
Grade 5													
1. Word Analysis and Vocabulary Development	14	0.72	1.51	0.75	1.59	0.71	1.47	0.68	1.37	0.64	1.68	0.56	1.46
2. Reading Comprehension	16	0.81	1.55	0.82	1.67	0.80	1.49	0.77	1.38	0.73	1.80	0.67	1.49
3. Literary Response and Analysis	12	0.70	1.44	0.71	1.52	0.70	1.40	0.67	1.31	0.58	1.59	0.57	1.40
4. Written and Oral Language Conventions	17	0.75	1.61	0.76	1.76	0.74	1.58	0.72	1.44	0.67	1.82	0.59	1.51
5. Writing Strategies	16	0.77	1.66	0.78	1.75	0.77	1.63	0.73	1.52	0.67	1.82	0.63	1.61

Subscore Reliabilities and SEM for ELA by *Special Services/English Fluency*

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
Grade 6													
1. Word Analysis and Vocabulary Development	13	0.74	1.43	0.74	1.54	0.73	1.38	0.71	1.32	0.58	1.62	0.60	1.42
2. Reading Comprehension	17	0.77	1.76	0.75	1.83	0.77	1.74	0.76	1.67	0.60	1.85	0.68	1.76
3. Literary Response and Analysis	12	0.70	1.42	0.71	1.51	0.70	1.38	0.67	1.34	0.55	1.58	0.55	1.44
4. Written and Oral Language Conventions	16	0.72	1.59	0.73	1.74	0.72	1.56	0.71	1.47	0.65	1.79	0.60	1.54
5. Writing Strategies	17	0.79	1.74	0.78	1.82	0.79	1.70	0.78	1.64	0.65	1.89	0.71	1.74
Grade 7													
1. Word Analysis and Vocabulary Development	11	0.70	1.25	0.72	1.41	0.71	1.20	0.67	1.15	0.55	1.50	0.54	1.27
2. Reading Comprehension	18	0.76	1.66	0.79	1.81	0.76	1.63	0.73	1.56	0.68	1.89	0.65	1.65
3. Literary Response and Analysis	13	0.74	1.53	0.73	1.61	0.73	1.49	0.71	1.45	0.59	1.65	0.63	1.55
4. Written and Oral Language Conventions	16	0.73	1.60	0.72	1.76	0.73	1.57	0.72	1.49	0.62	1.81	0.61	1.58
5. Writing Strategies	17	0.78	1.75	0.75	1.84	0.79	1.72	0.79	1.66	0.59	1.87	0.70	1.77
Grade 8													
1. Word Analysis and Vocabulary Development	9	0.61	1.21	0.63	1.32	0.60	1.18	0.55	1.14	0.46	1.37	0.46	1.22
2. Reading Comprehension	18	0.77	1.72	0.78	1.87	0.77	1.69	0.74	1.62	0.67	1.94	0.68	1.73
3. Literary Response and Analysis	15	0.77	1.60	0.75	1.72	0.77	1.57	0.75	1.52	0.59	1.79	0.69	1.63
4. Written and Oral Language Conventions	16	0.77	1.66	0.75	1.80	0.77	1.62	0.75	1.56	0.62	1.86	0.68	1.67
5. Writing Strategies	17	0.79	1.77	0.76	1.86	0.80	1.75	0.79	1.69	0.61	1.89	0.73	1.79
Grade 9													
1. Word Analysis and Vocabulary Development	8	0.61	1.22	0.58	1.27	0.62	1.20	0.59	1.16	0.37	1.29	0.47	1.23
2. Reading Comprehension	18	0.81	1.71	0.79	1.90	0.81	1.67	0.80	1.59	0.69	1.95	0.73	1.72
3. Literary Response and Analysis	16	0.77	1.63	0.77	1.76	0.77	1.59	0.75	1.54	0.65	1.83	0.68	1.64
4. Written and Oral Language Conventions	13	0.69	1.56	0.65	1.67	0.71	1.53	0.70	1.47	0.53	1.71	0.57	1.59
5. Writing Strategies	20	0.79	1.92	0.74	2.02	0.80	1.89	0.79	1.83	0.60	2.06	0.71	1.93
Grade 10													
1. Word Analysis and Vocabulary Development	8	0.60	1.16	0.60	1.27	0.61	1.14	0.57	1.09	0.45	1.31	0.47	1.17
2. Reading Comprehension	18	0.81	1.73	0.79	1.90	0.82	1.70	0.79	1.61	0.71	1.95	0.74	1.72
3. Literary Response and Analysis	16	0.72	1.70	0.69	1.83	0.74	1.66	0.71	1.61	0.54	1.88	0.63	1.72
4. Written and Oral Language Conventions	13	0.73	1.46	0.69	1.61	0.75	1.44	0.71	1.38	0.60	1.63	0.64	1.45
5. Writing Strategies	20	0.83	1.86	0.77	2.00	0.83	1.83	0.82	1.75	0.64	2.03	0.77	1.88

Subscore Reliabilities and SEM for ELA by *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 11													
1. Word Analysis and Vocabulary Development	8	0.63	1.13	0.63	1.27	0.65	1.10	0.60	1.06	0.49	1.32	0.51	1.14
2. Reading Comprehension	19	0.80	1.83	0.78	1.97	0.81	1.80	0.79	1.75	0.67	2.02	0.73	1.86
3. Literary Response and Analysis	17	0.73	1.76	0.69	1.87	0.74	1.74	0.71	1.72	0.52	1.90	0.65	1.79
4. Written and Oral Language Conventions	9	0.65	1.18	0.63	1.35	0.68	1.15	0.62	1.12	0.49	1.39	0.52	1.20
5. Writing Strategies	22	0.81	2.00	0.79	2.13	0.83	1.97	0.79	1.92	0.70	2.18	0.74	2.02

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 *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 8													
1. World History and Geography: Ancient Civilizations	16	0.70	1.72	0.67	1.83	0.72	1.70	0.69	1.64	0.55	1.86	0.62	1.74
2. Late Antiquity and the Middle Ages	14	0.73	1.59	0.71	1.69	0.74	1.57	0.73	1.51	0.62	1.72	0.66	1.60
3. Renaissance/Reformation	10	0.67	1.30	0.64	1.43	0.70	1.29	0.66	1.23	0.54	1.46	0.58	1.31
4. U.S. Constitution and the Early Republic	22	0.82	1.98	0.77	2.13	0.83	1.96	0.82	1.89	0.70	2.16	0.77	2.00
5. Civil War and Its Aftermath	13	0.78	1.47	0.73	1.61	0.80	1.45	0.78	1.40	0.65	1.65	0.73	1.50
World History													
1. Development of Modern Political Thought	13	0.70	1.49	0.69	1.63	0.72	1.48	0.69	1.42	0.62	1.65	0.62	1.49
2. Industrial Expansion and Imperialism	10	0.68	1.32	0.67	1.42	0.69	1.30	0.66	1.25	0.59	1.45	0.61	1.33
3. Causes and Effects of World War I	14	0.77	1.58	0.73	1.70	0.78	1.56	0.77	1.50	0.65	1.73	0.73	1.59
4. Causes and Effects of World War II	13	0.75	1.52	0.73	1.62	0.77	1.50	0.75	1.45	0.65	1.66	0.70	1.54
5. International Developments in the Post-World War II Era	10	0.71	1.33	0.66	1.41	0.73	1.32	0.71	1.27	0.58	1.44	0.65	1.35
Grade 11 (U.S. History)													
1. Foundations of American Political and Social Thought	10	0.65	1.34	0.56	1.44	0.67	1.32	0.64	1.29	0.45	1.45	0.57	1.36
2. Industrialization and the U.S. role as a World Power	13	0.73	1.50	0.68	1.62	0.75	1.49	0.72	1.44	0.60	1.65	0.67	1.51
3. United States between the World Wars	12	0.69	1.47	0.67	1.56	0.71	1.46	0.67	1.43	0.58	1.58	0.62	1.48
4. World War II and Foreign Affairs	12	0.72	1.45	0.70	1.55	0.74	1.45	0.71	1.41	0.63	1.57	0.68	1.45
5. Post-World War II Domestic Affairs	13	0.72	1.55	0.67	1.64	0.73	1.53	0.70	1.50	0.54	1.67	0.64	1.56

Table 8.B.27 Subscore Reliabilities and SEM for Mathematics by Special Services/English Fluency

Subscore Reliabilities and SEM for Mathematics by *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2													
1. Number Sense: Place Value, Addition, and Subtraction	15	0.80	1.44	0.84	1.60	0.81	1.42	0.77	1.24	0.81	1.53	0.71	1.23
2. Number Sense: Multiplication, Division, and Fractions	23	0.84	1.72	0.88	1.98	0.85	1.69	0.81	1.46	0.85	1.85	0.75	1.46
3. Algebra and Functions	6	0.57	0.86	0.63	1.00	0.60	0.85	0.54	0.72	0.57	0.91	0.48	0.71
4. Measurement and Geometry	14	0.68	1.32	0.78	1.55	0.71	1.30	0.61	1.14	0.70	1.41	0.54	1.13
5. Statistics, Data Analysis and Probability	7	0.61	0.94	0.68	1.05	0.63	0.93	0.55	0.83	0.62	0.98	0.47	0.83
Grade 3													
1. Number Sense: Place Value, Fractions, and Decimals	16	0.77	1.39	0.81	1.52	0.77	1.37	0.73	1.22	0.76	1.51	0.64	1.22
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.84	1.43	0.85	1.59	0.84	1.42	0.83	1.19	0.83	1.55	0.78	1.17
3. Algebra and Functions	12	0.77	1.15	0.80	1.31	0.78	1.11	0.73	0.93	0.75	1.30	0.64	0.91
4. Measurement and Geometry	16	0.74	1.37	0.79	1.54	0.74	1.35	0.70	1.17	0.72	1.51	0.61	1.17
5. Statistics, Data Analysis, and Probability	5	0.53	0.66	0.63	0.78	0.55	0.64	0.39	0.54	0.54	0.75	0.23	0.54
Grade 4													
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.79	1.33	0.82	1.50	0.79	1.29	0.75	1.13	0.77	1.53	0.65	1.11
2. Number Sense: Operations and Factoring	14	0.84	1.24	0.84	1.44	0.84	1.24	0.83	1.03	0.83	1.41	0.77	0.98
3. Algebra and Functions	18	0.86	1.37	0.87	1.58	0.86	1.35	0.83	1.13	0.85	1.58	0.75	1.09
4. Measurement and Geometry	12	0.75	1.30	0.76	1.43	0.75	1.29	0.73	1.13	0.72	1.43	0.65	1.13
5. Statistics, Data Analysis, and Probability	4	0.43	0.71	0.48	0.79	0.45	0.69	0.37	0.63	0.41	0.80	0.26	0.62
Grade 5													
1. Number Sense: Estimation, Percents, and Factoring	12	0.74	1.37	0.73	1.47	0.74	1.36	0.75	1.24	0.69	1.49	0.71	1.28
2. Number Sense: Operations with Fractions and Decimals	17	0.83	1.62	0.82	1.77	0.83	1.61	0.83	1.43	0.79	1.79	0.80	1.49
3. Algebra and Functions	17	0.81	1.54	0.81	1.69	0.81	1.53	0.80	1.37	0.78	1.70	0.76	1.41
4. Measurement and Geometry	15	0.80	1.52	0.79	1.63	0.81	1.51	0.81	1.37	0.73	1.66	0.76	1.44
5. Statistics, Data Analysis, and Probability	4	0.53	0.68	0.56	0.78	0.55	0.66	0.50	0.56	0.47	0.82	0.41	0.59
Grade 6													
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.77	1.60	0.76	1.70	0.78	1.59	0.79	1.49	0.70	1.73	0.74	1.55
2. Number Sense: Operations and Problem Solving with Fractions	10	0.72	1.27	0.71	1.37	0.72	1.26	0.72	1.18	0.65	1.38	0.67	1.25
3. Algebra and Functions	19	0.83	1.64	0.83	1.83	0.83	1.62	0.83	1.50	0.78	1.89	0.78	1.57
4. Measurement and Geometry	10	0.69	1.34	0.63	1.41	0.69	1.33	0.72	1.26	0.56	1.43	0.66	1.32
5. Statistics, Data Analysis, and Probability	11	0.74	1.34	0.72	1.42	0.75	1.32	0.73	1.25	0.62	1.46	0.67	1.32

Subscore Reliabilities and SEM for Mathematics by *Special Services/English Fluency*

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
Grade 7													
1. Number Sense: Rational Numbers	14	0.79	1.59	0.75	1.66	0.79	1.58	0.79	1.52	0.71	1.67	0.76	1.57
2. Number Sense: Exponent, Powers and Roots	8	0.68	1.20	0.64	1.24	0.68	1.19	0.69	1.15	0.61	1.26	0.65	1.19
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.67	1.36	0.64	1.43	0.67	1.35	0.68	1.30	0.57	1.46	0.61	1.35
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.79	1.59	0.76	1.71	0.79	1.57	0.79	1.51	0.69	1.75	0.74	1.57
5. Measurement and Geometry	13	0.73	1.52	0.70	1.61	0.73	1.50	0.73	1.46	0.62	1.64	0.67	1.51
6. Statistics, Data Analysis, and Probability	5	0.56	0.89	0.54	0.98	0.56	0.87	0.54	0.84	0.50	1.00	0.50	0.87
General Mathematics													
1. Number Sense: Rational Numbers	14	0.67	1.68	0.61	1.70	0.70	1.68	0.68	1.66	0.62	1.71	0.65	1.66
2. Number Sense: Exponent, Powers and Roots	10	0.70	1.41	0.57	1.38	0.71	1.40	0.71	1.40	0.60	1.40	0.68	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.58	1.50	0.54	1.51	0.63	1.49	0.60	1.48	0.53	1.53	0.53	1.49
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.62	1.39	0.56	1.45	0.66	1.39	0.62	1.37	0.57	1.46	0.58	1.36
5. Measurement and Geometry	11	0.65	1.52	0.53	1.48	0.68	1.51	0.66	1.51	0.53	1.50	0.61	1.53
6. Statistics, Data Analysis, and Probability	9	0.65	1.27	0.57	1.36	0.68	1.28	0.65	1.26	0.56	1.34	0.60	1.24
Algebra I													
1. Number Properties, Operations, and Linear Equations	17	0.76	1.77	0.70	1.85	0.77	1.76	0.79	1.70	0.64	1.86	0.73	1.76
2. Graphing and Systems of Linear Equations	14	0.76	1.67	0.64	1.69	0.76	1.67	0.80	1.62	0.63	1.70	0.75	1.67
3. Quadratics and Polynomials	21	0.83	2.01	0.74	2.04	0.83	2.01	0.86	1.95	0.73	2.05	0.83	2.01
4. Functions and Rational Expressions	13	0.70	1.62	0.53	1.59	0.70	1.62	0.76	1.59	0.50	1.60	0.69	1.63
Geometry													
1. Logic and Geometric Proofs	23	0.82	2.09	0.79	2.16	0.82	2.07	0.84	2.01	0.74	2.17	0.79	2.13
2. Volume and Area Formulas	11	0.73	1.41	0.64	1.46	0.73	1.40	0.77	1.35	0.56	1.47	0.70	1.43
3. Angle Relationships, Constructions, and Lines	16	0.77	1.73	0.70	1.78	0.77	1.72	0.81	1.67	0.66	1.79	0.74	1.75
4. Trigonometry	15	0.78	1.68	0.73	1.74	0.78	1.67	0.81	1.61	0.70	1.75	0.76	1.70
Algebra II													
1. Polynomials and Rational Expressions	19	0.81	1.78	0.82	1.88	0.80	1.78	0.83	1.71	0.82	1.88	0.81	1.78
2. Quadratics, Conics, and Complex Numbers	16	0.75	1.79	0.69	1.81	0.74	1.79	0.80	1.74	0.70	1.80	0.74	1.80
3. Exponents and Logarithms	16	0.78	1.75	0.77	1.79	0.78	1.75	0.81	1.68	0.76	1.79	0.77	1.76
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.66	0.64	1.67	0.67	1.66	0.73	1.63	0.59	1.67	0.66	1.67

Subscore Reliabilities and SEM for Mathematics by *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Summative High School Mathematics													
1. Algebra I	18	0.79	1.60	0.84	1.71	0.78	1.60	0.79	1.49	0.83	1.74	0.79	1.64
2. Geometry	19	0.78	1.71	0.85	1.80	0.77	1.70	0.77	1.62	0.84	1.85	0.78	1.77
3. Algebra II	23	0.85	1.87	0.89	1.96	0.85	1.87	0.86	1.74	0.89	1.99	0.85	1.92
4. Probability and Statistics	5	0.56	0.94	0.64	0.94	0.55	0.92	0.56	0.91	0.51	0.99	0.51	0.98
Integrated Mathematics 1													
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.67	1.71	0.61	1.76	0.69	1.70	0.67	1.69	0.57	1.77	0.64	1.70
2. Algebra I: Graphing	9	0.57	1.37	0.45	1.35	0.58	1.36	0.60	1.37	0.47	1.37	0.56	1.38
3. Algebra I: Quadratics and Polynomials	14	0.64	1.68	0.47	1.67	0.65	1.67	0.66	1.67	0.51	1.67	0.60	1.68
4. Algebra I: Functions and Relations Expressions	7	0.48	1.18	0.35	1.16	0.49	1.18	0.51	1.18	0.39	1.17	0.46	1.19
5. Geometry	20	0.55	2.03	0.36	1.98	0.58	2.03	0.60	2.03	0.27	1.97	0.46	2.04
Integrated Mathematics 2													
1. Algebra I	20	0.74	2.04	0.61	2.05	0.74	2.05	0.74	2.05	0.72	2.03	0.75	2.04
2. Geometry: Logic and Geometric Proofs	22	0.74	2.13	0.56	2.13	0.74	2.13	0.71	2.14	0.72	2.11	0.72	2.14
3. Geometry: Angle Relationships, Construction and Lines	8	0.54	1.21	0.46	1.22	0.53	1.22	0.57	1.20	0.53	1.22	0.52	1.21
4. Trigonometry	10	0.65	1.41	0.48	1.42	0.65	1.41	0.66	1.40	0.61	1.41	0.65	1.41
5. Algebra II: Probability and Statistics	5	0.38	0.97	0.20	0.96	0.38	0.98	0.34	0.98	0.38	0.93	0.35	0.97
Integrated Mathematics 3													
1. Geometry	5	0.47	0.97	0.51	1.02	0.45	0.96	0.57	0.93	0.48	1.02	0.47	0.99
2. Algebra II: Polynomials and Relations Expressions	19	0.81	1.83	0.89	1.77	0.81	1.83	0.82	1.82	0.86	1.84	0.80	1.80
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	0.69	1.82	0.60	1.80	0.68	1.83	0.79	1.74	0.68	1.84	0.65	1.83
4. Algebra II: Exponents and Logarithms	16	0.77	1.79	0.81	1.74	0.79	1.77	0.83	1.74	0.73	1.84	0.71	1.84
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.45	1.35	0.51	1.26	0.40	1.35	0.51	1.39	0.46	1.30	0.55	1.32

Table 8.B.28 Subscore Reliabilities and SEM for Science by Special Services/English Fluency

Subscore Reliabilities and SEM for Science by *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 5 Science													
1. Physical Science (Grade 5)	11	0.69	1.28	0.73	1.39	0.68	1.23	0.66	1.10	0.62	1.50	0.57	1.23
2. Physical Science (Grade 4)	8	0.62	1.15	0.67	1.21	0.62	1.13	0.58	1.04	0.56	1.28	0.52	1.12
3. Life Science (Grade 5)	13	0.70	1.47	0.74	1.56	0.69	1.43	0.64	1.33	0.62	1.65	0.57	1.43
4. Life Science (Grade 4)	9	0.66	1.18	0.69	1.26	0.65	1.14	0.61	1.04	0.56	1.36	0.53	1.13
5. Earth Science (Grade 5)	11	0.66	1.34	0.71	1.41	0.65	1.30	0.59	1.22	0.59	1.50	0.49	1.29
6. Earth Science (Grade 4)	8	0.65	1.19	0.67	1.24	0.65	1.15	0.63	1.08	0.50	1.31	0.52	1.18

Subscore Reliabilities and SEM for Science by *Special Services/English Fluency*

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
Grade 8 Science													
1. Motion	8	0.54	1.18	0.53	1.28	0.55	1.17	0.54	1.12	0.41	1.30	0.46	1.18
2. Forces, Density, and Buoyancy	13	0.73	1.39	0.76	1.55	0.74	1.35	0.71	1.29	0.67	1.62	0.65	1.39
3. Structure of Matter and Periodic Table	16	0.79	1.55	0.80	1.72	0.79	1.51	0.78	1.44	0.72	1.80	0.74	1.55
4. Earth in the Solar System	7	0.59	1.00	0.62	1.10	0.60	0.98	0.57	0.93	0.52	1.17	0.51	0.99
5. Reactions and the Chemistry of Living Systems	10	0.67	1.31	0.68	1.40	0.67	1.28	0.65	1.24	0.55	1.47	0.58	1.33
6. Investigation and Experimentation	6	0.64	0.89	0.60	1.06	0.65	0.86	0.62	0.81	0.47	1.10	0.54	0.89
Grade 10 Life Science													
1. Cell Biology	10	0.66	1.36	0.60	1.40	0.66	1.35	0.68	1.31	0.46	1.40	0.60	1.37
2. Genetics	12	0.75	1.45	0.69	1.54	0.76	1.43	0.76	1.38	0.58	1.56	0.71	1.46
3. Physiology	10	0.68	1.29	0.68	1.41	0.69	1.26	0.66	1.22	0.54	1.48	0.58	1.31
4. Ecology	11	0.74	1.31	0.74	1.45	0.74	1.27	0.71	1.23	0.62	1.51	0.66	1.33
5. Evolution	11	0.73	1.35	0.69	1.48	0.74	1.32	0.71	1.28	0.56	1.54	0.66	1.36
6. Investigation and Experimentation	6	0.74	0.85	0.70	1.03	0.76	0.82	0.73	0.76	0.60	1.08	0.67	0.85
Biology													
1. Cell Biology	9	0.62	1.27	0.51	1.40	0.63	1.26	0.65	1.19	0.43	1.41	0.57	1.29
2. Genetics	18	0.81	1.76	0.74	1.89	0.82	1.74	0.82	1.67	0.68	1.91	0.77	1.79
3. Ecology and Evolution	16	0.79	1.70	0.74	1.81	0.80	1.67	0.78	1.63	0.63	1.85	0.73	1.75
4. Physiology	11	0.72	1.32	0.70	1.49	0.74	1.29	0.71	1.25	0.61	1.52	0.65	1.34
5. Investigation and Experimentation	6	0.67	0.96	0.60	1.06	0.68	0.94	0.66	0.90	0.50	1.09	0.60	0.98
Chemistry													
1. Atomic and Molecular Structure	8	0.60	1.26	0.58	1.27	0.58	1.25	0.62	1.23	0.47	1.28	0.57	1.28
2. Chemical Bonds, Biochemistry	9	0.61	1.23	0.67	1.34	0.61	1.20	0.61	1.17	0.57	1.39	0.57	1.27
3. Kinetics, Thermodynamics	14	0.73	1.62	0.75	1.68	0.72	1.59	0.73	1.56	0.65	1.73	0.69	1.66
4. Chemical Reactions	13	0.71	1.59	0.71	1.62	0.70	1.57	0.73	1.54	0.59	1.65	0.69	1.62
5. Conservation of Matter and Stoichiometry	10	0.76	1.31	0.70	1.37	0.75	1.31	0.78	1.26	0.66	1.38	0.74	1.33
6. Investigation and Experimentation	6	0.63	0.95	0.65	1.06	0.63	0.92	0.62	0.89	0.48	1.13	0.58	0.99
Earth Science													
1. Astronomy and Cosmology	12	0.70	1.51	0.68	1.58	0.72	1.49	0.68	1.49	0.61	1.61	0.65	1.50
2. Solid Earth	14	0.67	1.66	0.67	1.72	0.69	1.65	0.66	1.63	0.62	1.73	0.59	1.65
3. The Earth's Energy	28	0.83	2.34	0.80	2.44	0.84	2.31	0.82	2.31	0.73	2.47	0.78	2.36
4. Investigation and Experimentation	6	0.60	1.03	0.54	1.11	0.63	1.01	0.59	1.00	0.48	1.13	0.51	1.02
Physics													
1. Motion and Forces	12	0.70	1.45	0.70	1.56	0.70	1.42	0.70	1.40	0.61	1.60	0.66	1.50
2. Conservation of Energy and Momentum	12	0.72	1.47	0.70	1.56	0.73	1.45	0.73	1.42	0.63	1.58	0.69	1.51
3. Heat and Thermodynamics	9	0.69	1.22	0.71	1.30	0.70	1.19	0.68	1.18	0.54	1.33	0.63	1.28
4. Waves	10	0.64	1.39	0.66	1.41	0.64	1.37	0.64	1.36	0.55	1.45	0.62	1.41
5. Electric and Magnetic Phenomena	11	0.65	1.49	0.59	1.51	0.65	1.48	0.66	1.47	0.56	1.52	0.63	1.51
6. Investigation and Experimentation	6	0.52	1.04	0.53	1.11	0.52	1.02	0.51	1.01	0.40	1.13	0.46	1.08

Subscore Reliabilities and SEM for Science by *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Integrated/Coordinated Science 1													
1. Biology/Life Sciences	10	0.64	1.41	0.58	1.46	0.66	1.38	0.63	1.38	0.49	1.48	0.56	1.43
2. Chemistry	15	0.54	1.79	0.34	1.76	0.56	1.79	0.60	1.78	0.31	1.77	0.49	1.80
3. Earth Sciences	17	0.73	1.83	0.70	1.90	0.75	1.82	0.72	1.79	0.65	1.91	0.67	1.83
4. Physics	12	0.56	1.61	0.43	1.56	0.57	1.61	0.58	1.60	0.43	1.57	0.51	1.62
5. Investigation and Experimentation	6	0.58	1.05	0.45	1.11	0.61	1.04	0.59	1.02	0.38	1.13	0.52	1.06
Integrated/Coordinated Science 2													
1. Biology/Life Sciences	15	0.73	1.70	0.56	1.77	0.74	1.71	0.75	1.64	0.57	1.77	0.70	1.69
2. Chemistry	6	0.51	1.12	0.27	1.12	0.54	1.12	0.58	1.07	0.23	1.14	0.44	1.14
3. Earth Sciences	15	0.80	1.65	0.70	1.76	0.82	1.64	0.80	1.55	0.64	1.79	0.74	1.67
4. Physics	18	0.74	1.92	0.43	1.90	0.74	1.91	0.81	1.88	0.38	1.93	0.73	1.92
5. Investigation and Experimentation	6	0.57	1.07	0.35	1.12	0.58	1.07	0.61	1.00	0.29	1.12	0.52	1.08
Integrated/Coordinated Science 3													
1. Biology/Life Sciences	16	0.77	1.75	0.70	1.81	0.78	1.71	0.75	1.78	0.52	1.83	0.71	1.82
2. Chemistry	23	0.78	2.15	0.56	2.11	0.81	2.12	0.70	2.18	0.46	2.14	0.69	2.17
3. Earth Sciences	7	0.62	1.16	0.24	1.27	0.63	1.14	0.51	1.21	0.43	1.23	0.52	1.20
4. Physics	8	0.37	1.30	0.32	1.22	0.38	1.31	0.47	1.27	0.21	1.19	0.20	1.31
5. Investigation and Experimentation	6	0.58	1.05	0.52	1.10	0.61	1.03	0.63	1.06	0.43	1.13	0.49	1.08
Integrated/Coordinated Science 4													
1. Biology/Life Sciences	13	0.59	1.65	0.48	1.71	0.48	1.69	–	–	0.36	1.69	0.77	1.61
2. Chemistry	10	0.41	1.47	0.52	1.38	0.48	1.45	–	–	0.27	1.48	0.58	1.36
3. Earth Sciences	15	0.56	1.84	0.69	1.77	0.54	1.85	–	–	0.46	1.68	0.50	1.89
4. Physics	16	0.48	1.76	0.24	1.69	0.44	1.78	–	–	0.47	1.64	0.04	1.72
5. Investigation and Experimentation	6	0.42	1.10	0.54	1.01	0.59	1.03	–	–	0.21	1.14	–	–

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 *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Algebra I – 8													
1. Number Properties, Operations, and Linear Equations	17	0.76	1.72	0.75	1.81	0.76	1.71	0.77	1.66	0.69	1.84	0.73	1.73
2. Graphing and Systems of Linear Equations	14	0.76	1.65	0.73	1.69	0.76	1.65	0.78	1.61	0.69	1.70	0.75	1.66
3. Quadratics and Polynomials	21	0.84	1.98	0.82	2.03	0.83	1.98	0.85	1.92	0.79	2.04	0.83	1.98
4. Functions and Rational Expressions	13	0.72	1.62	0.66	1.62	0.71	1.62	0.75	1.59	0.61	1.62	0.70	1.63
Geometry – 9													
1. Logic and Geometric Proofs	23	0.80	2.01	0.85	2.08	0.78	1.98	0.80	1.95	0.82	2.14	0.78	2.08
2. Volume and Area Formulas	11	0.72	1.35	0.75	1.40	0.71	1.33	0.73	1.31	0.69	1.45	0.70	1.39
3. Angle Relationships, Constructions, and Lines	16	0.75	1.68	0.79	1.74	0.74	1.66	0.77	1.64	0.76	1.76	0.73	1.72
4. Trigonometry	15	0.77	1.62	0.81	1.66	0.76	1.60	0.77	1.56	0.78	1.71	0.75	1.66

Subscore Reliabilities and SEM for Grade-specific CSTs by *Special Services/English Fluency*													
Subscore Area	N of	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Algebra II – 10													
1. Polynomials and Rational Expressions	19	0.79	1.74	0.84	1.84	0.78	1.74	0.80	1.69	0.84	1.84	0.79	1.74
2. Quadratics, Conics, and Complex Numbers	16	0.74	1.78	0.73	1.81	0.73	1.78	0.77	1.75	0.75	1.80	0.74	1.79
3. Exponents and Logarithms	16	0.77	1.72	0.81	1.75	0.76	1.72	0.79	1.67	0.79	1.77	0.77	1.74
4. Series, Combinatorics, and Probability and Statistics	14	0.66	1.66	0.70	1.67	0.65	1.65	0.69	1.63	0.65	1.67	0.65	1.66
Summative High School Mathematics – 11													
1. Algebra I	18	0.78	1.64	0.83	1.74	0.77	1.64	0.78	1.55	0.82	1.76	0.78	1.68
2. Geometry	19	0.78	1.74	0.84	1.82	0.76	1.73	0.77	1.67	0.83	1.87	0.78	1.81
3. Algebra II	23	0.85	1.91	0.88	1.99	0.84	1.91	0.86	1.80	0.88	2.01	0.85	1.97
4. Probability and Statistics	5	0.55	0.95	0.62	0.95	0.55	0.93	0.56	0.93	0.50	0.99	0.50	0.99
World History – 10													
1. Development of Modern Political Thought	13	0.68	1.49	0.68	1.63	0.70	1.48	0.66	1.43	0.60	1.65	0.59	1.50
2. Industrial Expansion and Imperialism	10	0.66	1.32	0.66	1.42	0.68	1.30	0.65	1.26	0.59	1.45	0.59	1.33
3. Causes and Effects of World War I	14	0.76	1.58	0.72	1.70	0.77	1.56	0.76	1.51	0.64	1.73	0.71	1.59
4. Causes and Effects of World War II	13	0.74	1.52	0.73	1.62	0.76	1.50	0.74	1.46	0.64	1.67	0.69	1.54
5. International Developments in the Post-World War II Era	10	0.70	1.34	0.66	1.41	0.72	1.32	0.69	1.28	0.57	1.44	0.64	1.35

Table 8.B.30 Subscore Reliabilities and SEM for ELA by Primary Ethnicity

Subscore Reliabilities and SEM for ELA by *Primary Ethnicity*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 2															
1. Word Analysis and Vocabulary Development	22	0.87	1.92	0.84	1.56	0.84	1.84	0.81	1.62	0.85	1.93	0.87	1.90	0.85	1.72
2. Reading Comprehension	15	0.78	1.66	0.79	1.44	0.75	1.64	0.74	1.52	0.75	1.69	0.77	1.69	0.78	1.51
3. Literary Response and Analysis	6	0.67	0.99	0.63	0.84	0.62	0.97	0.58	0.89	0.63	1.01	0.65	0.99	0.64	0.88
4. Written and Oral Language Conventions	14	0.81	1.56	0.80	1.23	0.80	1.47	0.78	1.28	0.80	1.54	0.81	1.53	0.81	1.38
5. Writing Strategies	8	0.73	1.19	0.71	1.04	0.69	1.18	0.68	1.10	0.70	1.21	0.72	1.20	0.74	1.08
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.82	1.78	0.82	1.46	0.80	1.72	0.77	1.55	0.81	1.82	0.82	1.79	0.80	1.55
2. Reading Comprehension	15	0.76	1.60	0.76	1.41	0.74	1.59	0.71	1.48	0.75	1.63	0.76	1.62	0.75	1.44
3. Literary Response and Analysis	8	0.67	1.16	0.67	1.01	0.67	1.16	0.64	1.06	0.68	1.20	0.69	1.18	0.65	1.03
4. Written and Oral Language Conventions	13	0.71	1.55	0.73	1.35	0.70	1.52	0.68	1.42	0.70	1.54	0.71	1.54	0.70	1.46
5. Writing Strategies	9	0.66	1.31	0.66	1.16	0.63	1.31	0.60	1.22	0.64	1.33	0.65	1.32	0.63	1.20

Subscore Reliabilities and SEM for ELA 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
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.84	1.64	0.83	1.29	0.82	1.57	0.77	1.38	0.83	1.67	0.84	1.64	0.81	1.37
2. Reading Comprehension	15	0.77	1.64	0.75	1.44	0.75	1.63	0.72	1.51	0.75	1.65	0.76	1.66	0.74	1.49
3. Literary Response and Analysis	9	0.62	1.32	0.67	1.17	0.61	1.31	0.62	1.25	0.61	1.33	0.63	1.33	0.62	1.21
4. Written and Oral Language Conventions	18	0.78	1.83	0.78	1.52	0.76	1.77	0.75	1.62	0.77	1.83	0.79	1.82	0.77	1.65
5. Writing Strategies	15	0.74	1.73	0.77	1.55	0.71	1.73	0.73	1.63	0.71	1.74	0.73	1.73	0.75	1.63
Grade 5															
1. Word Analysis and Vocabulary Development	14	0.70	1.57	0.75	1.35	0.70	1.54	0.64	1.45	0.70	1.59	0.72	1.57	0.69	1.41
2. Reading Comprehension	16	0.81	1.61	0.81	1.35	0.79	1.62	0.75	1.45	0.79	1.66	0.80	1.66	0.78	1.39
3. Literary Response and Analysis	12	0.69	1.48	0.71	1.31	0.67	1.48	0.67	1.38	0.68	1.51	0.69	1.49	0.67	1.33
4. Written and Oral Language Conventions	17	0.73	1.71	0.74	1.37	0.72	1.64	0.68	1.46	0.73	1.70	0.74	1.70	0.73	1.52
5. Writing Strategies	16	0.76	1.73	0.78	1.50	0.73	1.72	0.73	1.59	0.74	1.73	0.75	1.74	0.75	1.56
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.73	1.47	0.76	1.27	0.69	1.47	0.68	1.35	0.70	1.51	0.72	1.49	0.72	1.32
2. Reading Comprehension	17	0.75	1.81	0.78	1.62	0.74	1.80	0.73	1.71	0.74	1.81	0.75	1.82	0.76	1.69
3. Literary Response and Analysis	12	0.70	1.46	0.70	1.32	0.67	1.46	0.64	1.37	0.66	1.49	0.69	1.48	0.67	1.33
4. Written and Oral Language Conventions	16	0.72	1.67	0.72	1.38	0.71	1.63	0.67	1.48	0.70	1.67	0.72	1.69	0.71	1.51
5. Writing Strategies	17	0.78	1.79	0.80	1.55	0.76	1.78	0.76	1.67	0.76	1.82	0.77	1.80	0.78	1.65
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.71	1.30	0.71	1.09	0.69	1.31	0.63	1.16	0.67	1.35	0.71	1.33	0.69	1.12
2. Reading Comprehension	18	0.75	1.73	0.77	1.50	0.75	1.72	0.70	1.58	0.75	1.74	0.76	1.75	0.73	1.56
3. Literary Response and Analysis	13	0.73	1.56	0.73	1.40	0.71	1.57	0.67	1.49	0.71	1.59	0.73	1.58	0.71	1.43
4. Written and Oral Language Conventions	16	0.71	1.67	0.74	1.37	0.70	1.62	0.68	1.45	0.69	1.68	0.72	1.66	0.71	1.51
5. Writing Strategies	17	0.76	1.80	0.80	1.58	0.76	1.79	0.74	1.69	0.74	1.82	0.76	1.81	0.78	1.67
Grade 8															
1. Word Analysis and Vocabulary Development	9	0.61	1.26	0.65	1.08	0.57	1.26	0.51	1.16	0.57	1.27	0.58	1.29	0.57	1.13
2. Reading Comprehension	18	0.76	1.79	0.77	1.55	0.75	1.78	0.72	1.64	0.76	1.80	0.77	1.81	0.74	1.63
3. Literary Response and Analysis	15	0.76	1.66	0.77	1.43	0.75	1.66	0.73	1.53	0.74	1.68	0.75	1.69	0.75	1.51
4. Written and Oral Language Conventions	16	0.77	1.73	0.77	1.45	0.75	1.70	0.73	1.54	0.74	1.74	0.76	1.74	0.76	1.56
5. Writing Strategies	17	0.79	1.83	0.79	1.60	0.78	1.81	0.76	1.71	0.77	1.84	0.78	1.83	0.79	1.71
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.61	1.24	0.64	1.12	0.57	1.26	0.54	1.17	0.55	1.26	0.59	1.26	0.59	1.16
2. Reading Comprehension	18	0.80	1.77	0.81	1.49	0.79	1.77	0.76	1.59	0.79	1.81	0.80	1.82	0.79	1.59
3. Literary Response and Analysis	16	0.78	1.65	0.76	1.46	0.75	1.68	0.71	1.56	0.75	1.71	0.77	1.71	0.75	1.53
4. Written and Oral Language Conventions	13	0.69	1.60	0.72	1.38	0.68	1.59	0.63	1.48	0.64	1.64	0.68	1.63	0.69	1.47
5. Writing Strategies	20	0.79	1.95	0.80	1.76	0.77	1.96	0.74	1.86	0.76	1.98	0.78	1.98	0.78	1.84

Subscore Reliabilities and SEM for ELA 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
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.60	1.20	0.63	1.04	0.59	1.19	0.53	1.08	0.57	1.22	0.60	1.22	0.58	1.10
2. Reading Comprehension	18	0.81	1.78	0.80	1.52	0.81	1.78	0.76	1.63	0.80	1.82	0.81	1.83	0.80	1.64
3. Literary Response and Analysis	16	0.72	1.73	0.74	1.56	0.72	1.74	0.67	1.64	0.69	1.78	0.72	1.77	0.73	1.61
4. Written and Oral Language Conventions	13	0.74	1.51	0.71	1.32	0.73	1.49	0.65	1.38	0.72	1.53	0.75	1.54	0.73	1.40
5. Writing Strategies	20	0.82	1.91	0.83	1.66	0.82	1.91	0.79	1.78	0.80	1.94	0.81	1.95	0.83	1.77
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.66	1.16	0.63	1.02	0.62	1.17	0.54	1.06	0.61	1.20	0.64	1.20	0.64	1.04
2. Reading Comprehension	19	0.81	1.87	0.80	1.68	0.79	1.90	0.75	1.77	0.79	1.91	0.80	1.92	0.80	1.75
3. Literary Response and Analysis	17	0.72	1.79	0.73	1.68	0.71	1.81	0.66	1.73	0.70	1.82	0.72	1.82	0.73	1.70
4. Written and Oral Language Conventions	9	0.67	1.23	0.65	1.08	0.64	1.24	0.57	1.13	0.62	1.26	0.66	1.27	0.67	1.10
5. Writing Strategies	22	0.82	2.05	0.80	1.86	0.80	2.07	0.76	1.96	0.80	2.08	0.82	2.08	0.82	1.92

Table 8.B.31 Subscore Reliabilities and SEM for History–Social Science by Primary Ethnicity

Subscore Reliabilities and SEM for History–Social Science 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
Grade 8															
1. World History and Geography: Ancient Civilizations	16	0.68	1.79	0.73	1.56	0.66	1.76	0.66	1.65	0.67	1.79	0.69	1.79	0.71	1.65
2. Late Antiquity and the Middle Ages	14	0.73	1.65	0.74	1.40	0.73	1.61	0.69	1.50	0.72	1.66	0.73	1.66	0.73	1.52
3. Renaissance/Reformation	10	0.69	1.37	0.68	1.17	0.66	1.35	0.62	1.24	0.66	1.37	0.68	1.39	0.68	1.24
4. U.S. Constitution and the Early Republic	22	0.82	2.06	0.83	1.78	0.81	2.03	0.79	1.91	0.80	2.07	0.81	2.09	0.83	1.88
5. Civil War and Its Aftermath	13	0.78	1.54	0.79	1.27	0.78	1.52	0.76	1.40	0.76	1.56	0.78	1.55	0.79	1.39
World History															
1. Development of Modern Political Thought	13	0.72	1.53	0.69	1.37	0.68	1.54	0.62	1.45	0.69	1.56	0.72	1.56	0.71	1.43
2. Industrial Expansion and Imperialism	10	0.70	1.34	0.65	1.19	0.65	1.36	0.59	1.27	0.67	1.38	0.69	1.39	0.67	1.26
3. Causes and Effects of World War I	14	0.79	1.61	0.77	1.41	0.74	1.63	0.73	1.53	0.75	1.65	0.75	1.67	0.77	1.51
4. Causes and Effects of World War II	13	0.76	1.55	0.75	1.38	0.72	1.57	0.69	1.49	0.73	1.59	0.74	1.60	0.76	1.45
5. International Developments in the Post-World War II Era	10	0.72	1.36	0.70	1.22	0.68	1.38	0.66	1.30	0.68	1.39	0.69	1.40	0.72	1.28

Subscore Reliabilities and SEM for History–Social Science by *Primary Ethnicity*															
Subscore Area	**N of**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
	Items	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.65	1.37	0.68	1.23	0.60	1.37	0.59	1.31	0.62	1.39	0.62	1.40	0.67	1.28
2. Industrialization and the U.S. role as a World Power	13	0.74	1.53	0.74	1.39	0.72	1.55	0.68	1.47	0.72	1.56	0.73	1.58	0.74	1.44
3. United States between the World Wars	12	0.69	1.51	0.68	1.39	0.67	1.52	0.61	1.46	0.68	1.52	0.71	1.52	0.70	1.43
4. World War II and Foreign Affairs	12	0.73	1.48	0.71	1.35	0.71	1.49	0.68	1.41	0.71	1.50	0.71	1.53	0.73	1.41
5. Post-World War II Domestic Affairs	13	0.73	1.57	0.71	1.45	0.71	1.58	0.65	1.52	0.70	1.60	0.72	1.60	0.73	1.49

Table 8.B.32 Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity

Subscore Reliabilities and SEM for Mathematics by *Primary Ethnicity*															
Subscore Area	**N of**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
	Items	**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	1.54	0.79	1.18	0.80	1.47	0.78	1.30	0.80	1.53	0.82	1.56	0.78	1.35
2. Number Sense: Multiplication, Division, and Fractions	23	0.85	1.85	0.84	1.44	0.84	1.78	0.83	1.57	0.85	1.84	0.86	1.88	0.83	1.59
3. Algebra and Functions	6	0.55	0.93	0.58	0.69	0.55	0.88	0.55	0.76	0.57	0.92	0.59	0.94	0.58	0.80
4. Measurement and Geometry	14	0.70	1.40	0.70	1.13	0.70	1.35	0.66	1.21	0.69	1.40	0.73	1.46	0.66	1.22
5. Statistics, Data Analysis and Probability	7	0.64	0.99	0.60	0.83	0.59	0.98	0.57	0.89	0.61	0.98	0.64	1.01	0.61	0.89
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.47	0.74	1.16	0.75	1.42	0.72	1.27	0.76	1.47	0.78	1.50	0.75	1.31
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.84	1.54	0.83	1.12	0.85	1.45	0.83	1.27	0.84	1.51	0.85	1.55	0.83	1.37
3. Algebra and Functions	12	0.77	1.25	0.74	0.87	0.77	1.20	0.73	0.99	0.76	1.25	0.78	1.29	0.76	1.02
4. Measurement and Geometry	16	0.74	1.47	0.73	1.14	0.73	1.41	0.71	1.25	0.73	1.46	0.75	1.50	0.72	1.27
5. Statistics, Data Analysis and Probability	5	0.59	0.71	0.47	0.54	0.54	0.69	0.43	0.61	0.54	0.71	0.60	0.74	0.52	0.59
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.79	1.45	0.74	1.02	0.77	1.38	0.72	1.16	0.78	1.43	0.80	1.50	0.76	1.20
2. Number Sense: Operations and Factoring	14	0.84	1.40	0.81	0.89	0.84	1.28	0.81	1.07	0.83	1.33	0.84	1.40	0.83	1.18
3. Algebra and Functions	18	0.86	1.53	0.81	1.02	0.85	1.41	0.81	1.19	0.86	1.48	0.87	1.54	0.84	1.26
4. Measurement and Geometry	12	0.74	1.40	0.73	1.07	0.74	1.33	0.72	1.21	0.74	1.37	0.76	1.41	0.73	1.24
5. Statistics, Data Analysis, and Probability	4	0.49	0.76	0.38	0.59	0.39	0.75	0.36	0.67	0.42	0.76	0.48	0.77	0.42	0.65

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
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.71	1.45	0.75	1.15	0.73	1.40	0.73	1.28	0.73	1.42	0.73	1.45	0.73	1.32
2. Number Sense: Operations with Fractions and Decimals	17	0.82	1.74	0.82	1.29	0.82	1.65	0.81	1.48	0.82	1.70	0.82	1.75	0.82	1.56
3. Algebra and Functions	17	0.80	1.65	0.80	1.26	0.80	1.58	0.79	1.41	0.80	1.61	0.81	1.65	0.80	1.48
4. Measurement and Geometry	15	0.78	1.60	0.81	1.28	0.79	1.56	0.78	1.43	0.78	1.59	0.78	1.62	0.80	1.45
5. Statistics, Data Analysis, and Probability	4	0.54	0.75	0.50	0.52	0.53	0.71	0.48	0.59	0.51	0.73	0.55	0.76	0.53	0.61
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.76	1.67	0.78	1.35	0.75	1.63	0.76	1.52	0.75	1.66	0.75	1.68	0.76	1.55
2. Number Sense: Operations and Problem Solving with Fractions	10	0.71	1.34	0.71	1.04	0.67	1.31	0.69	1.20	0.69	1.33	0.69	1.34	0.70	1.22
3. Algebra and Functions	19	0.82	1.74	0.83	1.33	0.81	1.71	0.81	1.53	0.81	1.75	0.82	1.79	0.81	1.53
4. Measurement and Geometry	10	0.65	1.39	0.74	1.15	0.66	1.38	0.68	1.29	0.64	1.39	0.64	1.41	0.69	1.30
5. Statistics, Data Analysis, and Probability	11	0.73	1.38	0.73	1.18	0.71	1.39	0.71	1.29	0.71	1.39	0.72	1.41	0.73	1.27
Grade 7															
1. Number Sense: Rational Numbers	14	0.75	1.65	0.80	1.38	0.77	1.62	0.78	1.51	0.77	1.63	0.76	1.65	0.78	1.53
2. Number Sense: Exponent, Powers and Roots	8	0.66	1.22	0.69	1.06	0.66	1.21	0.67	1.16	0.66	1.23	0.66	1.23	0.67	1.18
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.64	1.41	0.68	1.17	0.68	1.37	0.65	1.28	0.64	1.41	0.65	1.41	0.66	1.31
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.77	1.66	0.79	1.36	0.77	1.62	0.77	1.50	0.76	1.66	0.76	1.69	0.78	1.51
5. Measurement and Geometry	13	0.72	1.56	0.74	1.34	0.72	1.54	0.71	1.45	0.69	1.58	0.69	1.60	0.72	1.45
6. Statistics, Data Analysis, and Probability	5	0.55	0.93	0.55	0.77	0.56	0.90	0.51	0.82	0.54	0.93	0.53	0.95	0.54	0.84
General Mathematics															
1. Number Sense: Rational Numbers	14	0.69	1.69	0.74	1.60	0.70	1.67	0.70	1.63	0.67	1.70	0.66	1.70	0.70	1.67
2. Number Sense: Exponent, Powers and Roots	10	0.67	1.41	0.77	1.35	0.71	1.40	0.75	1.37	0.67	1.41	0.67	1.40	0.72	1.40
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.61	1.51	0.67	1.44	0.63	1.49	0.61	1.47	0.58	1.51	0.59	1.51	0.63	1.48
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.64	1.41	0.67	1.34	0.64	1.41	0.63	1.35	0.62	1.42	0.61	1.44	0.66	1.36
5. Measurement and Geometry	11	0.64	1.51	0.71	1.48	0.64	1.52	0.67	1.50	0.62	1.52	0.60	1.51	0.69	1.50
6. Statistics, Data Analysis, and Probability	9	0.66	1.32	0.65	1.24	0.64	1.30	0.62	1.25	0.63	1.31	0.65	1.32	0.69	1.25

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
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.72	1.82	0.80	1.52	0.72	1.79	0.76	1.70	0.72	1.82	0.72	1.83	0.76	1.72
2. Graphing and Systems of Linear Equations	14	0.70	1.69	0.81	1.50	0.72	1.69	0.76	1.64	0.71	1.70	0.68	1.70	0.77	1.65
3. Quadratics and Polynomials	21	0.78	2.06	0.87	1.79	0.80	2.04	0.83	1.97	0.80	2.05	0.78	2.05	0.84	1.99
4. Functions and Rational Expressions	13	0.60	1.63	0.80	1.50	0.65	1.63	0.72	1.61	0.61	1.63	0.61	1.62	0.71	1.62
Geometry															
1. Logic and Geometric Proofs	23	0.80	2.13	0.85	1.86	0.79	2.14	0.80	2.05	0.78	2.16	0.78	2.17	0.81	2.03
2. Volume and Area Formulas	11	0.69	1.44	0.78	1.26	0.67	1.45	0.73	1.37	0.65	1.46	0.63	1.47	0.73	1.37
3. Angle Relationships, Constructions, and Lines	16	0.73	1.76	0.82	1.57	0.73	1.76	0.75	1.71	0.70	1.78	0.69	1.78	0.77	1.70
4. Trigonometry	15	0.75	1.72	0.82	1.48	0.76	1.72	0.78	1.64	0.73	1.74	0.73	1.75	0.78	1.64
Algebra II															
1. Polynomials and Rational Expressions	19	0.79	1.82	0.82	1.58	0.79	1.83	0.78	1.76	0.79	1.84	0.79	1.87	0.79	1.77
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.82	0.82	1.64	0.69	1.83	0.73	1.79	0.67	1.83	0.65	1.83	0.74	1.79
3. Exponents and Logarithms	16	0.76	1.79	0.81	1.57	0.76	1.79	0.77	1.73	0.75	1.80	0.75	1.81	0.77	1.74
4. Series, Combinatorics, and Probability and Statistics	14	0.62	1.67	0.75	1.58	0.61	1.68	0.66	1.66	0.60	1.68	0.60	1.68	0.66	1.66
Summative High School Mathematics															
1. Algebra I	18	0.78	1.68	0.76	1.38	0.74	1.72	0.75	1.65	0.76	1.74	0.78	1.79	0.76	1.58
2. Geometry	19	0.75	1.76	0.74	1.52	0.77	1.80	0.74	1.74	0.76	1.86	0.78	1.89	0.74	1.67
3. Algebra II	23	0.84	1.94	0.84	1.59	0.83	1.99	0.82	1.92	0.83	2.04	0.84	2.07	0.84	1.85
4. Probability and Statistics	5	0.51	0.96	0.53	0.88	0.50	0.99	0.47	0.98	0.47	1.00	0.51	1.00	0.53	0.90
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.62	1.75	0.70	1.67	0.71	1.68	0.68	1.65	0.65	1.73	0.66	1.74	0.70	1.68
2. Algebra I: Graphing	9	0.54	1.39	0.55	1.38	0.66	1.33	0.55	1.39	0.55	1.37	0.51	1.37	0.62	1.35
3. Algebra I: Quadratics and Polynomials	14	0.63	1.69	0.66	1.68	0.65	1.67	0.68	1.66	0.59	1.68	0.56	1.68	0.69	1.67
4. Algebra I: Functions and Relations Expressions	7	0.54	1.15	0.57	1.17	0.49	1.19	0.51	1.19	0.43	1.18	0.42	1.17	0.54	1.17
5. Geometry	20	0.47	2.02	0.58	2.03	0.38	2.04	0.61	2.05	0.48	2.01	0.46	2.00	0.63	2.04
Integrated Mathematics 2															
1. Algebra I	20	0.72	2.06	0.80	1.98	0.69	2.09	0.81	1.98	0.72	2.05	0.75	2.03	0.73	2.05
2. Geometry: Logic and Geometric Proofs	22	0.76	2.13	0.79	2.10	0.62	2.18	0.81	2.07	0.70	2.14	0.72	2.12	0.76	2.11
3. Geometry: Angle Relationships, Construction, and Lines	8	0.64	1.16	0.65	1.19	0.45	1.25	0.61	1.16	0.49	1.22	0.49	1.24	0.56	1.21
4. Trigonometry	10	0.76	1.34	0.73	1.37	0.69	1.41	0.73	1.36	0.63	1.42	0.63	1.40	0.64	1.41
5. Algebra II: Probability and Statistics	5	0.21	1.00	0.56	0.94	0.35	0.95	0.47	0.97	0.29	0.98	0.22	1.01	0.44	0.96

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
Integrated Mathematics 3															
1. Geometry	5	–	–	0.46	0.94	–	–	0.34	0.98	0.47	0.99	0.55	0.98	0.37	0.95
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.84	1.77	–	–	0.79	1.79	0.80	1.84	0.82	1.88	0.82	1.83
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	–	–	0.78	1.77	–	–	0.73	1.77	0.63	1.83	0.59	1.86	0.68	1.83
4. Algebra II: Exponents and Logarithms	16	–	–	0.81	1.73	–	–	0.77	1.77	0.71	1.84	0.80	1.78	0.81	1.74
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.49	1.36	–	–	0.37	1.42	0.49	1.34	0.31	1.37	0.40	1.35

Table 8.B.33 Subscore Reliabilities and SEM for Science by Primary Ethnicity

Subscore Reliabilities and SEM for Science 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
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.68	1.36	0.72	1.06	0.64	1.35	0.63	1.17	0.67	1.39	0.67	1.38	0.65	1.14
2. Physical Science (Grade 4)	8	0.61	1.19	0.63	1.02	0.59	1.21	0.56	1.10	0.60	1.22	0.62	1.22	0.59	1.07
3. Life Science (Grade 5)	13	0.70	1.51	0.69	1.31	0.67	1.53	0.62	1.40	0.68	1.55	0.70	1.56	0.65	1.35
4. Life Science (Grade 4)	9	0.63	1.23	0.68	1.01	0.62	1.25	0.59	1.12	0.62	1.26	0.64	1.28	0.61	1.06
5. Earth Science (Grade 5)	11	0.66	1.38	0.64	1.20	0.64	1.38	0.57	1.28	0.64	1.41	0.68	1.40	0.62	1.24
6. Earth Science (Grade 4)	8	0.62	1.23	0.67	1.03	0.60	1.24	0.58	1.12	0.59	1.26	0.62	1.25	0.63	1.10
Grade 8 Science															
1. Motion	8	0.52	1.24	0.57	1.02	0.52	1.20	0.50	1.12	0.49	1.23	0.50	1.25	0.54	1.13
2. Forces, Density, and Buoyancy	13	0.74	1.46	0.71	1.17	0.72	1.44	0.66	1.29	0.72	1.48	0.73	1.51	0.72	1.27
3. Structure of Matter and Periodic Table	16	0.79	1.64	0.78	1.30	0.78	1.60	0.74	1.44	0.78	1.65	0.79	1.66	0.77	1.43
4. Earth in the Solar System	7	0.59	1.06	0.59	0.86	0.58	1.05	0.51	0.93	0.57	1.06	0.58	1.08	0.57	0.93
5. Reactions and the Chemistry of Living Systems	10	0.67	1.35	0.66	1.14	0.65	1.35	0.59	1.25	0.63	1.38	0.65	1.38	0.65	1.23
6. Investigation and Experimentation	6	0.63	0.96	0.62	0.69	0.64	0.92	0.57	0.80	0.60	0.98	0.62	0.99	0.63	0.79
Grade 10 Life Science															
1. Cell Biology	10	0.63	1.38	0.71	1.25	0.64	1.38	0.63	1.33	0.59	1.39	0.60	1.40	0.66	1.33
2. Genetics	12	0.75	1.48	0.76	1.32	0.72	1.49	0.72	1.40	0.71	1.50	0.72	1.51	0.76	1.38
3. Physiology	10	0.69	1.32	0.66	1.16	0.65	1.35	0.60	1.22	0.64	1.37	0.66	1.37	0.68	1.20
4. Ecology	11	0.75	1.33	0.72	1.17	0.73	1.36	0.65	1.24	0.71	1.39	0.73	1.41	0.73	1.21
5. Evolution	11	0.75	1.37	0.72	1.22	0.71	1.41	0.66	1.29	0.70	1.43	0.72	1.44	0.73	1.26
6. Investigation and Experimentation	6	0.75	0.89	0.70	0.70	0.73	0.92	0.67	0.78	0.72	0.94	0.74	0.96	0.76	0.75
Biology															
1. Cell Biology	9	0.58	1.32	0.66	1.09	0.57	1.32	0.58	1.21	0.56	1.34	0.58	1.35	0.62	1.21
2. Genetics	18	0.80	1.82	0.82	1.56	0.80	1.82	0.78	1.69	0.79	1.85	0.80	1.85	0.81	1.69
3. Ecology and Evolution	16	0.79	1.72	0.78	1.54	0.77	1.77	0.72	1.66	0.76	1.79	0.77	1.79	0.78	1.60
4. Physiology	11	0.74	1.34	0.72	1.18	0.72	1.39	0.66	1.26	0.70	1.41	0.73	1.41	0.72	1.23
5. Investigation and Experimentation	6	0.67	0.98	0.63	0.85	0.64	1.00	0.60	0.90	0.65	1.02	0.65	1.03	0.66	0.89

Subscore Reliabilities and SEM for Science 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
Chemistry															
1. Atomic and Molecular Structure	8	0.56	1.27	0.62	1.19	0.55	1.29	0.54	1.27	0.56	1.29	0.54	1.29	0.55	1.24
2. Chemical Bonds, Biochemistry	9	0.59	1.24	0.58	1.08	0.60	1.28	0.53	1.20	0.59	1.31	0.62	1.32	0.57	1.15
3. Kinetics, Thermodynamics	14	0.70	1.64	0.72	1.46	0.71	1.68	0.66	1.61	0.69	1.70	0.70	1.71	0.70	1.54
4. Chemical Reactions	13	0.67	1.62	0.72	1.47	0.69	1.63	0.66	1.59	0.67	1.64	0.67	1.65	0.67	1.54
5. Conservation of Matter and Stoichiometry	10	0.73	1.35	0.77	1.16	0.72	1.36	0.74	1.30	0.71	1.37	0.69	1.38	0.74	1.28
6. Investigation and Experimentation	6	0.61	0.96	0.61	0.80	0.59	1.03	0.56	0.93	0.59	1.04	0.61	1.05	0.59	0.86
Earth Science															
1. Astronomy and Cosmology	12	0.72	1.52	0.71	1.47	0.68	1.54	0.67	1.46	0.69	1.55	0.70	1.56	0.72	1.44
2. Solid Earth	14	0.71	1.67	0.67	1.62	0.67	1.69	0.62	1.62	0.67	1.69	0.68	1.71	0.69	1.61
3. The Earth's Energy	28	0.84	2.36	0.84	2.26	0.81	2.39	0.82	2.28	0.81	2.41	0.81	2.41	0.84	2.24
4. Investigation and Experimentation	6	0.63	1.04	0.60	0.98	0.57	1.06	0.54	0.97	0.58	1.07	0.59	1.08	0.62	0.97
Physics															
1. Motion and Forces	12	0.72	1.45	0.67	1.31	0.68	1.51	0.64	1.45	0.66	1.55	0.69	1.56	0.66	1.37
2. Conservation of Energy and Momentum	12	0.73	1.49	0.70	1.35	0.71	1.52	0.66	1.47	0.69	1.55	0.69	1.56	0.70	1.41
3. Heat and Thermodynamics	9	0.71	1.23	0.67	1.13	0.68	1.28	0.63	1.22	0.65	1.30	0.66	1.31	0.67	1.15
4. Waves	10	0.65	1.40	0.62	1.31	0.63	1.42	0.59	1.38	0.62	1.44	0.60	1.45	0.61	1.34
5. Electric and Magnetic Phenomena	11	0.64	1.51	0.64	1.42	0.61	1.53	0.60	1.50	0.62	1.52	0.62	1.52	0.63	1.47
6. Investigation and Experimentation	6	0.58	1.03	0.50	0.96	0.51	1.09	0.44	1.04	0.49	1.11	0.53	1.11	0.47	1.00
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.68	1.39	0.70	1.34	0.61	1.45	0.58	1.42	0.61	1.45	0.62	1.45	0.66	1.32
2. Chemistry	15	0.51	1.78	0.69	1.75	0.46	1.81	0.51	1.79	0.46	1.79	0.45	1.78	0.57	1.78
3. Earth Sciences	17	0.73	1.85	0.76	1.74	0.73	1.86	0.68	1.82	0.72	1.87	0.71	1.90	0.74	1.76
4. Physics	12	0.60	1.59	0.64	1.58	0.52	1.60	0.51	1.62	0.53	1.60	0.52	1.59	0.56	1.61
5. Investigation and Experimentation	6	0.57	1.07	0.66	0.97	0.59	1.07	0.57	1.04	0.55	1.09	0.54	1.10	0.61	1.00
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.79	1.70	0.79	1.47	0.79	1.65	0.68	1.71	0.69	1.74	0.62	1.75	0.69	1.72
2. Chemistry	6	0.52	1.14	0.65	0.92	0.54	1.08	0.55	1.07	0.38	1.15	0.23	1.15	0.55	1.11
3. Earth Sciences	15	0.90	1.55	0.80	1.35	0.78	1.75	0.79	1.57	0.76	1.73	0.70	1.78	0.81	1.60
4. Physics	18	0.69	1.96	0.82	1.73	0.56	1.91	0.66	1.96	0.63	1.94	0.54	1.92	0.73	1.92
5. Investigation and Experimentation	6	0.56	1.11	0.67	0.83	0.40	1.12	0.68	0.99	0.48	1.12	0.40	1.12	0.56	1.04
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.64	1.84	–	–	0.69	1.81	0.72	1.81	0.76	1.77	0.79	1.68
2. Chemistry	23	–	–	0.67	2.19	–	–	0.69	2.17	0.66	2.16	0.72	2.13	0.84	2.10
3. Earth Sciences	7	–	–	0.53	1.18	–	–	0.43	1.24	0.52	1.21	0.60	1.19	0.65	1.11
4. Physics	8	–	–	0.35	1.27	–	–	0.49	1.22	0.31	1.28	–	–	0.41	1.32
5. Investigation and Experimentation	6	–	–	0.03	1.17	–	–	0.48	1.07	0.55	1.09	0.74	0.99	0.59	1.02

Subscore Reliabilities and SEM for Science by *Primary Ethnicity*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	0.54	1.68	–	–	0.46	1.69
2. Chemistry	10	–	–	–	–	–	–	–	–	0.46	1.42	–	–	0.47	1.44
3. Earth Sciences	15	–	–	–	–	–	–	–	–	0.67	1.77	–	–	0.43	1.86
4. Physics	16	–	–	–	–	–	–	–	–	0.06	1.70	–	–	–	–
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.28	1.10	–	–	0.53	1.02

Table 8.B.34 Subscore Reliabilities and SEM for Grade-specific CSTs by Primary Ethnicity

Subscore Reliabilities and SEM for Grade-specific CSTs by *Primary Ethnicity*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	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	0.72	1.78	0.76	1.48	0.73	1.76	0.74	1.65	0.73	1.78	0.74	1.80	0.74	1.66
2. Graphing and Systems of Linear Equations	14	0.73	1.69	0.78	1.49	0.74	1.68	0.76	1.62	0.73	1.69	0.71	1.70	0.76	1.63
3. Quadratics and Polynomials	21	0.81	2.03	0.84	1.77	0.81	2.01	0.82	1.93	0.82	2.02	0.81	2.04	0.83	1.95
4. Functions and Rational Expressions	13	0.65	1.65	0.76	1.49	0.69	1.63	0.72	1.60	0.66	1.64	0.66	1.64	0.71	1.61
Geometry – 9															
1. Logic and Geometric Proofs	23	0.80	2.04	0.79	1.84	0.79	2.09	0.76	2.00	0.77	2.12	0.78	2.13	0.75	1.93
2. Volume and Area Formulas	11	0.71	1.38	0.71	1.23	0.72	1.38	0.69	1.33	0.68	1.42	0.66	1.44	0.68	1.30
3. Angle Relationships, Constructions, and Lines	16	0.74	1.71	0.76	1.56	0.72	1.73	0.72	1.68	0.71	1.75	0.71	1.76	0.72	1.63
4. Trigonometry	15	0.76	1.66	0.75	1.45	0.76	1.67	0.73	1.59	0.74	1.70	0.74	1.72	0.74	1.56
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.77	1.78	0.77	1.58	0.76	1.79	0.75	1.71	0.79	1.80	0.79	1.84	0.76	1.72
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.82	0.78	1.67	0.69	1.82	0.71	1.79	0.69	1.82	0.68	1.83	0.73	1.77
3. Exponents and Logarithms	16	0.72	1.79	0.77	1.59	0.76	1.75	0.75	1.70	0.75	1.78	0.76	1.79	0.75	1.71
4. Series, Combinatorics, and Probability and Statistics	14	0.59	1.68	0.69	1.61	0.64	1.66	0.64	1.65	0.62	1.68	0.63	1.67	0.63	1.65
1. Algebra I	18	0.77	1.71	0.76	1.44	0.74	1.74	0.75	1.67	0.76	1.76	0.77	1.81	0.76	1.62
2. Geometry	19	0.75	1.78	0.75	1.57	0.77	1.82	0.74	1.76	0.76	1.87	0.77	1.90	0.74	1.70
3. Algebra II	23	0.83	1.98	0.84	1.66	0.83	2.01	0.82	1.95	0.82	2.06	0.83	2.09	0.84	1.89
4. Probability and Statistics	5	0.51	0.97	0.53	0.90	0.51	0.99	0.47	0.98	0.46	1.01	0.50	1.00	0.54	0.91
World History – 10															
1. Development of Modern Political Thought	13	0.71	1.53	0.67	1.38	0.66	1.54	0.60	1.45	0.67	1.56	0.70	1.56	0.69	1.43
2. Industrial Expansion and Imperialism	10	0.68	1.34	0.64	1.20	0.64	1.35	0.58	1.28	0.66	1.38	0.68	1.39	0.65	1.26
3. Causes and Effects of World War I	14	0.78	1.60	0.76	1.43	0.73	1.64	0.72	1.53	0.74	1.65	0.74	1.67	0.76	1.51
4. Causes and Effects of World War II	13	0.76	1.55	0.74	1.39	0.71	1.58	0.68	1.49	0.72	1.59	0.73	1.60	0.75	1.45
5. International Developments in the Post-World War II Era	10	0.71	1.37	0.69	1.23	0.67	1.39	0.65	1.30	0.68	1.39	0.69	1.40	0.71	1.28

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	1.82	0.80	1.45	0.81	1.75	0.80	1.57	0.84	1.79	0.85	1.79	0.82	1.66
2. Reading Comprehension	15	0.78	1.57	0.75	1.35	0.76	1.56	0.74	1.48	0.77	1.59	0.78	1.61	0.76	1.46
3. Literary Response and Analysis	6	0.64	0.93	0.56	0.78	0.58	0.92	0.55	0.86	0.63	0.93	0.65	0.93	0.60	0.84
4. Written and Oral Language Conventions	14	0.80	1.48	0.76	1.13	0.80	1.39	0.77	1.24	0.80	1.44	0.82	1.44	0.79	1.33
5. Writing Strategies	8	0.73	1.15	0.68	0.98	0.69	1.14	0.67	1.08	0.72	1.14	0.74	1.15	0.72	1.04
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.80	1.65	0.78	1.33	0.78	1.64	0.75	1.48	0.80	1.66	0.81	1.67	0.77	1.48
2. Reading Comprehension	15	0.73	1.51	0.71	1.33	0.72	1.53	0.69	1.44	0.74	1.52	0.75	1.55	0.72	1.39
3. Literary Response and Analysis	8	0.65	1.09	0.61	0.93	0.66	1.08	0.60	1.03	0.66	1.10	0.69	1.10	0.61	0.98
4. Written and Oral Language Conventions	13	0.70	1.51	0.68	1.29	0.70	1.49	0.65	1.39	0.70	1.49	0.71	1.50	0.67	1.43
5. Writing Strategies	9	0.62	1.26	0.60	1.08	0.62	1.27	0.57	1.18	0.63	1.25	0.65	1.26	0.59	1.16
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.82	1.49	0.78	1.15	0.78	1.43	0.74	1.31	0.81	1.48	0.84	1.50	0.78	1.28
2. Reading Comprehension	15	0.74	1.56	0.69	1.36	0.73	1.54	0.69	1.48	0.74	1.56	0.76	1.59	0.70	1.44
3. Literary Response and Analysis	9	0.60	1.28	0.63	1.09	0.60	1.26	0.61	1.22	0.62	1.27	0.65	1.27	0.60	1.17
4. Written and Oral Language Conventions	18	0.77	1.75	0.75	1.42	0.74	1.69	0.72	1.57	0.77	1.72	0.79	1.73	0.75	1.59
5. Writing Strategies	15	0.75	1.68	0.74	1.47	0.71	1.67	0.72	1.59	0.74	1.68	0.75	1.68	0.73	1.59
Grade 5															
1. Word Analysis and Vocabulary Development	14	0.71	1.48	0.68	1.25	0.65	1.46	0.62	1.41	0.68	1.48	0.70	1.49	0.64	1.36
2. Reading Comprehension	16	0.79	1.49	0.76	1.22	0.76	1.49	0.73	1.39	0.78	1.50	0.79	1.54	0.74	1.31
3. Literary Response and Analysis	12	0.68	1.40	0.67	1.22	0.64	1.41	0.65	1.34	0.67	1.41	0.68	1.42	0.63	1.29
4. Written and Oral Language Conventions	17	0.71	1.63	0.68	1.27	0.68	1.53	0.66	1.42	0.72	1.59	0.74	1.60	0.69	1.47
5. Writing Strategies	16	0.76	1.64	0.73	1.40	0.69	1.65	0.72	1.55	0.74	1.64	0.75	1.66	0.72	1.51
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.71	1.38	0.71	1.16	0.69	1.39	0.66	1.30	0.70	1.41	0.72	1.41	0.68	1.26
2. Reading Comprehension	17	0.75	1.76	0.75	1.55	0.74	1.74	0.71	1.68	0.75	1.75	0.75	1.77	0.73	1.66
3. Literary Response and Analysis	12	0.67	1.39	0.65	1.23	0.68	1.38	0.62	1.33	0.67	1.40	0.69	1.41	0.64	1.29
4. Written and Oral Language Conventions	16	0.72	1.58	0.68	1.28	0.71	1.55	0.64	1.43	0.70	1.57	0.73	1.60	0.68	1.45
5. Writing Strategies	17	0.77	1.72	0.76	1.46	0.75	1.72	0.75	1.62	0.77	1.73	0.79	1.74	0.76	1.60
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.69	1.21	0.66	0.98	0.69	1.22	0.60	1.11	0.68	1.23	0.70	1.23	0.64	1.06
2. Reading Comprehension	18	0.74	1.66	0.71	1.40	0.73	1.64	0.67	1.54	0.73	1.65	0.75	1.68	0.69	1.51
3. Literary Response and Analysis	13	0.70	1.51	0.68	1.31	0.70	1.52	0.64	1.45	0.71	1.52	0.73	1.52	0.67	1.40
4. Written and Oral Language Conventions	16	0.69	1.60	0.69	1.27	0.68	1.55	0.66	1.39	0.69	1.59	0.71	1.59	0.68	1.46
5. Writing Strategies	17	0.77	1.76	0.76	1.48	0.76	1.74	0.73	1.65	0.76	1.75	0.77	1.76	0.76	1.62

Subscore Reliabilities and SEM for ELA by *Primary Ethnicity-for-Not Economically Disadvantaged*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 8															
1. Word Analysis and Vocabulary Development	9	0.57	1.21	0.58	1.00	0.56	1.19	0.48	1.13	0.56	1.20	0.58	1.23	0.52	1.10
2. Reading Comprehension	18	0.73	1.72	0.71	1.45	0.75	1.69	0.69	1.60	0.75	1.71	0.76	1.74	0.71	1.58
3. Literary Response and Analysis	15	0.76	1.59	0.72	1.34	0.75	1.58	0.71	1.49	0.75	1.60	0.76	1.63	0.73	1.46
4. Written and Oral Language Conventions	16	0.76	1.67	0.73	1.33	0.75	1.61	0.71	1.50	0.75	1.66	0.77	1.67	0.73	1.52
5. Writing Strategies	17	0.79	1.78	0.75	1.51	0.78	1.76	0.74	1.68	0.78	1.78	0.79	1.79	0.77	1.67
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.61	1.20	0.59	1.05	0.57	1.23	0.51	1.15	0.58	1.23	0.60	1.24	0.56	1.13
2. Reading Comprehension	18	0.80	1.68	0.77	1.37	0.79	1.69	0.74	1.55	0.79	1.72	0.80	1.75	0.77	1.54
3. Literary Response and Analysis	16	0.77	1.59	0.72	1.37	0.74	1.62	0.68	1.52	0.76	1.63	0.77	1.65	0.72	1.49
4. Written and Oral Language Conventions	13	0.69	1.53	0.69	1.27	0.68	1.54	0.62	1.45	0.66	1.58	0.69	1.59	0.67	1.43
5. Writing Strategies	20	0.79	1.90	0.77	1.67	0.77	1.92	0.73	1.83	0.77	1.93	0.78	1.94	0.76	1.81
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.59	1.15	0.57	0.95	0.58	1.15	0.50	1.05	0.57	1.18	0.60	1.19	0.55	1.07
2. Reading Comprehension	18	0.80	1.71	0.76	1.41	0.81	1.71	0.74	1.59	0.80	1.75	0.81	1.78	0.79	1.60
3. Literary Response and Analysis	16	0.72	1.67	0.70	1.46	0.72	1.68	0.66	1.61	0.70	1.71	0.72	1.72	0.70	1.57
4. Written and Oral Language Conventions	13	0.73	1.46	0.66	1.23	0.73	1.43	0.63	1.34	0.72	1.48	0.75	1.50	0.71	1.36
5. Writing Strategies	20	0.82	1.84	0.80	1.55	0.81	1.85	0.78	1.74	0.81	1.88	0.82	1.90	0.81	1.73
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.64	1.10	0.60	0.93	0.63	1.13	0.51	1.03	0.62	1.15	0.64	1.16	0.61	1.01
2. Reading Comprehension	19	0.80	1.83	0.77	1.57	0.78	1.85	0.73	1.74	0.79	1.85	0.80	1.87	0.79	1.71
3. Literary Response and Analysis	17	0.70	1.76	0.68	1.61	0.71	1.77	0.64	1.71	0.71	1.78	0.73	1.79	0.71	1.68
4. Written and Oral Language Conventions	9	0.64	1.18	0.61	0.99	0.61	1.19	0.55	1.10	0.64	1.20	0.66	1.22	0.65	1.07
5. Writing Strategies	22	0.81	2.00	0.77	1.76	0.80	2.03	0.74	1.93	0.81	2.02	0.82	2.04	0.81	1.88

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 *Primary Ethnicity-for-Not Economically Disadvantaged*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	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	0.68	1.46	0.68	1.70	0.65	1.61	0.69	1.72	0.70	1.74	0.68	1.61
2. Late Antiquity and the Middle Ages	14	0.72	1.61	0.70	1.31	0.73	1.56	0.67	1.47	0.72	1.60	0.74	1.61	0.70	1.49
3. Renaissance/Reformation	10	0.68	1.31	0.63	1.09	0.64	1.30	0.60	1.21	0.66	1.31	0.69	1.33	0.65	1.20
4. U.S. Constitution and the Early Republic	22	0.82	1.99	0.80	1.66	0.81	1.97	0.78	1.86	0.81	1.99	0.82	2.02	0.81	1.83
5. Civil War and Its Aftermath	13	0.79	1.49	0.76	1.17	0.77	1.46	0.74	1.36	0.78	1.48	0.80	1.48	0.77	1.34

Subscore Reliabilities and SEM for History–Social Science 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
World History															
1. Development of Modern Political Thought	13	0.71	1.48	0.65	1.29	0.69	1.49	0.62	1.42	0.69	1.51	0.72	1.53	0.69	1.40
2. Industrial Expansion and Imperialism	10	0.66	1.30	0.59	1.13	0.67	1.31	0.57	1.25	0.67	1.33	0.69	1.36	0.64	1.23
3. Causes and Effects of World War I	14	0.78	1.55	0.74	1.33	0.76	1.58	0.73	1.50	0.76	1.60	0.76	1.63	0.76	1.47
4. Causes and Effects of World War II	13	0.76	1.50	0.72	1.30	0.74	1.52	0.69	1.46	0.74	1.54	0.75	1.57	0.75	1.42
5. International Developments in the Post-World War II Era	10	0.71	1.33	0.66	1.15	0.70	1.34	0.65	1.28	0.70	1.35	0.71	1.38	0.70	1.26
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.66	1.32	0.65	1.17	0.61	1.34	0.58	1.29	0.64	1.35	0.64	1.37	0.65	1.25
2. Industrialization and the U.S. role as a World Power	13	0.73	1.50	0.70	1.31	0.71	1.53	0.67	1.45	0.73	1.52	0.74	1.54	0.73	1.41
3. United States between the World Wars	12	0.67	1.48	0.64	1.34	0.67	1.50	0.59	1.44	0.69	1.49	0.72	1.49	0.68	1.41
4. World War II and Foreign Affairs	12	0.73	1.44	0.68	1.30	0.70	1.48	0.66	1.39	0.72	1.47	0.72	1.50	0.72	1.39
5. Post-World War II Domestic Affairs	13	0.71	1.55	0.67	1.38	0.71	1.55	0.63	1.50	0.71	1.56	0.73	1.56	0.71	1.47

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	0.80	1.45	0.73	1.08	0.77	1.39	0.76	1.25	0.79	1.43	0.81	1.47	0.76	1.29
2. Number Sense: Multiplication, Division, and Fractions	23	0.85	1.72	0.81	1.31	0.83	1.68	0.82	1.51	0.84	1.70	0.86	1.76	0.81	1.51
3. Algebra and Functions	6	0.56	0.87	0.53	0.62	0.55	0.81	0.53	0.74	0.57	0.85	0.60	0.88	0.56	0.76
4. Measurement and Geometry	14	0.70	1.30	0.64	1.04	0.71	1.26	0.63	1.17	0.68	1.30	0.72	1.37	0.63	1.16
5. Statistics, Data Analysis, and Probability	7	0.64	0.94	0.55	0.76	0.59	0.94	0.55	0.87	0.61	0.94	0.65	0.96	0.57	0.86
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.75	1.37	0.68	1.06	0.73	1.37	0.68	1.22	0.75	1.37	0.77	1.41	0.71	1.25
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.83	1.42	0.79	1.01	0.84	1.39	0.80	1.22	0.83	1.41	0.84	1.46	0.81	1.31
3. Algebra and Functions	12	0.74	1.10	0.69	0.75	0.77	1.10	0.68	0.93	0.75	1.12	0.77	1.17	0.73	0.95
4. Measurement and Geometry	16	0.70	1.36	0.69	1.02	0.71	1.33	0.68	1.20	0.72	1.35	0.75	1.40	0.69	1.21
5. Statistics, Data Analysis and Probability	5	0.52	0.61	0.41	0.49	0.48	0.65	0.37	0.58	0.50	0.64	0.57	0.68	0.46	0.56

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 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.78	1.32	0.68	0.90	0.76	1.23	0.69	1.11	0.76	1.29	0.79	1.38	0.72	1.12
2. Number Sense: Operations and Factoring	14	0.83	1.30	0.77	0.78	0.82	1.17	0.80	1.01	0.82	1.23	0.84	1.29	0.81	1.11
3. Algebra and Functions	18	0.85	1.40	0.76	0.89	0.83	1.30	0.79	1.13	0.84	1.34	0.86	1.41	0.82	1.18
4. Measurement and Geometry	12	0.74	1.33	0.68	0.98	0.72	1.26	0.70	1.18	0.73	1.29	0.76	1.33	0.71	1.19
5. Statistics, Data Analysis, and Probability	4	0.46	0.72	0.33	0.54	0.28	0.70	0.34	0.65	0.41	0.70	0.46	0.72	0.37	0.62
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.72	1.38	0.72	1.07	0.73	1.34	0.72	1.25	0.73	1.37	0.74	1.40	0.71	1.28
2. Number Sense: Operations with Fractions and Decimals	17	0.82	1.66	0.79	1.17	0.80	1.58	0.80	1.43	0.82	1.62	0.82	1.66	0.81	1.50
3. Algebra and Functions	17	0.80	1.58	0.77	1.14	0.78	1.50	0.78	1.36	0.80	1.54	0.81	1.57	0.79	1.43
4. Measurement and Geometry	15	0.79	1.54	0.78	1.17	0.79	1.49	0.78	1.39	0.79	1.52	0.80	1.55	0.79	1.41
5. Statistics, Data Analysis, and Probability	4	0.57	0.68	0.46	0.45	0.48	0.65	0.44	0.56	0.52	0.66	0.56	0.69	0.50	0.58
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.76	1.61	0.75	1.26	0.76	1.58	0.74	1.49	0.76	1.60	0.77	1.63	0.75	1.52
2. Number Sense: Operations and Problem Solving with Fractions	10	0.69	1.29	0.67	0.94	0.67	1.25	0.67	1.16	0.69	1.28	0.70	1.30	0.68	1.18
3. Algebra and Functions	19	0.81	1.63	0.80	1.20	0.80	1.61	0.80	1.47	0.82	1.64	0.83	1.70	0.80	1.47
4. Measurement and Geometry	10	0.66	1.35	0.72	1.06	0.66	1.34	0.68	1.27	0.67	1.35	0.66	1.38	0.68	1.27
5. Statistics, Data Analysis, and Probability	11	0.73	1.32	0.68	1.10	0.72	1.32	0.69	1.26	0.72	1.33	0.74	1.36	0.70	1.24
Grade 7															
1. Number Sense: Rational Numbers	14	0.76	1.60	0.77	1.28	0.77	1.57	0.77	1.48	0.77	1.59	0.77	1.62	0.77	1.50
2. Number Sense: Exponent, Powers and Roots	8	0.67	1.20	0.66	1.01	0.69	1.18	0.64	1.14	0.66	1.21	0.67	1.21	0.65	1.16
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.66	1.37	0.64	1.10	0.69	1.32	0.63	1.25	0.65	1.36	0.66	1.38	0.64	1.28
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.77	1.60	0.77	1.25	0.80	1.54	0.76	1.45	0.77	1.60	0.77	1.64	0.77	1.46
5. Measurement and Geometry	13	0.72	1.51	0.72	1.26	0.73	1.49	0.69	1.42	0.70	1.53	0.71	1.56	0.71	1.42
6. Statistics, Data Analysis, and Probability	5	0.52	0.89	0.51	0.72	0.54	0.86	0.49	0.79	0.53	0.88	0.54	0.91	0.51	0.81

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
General Mathematics															
1. Number Sense: Rational Numbers	14	0.70	1.68	0.75	1.55	0.72	1.66	0.70	1.62	0.68	1.68	0.68	1.69	0.70	1.65
2. Number Sense: Exponent, Powers and Roots	10	0.66	1.43	0.77	1.31	0.73	1.39	0.76	1.36	0.70	1.40	0.70	1.40	0.72	1.39
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.63	1.49	0.67	1.40	0.64	1.47	0.62	1.45	0.60	1.50	0.62	1.50	0.63	1.47
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.64	1.39	0.69	1.28	0.63	1.39	0.64	1.33	0.64	1.40	0.63	1.41	0.65	1.34
5. Measurement and Geometry	11	0.67	1.51	0.73	1.44	0.66	1.51	0.67	1.49	0.65	1.52	0.64	1.51	0.69	1.49
6. Statistics, Data Analysis, and Probability	9	0.63	1.31	0.66	1.20	0.67	1.28	0.62	1.23	0.66	1.28	0.67	1.30	0.68	1.23
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.72	1.79	0.79	1.41	0.73	1.76	0.76	1.67	0.74	1.79	0.74	1.81	0.76	1.69
2. Graphing and Systems of Linear Equations	14	0.73	1.69	0.81	1.42	0.73	1.69	0.76	1.63	0.73	1.69	0.72	1.69	0.77	1.64
3. Quadratics and Polynomials	21	0.80	2.05	0.87	1.69	0.81	2.03	0.83	1.95	0.81	2.04	0.81	2.04	0.84	1.97
4. Functions and Rational Expressions	13	0.65	1.63	0.80	1.44	0.67	1.64	0.73	1.61	0.65	1.63	0.65	1.63	0.72	1.61
Geometry															
1. Logic and Geometric Proofs	23	0.79	2.09	0.84	1.75	0.80	2.11	0.80	2.03	0.79	2.13	0.79	2.14	0.80	2.00
2. Volume and Area Formulas	11	0.71	1.41	0.77	1.18	0.70	1.43	0.73	1.36	0.68	1.44	0.66	1.45	0.73	1.36
3. Angle Relationships, Constructions, and Lines	16	0.72	1.75	0.81	1.49	0.75	1.75	0.75	1.70	0.73	1.76	0.72	1.77	0.76	1.68
4. Trigonometry	15	0.74	1.71	0.81	1.39	0.78	1.69	0.78	1.62	0.75	1.72	0.75	1.73	0.78	1.62
Algebra II															
1. Polynomials and Rational Expressions	19	0.78	1.80	0.81	1.52	0.79	1.81	0.78	1.74	0.78	1.82	0.79	1.85	0.78	1.76
2. Quadratics, Conics, and Complex Numbers	16	0.71	1.81	0.81	1.59	0.72	1.81	0.74	1.78	0.69	1.82	0.68	1.82	0.74	1.78
3. Exponents and Logarithms	16	0.76	1.77	0.81	1.50	0.76	1.78	0.77	1.71	0.76	1.79	0.76	1.80	0.77	1.73
4. Series, Combinatorics, and Probability and Statistics	14	0.62	1.67	0.75	1.55	0.63	1.68	0.66	1.66	0.62	1.68	0.63	1.68	0.66	1.65
Summative High School Mathematics															
1. Algebra I	18	0.79	1.62	0.73	1.30	0.74	1.69	0.74	1.63	0.76	1.70	0.77	1.75	0.76	1.57
2. Geometry	19	0.75	1.71	0.71	1.46	0.73	1.77	0.73	1.71	0.75	1.80	0.77	1.84	0.74	1.66
3. Algebra II	23	0.83	1.90	0.83	1.50	0.83	1.94	0.82	1.89	0.83	1.98	0.84	2.02	0.84	1.83
4. Probability and Statistics	5	0.52	0.94	0.51	0.84	0.53	0.97	0.46	0.97	0.50	0.98	0.52	0.98	0.53	0.89
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.59	1.76	0.68	1.67	0.70	1.73	0.69	1.65	0.67	1.71	0.64	1.74	0.69	1.66
2. Algebra I: Graphing	9	0.61	1.36	0.59	1.37	0.58	1.37	0.52	1.39	0.56	1.37	0.56	1.37	0.62	1.35
3. Algebra I: Quadratics and Polynomials	14	0.55	1.71	0.66	1.69	0.33	1.73	0.65	1.67	0.61	1.68	0.57	1.68	0.70	1.66
4. Algebra I: Functions and Relations Expressions	7	0.54	1.16	0.54	1.19	0.07	1.24	0.47	1.21	0.46	1.18	0.41	1.18	0.56	1.17
5. Geometry	20	0.45	2.00	0.62	2.03	–	–	0.60	2.06	0.52	2.03	0.46	2.01	0.63	2.05

Subscore Reliabilities and SEM for Mathematics by *Primary Ethnicity-for-Not Economically Disadvantaged*															
Subscore Area	**N of**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
	Items	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**
Integrated Mathematics 2															
1. Algebra I	20	0.71	2.04	0.81	1.94	0.77	2.02	0.80	2.00	0.73	2.06	0.77	2.03	0.73	2.05
2. Geometry: Logic and Geometric Proofs	22	0.72	2.18	0.80	2.08	0.76	2.12	0.79	2.10	0.71	2.15	0.72	2.12	0.77	2.11
3. Geometry: Angle Relationships, Construction and Lines	8	0.52	1.17	0.66	1.16	0.59	1.22	0.61	1.17	0.53	1.21	0.47	1.25	0.57	1.21
4. Trigonometry	10	0.77	1.32	0.74	1.35	0.69	1.36	0.71	1.37	0.65	1.42	0.66	1.40	0.64	1.41
5. Algebra II: Probability and Statistics	5	0.04	0.99	0.65	0.93	0.45	0.97	0.47	0.96	0.35	0.98	0.23	1.01	0.46	0.96
Integrated Mathematics 3															
1. Geometry	5	–	–	0.42	0.95	–	–	0.14	1.02	0.45	0.98	0.50	1.01	0.36	0.93
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.85	1.72	–	–	0.80	1.78	0.82	1.82	0.84	1.85	0.82	1.82
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	–	–	0.79	1.75	–	–	0.69	1.81	0.67	1.82	0.52	1.88	0.69	1.82
4. Algebra II: Exponents and Logarithms	16	–	–	0.83	1.68	–	–	0.78	1.77	0.74	1.81	0.81	1.77	0.82	1.73
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.48	1.36	–	–	0.32	1.43	0.44	1.34	0.21	1.38	0.37	1.36

Table 8.B.38 Subscore Reliabilities and SEM for Science by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for Science by *Primary Ethnicity-for-Not Economically Disadvantaged*															
Subscore Area	**N of**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
	Items	**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	1.25	0.66	0.93	0.61	1.21	0.61	1.11	0.65	1.26	0.67	1.28	0.60	1.08
2. Physical Science (Grade 4)	8	0.55	1.13	0.58	0.93	0.56	1.13	0.54	1.07	0.59	1.14	0.62	1.17	0.55	1.03
3. Life Science (Grade 5)	13	0.67	1.42	0.63	1.21	0.64	1.43	0.60	1.36	0.66	1.44	0.69	1.47	0.61	1.30
4. Life Science (Grade 4)	9	0.61	1.13	0.61	0.91	0.60	1.15	0.56	1.07	0.62	1.16	0.64	1.19	0.57	1.01
5. Earth Science (Grade 5)	11	0.62	1.31	0.56	1.12	0.58	1.30	0.53	1.24	0.61	1.31	0.66	1.33	0.56	1.20
6. Earth Science (Grade 4)	8	0.64	1.16	0.61	0.94	0.58	1.17	0.57	1.09	0.62	1.17	0.64	1.19	0.59	1.05
Grade 8 Science															
1. Motion	8	0.54	1.20	0.53	0.95	0.53	1.16	0.50	1.10	0.50	1.19	0.51	1.21	0.52	1.10
2. Forces, Density, and Buoyancy	13	0.72	1.38	0.67	1.06	0.70	1.36	0.63	1.25	0.71	1.39	0.73	1.44	0.69	1.22
3. Structure of Matter and Periodic Table	16	0.78	1.56	0.74	1.18	0.76	1.50	0.71	1.39	0.78	1.55	0.79	1.58	0.75	1.37
4. Earth in the Solar System	7	0.56	1.00	0.55	0.79	0.55	0.98	0.48	0.90	0.57	0.99	0.59	1.03	0.54	0.90
5. Reactions and the Chemistry of Living Systems	10	0.66	1.31	0.62	1.05	0.64	1.30	0.57	1.22	0.64	1.32	0.66	1.33	0.62	1.20
6. Investigation and Experimentation	6	0.65	0.88	0.56	0.59	0.63	0.85	0.54	0.76	0.62	0.89	0.63	0.92	0.59	0.74

Subscore Reliabilities and SEM for Science 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 10 Life Science															
1. Cell Biology	10	0.66	1.36	0.68	1.18	0.67	1.36	0.62	1.32	0.62	1.37	0.62	1.38	0.65	1.31
2. Genetics	12	0.75	1.44	0.74	1.24	0.74	1.44	0.72	1.38	0.74	1.47	0.74	1.48	0.75	1.35
3. Physiology	10	0.67	1.28	0.61	1.08	0.68	1.28	0.58	1.19	0.66	1.31	0.67	1.33	0.66	1.17
4. Ecology	11	0.75	1.26	0.66	1.08	0.75	1.29	0.63	1.21	0.72	1.33	0.74	1.35	0.70	1.17
5. Evolution	11	0.74	1.32	0.67	1.14	0.71	1.36	0.64	1.26	0.72	1.37	0.73	1.39	0.71	1.23
6. Investigation and Experimentation	6	0.75	0.83	0.67	0.61	0.73	0.86	0.65	0.74	0.73	0.88	0.75	0.91	0.75	0.71
Biology															
1. Cell Biology	9	0.58	1.28	0.64	1.00	0.60	1.28	0.57	1.18	0.59	1.30	0.60	1.31	0.60	1.18
2. Genetics	18	0.80	1.77	0.80	1.46	0.81	1.76	0.77	1.66	0.80	1.80	0.81	1.81	0.80	1.66
3. Ecology and Evolution	16	0.78	1.68	0.75	1.44	0.76	1.72	0.71	1.63	0.77	1.73	0.78	1.75	0.76	1.57
4. Physiology	11	0.73	1.29	0.68	1.10	0.73	1.32	0.64	1.24	0.71	1.34	0.74	1.37	0.70	1.20
5. Investigation and Experimentation	6	0.66	0.94	0.56	0.79	0.66	0.96	0.57	0.88	0.66	0.98	0.67	1.00	0.64	0.87
Chemistry															
1. Atomic and Molecular Structure	8	0.57	1.26	0.59	1.15	0.56	1.28	0.54	1.27	0.56	1.28	0.55	1.29	0.55	1.23
2. Chemical Bonds, Biochemistry	9	0.57	1.22	0.55	1.02	0.62	1.25	0.52	1.18	0.58	1.26	0.62	1.29	0.56	1.14
3. Kinetics, Thermodynamics	14	0.70	1.60	0.70	1.39	0.73	1.64	0.66	1.59	0.69	1.66	0.70	1.69	0.69	1.52
4. Chemical Reactions	13	0.66	1.60	0.70	1.40	0.71	1.60	0.66	1.58	0.68	1.62	0.68	1.64	0.67	1.53
5. Conservation of Matter and Stoichiometry	10	0.74	1.33	0.76	1.11	0.73	1.34	0.74	1.28	0.72	1.35	0.71	1.37	0.74	1.27
6. Investigation and Experimentation	6	0.59	0.92	0.57	0.73	0.61	0.99	0.55	0.90	0.59	0.98	0.62	1.02	0.58	0.84
Earth Science															
1. Astronomy and Cosmology	12	0.71	1.49	0.69	1.42	0.68	1.51	0.66	1.43	0.69	1.51	0.72	1.52	0.71	1.41
2. Solid Earth	14	0.69	1.63	0.65	1.58	0.64	1.67	0.60	1.60	0.67	1.66	0.69	1.68	0.67	1.59
3. The Earth's Energy	28	0.84	2.29	0.84	2.18	0.81	2.36	0.81	2.24	0.82	2.36	0.83	2.37	0.84	2.20
4. Investigation and Experimentation	6	0.64	0.99	0.60	0.92	0.58	1.03	0.52	0.95	0.59	1.03	0.61	1.05	0.61	0.94
Physics															
1. Motion and Forces	12	0.71	1.41	0.64	1.25	0.70	1.46	0.64	1.43	0.67	1.50	0.70	1.52	0.65	1.36
2. Conservation of Energy and Momentum	12	0.73	1.47	0.68	1.30	0.71	1.49	0.66	1.45	0.69	1.51	0.69	1.54	0.69	1.40
3. Heat and Thermodynamics	9	0.73	1.19	0.65	1.08	0.68	1.25	0.63	1.20	0.67	1.25	0.67	1.28	0.65	1.14
4. Waves	10	0.63	1.38	0.60	1.28	0.63	1.39	0.57	1.37	0.62	1.41	0.60	1.43	0.61	1.33
5. Electric and Magnetic Phenomena	11	0.65	1.49	0.63	1.39	0.64	1.51	0.60	1.49	0.63	1.51	0.63	1.52	0.63	1.46
6. Investigation and Experimentation	6	0.61	0.99	0.47	0.92	0.44	1.08	0.41	1.03	0.49	1.07	0.52	1.09	0.45	0.98
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.64	1.38	0.69	1.28	0.63	1.42	0.59	1.40	0.63	1.41	0.65	1.42	0.64	1.29
2. Chemistry	15	0.56	1.77	0.71	1.72	0.43	1.82	0.53	1.78	0.49	1.80	0.50	1.79	0.57	1.78
3. Earth Sciences	17	0.71	1.82	0.75	1.67	0.77	1.79	0.68	1.80	0.74	1.83	0.73	1.87	0.72	1.73
4. Physics	12	0.68	1.56	0.66	1.55	0.54	1.62	0.48	1.63	0.55	1.60	0.54	1.60	0.56	1.60
5. Investigation and Experimentation	6	0.58	1.04	0.66	0.91	0.58	1.06	0.58	1.03	0.58	1.06	0.59	1.07	0.61	0.97

Subscore Reliabilities and SEM for Science 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
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	–	–	0.76	1.44	0.75	1.68	0.70	1.68	0.65	1.76	0.64	1.76	0.68	1.70
2. Chemistry	6	–	–	0.63	0.88	0.44	1.08	0.54	1.06	0.42	1.15	0.20	1.17	0.55	1.10
3. Earth Sciences	15	–	–	0.74	1.29	0.78	1.78	0.77	1.54	0.80	1.69	0.80	1.72	0.81	1.56
4. Physics	18	–	–	0.79	1.70	0.22	1.83	0.66	1.94	0.66	1.92	0.66	1.90	0.74	1.91
5. Investigation and Experimentation	6	–	–	0.61	0.80	–	–	0.63	1.00	0.50	1.11	0.34	1.14	0.58	1.01
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.60	1.87	–	–	0.76	1.80	0.75	1.79	0.74	1.78	0.79	1.67
2. Chemistry	23	–	–	0.56	2.23	–	–	0.61	2.19	0.66	2.19	0.69	2.13	0.84	2.10
3. Earth Sciences	7	–	–	0.51	1.21	–	–	0.54	1.24	0.47	1.24	0.76	1.09	0.66	1.09
4. Physics	8	–	–	0.03	1.28	–	–	0.39	1.26	0.23	1.30	0.48	1.19	0.40	1.31
5. Investigation and Experimentation	6	–	–	–	–	–	–	0.40	1.13	0.52	1.10	0.64	1.04	0.62	1.00
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	–	–	–	–	0.41	1.69
2. Chemistry	10	–	–	–	–	–	–	–	–	–	–	–	–	0.60	1.39
3. Earth Sciences	15	–	–	–	–	–	–	–	–	–	–	–	–	0.44	1.86
4. Physics	16	–	–	–	–	–	–	–	–	–	–	–	–	–	–
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	–	–	–	–	0.41	1.08

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	0.71	1.75	0.74	1.39	0.73	1.70	0.73	1.62	0.74	1.74	0.75	1.76	0.73	1.62
2. Graphing and Systems of Linear Equations	14	0.72	1.69	0.78	1.43	0.75	1.66	0.75	1.60	0.74	1.67	0.73	1.69	0.75	1.61
3. Quadratics and Polynomials	21	0.81	2.01	0.83	1.68	0.82	1.98	0.82	1.91	0.82	2.00	0.82	2.01	0.82	1.92
4. Functions and Rational Expressions	13	0.69	1.63	0.76	1.44	0.70	1.63	0.71	1.59	0.68	1.64	0.68	1.64	0.71	1.60
Geometry – 9															
1. Logic and Geometric Proofs	23	0.77	1.99	0.77	1.76	0.79	2.03	0.75	1.98	0.77	2.06	0.77	2.09	0.74	1.91
2. Volume and Area Formulas	11	0.70	1.35	0.68	1.18	0.72	1.35	0.68	1.32	0.69	1.38	0.65	1.42	0.67	1.29
3. Angle Relationships, Constructions, and Lines	16	0.71	1.70	0.74	1.51	0.73	1.70	0.71	1.67	0.71	1.71	0.71	1.74	0.71	1.62
4. Trigonometry	15	0.74	1.63	0.73	1.40	0.76	1.62	0.73	1.57	0.73	1.66	0.74	1.69	0.72	1.55
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.75	1.73	0.76	1.54	0.73	1.78	0.75	1.69	0.77	1.77	0.79	1.82	0.75	1.71
2. Quadratics, Conics, and Complex Numbers	16	0.71	1.79	0.77	1.64	0.72	1.80	0.72	1.78	0.70	1.81	0.69	1.82	0.73	1.77
3. Exponents and Logarithms	16	0.72	1.75	0.76	1.55	0.77	1.74	0.75	1.69	0.75	1.76	0.76	1.78	0.75	1.70
4. Series, Combinatorics, and Probability and Statistics	14	0.56	1.67	0.68	1.59	0.64	1.65	0.64	1.65	0.63	1.67	0.65	1.67	0.63	1.64

Subscore Reliabilities and SEM for Grade-specific CSTs by Primary Ethnicity-for-Not Economically Disadvantaged															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Summative High School Mathematics – 11															
1. Algebra I	18	0.79	1.65	0.75	1.36	0.74	1.72	0.74	1.65	0.75	1.72	0.77	1.77	0.76	1.61
2. Geometry	19	0.75	1.74	0.72	1.50	0.73	1.79	0.73	1.74	0.74	1.82	0.76	1.87	0.74	1.69
3. Algebra II	23	0.84	1.93	0.83	1.58	0.83	1.98	0.81	1.92	0.82	2.01	0.83	2.05	0.83	1.87
4. Probability and Statistics	5	0.52	0.95	0.52	0.86	0.54	0.97	0.47	0.98	0.50	0.98	0.51	0.99	0.53	0.91
World History – 10															
1. Development of Modern Political Thought	13	0.70	1.48	0.63	1.31	0.67	1.49	0.59	1.43	0.68	1.51	0.70	1.52	0.67	1.41
2. Industrial Expansion and Imperialism	10	0.65	1.30	0.58	1.13	0.65	1.31	0.56	1.26	0.66	1.33	0.67	1.36	0.63	1.23
3. Causes and Effects of World War I	14	0.77	1.55	0.73	1.34	0.74	1.58	0.72	1.51	0.75	1.60	0.75	1.64	0.75	1.47
4. Causes and Effects of World War II	13	0.76	1.49	0.71	1.31	0.72	1.52	0.68	1.47	0.73	1.54	0.74	1.57	0.74	1.42
5. International Developments in the Post-World War II Era	10	0.71	1.33	0.66	1.16	0.70	1.34	0.64	1.28	0.69	1.35	0.70	1.38	0.69	1.26

Table 8.B.40 Subscore Reliabilities and SEM for ELA by Primary Ethnicity-for-Economically Disadvantaged

Subscore Reliabilities and SEM for ELA by *Primary Ethnicity-for-Economically Disadvantaged*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	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	1.97	0.85	1.74	0.84	1.87	0.82	1.70	0.85	1.95	0.87	1.93	0.86	1.87
2. Reading Comprehension	15	0.76	1.70	0.77	1.58	0.74	1.67	0.73	1.59	0.74	1.70	0.75	1.71	0.78	1.63
3. Literary Response and Analysis	6	0.66	1.01	0.64	0.94	0.63	0.99	0.59	0.93	0.62	1.02	0.64	1.01	0.66	0.96
4. Written and Oral Language Conventions	14	0.80	1.59	0.80	1.39	0.79	1.51	0.79	1.35	0.80	1.56	0.80	1.56	0.81	1.51
5. Writing Strategies	8	0.72	1.21	0.70	1.15	0.69	1.20	0.67	1.14	0.68	1.22	0.70	1.22	0.73	1.17
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.81	1.85	0.82	1.66	0.80	1.77	0.79	1.65	0.80	1.84	0.81	1.83	0.81	1.73
2. Reading Comprehension	15	0.75	1.64	0.75	1.55	0.73	1.62	0.73	1.54	0.74	1.64	0.75	1.65	0.76	1.56
3. Literary Response and Analysis	8	0.66	1.20	0.69	1.12	0.66	1.20	0.66	1.12	0.67	1.21	0.68	1.20	0.67	1.13
4. Written and Oral Language Conventions	13	0.69	1.57	0.73	1.44	0.69	1.53	0.70	1.47	0.69	1.55	0.70	1.56	0.70	1.53
5. Writing Strategies	9	0.65	1.34	0.66	1.27	0.62	1.33	0.62	1.27	0.63	1.35	0.64	1.34	0.64	1.29
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.83	1.71	0.83	1.50	0.82	1.63	0.79	1.48	0.82	1.70	0.84	1.69	0.83	1.56
2. Reading Comprehension	15	0.77	1.67	0.75	1.57	0.74	1.67	0.73	1.57	0.74	1.67	0.75	1.69	0.75	1.61
3. Literary Response and Analysis	9	0.61	1.34	0.64	1.28	0.59	1.34	0.61	1.29	0.59	1.34	0.61	1.34	0.61	1.30
4. Written and Oral Language Conventions	18	0.77	1.87	0.78	1.68	0.75	1.81	0.76	1.69	0.76	1.85	0.77	1.85	0.77	1.79
5. Writing Strategies	15	0.71	1.75	0.74	1.67	0.68	1.75	0.72	1.68	0.69	1.75	0.70	1.75	0.73	1.72

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 5															
1. Word Analysis and Vocabulary Development	14	0.68	1.61	0.75	1.49	0.69	1.58	0.65	1.51	0.69	1.60	0.71	1.59	0.71	1.52
2. Reading Comprehension	16	0.80	1.67	0.80	1.54	0.78	1.67	0.76	1.55	0.78	1.69	0.79	1.70	0.80	1.57
3. Literary Response and Analysis	12	0.67	1.51	0.70	1.44	0.65	1.51	0.67	1.44	0.67	1.53	0.68	1.52	0.68	1.45
4. Written and Oral Language Conventions	17	0.72	1.75	0.74	1.53	0.72	1.68	0.69	1.53	0.72	1.72	0.73	1.73	0.74	1.67
5. Writing Strategies	16	0.74	1.77	0.77	1.64	0.73	1.75	0.73	1.66	0.73	1.75	0.73	1.77	0.75	1.70
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.71	1.52	0.74	1.40	0.67	1.50	0.68	1.41	0.68	1.53	0.70	1.52	0.71	1.45
2. Reading Comprehension	17	0.72	1.84	0.77	1.73	0.71	1.82	0.73	1.76	0.72	1.82	0.73	1.83	0.75	1.79
3. Literary Response and Analysis	12	0.68	1.49	0.68	1.44	0.64	1.50	0.64	1.43	0.65	1.51	0.68	1.50	0.68	1.43
4. Written and Oral Language Conventions	16	0.70	1.72	0.71	1.53	0.69	1.67	0.68	1.56	0.70	1.69	0.71	1.73	0.71	1.63
5. Writing Strategies	17	0.76	1.83	0.80	1.69	0.75	1.82	0.76	1.74	0.75	1.83	0.75	1.82	0.77	1.76
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.70	1.35	0.70	1.23	0.67	1.37	0.64	1.25	0.66	1.38	0.70	1.37	0.71	1.26
2. Reading Comprehension	18	0.73	1.78	0.77	1.63	0.74	1.76	0.71	1.66	0.74	1.76	0.75	1.78	0.75	1.68
3. Literary Response and Analysis	13	0.73	1.59	0.73	1.51	0.70	1.60	0.68	1.55	0.70	1.61	0.71	1.60	0.72	1.53
4. Written and Oral Language Conventions	16	0.70	1.72	0.73	1.52	0.69	1.66	0.68	1.53	0.68	1.70	0.70	1.70	0.71	1.64
5. Writing Strategies	17	0.73	1.83	0.78	1.71	0.74	1.82	0.73	1.76	0.73	1.83	0.73	1.83	0.77	1.78
Grade 8															
1. Word Analysis and Vocabulary Development	9	0.60	1.29	0.65	1.19	0.55	1.30	0.53	1.21	0.56	1.29	0.56	1.31	0.59	1.22
2. Reading Comprehension	18	0.76	1.83	0.78	1.68	0.74	1.83	0.73	1.71	0.76	1.82	0.77	1.84	0.76	1.75
3. Literary Response and Analysis	15	0.74	1.70	0.77	1.57	0.72	1.70	0.73	1.60	0.73	1.70	0.73	1.72	0.76	1.62
4. Written and Oral Language Conventions	16	0.76	1.76	0.76	1.60	0.73	1.75	0.73	1.62	0.73	1.76	0.75	1.77	0.76	1.69
5. Writing Strategies	17	0.77	1.86	0.79	1.73	0.77	1.85	0.77	1.77	0.76	1.85	0.77	1.86	0.78	1.81
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.57	1.28	0.62	1.20	0.54	1.28	0.54	1.22	0.53	1.27	0.57	1.28	0.59	1.24
2. Reading Comprehension	18	0.78	1.85	0.81	1.65	0.77	1.84	0.76	1.69	0.78	1.83	0.79	1.86	0.80	1.75
3. Literary Response and Analysis	16	0.76	1.71	0.77	1.60	0.74	1.72	0.72	1.64	0.75	1.73	0.76	1.74	0.76	1.64
4. Written and Oral Language Conventions	13	0.66	1.65	0.70	1.52	0.65	1.63	0.62	1.55	0.62	1.66	0.66	1.65	0.69	1.58
5. Writing Strategies	20	0.77	1.99	0.79	1.89	0.75	1.99	0.75	1.92	0.74	2.00	0.76	2.01	0.78	1.95
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.57	1.24	0.62	1.15	0.57	1.22	0.55	1.14	0.56	1.24	0.58	1.24	0.60	1.19
2. Reading Comprehension	18	0.80	1.85	0.80	1.67	0.80	1.84	0.77	1.71	0.79	1.84	0.80	1.87	0.81	1.77
3. Literary Response and Analysis	16	0.70	1.79	0.73	1.68	0.69	1.79	0.67	1.71	0.67	1.80	0.69	1.81	0.72	1.73
4. Written and Oral Language Conventions	13	0.73	1.56	0.71	1.43	0.72	1.54	0.66	1.44	0.71	1.54	0.73	1.57	0.75	1.50
5. Writing Strategies	20	0.80	1.96	0.83	1.81	0.80	1.95	0.80	1.85	0.79	1.96	0.80	1.98	0.82	1.90

Subscore Reliabilities and SEM for ELA by *Primary Ethnicity-for-Economically Disadvantaged*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.64	1.22	0.61	1.13	0.60	1.21	0.55	1.13	0.60	1.22	0.63	1.23	0.65	1.15
2. Reading Comprehension	19	0.81	1.92	0.79	1.81	0.78	1.94	0.76	1.83	0.78	1.93	0.79	1.95	0.81	1.87
3. Literary Response and Analysis	17	0.72	1.82	0.72	1.77	0.69	1.84	0.68	1.77	0.69	1.83	0.70	1.85	0.73	1.78
4. Written and Oral Language Conventions	9	0.67	1.28	0.64	1.18	0.64	1.28	0.59	1.19	0.61	1.27	0.65	1.30	0.68	1.21
5. Writing Strategies	22	0.81	2.10	0.80	1.98	0.80	2.10	0.78	2.02	0.79	2.09	0.80	2.11	0.82	2.03

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 *Primary Ethnicity-for-Economically Disadvantaged*															
Subscore Area	N of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	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	1.82	0.72	1.69	0.63	1.79	0.66	1.71	0.66	1.81	0.66	1.82	0.69	1.76
2. Late Antiquity and the Middle Ages	14	0.72	1.68	0.74	1.52	0.71	1.64	0.69	1.56	0.71	1.67	0.71	1.68	0.73	1.62
3. Renaissance/Reformation	10	0.67	1.40	0.67	1.28	0.65	1.38	0.63	1.29	0.65	1.39	0.66	1.41	0.68	1.34
4. U.S. Constitution and the Early Republic	22	0.80	2.09	0.82	1.93	0.80	2.07	0.80	1.98	0.79	2.09	0.80	2.12	0.82	2.02
5. Civil War and Its Aftermath	13	0.77	1.58	0.79	1.42	0.76	1.56	0.76	1.48	0.75	1.58	0.75	1.59	0.78	1.52
World History															
1. Development of Modern Political Thought	13	0.72	1.57	0.68	1.46	0.67	1.57	0.62	1.50	0.68	1.57	0.71	1.58	0.72	1.52
2. Industrial Expansion and Imperialism	10	0.69	1.38	0.65	1.28	0.62	1.39	0.60	1.32	0.66	1.39	0.68	1.41	0.68	1.34
3. Causes and Effects of World War I	14	0.77	1.65	0.77	1.53	0.72	1.68	0.72	1.58	0.74	1.67	0.73	1.69	0.77	1.62
4. Causes and Effects of World War II	13	0.74	1.60	0.74	1.49	0.70	1.62	0.69	1.54	0.72	1.61	0.72	1.62	0.75	1.55
5. International Developments in the Post-World War II Era	10	0.69	1.40	0.70	1.30	0.63	1.42	0.65	1.34	0.67	1.40	0.67	1.42	0.71	1.36
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.60	1.41	0.66	1.31	0.58	1.40	0.59	1.36	0.60	1.40	0.59	1.42	0.66	1.36
2. Industrialization and the U.S. role as a World Power	13	0.74	1.57	0.74	1.48	0.71	1.58	0.69	1.51	0.72	1.58	0.71	1.60	0.74	1.54
3. United States between the World Wars	12	0.68	1.54	0.68	1.46	0.66	1.54	0.64	1.49	0.68	1.53	0.69	1.54	0.72	1.50
4. World War II and Foreign Affairs	12	0.72	1.52	0.73	1.42	0.71	1.51	0.69	1.45	0.71	1.51	0.69	1.54	0.74	1.49
5. Post-World War II Domestic Affairs	13	0.73	1.60	0.70	1.54	0.69	1.61	0.66	1.56	0.69	1.61	0.69	1.62	0.73	1.57

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	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
	Items	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	1.57	0.80	1.34	0.80	1.50	0.79	1.37	0.80	1.54	0.81	1.58	0.80	1.48
2. Number Sense: Multiplication, Division, and Fractions	23	0.84	1.90	0.85	1.64	0.84	1.82	0.84	1.66	0.85	1.86	0.86	1.92	0.84	1.76
3. Algebra and Functions	6	0.54	0.95	0.58	0.79	0.54	0.91	0.57	0.81	0.56	0.93	0.57	0.96	0.58	0.89
4. Measurement and Geometry	14	0.68	1.44	0.71	1.26	0.69	1.39	0.68	1.27	0.69	1.42	0.72	1.49	0.68	1.35
5. Statistics, Data Analysis, and Probability	7	0.62	1.01	0.61	0.91	0.58	0.99	0.58	0.92	0.61	0.99	0.63	1.02	0.62	0.97
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.52	0.75	1.29	0.76	1.45	0.74	1.34	0.76	1.48	0.78	1.53	0.76	1.42
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.83	1.60	0.84	1.29	0.85	1.49	0.84	1.36	0.84	1.52	0.84	1.58	0.84	1.51
3. Algebra and Functions	12	0.77	1.32	0.75	1.04	0.76	1.24	0.76	1.08	0.76	1.27	0.77	1.33	0.78	1.18
4. Measurement and Geometry	16	0.74	1.52	0.74	1.30	0.74	1.45	0.72	1.34	0.73	1.48	0.74	1.53	0.74	1.40
5. Statistics, Data Analysis and Probability	5	0.60	0.75	0.49	0.63	0.56	0.71	0.47	0.65	0.54	0.72	0.60	0.76	0.57	0.67
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.79	1.52	0.75	1.19	0.77	1.44	0.73	1.24	0.78	1.46	0.80	1.54	0.78	1.36
2. Number Sense: Operations and Factoring	14	0.83	1.45	0.82	1.05	0.84	1.33	0.82	1.16	0.83	1.35	0.84	1.44	0.83	1.34
3. Algebra and Functions	18	0.86	1.59	0.83	1.19	0.85	1.46	0.83	1.28	0.86	1.50	0.86	1.59	0.86	1.44
4. Measurement and Geometry	12	0.74	1.42	0.74	1.21	0.74	1.36	0.73	1.26	0.74	1.38	0.75	1.44	0.74	1.35
5. Statistics, Data Analysis, and Probability	4	0.48	0.79	0.40	0.67	0.41	0.77	0.37	0.71	0.42	0.77	0.47	0.79	0.45	0.72
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.69	1.48	0.75	1.27	0.73	1.42	0.74	1.32	0.72	1.43	0.72	1.47	0.72	1.42
2. Number Sense: Operations with Fractions and Decimals	17	0.80	1.78	0.83	1.47	0.82	1.69	0.81	1.56	0.82	1.71	0.80	1.78	0.82	1.70
3. Algebra and Functions	17	0.80	1.69	0.81	1.42	0.80	1.61	0.79	1.48	0.80	1.62	0.80	1.68	0.81	1.61
4. Measurement and Geometry	15	0.76	1.63	0.80	1.44	0.77	1.60	0.78	1.49	0.77	1.61	0.76	1.64	0.79	1.57
5.Statistics, Data Analysis, and Probability	4	0.51	0.79	0.50	0.62	0.54	0.74	0.50	0.64	0.51	0.75	0.54	0.78	0.55	0.71
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.74	1.70	0.77	1.48	0.73	1.66	0.76	1.58	0.74	1.67	0.73	1.70	0.75	1.65
2. Number Sense: Operations and Problem Solving with Fractions	10	0.69	1.36	0.71	1.17	0.66	1.34	0.70	1.26	0.69	1.34	0.67	1.36	0.69	1.32
3. Algebra and Functions	19	0.81	1.81	0.83	1.50	0.81	1.76	0.82	1.61	0.81	1.77	0.81	1.83	0.81	1.68
4. Measurement and Geometry	10	0.61	1.41	0.71	1.27	0.64	1.40	0.68	1.33	0.63	1.40	0.61	1.42	0.65	1.37
5. Statistics, Data Analysis, and Probability	11	0.71	1.41	0.73	1.29	0.69	1.42	0.72	1.34	0.70	1.40	0.70	1.42	0.73	1.36

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 7															
1. Number Sense: Rational Numbers	14	0.74	1.67	0.80	1.48	0.75	1.64	0.78	1.57	0.76	1.64	0.74	1.66	0.76	1.62
2. Number Sense: Exponent, Powers and Roots	8	0.65	1.24	0.69	1.13	0.64	1.23	0.68	1.18	0.66	1.23	0.65	1.24	0.66	1.22
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.61	1.43	0.68	1.27	0.66	1.40	0.66	1.33	0.63	1.42	0.64	1.43	0.65	1.39
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.76	1.69	0.79	1.48	0.74	1.67	0.76	1.58	0.75	1.68	0.74	1.72	0.77	1.62
5. Measurement and Geometry	13	0.70	1.58	0.73	1.45	0.70	1.57	0.71	1.50	0.68	1.59	0.67	1.61	0.71	1.54
6. Statistics, Data Analysis, and Probability	5	0.54	0.95	0.55	0.84	0.56	0.93	0.53	0.86	0.54	0.94	0.51	0.97	0.55	0.90
General Mathematics															
1. Number Sense: Rational Numbers	14	0.67	1.70	0.72	1.64	0.69	1.67	0.70	1.66	0.66	1.70	0.65	1.71	0.69	1.69
2. Number Sense: Exponent, Powers and Roots	10	0.67	1.41	0.74	1.38	0.70	1.40	0.72	1.39	0.66	1.41	0.65	1.40	0.70	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.59	1.52	0.64	1.47	0.62	1.50	0.59	1.50	0.57	1.52	0.57	1.52	0.61	1.50
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.63	1.43	0.64	1.38	0.64	1.42	0.60	1.39	0.62	1.43	0.59	1.45	0.65	1.39
5. Measurement and Geometry	11	0.61	1.52	0.67	1.51	0.62	1.52	0.64	1.52	0.60	1.52	0.57	1.50	0.67	1.51
6. Statistics, Data Analysis, and Probability	9	0.66	1.32	0.63	1.26	0.62	1.31	0.62	1.27	0.62	1.31	0.63	1.33	0.68	1.28
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.71	1.84	0.78	1.65	0.71	1.81	0.75	1.75	0.71	1.83	0.70	1.85	0.74	1.80
2. Graphing and Systems of Linear Equations	14	0.67	1.70	0.79	1.60	0.71	1.70	0.76	1.66	0.70	1.70	0.66	1.70	0.73	1.69
3. Quadratics and Polynomials	21	0.76	2.06	0.86	1.92	0.79	2.05	0.83	1.99	0.79	2.05	0.76	2.05	0.80	2.04
4. Functions and Rational Expressions	13	0.54	1.63	0.76	1.58	0.62	1.63	0.70	1.63	0.60	1.63	0.57	1.61	0.63	1.63
Geometry															
1. Logic and Geometric Proofs	23	0.78	2.17	0.84	2.01	0.76	2.17	0.80	2.10	0.76	2.18	0.75	2.18	0.79	2.12
2. Volume and Area Formulas	11	0.64	1.47	0.76	1.35	0.63	1.47	0.72	1.40	0.64	1.46	0.58	1.47	0.69	1.44
3. Angle Relationships, Constructions, and Lines	16	0.72	1.77	0.80	1.68	0.70	1.78	0.75	1.74	0.68	1.79	0.65	1.79	0.73	1.75
4. Trigonometry	15	0.73	1.74	0.80	1.60	0.73	1.75	0.77	1.67	0.72	1.75	0.70	1.76	0.75	1.71
Algebra II															
1. Polynomials and Rational Expressions	19	0.79	1.85	0.81	1.67	0.78	1.84	0.78	1.80	0.79	1.85	0.78	1.89	0.78	1.82
2. Quadratics, Conics, and Complex Numbers	16	0.62	1.84	0.79	1.73	0.64	1.84	0.71	1.81	0.66	1.83	0.60	1.83	0.70	1.82
3. Exponents and Logarithms	16	0.73	1.82	0.80	1.67	0.74	1.81	0.76	1.77	0.74	1.81	0.73	1.82	0.76	1.78
4. Series, Combinatorics, and Probability and Statistics	14	0.61	1.69	0.72	1.64	0.58	1.68	0.65	1.67	0.59	1.68	0.55	1.68	0.62	1.68

Subscore Reliabilities and SEM for Mathematics by *Primary Ethnicity-for-Economically Disadvantaged*															
Subscore Area	**N of**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
	Items	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**
Summative High School Mathematics															
1. Algebra I	18	0.72	1.79	0.76	1.52	0.73	1.76	0.76	1.70	0.76	1.76	0.77	1.83	0.77	1.69
2. Geometry	19	0.74	1.86	0.75	1.65	0.79	1.85	0.75	1.81	0.76	1.88	0.78	1.93	0.76	1.77
3. Algebra II	23	0.83	2.03	0.84	1.77	0.83	2.05	0.82	1.99	0.83	2.07	0.83	2.12	0.84	1.96
4. Probability and Statistics	5	0.45	0.99	0.49	0.96	0.40	1.02	0.46	1.00	0.43	1.01	0.45	1.01	0.52	0.96
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.64	1.74	0.71	1.67	0.71	1.66	0.67	1.65	0.64	1.73	0.66	1.74	0.70	1.70
2. Algebra I: Graphing	9	0.46	1.42	0.53	1.39	0.69	1.32	0.59	1.39	0.54	1.37	0.48	1.37	0.62	1.36
3. Algebra I: Quadratics and Polynomials	14	0.68	1.67	0.67	1.67	0.73	1.64	0.71	1.63	0.59	1.68	0.55	1.67	0.67	1.67
4. Algebra I: Functions and Relations Expressions	7	0.54	1.15	0.60	1.16	0.61	1.16	0.55	1.17	0.43	1.18	0.42	1.17	0.52	1.17
5. Geometry	20	0.50	2.03	0.53	2.03	0.48	2.05	0.63	2.03	0.46	2.01	0.46	2.00	0.62	2.04
Integrated Mathematics 2															
1. Algebra I	20	0.71	2.08	0.78	2.01	0.42	2.13	0.83	1.94	0.72	2.05	0.74	2.03	0.71	2.04
2. Geometry: Logic and Geometric Proofs	22	0.80	2.08	0.77	2.11	0.28	2.24	0.85	2.02	0.69	2.14	0.71	2.12	0.70	2.13
3. Geometry: Angle Relationships, Construction and Lines	8	0.75	1.15	0.62	1.20	0.20	1.29	0.61	1.16	0.47	1.22	0.48	1.24	0.49	1.21
4. Trigonometry	10	0.75	1.37	0.71	1.39	0.54	1.46	0.78	1.33	0.62	1.42	0.60	1.41	0.64	1.41
5. Algebra II: Probability and Statistics	5	0.40	0.99	0.41	0.94	0.20	0.95	0.48	0.99	0.26	0.98	0.21	1.01	0.41	0.97
Integrated Mathematics 3															
1. Geometry	5	–	–	0.57	0.93	–	–	0.64	0.90	0.47	1.00	0.66	0.91	0.47	0.98
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.74	1.91	–	–	0.77	1.84	0.80	1.84	0.79	1.95	0.76	1.93
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	–	–	0.74	1.82	–	–	0.82	1.65	0.61	1.84	0.70	1.79	0.21	1.96
4. Algebra II: Exponents and Logarithms	16	–	–	0.67	1.84	–	–	0.75	1.77	0.70	1.85	0.79	1.80	0.70	1.86
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.52	1.38	–	–	0.48	1.43	0.51	1.33	0.49	1.36	0.40	1.30

Table 8.B.43 Subscore Reliabilities and SEM for Science by Primary Ethnicity-for-Economically Disadvantaged

Subscore Reliabilities and SEM for Science by *Primary Ethnicity-for-Economically Disadvantaged*															
Subscore Area	**N of**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
	Items	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.66	1.41	0.71	1.24	0.62	1.42	0.64	1.26	0.66	1.41	0.66	1.42	0.66	1.29
2. Physical Science (Grade 4)	8	0.61	1.22	0.62	1.14	0.57	1.24	0.57	1.16	0.60	1.23	0.60	1.24	0.59	1.17
3. Life Science (Grade 5)	13	0.69	1.56	0.70	1.45	0.66	1.58	0.63	1.47	0.67	1.57	0.68	1.59	0.68	1.48
4. Life Science (Grade 4)	9	0.61	1.28	0.66	1.16	0.59	1.29	0.59	1.19	0.61	1.28	0.62	1.31	0.62	1.19
5. Earth Science (Grade 5)	11	0.65	1.42	0.65	1.32	0.64	1.42	0.58	1.34	0.63	1.43	0.67	1.43	0.65	1.35
6. Earth Science (Grade 4)	8	0.58	1.27	0.65	1.16	0.57	1.27	0.57	1.18	0.57	1.27	0.60	1.28	0.62	1.20

Subscore Reliabilities and SEM for Science 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 Science															
1. Motion	8	0.49	1.26	0.54	1.12	0.48	1.23	0.49	1.16	0.48	1.24	0.47	1.26	0.52	1.21
2. Forces, Density, and Buoyancy	13	0.73	1.51	0.71	1.31	0.71	1.50	0.68	1.36	0.71	1.50	0.71	1.55	0.73	1.41
3. Structure of Matter and Periodic Table	16	0.78	1.68	0.78	1.46	0.77	1.65	0.75	1.51	0.77	1.67	0.78	1.70	0.78	1.58
4. Earth in the Solar System	7	0.58	1.09	0.60	0.95	0.57	1.09	0.53	0.98	0.57	1.07	0.57	1.11	0.59	1.02
5. Reactions and the Chemistry of Living Systems	10	0.66	1.38	0.64	1.26	0.62	1.39	0.59	1.30	0.62	1.40	0.63	1.40	0.66	1.32
6. Investigation and Experimentation	6	0.61	1.00	0.61	0.82	0.62	0.97	0.58	0.86	0.59	0.99	0.60	1.02	0.63	0.91
Grade 10 Life Science															
1. Cell Biology	10	0.57	1.41	0.68	1.32	0.58	1.40	0.62	1.36	0.57	1.40	0.56	1.41	0.62	1.38
2. Genetics	12	0.72	1.51	0.75	1.41	0.69	1.52	0.71	1.45	0.70	1.52	0.70	1.53	0.75	1.47
3. Physiology	10	0.69	1.36	0.65	1.28	0.60	1.40	0.61	1.29	0.63	1.39	0.64	1.40	0.69	1.30
4. Ecology	11	0.73	1.39	0.73	1.28	0.70	1.41	0.67	1.30	0.70	1.41	0.71	1.44	0.74	1.32
5. Evolution	11	0.74	1.41	0.72	1.33	0.68	1.45	0.67	1.35	0.69	1.44	0.70	1.46	0.74	1.36
6. Investigation and Experimentation	6	0.74	0.95	0.70	0.81	0.71	0.97	0.67	0.85	0.71	0.96	0.72	0.99	0.76	0.87
Biology															
1. Cell Biology	9	0.54	1.36	0.63	1.21	0.52	1.36	0.56	1.26	0.54	1.36	0.54	1.37	0.59	1.31
2. Genetics	18	0.78	1.87	0.81	1.70	0.76	1.87	0.78	1.76	0.78	1.86	0.78	1.87	0.80	1.81
3. Ecology and Evolution	16	0.77	1.78	0.77	1.68	0.75	1.80	0.72	1.73	0.75	1.80	0.75	1.81	0.79	1.72
4. Physiology	11	0.73	1.39	0.72	1.30	0.68	1.44	0.67	1.33	0.70	1.43	0.71	1.44	0.73	1.33
5. Investigation and Experimentation	6	0.66	1.02	0.64	0.93	0.61	1.04	0.62	0.95	0.63	1.03	0.62	1.05	0.68	0.97
Chemistry															
1. Atomic and Molecular Structure	8	0.53	1.29	0.60	1.26	0.53	1.29	0.52	1.29	0.55	1.29	0.51	1.30	0.53	1.27
2. Chemical Bonds, Biochemistry	9	0.60	1.28	0.57	1.19	0.57	1.31	0.53	1.25	0.58	1.33	0.61	1.34	0.59	1.23
3. Kinetics, Thermodynamics	14	0.67	1.69	0.70	1.58	0.68	1.72	0.66	1.66	0.68	1.71	0.67	1.73	0.70	1.62
4. Chemical Reactions	13	0.66	1.65	0.71	1.56	0.66	1.66	0.66	1.63	0.66	1.65	0.65	1.66	0.68	1.60
5. Conservation of Matter and Stoichiometry	10	0.68	1.38	0.76	1.24	0.69	1.37	0.74	1.32	0.70	1.37	0.65	1.39	0.73	1.33
6. Investigation and Experimentation	6	0.60	1.02	0.60	0.91	0.55	1.07	0.56	0.99	0.58	1.05	0.59	1.08	0.61	0.95
Earth Science															
1. Astronomy and Cosmology	12	0.71	1.55	0.70	1.50	0.67	1.57	0.66	1.50	0.68	1.56	0.68	1.58	0.71	1.51
2. Solid Earth	14	0.70	1.69	0.67	1.65	0.68	1.70	0.63	1.65	0.66	1.70	0.66	1.72	0.70	1.65
3. The Earth's Energy	28	0.82	2.40	0.83	2.32	0.81	2.40	0.81	2.34	0.80	2.42	0.79	2.44	0.84	2.33
4. Investigation and Experimentation	6	0.60	1.07	0.58	1.02	0.55	1.09	0.54	1.02	0.57	1.08	0.57	1.10	0.62	1.03
Physics															
1. Motion and Forces	12	0.71	1.52	0.67	1.41	0.61	1.57	0.63	1.50	0.65	1.57	0.65	1.58	0.69	1.47
2. Conservation of Energy and Momentum	12	0.69	1.54	0.69	1.44	0.67	1.56	0.66	1.50	0.68	1.56	0.66	1.57	0.71	1.49
3. Heat and Thermodynamics	9	0.65	1.31	0.64	1.22	0.63	1.32	0.62	1.27	0.63	1.32	0.63	1.33	0.69	1.23
4. Waves	10	0.63	1.44	0.62	1.37	0.60	1.45	0.62	1.41	0.61	1.44	0.57	1.45	0.62	1.40
5. Electric and Magnetic Phenomena	11	0.60	1.54	0.64	1.46	0.54	1.56	0.60	1.51	0.61	1.53	0.58	1.52	0.63	1.51
6. Investigation and Experimentation	6	0.49	1.10	0.48	1.03	0.53	1.10	0.49	1.06	0.48	1.12	0.50	1.12	0.51	1.06

Subscore Reliabilities and SEM for Science 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
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.68	1.41	0.67	1.39	0.56	1.47	0.56	1.45	0.60	1.45	0.59	1.46	0.65	1.39
2. Chemistry	15	0.45	1.79	0.64	1.78	0.46	1.79	0.47	1.80	0.45	1.79	0.40	1.78	0.54	1.79
3. Earth Sciences	17	0.72	1.87	0.75	1.80	0.68	1.91	0.67	1.85	0.72	1.87	0.69	1.91	0.75	1.82
4. Physics	12	0.51	1.61	0.59	1.61	0.47	1.60	0.55	1.60	0.52	1.60	0.50	1.59	0.52	1.62
5. Investigation and Experimentation	6	0.54	1.09	0.63	1.03	0.59	1.07	0.55	1.06	0.54	1.09	0.50	1.11	0.58	1.05
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.78	1.69	0.80	1.67	–	–	0.46	1.88	0.70	1.73	0.60	1.75	0.69	1.75
2. Chemistry	6	0.49	1.12	0.55	1.12	–	–	0.57	1.14	0.36	1.16	0.25	1.14	0.54	1.12
3. Earth Sciences	15	0.85	1.65	0.83	1.63	–	–	0.81	1.70	0.75	1.74	0.53	1.81	0.78	1.71
4. Physics	18	0.65	1.95	0.81	1.89	–	–	0.51	2.04	0.62	1.94	0.46	1.92	0.67	1.93
5. Investigation and Experimentation	6	0.38	1.14	0.67	1.03	–	–	0.80	0.95	0.47	1.12	0.39	1.11	0.38	1.13
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.73	1.77	–	–	–	–	0.70	1.82	0.77	1.78	0.78	1.71
2. Chemistry	23	–	–	0.75	2.19	–	–	–	–	0.66	2.14	0.75	2.12	0.80	2.13
3. Earth Sciences	7	–	–	0.58	1.16	–	–	–	–	0.54	1.20	0.43	1.25	0.60	1.18
4. Physics	8	–	–	0.57	1.26	–	–	–	–	0.34	1.27	–	–	0.41	1.31
5. Investigation and Experimentation	6	–	–	0.41	1.11	–	–	–	–	0.56	1.09	0.78	0.96	0.47	1.08
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	0.51	1.70	–	–	–	–
2. Chemistry	10	–	–	–	–	–	–	–	–	0.43	1.47	–	–	–	–
3. Earth Sciences	15	–	–	–	–	–	–	–	–	0.59	1.82	–	–	–	–
4. Physics	16	–	–	–	–	–	–	–	–	0.15	1.67	–	–	–	–
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.23	1.13	–	–	–	–

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 *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
Algebra I – 8															
1. Number Properties, Operations, and Linear Equations	17	0.72	1.80	0.76	1.60	0.71	1.79	0.74	1.71	0.72	1.80	0.72	1.82	0.73	1.76
2. Graphing and Systems of Linear Equations	14	0.72	1.69	0.77	1.57	0.72	1.70	0.76	1.64	0.72	1.69	0.70	1.70	0.73	1.68
3. Quadratics and Polynomials	21	0.80	2.04	0.84	1.87	0.80	2.03	0.83	1.96	0.81	2.03	0.80	2.05	0.82	2.02
4. Functions and Rational Expressions	13	0.59	1.66	0.74	1.57	0.66	1.64	0.71	1.62	0.65	1.64	0.63	1.63	0.67	1.64
Geometry – 9															
1. Logic and Geometric Proofs	23	0.81	2.12	0.79	1.97	0.76	2.14	0.77	2.05	0.77	2.14	0.77	2.16	0.77	2.04
2. Volume and Area Formulas	11	0.69	1.43	0.71	1.31	0.70	1.41	0.70	1.37	0.67	1.43	0.64	1.46	0.70	1.37
3. Angle Relationships, Constructions, and Lines	16	0.75	1.73	0.75	1.65	0.71	1.75	0.72	1.71	0.70	1.76	0.69	1.78	0.73	1.70
4. Trigonometry	15	0.76	1.70	0.76	1.54	0.73	1.73	0.74	1.63	0.74	1.72	0.73	1.74	0.75	1.65

Subscore Reliabilities and SEM for Grade-specific CSTs by *Primary Ethnicity-for-Economically Disadvantaged*															
Subscore Area	**N of**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
	Items	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**	**Rel.**	**SEM**
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.76	1.84	0.77	1.64	0.78	1.79	0.75	1.76	0.79	1.81	0.79	1.86	0.77	1.78
2. Quadratics, Conics, and Complex Numbers	16	0.60	1.86	0.77	1.72	0.64	1.84	0.69	1.81	0.68	1.83	0.64	1.83	0.70	1.81
3. Exponents and Logarithms	16	0.68	1.84	0.77	1.66	0.75	1.78	0.74	1.74	0.75	1.79	0.74	1.81	0.75	1.76
4. Series, Combinatorics, and Probability and Statistics	14	0.60	1.68	0.67	1.64	0.61	1.68	0.63	1.67	0.62	1.68	0.60	1.67	0.62	1.67
Summative High School Mathematics – 11															
1. Algebra I	18	0.69	1.82	0.76	1.56	0.74	1.77	0.75	1.73	0.76	1.77	0.75	1.84	0.76	1.71
2. Geometry	19	0.73	1.87	0.75	1.69	0.79	1.87	0.74	1.83	0.76	1.89	0.77	1.94	0.76	1.79
3. Algebra II	23	0.80	2.06	0.84	1.82	0.83	2.05	0.81	2.02	0.82	2.08	0.82	2.13	0.83	1.99
4. Probability and Statistics	5	0.43	1.00	0.48	0.97	0.40	1.02	0.44	1.01	0.43	1.02	0.44	1.01	0.52	0.96
World History – 10															
1. Development of Modern Political Thought	13	0.70	1.57	0.67	1.47	0.64	1.57	0.60	1.51	0.67	1.57	0.69	1.58	0.71	1.52
2. Industrial Expansion and Imperialism	10	0.68	1.38	0.64	1.29	0.61	1.39	0.59	1.32	0.65	1.39	0.67	1.41	0.67	1.34
3. Causes and Effects of World War I	14	0.76	1.65	0.76	1.54	0.70	1.68	0.71	1.59	0.73	1.67	0.73	1.69	0.76	1.61
4. Causes and Effects of World War II	13	0.73	1.60	0.73	1.50	0.67	1.62	0.68	1.55	0.71	1.61	0.71	1.63	0.74	1.55
5 International Developments in the Post-World War II Era	10	0.68	1.40	0.69	1.31	0.62	1.42	0.64	1.35	0.67	1.40	0.66	1.42	0.71	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 All-forms Average	0 – 19	0.05	0.02	0.00	0.00	0.00	0.08
	20 – 29	0.01	0.08	0.03	0.00	0.00	0.12
	30 – 43	0.00	0.01	0.20	0.02	0.00	0.22
	44 – 54	0.00	0.00	0.04	0.23	0.03	0.30
	55 – 65	0.00	0.00	0.00	0.04	0.24	0.29
	Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 19	0.05	0.02	0.00	0.00	0.00	0.08
	20 – 29	0.01	0.07	0.03	0.00	0.00	0.12
	30 – 43	0.00	0.02	0.17	0.03	0.00	0.22
	44 – 54	0.00	0.00	0.05	0.20	0.05	0.30
	55 – 65	0.00	0.00	0.00	0.05	0.24	0.29
	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 All-forms Average	0 – 24	0.07	0.02	0.00	0.00	0.00	0.10
	25 – 34	0.01	0.10	0.03	0.00	0.00	0.13
	35 – 47	0.00	0.02	0.24	0.03	0.00	0.29
	48 – 56	0.00	0.00	0.05	0.21	0.03	0.29
	57 – 65	0.00	0.00	0.00	0.04	0.15	0.19
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 24	0.06	0.02	0.01	0.00	0.00	0.10
	25 – 34	0.02	0.08	0.04	0.00	0.00	0.13
	35 – 47	0.00	0.03	0.21	0.05	0.00	0.29
	48 – 56	0.00	0.00	0.06	0.18	0.05	0.29
	57 – 65	0.00	0.00	0.00	0.04	0.14	0.19
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.88						

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 All-forms Average	0 – 19	0.02	0.01	0.00	0.00	0.00	0.03
	20 – 28	0.01	0.04	0.02	0.01	0.00	0.08
	29 – 44	0.00	0.01	0.19	0.03	0.00	0.22
	45 – 57	0.00	0.00	0.03	0.24	0.03	0.30
	58 – 75	0.00	0.00	0.00	0.04	0.32	0.37
	Estimated Proportion Correctly Classified: Total = 0.81, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 19	0.02	0.01	0.00	0.00	0.00	0.03
	20 – 28	0.01	0.04	0.03	0.01	0.00	0.08
	29 – 44	0.00	0.02	0.17	0.04	0.00	0.22
	45 – 57	0.00	0.00	0.04	0.21	0.05	0.30
	58 – 75	0.00	0.00	0.00	0.06	0.31	0.37
	Estimated Proportion Consistently Classified: Total = 0.74, 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 All-forms Average	0 – 24	0.02	0.01	0.00	0.00	0.00	0.03
	25 – 33	0.01	0.03	0.03	0.01	0.00	0.07
	34 – 50	0.00	0.01	0.17	0.04	0.00	0.22
	51 – 63	0.00	0.00	0.04	0.21	0.04	0.29
	64 – 83	0.00	0.00	0.00	0.06	0.33	0.39
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 24	0.02	0.01	0.00	0.00	0.00	0.03
	25 – 33	0.01	0.02	0.03	0.01	0.00	0.07
	34 – 50	0.00	0.02	0.15	0.05	0.00	0.22
	51 – 63	0.00	0.00	0.06	0.17	0.06	0.29
	64 – 83	0.00	0.00	0.01	0.07	0.31	0.39
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.87						

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 All-forms Average	0 – 24	0.03	0.01	0.00	0.00	0.00	0.04
	25 – 33	0.01	0.05	0.02	0.00	0.00	0.08
	34 – 49	0.00	0.01	0.21	0.03	0.00	0.25
	50 – 61	0.00	0.00	0.03	0.24	0.04	0.32
	62 – 75	0.00	0.00	0.00	0.04	0.27	0.31
	Estimated Proportion Correctly Classified: Total = 0.81, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 24	0.03	0.01	0.00	0.00	0.00	0.04
	25 – 33	0.01	0.04	0.02	0.00	0.00	0.08
	34 – 49	0.00	0.02	0.19	0.04	0.00	0.25
	50 – 61	0.00	0.00	0.05	0.21	0.05	0.32
	62 – 75	0.00	0.00	0.00	0.05	0.26	0.31
	Estimated Proportion Consistently Classified: Total = 0.73, 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 All-forms Average	0 – 21	0.02	0.01	0.00	0.00	0.00	0.03
	22 – 31	0.01	0.07	0.03	0.00	0.00	0.11
	32 – 46	0.00	0.02	0.21	0.04	0.00	0.27
	47 – 58	0.00	0.00	0.04	0.22	0.03	0.29
	59 – 75	0.00	0.00	0.00	0.04	0.27	0.30
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 21	0.02	0.01	0.00	0.00	0.00	0.03
	22 – 31	0.01	0.06	0.03	0.00	0.00	0.11
	32 – 46	0.00	0.03	0.19	0.05	0.00	0.27
	47 – 58	0.00	0.00	0.05	0.19	0.05	0.29
	59 – 75	0.00	0.00	0.00	0.05	0.25	0.30
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.90						

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 All-forms Average	0 – 24	0.03	0.01	0.00	0.00	0.00	0.05
	25 – 34	0.01	0.07	0.02	0.00	0.00	0.10
	35 – 48	0.00	0.02	0.20	0.04	0.00	0.25
	49 – 60	0.00	0.00	0.04	0.25	0.04	0.32
	61 – 75	0.00	0.00	0.00	0.04	0.24	0.28
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 24	0.03	0.01	0.00	0.00	0.00	0.05
	25 – 34	0.01	0.05	0.03	0.00	0.00	0.10
	35 – 48	0.00	0.03	0.17	0.05	0.00	0.25
	49 – 60	0.00	0.00	0.05	0.21	0.06	0.32
	61 – 75	0.00	0.00	0.00	0.05	0.23	0.28
	Estimated Proportion Consistently Classified: Total = 0.70, 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 All-forms Average	0 – 29	0.02	0.02	0.00	0.00	0.00	0.04
	30 – 40	0.01	0.06	0.03	0.00	0.00	0.10
	41 – 54	0.00	0.02	0.17	0.05	0.00	0.23
	55 – 67	0.00	0.00	0.05	0.24	0.05	0.34
	68 – 83	0.00	0.00	0.00	0.05	0.24	0.30
	Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.90						
Decision Consistency Alternate Form	0 – 29	0.02	0.02	0.00	0.00	0.00	0.04
	30 – 40	0.01	0.05	0.03	0.00	0.00	0.10
	41 – 54	0.00	0.03	0.14	0.06	0.00	0.23
	55 – 67	0.00	0.00	0.06	0.20	0.07	0.34
	68 – 83	0.00	0.00	0.00	0.07	0.23	0.30
	Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.87						

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 All-forms Average	0 – 23	0.04	0.01	0.00	0.00	0.00	0.06
	24 – 32	0.01	0.06	0.03	0.00	0.00	0.10
	33 – 47	0.00	0.01	0.21	0.03	0.00	0.25
	48 – 58	0.00	0.00	0.03	0.21	0.03	0.26
	59 – 75	0.00	0.00	0.01	0.04	0.28	0.33
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 23	0.04	0.01	0.00	0.00	0.00	0.06
	24 – 32	0.01	0.05	0.03	0.00	0.00	0.10
	33 – 47	0.00	0.02	0.18	0.04	0.00	0.25
	48 – 58	0.00	0.00	0.05	0.17	0.04	0.26
	59 – 75	0.00	0.00	0.01	0.05	0.27	0.33
	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 All-forms Average	0 – 22	0.04	0.02	0.00	0.00	0.00	0.06
	23 – 32	0.01	0.08	0.03	0.00	0.00	0.11
	33 – 47	0.00	0.02	0.21	0.03	0.00	0.26
	48 – 58	0.00	0.00	0.04	0.20	0.04	0.28
	59 – 75	0.00	0.00	0.00	0.03	0.26	0.29
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 22	0.04	0.02	0.00	0.00	0.00	0.06
	23 – 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	0.28
	59 – 75	0.00	0.00	0.00	0.04	0.25	0.29
	Estimated Proportion Consistently Classified: Total = 0.71, 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 All-forms Average	0 – 24	0.05	0.02	0.00	0.00	0.00	0.08
	25 – 36	0.01	0.10	0.03	0.00	0.00	0.13
	37 – 51	0.00	0.02	0.23	0.03	0.00	0.28
	52 – 61	0.00	0.00	0.04	0.19	0.03	0.26
	62 – 75	0.00	0.00	0.00	0.04	0.20	0.24
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 24	0.05	0.02	0.00	0.00	0.00	0.08
	25 – 36	0.01	0.08	0.03	0.00	0.00	0.13
	37 – 51	0.00	0.03	0.21	0.04	0.00	0.28
	52 – 61	0.00	0.00	0.05	0.16	0.05	0.26
	62 – 75	0.00	0.00	0.00	0.05	0.19	0.24
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89						

Table 8.B.56 Reliability of Classification for ELA, Grade Eleven

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 27	0.08	0.02	0.01	0.00	0.00	0.11
	28 – 38	0.01	0.10	0.03	0.00	0.00	0.13
	39 – 52	0.00	0.02	0.23	0.03	0.00	0.28
	53 – 61	0.00	0.00	0.04	0.18	0.03	0.26
	62 – 75	0.00	0.00	0.00	0.04	0.18	0.22
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 27	0.07	0.02	0.01	0.00	0.00	0.11
	28 – 38	0.02	0.08	0.03	0.00	0.00	0.13
	39 – 52	0.00	0.03	0.20	0.04	0.00	0.28
	53 – 61	0.00	0.00	0.06	0.15	0.05	0.26
	62 – 75	0.00	0.00	0.00	0.05	0.18	0.22
	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 All-forms Average	0 – 27	0.09	0.02	0.00	0.00	0.00	0.12
	28 – 34	0.02	0.06	0.03	0.00	0.00	0.10
	35 – 48	0.00	0.02	0.20	0.03	0.00	0.26
	49 – 58	0.00	0.00	0.04	0.16	0.03	0.23
	59 – 75	0.00	0.00	0.00	0.03	0.26	0.29
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 27	0.09	0.03	0.01	0.00	0.00	0.12
	28 – 34	0.02	0.04	0.03	0.00	0.00	0.10
	35 – 48	0.00	0.03	0.18	0.04	0.00	0.26
	49 – 58	0.00	0.00	0.05	0.13	0.05	0.23
	59 – 75	0.00	0.00	0.00	0.04	0.25	0.29
	Estimated Proportion Consistently Classified: Total = 0.69, 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 All-forms Average	0 – 25	0.15	0.03	0.01	0.00	0.00	0.18
	26 – 30	0.02	0.04	0.03	0.00	0.00	0.09
	31 – 41	0.00	0.03	0.21	0.04	0.00	0.27
	42 – 49	0.00	0.00	0.04	0.16	0.03	0.24
	50 – 60	0.00	0.00	0.00	0.04	0.18	0.22
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 25	0.14	0.03	0.01	0.00	0.00	0.18
	26 – 30	0.03	0.03	0.03	0.00	0.00	0.09
	31 – 41	0.01	0.04	0.17	0.05	0.00	0.27
	42 – 49	0.00	0.00	0.05	0.13	0.05	0.24
	50 – 60	0.00	0.00	0.00	0.04	0.18	0.22
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.89						

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 All-forms Average	0 – 22	0.11	0.03	0.01	0.01	0.00	0.15
	23 – 28	0.01	0.06	0.03	0.00	0.00	0.10
	29 – 39	0.00	0.02	0.21	0.03	0.00	0.26
	40 – 47	0.00	0.00	0.05	0.17	0.03	0.25
	48 – 60	0.00	0.00	0.00	0.04	0.19	0.23
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.90						
Decision Consistency Alternate Form	0 – 22	0.10	0.03	0.01	0.01	0.00	0.15
	23 – 28	0.02	0.04	0.04	0.00	0.00	0.10
	29 – 39	0.00	0.03	0.18	0.05	0.00	0.26
	40 – 47	0.00	0.00	0.06	0.14	0.05	0.25
	48 – 60	0.00	0.00	0.01	0.05	0.18	0.23
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.87						

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 All-forms Average	0 – 24	0.03	0.01	0.00	0.00	0.00	0.04
	25 – 37	0.00	0.09	0.02	0.00	0.00	0.12
	38 – 47	0.00	0.02	0.14	0.03	0.00	0.19
	48 – 56	0.00	0.00	0.03	0.22	0.04	0.29
	57 – 65	0.00	0.00	0.00	0.04	0.31	0.35
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 24	0.03	0.01	0.00	0.00	0.00	0.04
	25 – 37	0.01	0.08	0.03	0.00	0.00	0.12
	38 – 47	0.00	0.03	0.12	0.04	0.00	0.19
	48 – 56	0.00	0.00	0.05	0.19	0.05	0.29
	57 – 65	0.00	0.00	0.00	0.06	0.30	0.35
	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 All-forms Average	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 – 47	0.00	0.01	0.13	0.03	0.00	0.17
	48 – 56	0.00	0.00	0.03	0.21	0.03	0.27
	57 – 65	0.00	0.00	0.00	0.04	0.38	0.42
	Estimated Proportion Correctly Classified: Total = 0.81, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0 – 23	0.02	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 – 47	0.00	0.02	0.11	0.04	0.00	0.17
	48 – 56	0.00	0.00	0.04	0.18	0.05	0.27
	57 – 65	0.00	0.00	0.00	0.06	0.36	0.42
	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 All-forms Average	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 – 48	0.00	0.01	0.15	0.02	0.00	0.18
	49 – 57	0.00	0.00	0.03	0.20	0.03	0.27
	58 – 65	0.00	0.00	0.00	0.05	0.38	0.44
	Estimated Proportion Correctly Classified: Total = 0.82, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0 – 20	0.01	0.01	0.00	0.00	0.00	0.02
	21 – 35	0.01	0.06	0.03	0.00	0.00	0.10
	36 – 48	0.00	0.02	0.13	0.03	0.00	0.18
	49 – 57	0.00	0.00	0.04	0.17	0.05	0.27
	58 – 65	0.00	0.00	0.00	0.06	0.37	0.44
	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 All-forms Average	0 – 20	0.02	0.01	0.00	0.00	0.00	0.03
	21 – 30	0.01	0.08	0.03	0.00	0.00	0.12
	31 – 41	0.00	0.02	0.15	0.03	0.00	0.20
	42 – 54	0.00	0.00	0.03	0.26	0.03	0.32
	55 – 65	0.00	0.00	0.00	0.04	0.29	0.33
	Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 20	0.02	0.01	0.00	0.00	0.00	0.03
	21 – 30	0.02	0.07	0.03	0.00	0.00	0.12
	31 – 41	0.00	0.03	0.12	0.04	0.00	0.20
	42 – 54	0.00	0.00	0.04	0.23	0.04	0.32
	55 – 65	0.00	0.00	0.00	0.05	0.28	0.33
	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 All-forms Average	0 – 19	0.03	0.02	0.00	0.00	0.00	0.04
	20 – 30	0.01	0.12	0.03	0.00	0.00	0.15
	31 – 42	0.00	0.02	0.20	0.03	0.00	0.26
	43 – 54	0.00	0.00	0.04	0.25	0.03	0.31
	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 Alternate Form	0 – 19	0.03	0.02	0.00	0.00	0.00	0.04
	20 – 30	0.02	0.10	0.04	0.00	0.00	0.15
	31 – 42	0.00	0.04	0.17	0.05	0.00	0.26
	43 – 54	0.00	0.00	0.05	0.22	0.04	0.31
	55 – 65	0.00	0.00	0.00	0.04	0.20	0.24
	Estimated Proportion Consistently Classified: Total = 0.71, 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 All-forms Average	0 – 18	0.03	0.02	0.00	0.00	0.00	0.05
	19 – 28	0.01	0.12	0.03	0.00	0.00	0.17
	29 – 40	0.00	0.03	0.20	0.04	0.00	0.26
	41 – 53	0.00	0.00	0.04	0.25	0.03	0.31
	54 – 65	0.00	0.00	0.00	0.03	0.18	0.21
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 18	0.03	0.02	0.00	0.00	0.00	0.05
	19 – 28	0.02	0.10	0.04	0.00	0.00	0.17
	29 – 40	0.00	0.04	0.17	0.05	0.00	0.26
	41 – 53	0.00	0.00	0.05	0.22	0.04	0.31
	54 – 65	0.00	0.00	0.00	0.04	0.17	0.21
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.90						

Table 8.B.66 Reliability of Classification for General Mathematics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 19	0.09	0.04	0.00	0.00	0.00	0.14
	20 – 29	0.03	0.20	0.04	0.00	0.00	0.27
	30 – 41	0.00	0.04	0.23	0.03	0.00	0.31
	42 – 53	0.00	0.00	0.04	0.17	0.01	0.22
	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 Alternate Form	0 – 19	0.09	0.05	0.00	0.00	0.00	0.14
	20 – 29	0.05	0.16	0.06	0.00	0.00	0.27
	30 – 41	0.00	0.06	0.20	0.05	0.00	0.31
	42 – 53	0.00	0.00	0.05	0.15	0.02	0.22
	54 – 65	0.00	0.00	0.00	0.02	0.04	0.06
	Estimated Proportion Consistently Classified: Total = 0.64, 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 All-forms Average	0 – 18	0.11	0.02	0.00	0.00	0.00	0.13
	19 – 27	0.03	0.16	0.06	0.02	0.01	0.29
	28 – 37	0.00	0.02	0.18	0.03	0.00	0.23
	38 – 51	0.00	0.00	0.01	0.22	0.00	0.23
	52 – 65	0.00	0.00	0.01	0.03	0.07	0.11
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 18	0.11	0.02	0.00	0.00	0.00	0.13
	19 – 27	0.05	0.14	0.07	0.02	0.01	0.29
	28 – 37	0.00	0.04	0.15	0.05	0.00	0.23
	38 – 51	0.00	0.00	0.03	0.20	0.01	0.23
	52 – 65	0.00	0.00	0.01	0.03	0.07	0.11
	Estimated Proportion Consistently Classified: Total = 0.66, 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 All-forms Average	0 – 19	0.07	0.04	0.00	0.00	0.00	0.11
	20 – 31	0.03	0.23	0.04	0.00	0.00	0.30
	32 – 43	0.00	0.04	0.20	0.03	0.00	0.27
	44 – 55	0.00	0.00	0.03	0.17	0.01	0.22
	56 – 65	0.00	0.00	0.00	0.02	0.08	0.10
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0 – 19	0.06	0.05	0.00	0.00	0.00	0.11
	20 – 31	0.05	0.20	0.05	0.00	0.00	0.30
	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
	56 – 65	0.00	0.00	0.00	0.02	0.07	0.10
	Estimated Proportion Consistently Classified: Total = 0.66, 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 All-forms Average	0 – 21	0.10	0.04	0.00	0.00	0.00	0.14
	22 – 30	0.03	0.16	0.04	0.00	0.00	0.23
	31 – 41	0.00	0.04	0.21	0.03	0.00	0.29
	42 – 52	0.00	0.00	0.04	0.17	0.02	0.22
	53 – 65	0.00	0.00	0.00	0.02	0.10	0.12
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 21	0.09	0.05	0.00	0.00	0.00	0.14
	22 – 30	0.05	0.13	0.05	0.00	0.00	0.23
	31 – 41	0.00	0.06	0.18	0.05	0.00	0.29
	42 – 52	0.00	0.00	0.05	0.15	0.03	0.22
	53 – 65	0.00	0.00	0.00	0.03	0.09	0.12
	Estimated Proportion Consistently Classified: Total = 0.64, 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 All-forms Average	0 – 22	0.02	0.01	0.00	0.00	0.00	0.04
	23 – 37	0.01	0.14	0.03	0.00	0.00	0.18
	38 – 48	0.00	0.02	0.19	0.04	0.00	0.25
	49 – 58	0.00	0.00	0.04	0.26	0.03	0.33
	59 – 65	0.00	0.00	0.00	0.04	0.16	0.20
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 22	0.02	0.01	0.00	0.00	0.00	0.04
	23 – 37	0.01	0.12	0.04	0.00	0.00	0.18
	38 – 48	0.00	0.04	0.16	0.05	0.00	0.25
	49 – 58	0.00	0.00	0.06	0.23	0.05	0.33
	59 – 65	0.00	0.00	0.00	0.05	0.16	0.20
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89						

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 All-forms Average	0 – 19	0.15	0.06	0.00	0.00	0.00	0.21
	20 – 28	0.04	0.27	0.08	0.01	0.00	0.40
	29 – 38	0.00	0.04	0.21	0.01	0.00	0.26
	39 – 51	0.00	0.00	0.04	0.08	0.00	0.12
	52 – 65	0.00	0.00	0.00	0.01	0.00	0.02
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 19	0.14	0.06	0.00	0.00	0.00	0.21
	20 – 28	0.07	0.22	0.10	0.01	0.00	0.40
	29 – 38	0.00	0.06	0.17	0.03	0.00	0.26
	39 – 51	0.00	0.00	0.04	0.07	0.00	0.12
	52 – 65	0.00	0.00	0.00	0.01	0.00	0.02
	Estimated Proportion Consistently Classified: Total = 0.61, 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 All-forms Average	0 – 16	0.04	0.06	0.00	0.00	0.00	0.11
	17 – 24	0.02	0.21	0.05	0.00	0.00	0.29
	25 – 35	0.00	0.06	0.24	0.03	0.00	0.33
	36 – 48	0.00	0.00	0.04	0.16	0.01	0.21
	49 – 65	0.00	0.00	0.00	0.01	0.05	0.06
	Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 16	0.04	0.06	0.01	0.00	0.00	0.11
	17 – 24	0.05	0.17	0.07	0.00	0.00	0.29
	25 – 35	0.01	0.07	0.20	0.05	0.00	0.33
	36 – 48	0.00	0.00	0.05	0.14	0.02	0.21
	49 – 65	0.00	0.00	0.00	0.01	0.04	0.06
	Estimated Proportion Consistently Classified: Total = 0.60, Proficient & Above = 0.90						

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 All-forms Average	0 – 18	0.07	0.04	0.00	0.00	0.00	0.11
	19 – 26	0.02	0.14	0.04	0.00	0.00	0.21
	27 – 36	0.00	0.03	0.19	0.03	0.00	0.26
	37 – 49	0.00	0.00	0.05	0.24	0.02	0.31
	50 – 65	0.00	0.00	0.00	0.03	0.08	0.11
	Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 18	0.07	0.04	0.00	0.00	0.00	0.11
	19 – 26	0.04	0.11	0.06	0.00	0.00	0.21
	27 – 36	0.00	0.05	0.16	0.05	0.00	0.26
	37 – 49	0.00	0.01	0.06	0.21	0.03	0.31
	50 – 65	0.00	0.00	0.00	0.03	0.08	0.11
	Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.88						

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 All-forms Average	0 – 22	0.04	0.02	0.00	0.00	0.00	0.06
	23 – 29	0.01	0.05	0.03	0.00	0.00	0.09
	30 – 41	0.00	0.01	0.21	0.03	0.00	0.25
	42 – 51	0.00	0.00	0.04	0.27	0.03	0.35
	52 – 60	0.00	0.00	0.00	0.05	0.20	0.25
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 22	0.04	0.02	0.00	0.00	0.00	0.06
	23 – 29	0.02	0.04	0.03	0.00	0.00	0.09
	30 – 41	0.00	0.03	0.18	0.05	0.00	0.25
	42 – 51	0.00	0.00	0.06	0.23	0.05	0.35
	52 – 60	0.00	0.00	0.00	0.06	0.19	0.25
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.88						

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 All-forms Average	0 – 24	0.06	0.02	0.00	0.00	0.00	0.08
	25 – 31	0.01	0.06	0.02	0.00	0.00	0.09
	32 – 39	0.00	0.02	0.11	0.03	0.00	0.16
	40 – 46	0.00	0.00	0.04	0.14	0.04	0.22
	47 – 60	0.00	0.00	0.00	0.04	0.41	0.45
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 24	0.06	0.02	0.00	0.00	0.00	0.08
	25 – 31	0.02	0.04	0.03	0.00	0.00	0.09
	32 – 39	0.00	0.03	0.09	0.04	0.00	0.16
	40 – 46	0.00	0.00	0.05	0.11	0.06	0.22
	47 – 60	0.00	0.00	0.00	0.05	0.39	0.45
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.90						

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 All-forms Average	0 – 20	0.07	0.02	0.00	0.00	0.00	0.10
	21 – 27	0.01	0.07	0.03	0.00	0.00	0.11
	28 – 39	0.00	0.02	0.21	0.03	0.00	0.26
	40 – 48	0.00	0.00	0.04	0.19	0.04	0.26
	49 – 60	0.00	0.00	0.00	0.04	0.23	0.27
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 20	0.07	0.03	0.01	0.00	0.00	0.10
	21 – 27	0.02	0.05	0.03	0.00	0.00	0.11
	28 – 39	0.00	0.03	0.18	0.05	0.00	0.26
	40 – 48	0.00	0.00	0.05	0.16	0.05	0.26
	49 – 60	0.00	0.00	0.00	0.05	0.22	0.27
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

Table 8.B.77 Reliability of Classification for Biology

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 19	0.06	0.02	0.00	0.00	0.00	0.09
	20 – 25	0.01	0.05	0.03	0.00	0.00	0.10
	26 – 39	0.00	0.01	0.25	0.03	0.00	0.29
	40 – 48	0.00	0.00	0.04	0.18	0.03	0.26
	49 – 60	0.00	0.00	0.00	0.04	0.22	0.26
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 19	0.06	0.02	0.01	0.00	0.00	0.09
	20 – 25	0.02	0.04	0.03	0.00	0.00	0.10
	26 – 39	0.00	0.03	0.22	0.04	0.00	0.29
	40 – 48	0.00	0.00	0.06	0.15	0.05	0.26
	49 – 60	0.00	0.00	0.00	0.05	0.21	0.26
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.88						

Table 8.B.78 Reliability of Classification for Chemistry

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 21	0.08	0.03	0.00	0.00	0.00	0.11
	22 – 28	0.02	0.08	0.03	0.00	0.00	0.13
	29 – 41	0.00	0.03	0.26	0.04	0.00	0.33
	42 – 50	0.00	0.00	0.04	0.19	0.03	0.26
	51 – 60	0.00	0.00	0.00	0.03	0.13	0.17
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 21	0.08	0.03	0.01	0.00	0.00	0.11
	22 – 28	0.03	0.06	0.04	0.00	0.00	0.13
	29 – 41	0.00	0.04	0.23	0.05	0.00	0.33
	42 – 50	0.00	0.00	0.06	0.16	0.05	0.26
	51 – 60	0.00	0.00	0.00	0.04	0.13	0.17
	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 All-forms Average	0 – 21	0.10	0.03	0.00	0.00	0.00	0.14
	22 – 27	0.02	0.07	0.03	0.00	0.00	0.12
	28 – 41	0.00	0.03	0.29	0.04	0.00	0.36
	42 – 50	0.00	0.00	0.04	0.19	0.03	0.25
	51 – 60	0.00	0.00	0.00	0.03	0.09	0.12
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 21	0.10	0.03	0.01	0.00	0.00	0.14
	22 – 27	0.03	0.05	0.04	0.00	0.00	0.12
	28 – 41	0.01	0.04	0.26	0.05	0.00	0.36
	42 – 50	0.00	0.00	0.05	0.16	0.04	0.25
	51 – 60	0.00	0.00	0.00	0.04	0.09	0.12
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.89						

Table 8.B.80 Reliability of Classification for Physics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 17	0.03	0.02	0.00	0.00	0.00	0.06
	18 – 24	0.01	0.06	0.03	0.00	0.00	0.11
	25 – 38	0.00	0.02	0.26	0.04	0.00	0.31
	39 – 47	0.00	0.00	0.04	0.19	0.04	0.28
	48 – 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 Alternate Form	0 – 17	0.03	0.02	0.00	0.00	0.00	0.06
	18 – 24	0.02	0.05	0.04	0.00	0.00	0.11
	25 – 38	0.00	0.03	0.23	0.05	0.00	0.31
	39 – 47	0.00	0.00	0.06	0.16	0.06	0.28
	48 – 60	0.00	0.00	0.00	0.05	0.20	0.25
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

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 All-forms Average	0 – 20	0.14	0.05	0.01	0.00	0.00	0.19
	21 – 26	0.03	0.10	0.04	0.00	0.00	0.17
	27 – 40	0.00	0.05	0.36	0.03	0.00	0.44
	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 = 0.92						
Decision Consistency Alternate Form	0 – 20	0.13	0.05	0.01	0.00	0.00	0.19
	21 – 26	0.04	0.07	0.05	0.00	0.00	0.17
	27 – 40	0.01	0.06	0.32	0.05	0.00	0.44
	41 – 49	0.00	0.00	0.05	0.10	0.02	0.17
	50 – 60	0.00	0.00	0.00	0.02	0.01	0.03
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.89						

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 All-forms Average	0 – 20	0.17	0.05	0.00	0.00	0.00	0.23
	21 – 27	0.04	0.13	0.04	0.00	0.00	0.21
	28 – 40	0.00	0.04	0.25	0.02	0.00	0.32
	41 – 49	0.00	0.00	0.04	0.11	0.01	0.16
	50 – 60	0.00	0.00	0.00	0.02	0.06	0.08
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 20	0.16	0.06	0.01	0.00	0.00	0.23
	21 – 27	0.06	0.10	0.06	0.00	0.00	0.21
	28 – 40	0.00	0.05	0.22	0.04	0.00	0.32
	41 – 49	0.00	0.00	0.04	0.09	0.02	0.16
	50 – 60	0.00	0.00	0.00	0.02	0.06	0.08
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.91						

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 All-forms Average	0 – 18	0.16	0.05	0.00	0.00	0.00	0.22
	19 – 24	0.05	0.12	0.05	0.00	0.00	0.22
	25 – 38	0.00	0.05	0.31	0.02	0.00	0.38
	39 – 48	0.00	0.00	0.03	0.10	0.01	0.14
	49 – 60	0.00	0.00	0.00	0.01	0.03	0.04
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0 – 18	0.15	0.06	0.01	0.00	0.00	0.22
	19 – 24	0.06	0.10	0.06	0.00	0.00	0.22
	25 – 38	0.01	0.06	0.27	0.04	0.00	0.38
	39 – 48	0.00	0.00	0.04	0.09	0.02	0.14
	49 – 60	0.00	0.00	0.00	0.01	0.03	0.04
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.92						

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 All-forms Average	0 – 19	0.32	0.08	0.00	0.00	0.00	0.40
	20 – 25	0.08	0.17	0.05	0.00	0.00	0.31
	26 – 39	0.00	0.06	0.20	0.00	0.00	0.26
	40 – 48	0.00	0.00	0.01	0.01	0.00	0.03
	49 – 60	0.00	0.00	0.00	0.00	0.00	0.00
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.98						
Decision Consistency Alternate Form	0 – 19	0.29	0.10	0.01	0.00	0.00	0.40
	20 – 25	0.10	0.13	0.07	0.00	0.00	0.31
	26 – 39	0.01	0.06	0.18	0.01	0.00	0.26
	40 – 48	0.00	0.00	0.01	0.01	0.00	0.03
	49 – 60	0.00	0.00	0.00	0.00	0.00	0.00
	Estimated Proportion Consistently Classified: Total = 0.61, Proficient & Above = 0.97						

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 All-forms Average	0 – 18	0.04	0.03	0.00	0.00	0.00	0.07
	19 – 27	0.02	0.15	0.04	0.00	0.00	0.21
	28 – 37	0.00	0.03	0.17	0.03	0.00	0.23
	38 – 51	0.00	0.00	0.04	0.25	0.02	0.31
	52 – 65	0.00	0.00	0.00	0.03	0.15	0.18
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 18	0.03	0.03	0.00	0.00	0.00	0.07
	19 – 27	0.04	0.12	0.05	0.00	0.00	0.21
	28 – 37	0.00	0.05	0.14	0.05	0.00	0.23
	38 – 51	0.00	0.00	0.05	0.22	0.04	0.31
	52 – 65	0.00	0.00	0.00	0.03	0.14	0.18
	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 All-forms Average	0 – 19	0.03	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	0.34
	56 – 65	0.00	0.00	0.00	0.03	0.11	0.14
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	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	0.34
	56 – 65	0.00	0.00	0.00	0.04	0.11	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 All-forms Average	0 – 21	0.05	0.03	0.00	0.00	0.00	0.08
	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
	42 – 52	0.00	0.00	0.05	0.22	0.02	0.28
	53 – 65	0.00	0.00	0.00	0.03	0.11	0.14
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 21	0.05	0.03	0.00	0.00	0.00	0.08
	22 – 30	0.03	0.10	0.05	0.00	0.00	0.19
	31 – 41	0.00	0.05	0.19	0.06	0.00	0.30
	42 – 52	0.00	0.00	0.06	0.18	0.04	0.28
	53 – 65	0.00	0.00	0.00	0.03	0.11	0.14
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.88						

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 All-forms Average	0 – 22	0.03	0.01	0.00	0.00	0.00	0.04
	23 – 37	0.01	0.16	0.03	0.00	0.00	0.20
	38 – 48	0.00	0.03	0.20	0.04	0.00	0.27
	49 – 58	0.00	0.00	0.04	0.25	0.03	0.32
	59 – 65	0.00	0.00	0.00	0.04	0.13	0.17
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 22	0.03	0.02	0.00	0.00	0.00	0.04
	23 – 37	0.01	0.14	0.04	0.00	0.00	0.20
	38 – 48	0.00	0.04	0.17	0.05	0.00	0.27
	49 – 58	0.00	0.00	0.05	0.22	0.05	0.32
	59 – 65	0.00	0.00	0.00	0.04	0.13	0.17
	Estimated Proportion Consistently Classified: Total = 0.69, 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 All-forms Average	0 – 25	0.14	0.03	0.00	0.00	0.00	0.17
	26 – 30	0.02	0.04	0.03	0.00	0.00	0.09
	31 – 41	0.00	0.03	0.21	0.04	0.00	0.28
	42 – 49	0.00	0.00	0.04	0.17	0.03	0.24
	50 – 60	0.00	0.00	0.00	0.03	0.18	0.22
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 25	0.13	0.03	0.01	0.00	0.00	0.17
	26 – 30	0.02	0.03	0.03	0.00	0.00	0.09
	31 – 41	0.01	0.04	0.18	0.05	0.00	0.28
	42 – 49	0.00	0.00	0.05	0.14	0.05	0.24
	50 – 60	0.00	0.00	0.00	0.04	0.18	0.22
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.89						

Table 8.B.90 Interrater Agreement Analyses for ELA for Writing, Grade Four

		Rater 1								
		1	**%**	**2**	**%**	**3**	**%**	**4**	**%**	**Total**
Rater 2	**1**	327	0.77	193	0.46	37	0.09	1	0.00	558
	2	234	0.55	2,732	6.47	2,164	5.12	79	0.19	5,209
	3	39	0.09	2,159	5.11	16,983	40.19	4,614	10.92	23,795
	4	2	0.00	73	0.17	4,520	10.70	8,100	19.17	12,695
	Total	602	1.42	5,157	12.20	23,704	56.09	12,794	30.28	42,257

Percent Exact= 66.60%
Percent Adjacent= 32.86%
Percent Exact+Adjacent= 99.45%
Kappa= 0.42
Weighted Kappa= 0.50

Table 8.B.91 Interrater Agreement Analyses for ELA for Writing, Grade Seven

		Rater 1								
		1	**%**	**2**	**%**	**3**	**%**	**4**	**%**	**Total**
Rater 2	**1**	112	0.26	85	0.20	23	0.05	3	0.01	223
	2	123	0.29	1,326	3.11	1,169	2.74	133	0.31	2,751
	3	53	0.12	1,333	3.13	10,791	25.34	5,307	12.46	17,484
	4	3	0.01	142	0.33	5,339	12.54	16,648	39.09	22,132
	Total	291	0.68	2,886	6.78	17,322	40.67	22,091	51.87	42,590

Percent Exact= = 67.80%
Percent Adjacent= 31.36%
Percent Exact+Adjacent= 99.16%
Kappa= 0.42
Weighted Kappa= 0.49

Table 8.B.92 Descriptive Statistics for the Ratings by the Two Raters, Grade Four

Grade	N*	Rater 1		Rater 2		
		Mean	**Std**	**Mean**	**Std**	***Pearson Correlation***
4	42,257	3.15	0.68	3.15	0.67	0.62

* 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

Grade	N*	Rater 1		Rater 2		
		Mean	**Std**	**Mean**	**Std**	***Pearson Correlation***
7	42,590	3.44	0.65	3.44	0.64	0.58

* 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	0.10	0.10	0.00	0.00
P:E	42255	31143.88	0.74	0.28	61.53
R	1	0.05	0.05	0.00	0.03
ER	1	0.04	0.04	0.00	0.00
PR:E	42255	7411.42	0.18	0.18	38.43
Note: E=Essay Prompt, P=Person and R=Rating				**G-Coefficient= 0.76**	

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	4.27	4.27	0.00	0.79
P:E	42588	27944.47	0.66	0.24	57.63
R	1	1.14	1.14	0.00	0.02
ER	1	0.15	0.15	0.00	0.00
PR:E	42588	7405.71	0.17	0.17	41.56
Note: E=Essay Prompt, P=Person and R=Rating				**G-Coefficient= 0.73**	

Appendix 8.C—Validity Analyses

Note that, while the correlations in Appendix 8.C are reported only for samples that comprise 11 or more examinees results based on samples that contain 50 or fewer examinees should be interpreted with caution due to small sample sizes. Correlations between scores on any two content-area tests where 10 or fewer examinees took the tests are expressed as hyphens. Correlations between scores on two content-area tests that cannot be administered together to the same group of students are expressed as "N/A."

Table 8.C.1 CST Content Area Correlations (Male)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**236,396**	0.79					
	2. Mathematics	235,836	**237,165**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**221,321**	0.77					
	2. Mathematics	220,251	**223,638**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**213,949**	0.74					
	2. Mathematics	213,188	**217,388**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**214,341**	0.73	0.82				
	2. Mathematics	213,238	**217,130**	0.71				
	3. Science	213,632	214,209	**215,753**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**217,321**	0.79					
	2. Mathematics	215,945	**219,143**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**216,018**	0.75	0.60				
	2. Mathematics	194,588	**197,134**	N/A				
	3. Algebra I	19,686	N/A	**19,712**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**217,858**	0.82	0.66	0.67	0.59	0.67	0.80
	2. History–Social Science	216,974	**233,883**	0.64	0.61	0.53	0.66	0.80
	3. General Mathematics	66,200	77,535	**78,277**	N/A	N/A	N/A	0.71
	4. Algebra I	133,897	134,654	N/A	**134,950**	N/A	N/A	0.69
	5. Geometry	15,042	15,036	N/A	N/A	**15,057**	N/A	0.63
	6. Algebra II	424	424	N/A	N/A	N/A	**424**	0.72
	7. Science	216,376	218,174	66,864	134,099	15,030	424	**218,680**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**233,180**	0.81	0.64	0.58	0.68	0.65	0.66	0.81	0.82	0.75	0.78
	2. World History	16,375	**17,072**	0.57	0.60	0.68	0.64	0.58	0.82	0.80	0.78	0.72
	3. General Mathematics	20,843	1,351	**25,825**	N/A	N/A	N/A	N/A	0.64	0.67	0.65	0.64
	4. Algebra I	122,952	6,219	N/A	**125,299**	N/A	N/A	N/A	0.62	0.70	0.55	0.69
	5. Geometry	67,187	6,245	N/A	N/A	**67,401**	N/A	N/A	0.70	0.84	0.61	0.78
9	**6. Algebra II**	16,355	2,286	N/A	N/A	N/A	**16,395**	N/A	0.65	0.78	0.54	0.74
	7. Summ. H.S. Mathematics	537	131	N/A	N/A	N/A	N/A	**537**	0.57	0.76	0.73	0.52
	8. Biology	107,404	10,047	4,117	44,011	46,707	12,476	355	**110,710**	N/A	N/A	N/A
	9. Chemistry	2,781	785	40	406	1,247	970	79	N/A	**2,841**	N/A	N/A
	10. Earth Science	65,643	1,820	8,769	48,139	9,478	755	32	N/A	N/A	**71,153**	N/A
	11. Physics	6,876	361	36	2,469	3,128	1,171	50	N/A	N/A	N/A	**7,042**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**228,180**	0.78	0.53	0.63	0.59	0.58	0.81	0.79	0.74	0.73	0.77
	2. World History	202,332	**212,888**	0.47	0.55	0.50	0.46	0.77	0.76	0.68	0.74	0.69
	3. Algebra I	55,574	51,129	**57,203**	N/A	N/A	N/A	0.51	0.53	0.60	0.51	0.59
	4. Geometry	75,801	71,165	N/A	**76,545**	N/A	N/A	0.64	0.65	0.73	0.58	0.77
	5. Algebra II	60,435	56,189	N/A	N/A	**60,702**	N/A	0.57	0.61	0.70	0.54	0.67
10	**6. Summ. H.S. Mathematics**	12,797	11,531	N/A	N/A	N/A	**12,811**	0.55	0.63	0.66	0.37	0.66
	7. Life Science	223,443	201,864	54,703	75,243	60,192	12,751	**226,278**	0.87	0.77	0.76	0.78
	8. Biology	110,884	109,684	34,686	46,810	19,596	2,700	110,694	**116,839**	N/A	N/A	N/A
	9. Chemistry	62,403	57,580	2,232	15,624	34,664	8,742	62,198	N/A	**62,840**	N/A	N/A
	10. Earth Science	15,493	15,520	7,741	4,849	1,216	87	15,342	N/A	N/A	**17,126**	N/A
	11. Physics	5,344	4,580	413	1,681	2,191	921	5,312	N/A	N/A	N/A	**5,408**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**220,145**	0.61	0.81	0.49	0.54	0.47	0.59	0.80	0.70	0.72	0.71
	2. World History	6,721	**7,211**	0.67	0.39	0.41	0.34	0.35	0.67	0.38	0.65	0.43
	3. History–Social Science	216,168	6,465	**225,871**	0.46	0.49	0.44	0.50	0.79	0.67	0.74	0.67
	4. Algebra I	27,029	2,339	26,921	**27,938**	N/A	N/A	N/A	0.52	0.56	0.47	0.67
	5. Geometry	39,564	1,370	39,524	N/A	**40,203**	N/A	N/A	0.58	0.62	0.54	0.67
11	**6. Algebra II**	57,548	662	57,813	N/A	N/A	**58,276**	N/A	0.50	0.62	0.37	0.63
	7. Summ. H.S. Mathematics	58,371	281	58,240	N/A	N/A	N/A	**58,499**	0.62	0.73	0.45	0.68
	8. Biology	45,119	1,956	46,497	8,104	9,928	9,394	12,300	**47,228**	N/A	N/A	N/A
	9. Chemistry	63,110	645	63,505	1,659	9,495	28,980	19,541	N/A	**63,901**	N/A	N/A
	10. Earth Science	21,268	1,112	22,661	6,172	6,052	3,095	1,793	N/A	N/A	**23,168**	N/A
	11. Physics	30,418	244	30,538	527	2,219	7,490	19,037	N/A	N/A	N/A	**30,715**

Table 8.C.2 CST Content Area Correlations (Female)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**225,951**	0.78					
	2. Mathematics	225,460	**226,071**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**218,892**	0.78					
	2. Mathematics	218,055	**219,385**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**214,144**	0.74					
	2. Mathematics	213,440	**215,134**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**214,414**	0.72	0.82				
	2. Mathematics	213,499	**215,082**	0.71				
	3. Science	213,830	213,812	**214,894**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**216,374**	0.79					
	2. Mathematics	215,379	**216,803**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**214,301**	0.74	0.58				
	2. Mathematics	194,900	**195,918**	N/A				
	3. Algebra I	18,158	N/A	**18,166**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**216,623**	0.82	0.66	0.67	0.61	0.61	0.80
	2. History–Social Science	215,920	**224,390**	0.63	0.64	0.58	0.68	0.81
	3. General Mathematics	60,330	65,971	**66,377**	N/A	N/A	N/A	0.70
	4. Algebra I	140,185	140,376	N/A	**140,627**	N/A	N/A	0.71
	5. Geometry	14,035	14,031	N/A	N/A	**14,042**	N/A	0.65
	6. Algebra II	321	321	N/A	N/A	N/A	**321**	0.71
	7. Science	215,561	216,313	60,533	140,175	14,029	321	**216,730**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**228,161**	0.80	0.63	0.57	0.69	0.66	0.70	0.81	0.81	0.75	0.77
	2. World History	15,361	**15,725**	0.54	0.61	0.68	0.65	0.57	0.82	0.82	0.75	0.70
	3. General Mathematics	15,999	1,030	**18,469**	N/A	N/A	N/A	N/A	0.64	0.57	0.61	0.46
	4. Algebra I	115,510	5,261	N/A	**116,749**	N/A	N/A	N/A	0.62	0.69	0.55	0.69
	5. Geometry	76,320	6,715	N/A	N/A	**76,433**	N/A	N/A	0.71	0.83	0.64	0.76
9	**6. Algebra II**	16,002	2,161	N/A	N/A	N/A	**16,025**	N/A	0.68	0.80	0.62	0.77
	7. Summ. H.S. Mathematics	339	65	N/A	N/A	N/A	N/A	**340**	0.63	0.71	0.71	0.71
	8. Biology	116,052	9,984	3,168	44,743	55,197	12,452	244	**117,788**	N/A	N/A	N/A
	9. Chemistry	2,531	517	34	315	1,257	855	36	N/A	**2,565**	N/A	N/A
	10. Earth Science	59,602	1,436	6,425	43,266	9,684	657	11	N/A	N/A	**62,447**	N/A
	11. Physics	6,978	432	38	2,363	3,401	1,106	27	N/A	N/A	N/A	**7,069**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**225,344**	0.77	0.51	0.61	0.58	0.59	0.80	0.79	0.73	0.73	0.76
	2. World History	203,022	**208,775**	0.47	0.54	0.53	0.54	0.77	0.76	0.69	0.72	0.70
	3. Algebra I	45,503	41,672	**46,347**	N/A	N/A	N/A	0.50	0.52	0.59	0.48	0.65
	4. Geometry	78,615	73,978	N/A	**79,027**	N/A	N/A	0.62	0.63	0.71	0.55	0.74
	5. Algebra II	70,373	65,511	N/A	N/A	**70,560**	N/A	0.58	0.61	0.70	0.49	0.65
10	**6. Summ. H.S. Mathematics**	11,961	10,645	N/A	N/A	N/A	**11,975**	0.57	0.64	0.69	0.49	0.70
	7. Life Science	221,713	202,177	44,864	78,037	70,063	11,926	**223,389**	0.87	0.76	0.76	0.77
	8. Biology	107,302	104,487	28,846	47,728	21,583	2,576	106,833	**110,736**	N/A	N/A	N/A
	9. Chemistry	72,941	67,292	2,322	18,366	42,734	8,363	72,714	N/A	**73,250**	N/A	N/A
	10. Earth Science	12,632	12,180	5,761	4,336	1,193	113	12,542	N/A	N/A	**13,443**	N/A
	11. Physics	4,504	3,882	335	1,439	2,038	579	4,481	N/A	N/A	N/A	**4,531**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**218,003**	0.59	0.81	0.48	0.52	0.45	0.59	0.80	0.69	0.74	0.71
	2. World History	5,338	**5,580**	0.63	0.39	0.44	0.31	0.29	0.63	0.39	0.62	0.56
	3. History–Social Science	214,733	5,005	**220,139**	0.46	0.48	0.44	0.54	0.79	0.68	0.74	0.69
	4. Algebra I	20,799	1,576	20,561	**21,244**	N/A	N/A	N/A	0.48	0.55	0.46	0.69
	5. Geometry	37,259	1,139	37,112	N/A	**37,619**	N/A	N/A	0.55	0.59	0.52	0.63
11	**6. Algebra II**	62,885	699	62,939	N/A	N/A	**63,370**	N/A	0.49	0.59	0.43	0.62
	7. Summ. H.S. Mathematics	65,556	314	65,308	N/A	N/A	N/A	**65,655**	0.64	0.74	0.51	0.70
	8. Biology	51,060	1,491	51,668	5,855	9,310	11,985	19,159	**52,260**	N/A	N/A	N/A
	9. Chemistry	69,150	691	69,247	1,623	10,251	32,326	21,203	N/A	**69,699**	N/A	N/A
	10. Earth Science	18,096	704	18,765	4,641	5,034	2,917	2,040	N/A	N/A	**19,047**	N/A
	11. Physics	25,808	177	25,813	375	1,956	6,653	15,851	N/A	N/A	N/A	**25,969**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**210**	0.78					
	2. Mathematics	209	**210**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**194**	0.79					
	2. Mathematics	192	**206**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**108**	0.66					
	2. Mathematics	106	**108**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**113**	0.67	0.83				
	2. Mathematics	111	**113**	0.67				
	3. Science	112	111	**112**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**135**	0.71					
	2. Mathematics	129	**130**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**122**	0.74	–				
	2. Mathematics	118	**119**	N/A				
	3. Algebra I	2	N/A	**2**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**120**	0.74	0.67	0.54	–	–	0.68
	2. History–Social Science	119	**149**	0.65	0.62	–	–	0.68
	3. General Mathematics	72	88	**92**	N/A	N/A	N/A	0.73
	4. Algebra I	44	44	N/A	**45**	N/A	N/A	0.78
	5. Geometry	0	0	N/A	N/A	**0**	N/A	–
	6. Algebra II	0	0	N/A	N/A	N/A	**0**	–
	7. Science	117	118	70	45	0	0	**119**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**133**	0.95	0.68	0.70	0.60	–	–	0.84	–	0.75	–
	2. World History	11	**12**	–	–	–	–	–	–	–	–	–
	3. General Mathematics	23	2	**31**	N/A	N/A	N/A	N/A	–	–	0.51	–
	4. Algebra I	73	6	N/A	**77**	N/A	N/A	N/A	0.43	–	0.65	–
	5. Geometry	21	1	N/A	N/A	**21**	N/A	N/A	0.66	–	–	–
9	**6. Algebra II**	3	1	N/A	N/A	N/A	**3**	N/A	–	–	–	–
	7. Summ. H.S. Mathematics	2	1	N/A	N/A	N/A	N/A	**2**	–	–	–	–
	8. Biology	47	5	3	28	13	2	1	**54**	N/A	N/A	N/A
	9. Chemistry	2	1	0	0	0	1	1	N/A	**2**	N/A	N/A
	10. Earth Science	39	0	11	27	3	0	0	N/A	N/A	**46**	N/A
	11. Physics	0	0	0	0	0	0	0	N/A	N/A	N/A	**0**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**197**	0.74	0.37	0.59	0.39	–	0.74	0.76	0.63	–	–
	2. World History	132	**144**	0.14	0.45	0.44	–	0.80	0.76	0.76	–	–
	3. Algebra I	58	48	**59**	N/A	N/A	N/A	0.41	0.12	–	–	–
	4. Geometry	43	36	N/A	**45**	N/A	N/A	0.58	0.63	–	–	–
	5. Algebra II	25	21	N/A	N/A	**25**	N/A	0.54	0.23	–	–	–
10	**6. Summ. H.S. Mathematics**	3	3	N/A	N/A	N/A	**3**	–	–	–	–	–
	7. Life Science	172	126	56	42	24	3	**175**	0.84	0.70	–	–
	8. Biology	85	76	33	24	16	0	82	**88**	N/A	N/A	N/A
	9. Chemistry	20	19	1	7	6	3	19	N/A	**20**	N/A	N/A
	10. Earth Science	10	8	8	0	0	0	9	N/A	N/A	**11**	N/A
	11. Physics	3	3	1	0	0	0	2	N/A	N/A	N/A	**3**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**120**	–	0.76	0.35	0.20	0.49	–0.26	0.70	0.39	0.90	–
	2. World History	5	**5**	–	–	–	–	–	–	–	–	–
	3. History–Social Science	112	5	**126**	0.49	0.25	0.52	–0.03	0.66	–	0.82	–
	4. Algebra I	22	2	22	**25**	N/A	N/A	N/A	–	–	–	–
	5. Geometry	13	0	13	N/A	**15**	N/A	N/A	–	–	–	–
11	**6. Algebra II**	24	0	22	N/A	N/A	**24**	N/A	–	–	–	–
	7. Summ. H.S. Mathematics	11	0	11	N/A	N/A	N/A	**11**	–	–	–	–
	8. Biology	30	3	31	8	5	6	6	**33**	N/A	N/A	N/A
	9. Chemistry	11	0	9	1	0	7	2	N/A	**11**	N/A	N/A
	10. Earth Science	13	1	13	3	0	1	0	N/A	N/A	**13**	N/A
	11. Physics	6	0	6	0	1	3	2	N/A	N/A	N/A	**6**

Table 8.C.4 CST Content Area Correlations (American Indian)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**2,821**	0.76					
	2. Mathematics	2,808	**2,827**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**2,611**	0.77					
	2. Mathematics	2,590	**2,635**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**2,651**	0.73					
	2. Mathematics	2,633	**2,675**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**2,571**	0.70	0.79				
	2. Mathematics	2,552	**2,607**	0.69				
	3. Science	2,559	2,561	**2,585**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**2,755**	0.77					
	2. Mathematics	2,716	**2,752**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**2,806**	0.71	0.58				
	2. Mathematics	2,636	**2,659**	N/A				
	3. Algebra I	139	N/A	**139**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**2,936**	0.78	0.62	0.63	0.34	–	0.76
	2. History–Social Science	2,916	**3,175**	0.62	0.59	0.23	–	0.78
	3. General Mathematics	1,176	1,369	**1,387**	N/A	N/A	N/A	0.70
	4. Algebra I	1,632	1,641	N/A	**1,644**	N/A	N/A	0.66
	5. Geometry	86	86	N/A	N/A	**86**	N/A	0.39
	6. Algebra II	1	1	N/A	N/A	N/A	**1**	–
	7. Science	2,907	2,937	1,179	1,636	86	1	**2,946**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**3,315**	0.82	0.60	0.58	0.64	0.55	–	0.77	0.87	0.72	0.75
	2. World History	150	**160**	0.29	0.55	0.70	0.57	–	0.79	–	0.82	–
	3. General Mathematics	518	24	**614**	N/A	N/A	N/A	N/A	0.71	–	0.63	–
	4. Algebra I	1,789	58	N/A	**1,822**	N/A	N/A	N/A	0.58	–	0.58	0.71
	5. Geometry	813	48	N/A	N/A	**816**	N/A	N/A	0.69	0.74	0.70	0.79
9	**6. Algebra II**	100	15	N/A	N/A	N/A	**100**	N/A	0.56	–	–	–
	7. Summ. H. S. Mathematics	3	1	N/A	N/A	N/A	N/A	**3**	–	–	–	–
	8. Biology	1,227	82	88	534	527	75	1	**1,264**	N/A	N/A	N/A
	9. Chemistry	26	5	1	6	13	4	1	N/A	**26**	N/A	N/A
	10. Earth Science	1,153	28	259	776	142	5	0	N/A	N/A	**1,233**	N/A
	11. Physics	63	6	3	24	29	8	0	N/A	N/A	N/A	**65**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**3,317**	0.75	0.58	0.57	0.57	0.58	0.77	0.75	0.66	0.70	0.80
	2. World History	2,942	**3,105**	0.50	0.54	0.48	0.57	0.75	0.74	0.67	0.71	0.83
	3. Algebra I	1,028	954	**1,055**	N/A	N/A	N/A	0.54	0.57	0.44	0.59	–
	4. Geometry	1,061	1,015	N/A	**1,070**	N/A	N/A	0.63	0.66	0.69	0.69	0.75
	5. Algebra II	673	641	N/A	N/A	**674**	N/A	0.54	0.58	0.61	0.61	0.84
10	**6. Summ. H.S. Mathematics**	88	81	N/A	N/A	N/A	**88**	0.60	0.57	0.64	–	–
	7. Life Science	3,225	2,927	1,015	1,054	668	88	**3,269**	0.85	0.69	0.79	0.86
	8. Biology	1,737	1,730	675	692	213	27	1,720	**1,821**	N/A	N/A	N/A
	9. Chemistry	639	607	25	173	377	54	639	N/A	**643**	N/A	N/A
	10. Earth Science	282	271	150	79	13	0	279	N/A	N/A	**303**	N/A
	11. Physics	53	49	9	14	24	4	51	N/A	N/A	N/A	**55**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**3,212**	0.61	0.77	0.50	0.53	0.49	0.54	0.78	0.62	0.72	0.69
	2. World History	124	**132**	0.68	0.40	0.24	–	–	0.79	–	0.76	–
	3. History–Social Science	3,142	118	**3,281**	0.50	0.49	0.42	0.50	0.76	0.64	0.74	0.67
	4. Algebra I	496	39	493	**511**	N/A	N/A	N/A	0.43	0.54	0.59	–
	5. Geometry	620	17	618	N/A	**631**	N/A	N/A	0.47	0.53	0.54	0.65
11	**6. Algebra II**	765	10	766	N/A	N/A	**769**	N/A	0.62	0.63	0.43	0.67
	7. Summ. H.S. Mathematics	545	4	545	N/A	N/A	N/A	**547**	0.48	0.69	0.86	0.70
	8. Biology	648	36	673	135	138	121	130	**684**	N/A	N/A	N/A
	9. Chemistry	777	9	780	22	140	371	184	N/A	**781**	N/A	N/A
	10. Earth Science	347	20	371	121	88	38	12	N/A	N/A	**379**	N/A
	11. Physics	276	2	277	6	27	98	141	N/A	N/A	N/A	**280**

Table 8.C.5 CST Content Area Correlations (Asian American)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**40,901**	0.75					
	2. Mathematics	40,857	**40,936**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**40,154**	0.73					
	2. Mathematics	40,079	**40,246**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**38,884**	0.68					
	2. Mathematics	38,831	**39,065**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**38,905**	0.70	0.78				
	2. Mathematics	38,847	**39,102**	0.70				
	3. Science	38,861	38,899	**38,964**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**40,763**	0.76					
	2. Mathematics	40,691	**40,886**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**37,893**	0.71	0.56				
	2. Mathematics	28,084	**28,238**	N/A				
	3. Algebra I	9,758	N/A	**9,763**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**38,132**	0.80	0.61	0.63	0.56	0.59	0.78
	2. History–Social Science	38,081	**38,778**	0.60	0.58	0.52	0.65	0.79
	3. General Mathematics	4,477	4,893	**4,924**	N/A	N/A	N/A	0.69
	4. Algebra I	24,916	24,976	N/A	**25,002**	N/A	N/A	0.69
	5. Geometry	8,328	8,330	N/A	N/A	**8,333**	N/A	0.62
	6. Algebra II	287	287	N/A	N/A	N/A	**287**	0.63
	7. Science	38,064	38,166	4,519	24,928	8,330	287	**38,194**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**41,039**	0.66	0.62	0.47	0.61	0.56	0.50	0.76	0.64	0.74	0.74
	2. World History	5,028	**5,057**	0.54	0.48	0.50	0.45	0.30	0.65	0.70	0.76	0.74
	3. General Mathematics	920	60	**1,112**	N/A	N/A	N/A	N/A	0.63	–	0.62	–
	4. Algebra I	9,935	555	N/A	**10,069**	N/A	N/A	N/A	0.59	0.72	0.50	0.64
	5. Geometry	20,380	2,607	N/A	N/A	**20,406**	N/A	N/A	0.66	0.71	0.56	0.72
9	**6. Algebra II**	9,050	1,685	N/A	N/A	N/A	**9,056**	N/A	0.58	0.66	0.47	0.71
	7. Summ. H.S. Mathematics	486	121	N/A	N/A	N/A	N/A	**486**	0.48	0.73	0.39	0.49
	8. Biology	27,269	3,635	185	3,899	15,686	7,167	332	**27,413**	N/A	N/A	N/A
	9. Chemistry	1,001	153	4	22	334	565	74	N/A	**1,002**	N/A	N/A
	10. Earth Science	5,664	198	424	3,374	1,647	262	19	N/A	N/A	**5,863**	N/A
	11. Physics	1,858	139	4	255	923	621	52	N/A	N/A	N/A	**1,864**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**42,396**	0.74	0.38	0.53	0.52	0.52	0.78	0.80	0.66	0.74	0.73
	2. World History	37,229	**37,662**	0.42	0.48	0.48	0.47	0.74	0.76	0.64	0.77	0.71
	3. Algebra I	2,899	2,573	**2,967**	N/A	N/A	N/A	0.38	0.52	0.41	0.33	0.35
	4. Geometry	9,495	8,637	N/A	**9,547**	N/A	N/A	0.56	0.57	0.74	0.38	0.80
	5. Algebra II	20,095	17,812	N/A	N/A	**20,121**	N/A	0.54	0.57	0.68	0.34	0.56
10	**6. Summ. H.S. Mathematics**	8,807	7,545	N/A	N/A	N/A	**8,811**	0.53	0.57	0.63	0.43	0.64
	7. Life Science	42,115	37,155	2,871	9,412	20,066	8,800	**42,258**	0.87	0.72	0.78	0.74
	8. Biology	14,886	13,891	1,773	5,498	5,450	1,798	14,840	**15,120**	N/A	N/A	N/A
	9. Chemistry	22,616	19,849	142	2,564	13,454	6,299	22,593	N/A	**22,651**	N/A	N/A
	10. Earth Science	1,147	1,082	365	484	186	51	1,132	N/A	N/A	**1,219**	N/A
	11. Physics	1,399	1,087	31	293	525	531	1,394	N/A	N/A	N/A	**1,402**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**42,462**	0.56	0.78	0.31	0.34	0.32	0.56	0.77	0.71	0.75	0.66
	2. World History	536	**554**	0.66	0.33	0.28	0.36	0.28	0.67	0.45	0.64	0.44
	3. History–Social Science	42,021	455	**42,410**	0.28	0.32	0.31	0.50	0.75	0.69	0.77	0.62
	4. Algebra I	1,284	105	1,239	**1,317**	N/A	N/A	N/A	0.44	0.55	0.46	0.74
	5. Geometry	3,323	135	3,293	N/A	**3,368**	N/A	N/A	0.42	0.57	0.38	0.67
11	**6. Algebra II**	9,221	117	9,168	N/A	N/A	**9,268**	N/A	0.38	0.61	0.15	0.56
	7. Summ. H.S. Mathematics	26,435	101	26,346	N/A	N/A	N/A	**26,454**	0.61	0.72	0.48	0.67
	8. Biology	11,043	177	11,018	396	999	1,773	7,476	**11,120**	N/A	N/A	N/A
	9. Chemistry	14,545	115	14,526	92	921	4,692	8,456	N/A	**14,594**	N/A	N/A
	10. Earth Science	1,837	70	1,880	259	364	353	679	N/A	N/A	**1,914**	N/A
	11. Physics	9,506	38	9,490	29	182	1,286	7,833	N/A	N/A	N/A	**9,524**

Table 8.C.6 CST Content Area Correlations (Pacific Islander)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**2,511**	0.78					
	2. Mathematics	2,504	**2,511**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**2,389**	0.76					
	2. Mathematics	2,376	**2,386**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**2,424**	0.71					
	2. Mathematics	2,416	**2,443**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**2,387**	0.71	0.78				
	2. Mathematics	2,376	**2,404**	0.68				
	3. Science	2,378	2,380	**2,390**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**2,508**	0.76					
	2. Mathematics	2,499	**2,519**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**2,501**	0.74	0.56				
	2. Mathematics	2,313	**2,327**	N/A				
	3. Algebra I	169	N/A	**169**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**2,620**	0.79	0.70	0.64	0.60	–	0.77
	2. History–Social Science	2,605	**2,737**	0.64	0.60	0.52	–	0.78
	3. General Mathematics	663	744	**756**	N/A	N/A	N/A	0.73
	4. Algebra I	1,807	1,810	N/A	**1,814**	N/A	N/A	0.68
	5. Geometry	126	126	N/A	N/A	**126**	N/A	0.63
	6. Algebra II	2	2	N/A	N/A	N/A	**2**	–
	7. Science	2,606	2,618	672	1,809	126	2	**2,629**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**2,653**	0.78	0.67	0.55	0.68	0.59	–	0.81	0.89	0.68	0.68
	2. World History	174	**177**	0.25	0.62	0.79	0.76	–	0.81	–	0.25	–
	3. General Mathematics	185	12	**212**	N/A	N/A	N/A	N/A	0.19	–	0.61	–
	4. Algebra I	1,466	71	N/A	**1,498**	N/A	N/A	N/A	0.57	–	0.51	0.70
	5. Geometry	798	67	N/A	N/A	**800**	N/A	N/A	0.71	–	0.55	0.68
9	**6. Algebra II**	138	20	N/A	N/A	N/A	**138**	N/A	0.74	–	–	–
	7. Summ. H.S. Mathematics	3	1	N/A	N/A	N/A	N/A	**3**	–	–	–	–
	8. Biology	1,160	105	19	479	552	107	3	**1,186**	N/A	N/A	N/A
	9. Chemistry	22	5	1	3	10	7	0	N/A	**22**	N/A	N/A
	10. Earth Science	812	19	75	606	120	8	0	N/A	N/A	**840**	N/A
	11. Physics	104	6	1	38	54	10	0	N/A	N/A	N/A	**107**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**2,607**	0.72	0.47	0.58	0.55	0.59	0.79	0.76	0.71	0.72	0.82
	2. World History	2,321	**2,390**	0.35	0.49	0.46	0.47	0.73	0.71	0.66	0.79	0.67
	3. Algebra I	587	537	**603**	N/A	N/A	N/A	0.47	0.51	0.15	0.48	–
	4. Geometry	1,004	942	N/A	**1,016**	N/A	N/A	0.58	0.62	0.66	0.67	0.74
	5. Algebra II	666	622	N/A	N/A	**668**	N/A	0.51	0.63	0.68	0.24	0.79
10	**6. Summ. H.S. Mathematics**	107	95	N/A	N/A	N/A	**107**	0.47	0.64	0.57	–	–
	7. Life Science	2,554	2,309	579	994	660	107	**2,581**	0.83	0.72	0.78	0.77
	8. Biology	1,314	1,264	365	617	231	26	1,313	**1,350**	N/A	N/A	N/A
	9. Chemistry	689	647	24	208	379	70	685	N/A	**691**	N/A	N/A
	10. Earth Science	176	170	80	62	11	1	169	N/A	N/A	**185**	N/A
	11. Physics	62	46	6	27	23	7	61	N/A	N/A	N/A	**64**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**2,764**	0.61	0.78	0.53	0.55	0.47	0.59	0.79	0.70	0.58	0.67
	2. World History	91	**94**	0.63	0.55	0.58	0.59	–	0.71	–	0.78	–
	3. History–Social Science	2,706	85	**2,773**	0.52	0.50	0.46	0.53	0.81	0.67	0.67	0.67
	4. Algebra I	292	27	289	**301**	N/A	N/A	N/A	0.46	0.61	0.33	–
	5. Geometry	601	21	597	N/A	**609**	N/A	N/A	0.54	0.59	0.63	0.74
11	**6. Algebra II**	828	13	822	N/A	N/A	**831**	N/A	0.50	0.62	0.05	0.59
	7. Summ. H.S. Mathematics	606	4	606	N/A	N/A	N/A	**607**	0.67	0.71	0.54	0.73
	8. Biology	590	27	600	89	154	137	142	**609**	N/A	N/A	N/A
	9. Chemistry	874	7	874	26	162	411	221	N/A	**879**	N/A	N/A
	10. Earth Science	246	17	245	62	68	47	17	N/A	N/A	**254**	N/A
	11. Physics	303	5	304	7	40	89	154	N/A	N/A	N/A	**307**

Table 8.C.7 CST Content Area Correlations (Filipino)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**10,466**	0.74					
	2. Mathematics	10,440	**10,456**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**11,226**	0.74					
	2. Mathematics	11,198	**11,243**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**11,156**	0.69					
	2. Mathematics	11,142	**11,220**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**11,770**	0.69	0.75				
	2. Mathematics	11,746	**11,804**	0.67				
	3. Science	11,758	11,761	**11,796**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**12,089**	0.76					
	2. Mathematics	12,050	**12,120**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**12,565**	0.73	0.56				
	2. Mathematics	10,641	**10,696**	N/A				
	3. Algebra I	1,888	N/A	**1,888**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**12,922**	0.76	0.66	0.64	0.56	0.66	0.75
	2. History–Social Science	12,906	**13,168**	0.62	0.57	0.48	0.54	0.75
	3. General Mathematics	2,273	2,451	**2,459**	N/A	N/A	N/A	0.69
	4. Algebra I	9,054	9,060	N/A	**9,071**	N/A	N/A	0.65
	5. Geometry	1,481	1,480	N/A	N/A	**1,482**	N/A	0.63
	6. Algebra II	62	62	N/A	N/A	N/A	**62**	0.59
	7. Science	12,898	12,925	2,283	9,052	1,480	62	**12,935**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**13,501**	0.68	0.66	0.58	0.66	0.53	0.63	0.74	0.73	0.70	0.70
	2. World History	1,148	**1,154**	0.40	0.52	0.51	0.48	–	0.66	0.84	0.76	0.77
	3. General Mathematics	368	25	**437**	N/A	N/A	N/A	N/A	0.55	–	0.67	–
	4. Algebra I	5,323	297	N/A	**5,358**	N/A	N/A	N/A	0.60	0.47	0.53	0.66
	5. Geometry	6,373	612	N/A	N/A	**6,377**	N/A	N/A	0.66	0.74	0.52	0.71
9	**6. Algebra II**	1,288	206	N/A	N/A	N/A	**1,290**	N/A	0.57	0.77	0.57	0.66
	7. Summ. H.S. Mathematics	18	6	N/A	N/A	N/A	N/A	**18**	0.16	–	–	–
	8. Biology	7,957	836	92	2,180	4,631	1,030	15	**8,007**	N/A	N/A	N/A
	9. Chemistry	221	25	2	15	136	65	1	N/A	**222**	N/A	N/A
	10. Earth Science	2,652	66	148	1,820	628	58	0	N/A	N/A	**2,707**	N/A
	11. Physics	762	51	1	171	490	100	1	N/A	N/A	N/A	**765**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**13,483**	0.69	0.54	0.60	0.55	0.53	0.75	0.76	0.67	0.71	0.75
	2. World History	12,471	**12,636**	0.44	0.52	0.47	0.48	0.71	0.71	0.63	0.72	0.64
	3. Algebra I	1,596	1,500	**1,617**	N/A	N/A	N/A	0.51	0.58	0.56	0.48	0.63
	4. Geometry	4,434	4,186	N/A	**4,454**	N/A	N/A	0.62	0.62	0.72	0.49	0.71
	5. Algebra II	5,865	5,486	N/A	N/A	**5,875**	N/A	0.53	0.59	0.68	0.50	0.64
10	**6. Summ. H.S. Mathematics**	1,032	923	N/A	N/A	N/A	**1,032**	0.57	0.64	0.62	0.37	0.59
	7. Life Science	13,378	12,440	1,584	4,407	5,848	1,030	**13,428**	0.86	0.72	0.74	0.73
	8. Biology	5,935	5,721	1,025	2,553	1,919	216	5,928	**6,028**	N/A	N/A	N/A
	9. Chemistry	5,853	5,425	132	1,341	3,575	739	5,841	N/A	**5,869**	N/A	N/A
	10. Earth Science	475	461	195	153	76	11	472	N/A	N/A	**496**	N/A
	11. Physics	302	266	21	111	119	47	302	N/A	N/A	N/A	**304**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**13,591**	0.56	0.74	0.52	0.53	0.48	0.57	0.75	0.68	0.68	0.64
	2. World History	236	**243**	0.59	0.47	0.38	0.40	0.53	0.59	0.61	0.07	0.79
	3. History–Social Science	13,481	217	**13,634**	0.41	0.47	0.43	0.52	0.73	0.65	0.72	0.61
	4. Algebra I	695	50	686	**703**	N/A	N/A	N/A	0.57	0.56	0.38	0.70
	5. Geometry	1,812	60	1,803	N/A	**1,830**	N/A	N/A	0.57	0.60	0.43	0.74
11	**6. Algebra II**	4,304	47	4,300	N/A	N/A	**4,318**	N/A	0.54	0.61	0.39	0.62
	7. Summ. H.S. Mathematics	5,736	29	5,720	N/A	N/A	N/A	**5,742**	0.62	0.72	0.62	0.63
	8. Biology	3,331	77	3,326	221	540	854	1,538	**3,362**	N/A	N/A	N/A
	9. Chemistry	5,134	36	5,138	79	601	2,239	1,997	N/A	**5,152**	N/A	N/A
	10. Earth Science	672	32	683	141	147	152	149	N/A	N/A	**696**	N/A
	11. Physics	2,377	21	2,377	22	117	563	1,600	N/A	N/A	N/A	**2,389**

Table 8.C.8 CST Content Area Correlations (Hispanic)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**248,495**	0.76					
	2. Mathematics	247,941	**249,025**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**232,544**	0.75					
	2. Mathematics	231,604	**234,253**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**225,039**	0.72					
	2. Mathematics	224,356	**227,702**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**223,580**	0.69	0.79				
	2. Mathematics	222,680	**225,991**	0.67				
	3. Science	222,989	223,462	**224,922**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**223,420**	0.75					
	2. Mathematics	222,344	**225,215**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**220,729**	0.72	0.53				
	2. Mathematics	207,855	**209,972**	N/A				
	3. Algebra I	11,462	N/A	**11,479**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**221,653**	0.78	0.63	0.63	0.56	0.58	0.76
	2. History–Social Science	220,826	**236,740**	0.60	0.58	0.52	0.54	0.78
	3. General Mathematics	72,519	83,148	**83,740**	N/A	N/A	N/A	0.67
	4. Algebra I	139,583	140,208	N/A	**140,492**	N/A	N/A	0.65
	5. Geometry	7,327	7,327	N/A	N/A	**7,336**	N/A	0.60
	6. Algebra II	128	128	N/A	N/A	N/A	**128**	0.64
	7. Science	220,386	221,899	73,107	139,752	7,325	128	**222,398**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**237,263**	0.78	0.61	0.56	0.66	0.64	0.80	0.79	0.78	0.72	0.74
	2. World History	14,710	**15,389**	0.55	0.56	0.70	0.69	0.83	0.82	0.61	0.77	0.65
	3. General Mathematics	20,929	1,402	**25,426**	N/A	N/A	N/A	N/A	0.62	0.52	0.60	0.49
	4. Algebra I	140,721	6,512	N/A	**142,989**	N/A	N/A	N/A	0.59	0.60	0.51	0.69
	5. Geometry	59,965	5,303	N/A	N/A	**60,145**	N/A	N/A	0.69	0.84	0.61	0.77
9	**6. Algebra II**	10,198	1,274	N/A	N/A	N/A	**10,233**	N/A	0.65	0.80	0.63	0.74
	7. Summ. H.S. Mathematics	167	26	N/A	N/A	N/A	N/A	**168**	0.63	0.78	–	–
	8. Biology	104,801	9,048	4,293	52,141	40,896	7,586	120	**108,071**	N/A	N/A	N/A
	9. Chemistry	2,402	936	52	547	1,188	556	12	N/A	**2,477**	N/A	N/A
	10. Earth Science	68,948	1,498	7,905	52,972	8,967	404	9	N/A	N/A	**74,107**	N/A
	11. Physics	5,748	258	31	2,605	2,385	690	4	N/A	N/A	N/A	**5,899**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**226,177**	0.73	0.51	0.60	0.58	0.59	0.77	0.76	0.71	0.69	0.73
	2. World History	201,473	**211,511**	0.44	0.53	0.50	0.51	0.74	0.74	0.66	0.72	0.68
	3. Algebra I	61,857	56,753	**63,333**	N/A	N/A	N/A	0.49	0.51	0.57	0.47	0.56
	4. Geometry	82,804	78,124	N/A	**83,454**	N/A	N/A	0.62	0.63	0.69	0.56	0.69
	5. Algebra II	51,545	48,822	N/A	N/A	**51,828**	N/A	0.57	0.60	0.68	0.54	0.68
10	**6. Summ. H.S. Mathematics**	5,384	4,894	N/A	N/A	N/A	**5,393**	0.59	0.66	0.67	0.61	0.73
	7. Life Science	221,520	200,939	61,012	82,250	51,316	5,367	**224,183**	0.85	0.75	0.74	0.75
	8. Biology	117,329	116,614	38,991	51,248	18,041	1,317	117,115	**123,180**	N/A	N/A	N/A
	9. Chemistry	53,596	49,955	3,009	17,673	28,149	3,506	53,411	N/A	**54,082**	N/A	N/A
	10. Earth Science	15,309	15,348	7,852	4,840	1,151	43	15,228	N/A	N/A	**16,817**	N/A
	11. Physics	3,964	3,427	440	1,540	1,569	274	3,933	N/A	N/A	N/A	**4,017**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**212,098**	0.60	0.78	0.49	0.53	0.47	0.56	0.78	0.66	0.69	0.69
	2. World History	7,049	**7,465**	0.67	0.37	0.45	0.31	0.37	0.65	0.41	0.66	0.46
	3. History–Social Science	208,451	6,787	**217,601**	0.45	0.49	0.45	0.53	0.77	0.65	0.72	0.68
	4. Algebra I	30,060	2,415	29,846	**30,846**	N/A	N/A	N/A	0.50	0.55	0.45	0.66
	5. Geometry	44,907	1,487	44,854	N/A	**45,513**	N/A	N/A	0.57	0.58	0.52	0.63
11	**6. Algebra II**	60,450	732	60,841	N/A	N/A	**61,212**	N/A	0.49	0.59	0.41	0.62
	7. Summ. H.S. Mathematics	39,542	229	39,482	N/A	N/A	N/A	**39,651**	0.62	0.70	0.45	0.68
	8. Biology	44,309	1,983	45,652	8,820	11,146	10,259	8,826	**46,300**	N/A	N/A	N/A
	9. Chemistry	63,753	761	64,218	2,123	11,880	31,621	14,479	N/A	**64,615**	N/A	N/A
	10. Earth Science	22,081	1,001	23,411	6,910	6,842	3,097	1,138	N/A	N/A	**23,855**	N/A
	11. Physics	22,113	227	22,228	578	2,461	7,311	10,828	N/A	N/A	N/A	**22,370**

Table 8.C.9 CST Content Area Correlations (African American)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**28,006**	0.79					
	2. Mathematics	27,868	**28,074**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**26,676**	0.78					
	2. Mathematics	26,447	**26,737**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**26,776**	0.76					
	2. Mathematics	26,589	**26,998**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**27,365**	0.72	0.80				
	2. Mathematics	27,091	**27,421**	0.71				
	3. Science	27,178	27,162	**27,466**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**27,931**	0.77					
	2. Mathematics	27,669	**27,956**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**28,334**	0.73	0.53				
	2. Mathematics	26,769	**27,075**	N/A				
	3. Algebra I	1,213	N/A	**1,214**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**29,087**	0.79	0.65	0.66	0.56	0.53	0.77
	2. History–Social Science	28,887	**31,781**	0.64	0.62	0.50	0.48	0.79
	3. General Mathematics	9,648	11,416	**11,571**	N/A	N/A	N/A	0.70
	4. Algebra I	17,958	18,035	N/A	**18,103**	N/A	N/A	0.68
	5. Geometry	930	931	N/A	N/A	**932**	N/A	0.64
	6. Algebra II	25	25	N/A	N/A	N/A	**25**	0.60
	7. Science	28,755	29,053	9,741	17,958	931	25	**29,162**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**30,168**	0.77	0.62	0.57	0.69	0.71	0.89	0.81	0.80	0.72	0.76
	2. World History	2,003	**2,135**	0.50	0.58	0.69	0.72	–	0.81	0.66	0.68	0.64
	3. General Mathematics	2,959	200	**3,665**	N/A	N/A	N/A	N/A	0.57	–	0.63	–
	4. Algebra I	18,043	942	N/A	**18,431**	N/A	N/A	N/A	0.62	0.56	0.53	0.66
	5. Geometry	6,894	637	N/A	N/A	**6,932**	N/A	N/A	0.70	0.86	0.68	0.75
9	**6. Algebra II**	1,208	199	N/A	N/A	N/A	**1,214**	N/A	0.72	0.83	0.53	0.65
	7. Summ. H.S. Mathematics	16	4	N/A	N/A	N/A	N/A	**16**	0.78	–	–	–
	8. Biology	13,465	1,153	538	7,173	4,725	970	13	**14,074**	N/A	N/A	N/A
	9. Chemistry	193	68	3	46	97	44	1	N/A	**205**	N/A	N/A
	10. Earth Science	8,545	304	1,152	6,613	940	63	2	N/A	N/A	**9,513**	N/A
	11. Physics	1,007	65	5	501	412	80	0	N/A	N/A	N/A	**1,059**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**29,618**	0.75	0.52	0.62	0.63	0.69	0.78	0.77	0.74	0.71	0.76
	2. World History	25,653	**27,453**	0.47	0.55	0.55	0.51	0.75	0.74	0.70	0.73	0.70
	3. Algebra I	7,768	7,057	**8,008**	N/A	N/A	N/A	0.51	0.52	0.53	0.46	0.63
	4. Geometry	10,814	10,062	N/A	**10,949**	N/A	N/A	0.63	0.63	0.70	0.57	0.75
	5. Algebra II	6,395	5,898	N/A	N/A	**6,449**	N/A	0.61	0.64	0.71	0.56	0.70
10	**6. Summ. H.S. Mathematics**	641	571	N/A	N/A	N/A	**644**	0.63	0.73	0.74	–	0.86
	7. Life Science	28,652	25,491	7,543	10,681	6,348	638	**29,168**	0.85	0.77	0.75	0.74
	8. Biology	15,062	15,012	4,849	6,666	2,210	136	14,975	**16,145**	N/A	N/A	N/A
	9. Chemistry	7,094	6,554	349	2,461	3,642	443	7,062	N/A	**7,219**	N/A	N/A
	10. Earth Science	1,860	1,852	997	519	120	5	1,810	N/A	N/A	**2,071**	N/A
	11. Physics	396	328	52	152	139	38	393	N/A	N/A	N/A	**406**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**29,071**	0.59	0.79	0.48	0.54	0.52	0.60	0.79	0.67	0.69	0.71
	2. World History	1,261	**1,367**	0.62	0.40	0.44	0.44	0.21	0.63	0.47	0.61	0.60
	3. History–Social Science	28,262	1,218	**29,969**	0.47	0.51	0.49	0.56	0.79	0.67	0.72	0.71
	4. Algebra I	3,809	442	3,803	**3,976**	N/A	N/A	N/A	0.50	0.47	0.42	0.66
	5. Geometry	6,357	272	6,339	N/A	**6,482**	N/A	N/A	0.58	0.60	0.58	0.63
11	**6. Algebra II**	8,303	159	8,337	N/A	N/A	**8,458**	N/A	0.51	0.61	0.36	0.66
	7. Summ. H.S. Mathematics	4,749	39	4,738	N/A	N/A	N/A	**4,763**	0.64	0.73	0.49	0.71
	8. Biology	6,343	397	6,612	1,298	1,625	1,351	1,260	**6,760**	N/A	N/A	N/A
	9. Chemistry	8,780	148	8,847	269	1,837	4,550	1,554	N/A	**8,962**	N/A	N/A
	10. Earth Science	2,611	209	2,838	783	779	327	160	N/A	N/A	**2,905**	N/A
	11. Physics	2,797	41	2,832	59	411	935	1,226	N/A	N/A	N/A	**2,869**

Table 8.C.10 CST Content Area Correlations (White)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**115,084**	0.74					
	2. Mathematics	114,845	**115,304**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**112,140**	0.73					
	2. Mathematics	111,598	**112,977**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**109,655**	0.70					
	2. Mathematics	109,199	**110,794**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**110,977**	0.70	0.75				
	2. Mathematics	110,306	**111,634**	0.68				
	3. Science	110,570	110,625	**111,280**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**113,366**	0.75					
	2. Mathematics	112,569	**113,618**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**115,193**	0.71	0.52				
	2. Mathematics	102,074	**102,892**	N/A				
	3. Algebra I	12,119	N/A	**12,129**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**117,481**	0.76	0.65	0.64	0.51	0.56	0.75
	2. History–Social Science	117,061	**121,872**	0.63	0.58	0.48	0.59	0.77
	3. General Mathematics	32,881	36,328	**36,624**	N/A	N/A	N/A	0.71
	4. Algebra I	73,356	73,512	N/A	**73,645**	N/A	N/A	0.66
	5. Geometry	9,961	9,950	N/A	N/A	**9,965**	N/A	0.58
	6. Algebra II	209	209	N/A	N/A	N/A	**209**	0.70
	7. Science	116,743	117,265	32,989	73,360	9,945	209	**117,499**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**122,030**	0.72	0.63	0.57	0.62	0.54	0.51	0.74	0.67	0.70	0.70
	2. World History	7,724	**7,909**	0.58	0.51	0.53	0.44	0.31	0.71	0.81	0.72	0.63
	3. General Mathematics	9,949	591	**11,648**	N/A	N/A	N/A	N/A	0.63	–	0.62	0.47
	4. Algebra I	55,933	2,773	N/A	**56,552**	N/A	N/A	N/A	0.58	0.80	0.53	0.65
	5. Geometry	44,504	3,373	N/A	N/A	**44,572**	N/A	N/A	0.64	0.76	0.59	0.74
9	**6. Algebra II**	9,351	909	N/A	N/A	N/A	**9,365**	N/A	0.56	0.61	0.49	0.70
	7. Summ. H.S. Mathematics	163	33	N/A	N/A	N/A	N/A	**163**	0.55	0.68	0.57	0.85
	8. Biology	62,196	4,704	1,882	20,518	32,280	7,272	102	**63,025**	N/A	N/A	N/A
	9. Chemistry	1,347	105	9	75	685	535	24	N/A	**1,350**	N/A	N/A
	10. Earth Science	34,332	1,045	4,825	23,086	6,160	559	11	N/A	N/A	**36,037**	N/A
	11. Physics	3,712	202	25	1,113	1,934	608	17	N/A	N/A	N/A	**3,744**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**125,495**	0.71	0.53	0.57	0.53	0.49	0.76	0.76	0.62	0.69	0.70
	2. World History	114,165	**117,531**	0.46	0.50	0.45	0.43	0.73	0.73	0.60	0.73	0.64
	3. Algebra I	23,185	21,489	**23,752**	N/A	N/A	N/A	0.52	0.54	0.58	0.52	0.67
	4. Geometry	41,437	39,078	N/A	**41,703**	N/A	N/A	0.59	0.62	0.67	0.55	0.72
	5. Algebra II	42,384	39,491	N/A	N/A	**42,455**	N/A	0.51	0.57	0.66	0.52	0.65
10	**6. Summ. H.S. Mathematics**	8,072	7,504	N/A	N/A	N/A	**8,080**	0.48	0.58	0.64	0.40	0.60
	7. Life Science	123,488	113,722	22,856	41,148	42,176	8,021	**124,466**	0.85	0.69	0.75	0.73
	8. Biology	57,144	55,336	14,553	25,227	12,127	1,617	56,887	**59,001**	N/A	N/A	N/A
	9. Chemistry	41,628	38,898	797	8,761	25,961	5,555	41,463	N/A	**41,697**	N/A	N/A
	10. Earth Science	8,301	7,995	3,579	2,887	793	87	8,218	N/A	N/A	**8,857**	N/A
	11. Physics	3,412	3,038	174	926	1,689	557	3,400	N/A	N/A	N/A	**3,429**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**125,803**	0.55	0.76	0.50	0.54	0.43	0.53	0.76	0.64	0.69	0.63
	2. World History	2,483	**2,644**	0.62	0.41	0.38	0.26	0.25	0.62	0.23	0.60	0.39
	3. History–Social Science	123,904	2,342	**127,162**	0.47	0.50	0.40	0.48	0.75	0.63	0.73	0.61
	4. Algebra I	10,279	749	10,238	**10,587**	N/A	N/A	N/A	0.54	0.55	0.46	0.68
	5. Geometry	17,830	461	17,775	N/A	**18,000**	N/A	N/A	0.57	0.63	0.56	0.66
11	**6. Algebra II**	34,278	256	34,237	N/A	N/A	**34,491**	N/A	0.50	0.58	0.39	0.57
	7. Summ. H.S. Mathematics	43,406	173	43,214	N/A	N/A	N/A	**43,476**	0.58	0.69	0.45	0.65
	8. Biology	27,743	671	28,092	2,749	4,313	6,452	11,200	**28,426**	N/A	N/A	N/A
	9. Chemistry	35,947	237	35,920	621	3,869	16,275	13,055	N/A	**36,146**	N/A	N/A
	10. Earth Science	10,863	424	11,282	2,320	2,621	1,910	1,601	N/A	N/A	**11,465**	N/A
	11. Physics	17,591	77	17,585	179	859	3,567	12,302	N/A	N/A	N/A	**17,679**

Table 8.C.11 CST Content Area Correlations (Ethnicity unknown)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**14,273**	0.77					
	2. Mathematics	14,242	**14,313**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**12,667**	0.76					
	2. Mathematics	12,606	**12,752**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**11,616**	0.73					
	2. Mathematics	11,568	**11,733**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**11,313**	0.73	0.78				
	2. Mathematics	11,250	**11,362**	0.71				
	3. Science	11,281	11,282	**11,356**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**10,998**	0.78					
	2. Mathematics	10,915	**11,010**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**10,420**	0.73	0.54				
	2. Mathematics	9,234	**9,312**	N/A				
	3. Algebra I	1,098	N/A	**1,099**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**9,770**	0.80	0.66	0.67	0.53	0.69	0.78
	2. History–Social Science	9,731	**10,171**	0.65	0.63	0.52	0.72	0.80
	3. General Mathematics	2,965	3,245	**3,285**	N/A	N/A	N/A	0.73
	4. Algebra I	5,820	5,832	N/A	**5,851**	N/A	N/A	0.70
	5. Geometry	838	837	N/A	N/A	**839**	N/A	0.60
	6. Algebra II	31	31	N/A	N/A	N/A	**31**	0.73
	7. Science	9,695	9,742	2,977	5,824	836	31	**9,766**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**11,505**	0.78	0.65	0.59	0.65	0.59	0.36	0.78	0.81	0.72	0.73
	2. World History	810	**828**	0.49	0.62	0.54	0.56	–	0.79	–	0.74	0.68
	3. General Mathematics	1,037	69	**1,211**	N/A	N/A	N/A	N/A	0.61	–	0.71	–
	4. Algebra I	5,325	278	N/A	**5,406**	N/A	N/A	N/A	0.62	–	0.57	0.63
	5. Geometry	3,801	314	N/A	N/A	**3,807**	N/A	N/A	0.66	0.79	0.50	0.72
9	**6. Algebra II**	1,027	140	N/A	N/A	N/A	**1,027**	N/A	0.61	0.81	0.60	0.69
	7. Summ. H.S. Mathematics	22	5	N/A	N/A	N/A	N/A	**22**	0.44	–	–	–
	8. Biology	5,428	473	191	1,858	2,620	723	14	**5,512**	N/A	N/A	N/A
	9. Chemistry	102	6	2	7	41	50	3	N/A	**104**	N/A	N/A
	10. Earth Science	3,178	98	417	2,185	561	53	2	N/A	N/A	**3,346**	N/A
	11. Physics	600	66	4	125	302	160	3	N/A	N/A	N/A	**608**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**10,628**	0.74	0.54	0.61	0.54	0.53	0.78	0.77	0.69	0.74	0.73
	2. World History	9,232	**9,519**	0.47	0.52	0.47	0.48	0.74	0.74	0.64	0.73	0.68
	3. Algebra I	2,215	1,986	**2,274**	N/A	N/A	N/A	0.52	0.54	0.75	0.50	0.65
	4. Geometry	3,410	3,135	N/A	**3,424**	N/A	N/A	0.61	0.62	0.74	0.64	0.81
	5. Algebra II	3,210	2,949	N/A	N/A	**3,217**	N/A	0.55	0.58	0.70	0.46	0.59
10	**6. Summ. H.S. Mathematics**	630	566	N/A	N/A	N/A	**634**	0.56	0.60	0.67	–	0.78
	7. Life Science	10,396	9,184	2,163	3,376	3,197	629	**10,489**	0.86	0.74	0.77	0.73
	8. Biology	4,864	4,679	1,334	2,061	1,004	139	4,831	**5,018**	N/A	N/A	N/A
	9. Chemistry	3,249	2,956	77	816	1,867	442	3,237	N/A	**3,258**	N/A	N/A
	10. Earth Science	585	529	292	161	59	2	585	N/A	N/A	**632**	N/A
	11. Physics	263	224	16	57	141	42	261	N/A	N/A	N/A	**265**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**9,267**	0.62	0.79	0.52	0.54	0.47	0.56	0.78	0.67	0.71	0.68
	2. World History	284	**297**	0.65	0.34	0.39	0.10	0.58	0.75	0.28	0.71	–
	3. History–Social Science	9,046	253	**9,306**	0.46	0.46	0.42	0.51	0.76	0.65	0.75	0.65
	4. Algebra I	935	90	910	**966**	N/A	N/A	N/A	0.49	0.63	0.45	0.68
	5. Geometry	1,386	56	1,370	N/A	**1,404**	N/A	N/A	0.51	0.63	0.51	0.78
11	**6. Algebra II**	2,308	27	2,303	N/A	N/A	**2,323**	N/A	0.46	0.62	0.58	0.68
	7. Summ. H.S. Mathematics	2,919	16	2,908	N/A	N/A	N/A	**2,925**	0.63	0.73	0.53	0.68
	8. Biology	2,202	82	2,223	259	328	438	893	**2,260**	N/A	N/A	N/A
	9. Chemistry	2,461	23	2,458	51	336	1,154	800	N/A	**2,482**	N/A	N/A
	10. Earth Science	720	44	729	220	177	89	77	N/A	N/A	**760**	N/A
	11. Physics	1,269	10	1,264	22	79	297	806	N/A	N/A	N/A	**1,272**

Table 8.C.12 CST Content Area Correlations (English Only)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**262,195**	0.78					
	2. Mathematics	261,463	**262,673**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**248,545**	0.77					
	2. Mathematics	247,228	**250,106**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**239,182**	0.74					
	2. Mathematics	238,134	**241,540**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**238,457**	0.73	0.79				
	2. Mathematics	236,999	**239,912**	0.71				
	3. Science	237,547	237,654	**239,243**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**241,924**	0.78					
	2. Mathematics	240,170	**242,587**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**242,524**	0.74	0.57				
	2. Mathematics	218,321	**220,298**	N/A				
	3. Algebra I	22,034	N/A	**22,052**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**243,707**	0.79	0.67	0.67	0.56	0.59	0.78
	2. History–Social Science	242,633	**256,308**	0.65	0.62	0.52	0.64	0.80
	3. General Mathematics	71,158	80,390	**81,184**	N/A	N/A	N/A	0.72
	4. Algebra I	152,157	152,565	N/A	**152,919**	N/A	N/A	0.69
	5. Geometry	17,329	17,314	N/A	N/A	**17,336**	N/A	0.62
	6. Algebra II	423	423	N/A	N/A	N/A	**423**	0.70
	7. Science	241,979	243,358	71,539	152,214	17,309	423	**243,963**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**255,695**	0.77	0.64	0.59	0.67	0.62	0.68	0.79	0.76	0.73	0.75
	2. World History	16,470	**16,989**	0.58	0.59	0.62	0.60	0.57	0.78	0.84	0.76	0.66
	3. General Mathematics	21,980	1,393	**26,211**	N/A	N/A	N/A	N/A	0.65	0.50	0.65	0.63
	4. Algebra I	128,553	6,050	N/A	**130,386**	N/A	N/A	N/A	0.62	0.75	0.55	0.67
	5. Geometry	81,786	6,668	N/A	N/A	**81,957**	N/A	N/A	0.69	0.80	0.62	0.77
9	**6. Algebra II**	17,520	2,146	N/A	N/A	N/A	**17,549**	N/A	0.63	0.74	0.57	0.71
	7. Summ. H.S. Mathematics	363	82	N/A	N/A	N/A	N/A	**363**	0.61	0.77	0.83	0.63
	8. Biology	124,586	9,941	4,171	47,260	59,000	13,693	233	**127,083**	N/A	N/A	N/A
	9. Chemistry	2,622	351	20	230	1,314	953	59	N/A	**2,651**	N/A	N/A
	10. Earth Science	73,071	2,126	9,516	52,443	11,192	906	23	N/A	N/A	**77,719**	N/A
	11. Physics	7,506	466	51	2,525	3,646	1,212	31	N/A	N/A	N/A	**7,630**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**253,148**	0.74	0.55	0.62	0.58	0.55	0.79	0.78	0.69	0.71	0.73
	2. World History	226,628	**235,533**	0.48	0.54	0.50	0.48	0.76	0.75	0.66	0.74	0.68
	3. Algebra I	54,999	50,653	**56,420**	N/A	N/A	N/A	0.53	0.54	0.58	0.52	0.64
	4. Geometry	84,357	79,451	N/A	**84,975**	N/A	N/A	0.63	0.65	0.72	0.59	0.74
	5. Algebra II	74,497	69,449	N/A	N/A	**74,702**	N/A	0.56	0.61	0.70	0.53	0.66
10	**6. Summ. H.S. Mathematics**	13,665	12,481	N/A	N/A	N/A	**13,678**	0.54	0.62	0.67	0.44	0.65
	7. Life Science	248,048	225,570	54,032	83,696	74,117	13,604	**250,555**	0.86	0.74	0.76	0.76
	8. Biology	118,959	116,513	34,521	51,504	22,040	2,700	118,382	**124,092**	N/A	N/A	N/A
	9. Chemistry	76,691	71,367	2,154	18,348	45,415	9,565	76,407	N/A	**76,994**	N/A	N/A
	10. Earth Science	16,741	16,303	7,944	5,391	1,387	116	16,534	N/A	N/A	**18,092**	N/A
	11. Physics	5,780	5,087	358	1,768	2,603	913	5,754	N/A	N/A	N/A	**5,821**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**247,914**	0.59	0.78	0.52	0.55	0.47	0.57	0.79	0.68	0.70	0.68
	2. World History	6,518	**6,948**	0.65	0.40	0.44	0.28	0.28	0.66	0.32	0.64	0.45
	3. History–Social Science	243,619	6,249	**252,011**	0.48	0.51	0.44	0.51	0.78	0.67	0.74	0.66
	4. Algebra I	25,702	2,150	25,587	**26,517**	N/A	N/A	N/A	0.53	0.53	0.48	0.69
	5. Geometry	40,939	1,218	40,821	N/A	**41,444**	N/A	N/A	0.59	0.63	0.56	0.65
11	**6. Algebra II**	66,579	648	66,642	N/A	N/A	**67,135**	N/A	0.51	0.61	0.42	0.62
	7. Summ. H.S. Mathematics	72,011	310	71,750	N/A	N/A	N/A	**72,138**	0.62	0.73	0.46	0.68
	8. Biology	54,839	1,846	55,938	7,424	10,044	12,057	18,986	**56,704**	N/A	N/A	N/A
	9. Chemistry	70,719	621	70,845	1,574	9,900	33,037	22,029	N/A	**71,324**	N/A	N/A
	10. Earth Science	22,511	1,077	23,641	5,902	5,930	3,429	2,451	N/A	N/A	**24,096**	N/A
	11. Physics	31,542	189	31,570	435	2,162	7,342	20,291	N/A	N/A	N/A	**31,768**

Table 8.C.13 CST Content Area Correlations (Initially Fluent English Proficient)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**18,914**	0.73					
	2. Mathematics	18,899	**18,911**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**19,950**	0.73					
	2. Mathematics	19,921	**19,996**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**19,191**	0.71					
	2. Mathematics	19,169	**19,250**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**19,705**	0.73	0.77				
	2. Mathematics	19,670	**19,760**	0.71				
	3. Science	19,676	19,677	**19,722**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**30,526**	0.79					
	2. Mathematics	30,462	**30,569**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**33,079**	0.75	0.62				
	2. Mathematics	27,463	**27,562**	N/A				
	3. Algebra I	5,530	N/A	**5,530**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**36,703**	0.79	0.65	0.69	0.61	0.63	0.78
	2. History–Social Science	36,625	**37,238**	0.60	0.63	0.59	0.69	0.79
	3. General Mathematics	6,864	7,231	**7,267**	N/A	N/A	N/A	0.69
	4. Algebra I	24,660	24,696	N/A	**24,725**	N/A	N/A	0.70
	5. Geometry	4,809	4,808	N/A	N/A	**4,810**	N/A	0.66
	6. Algebra II	183	183	N/A	N/A	N/A	**183**	0.66
	7. Science	36,619	36,687	6,895	24,670	4,807	183	**36,743**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**34,732**	0.76	0.65	0.58	0.68	0.65	0.48	0.79	0.74	0.70	0.78
	2. World History	3,268	**3,303**	0.51	0.63	0.62	0.57	0.26	0.77	0.81	0.72	0.83
	3. General Mathematics	1,464	133	**1,588**	N/A	N/A	N/A	N/A	0.60	–	0.62	–
	4. Algebra I	14,291	754	N/A	**14,397**	N/A	N/A	N/A	0.62	0.75	0.51	0.72
	5. Geometry	13,353	1,558	N/A	N/A	**13,367**	N/A	N/A	0.70	0.75	0.57	0.79
9	**6. Algebra II**	4,996	770	N/A	N/A	N/A	**4,999**	N/A	0.67	0.74	0.58	0.75
	7. Summ. H.S. Mathematics	251	49	N/A	N/A	N/A	N/A	**251**	0.56	0.65	–	0.41
	8. Biology	20,563	2,259	295	6,056	10,017	3,957	181	**20,698**	N/A	N/A	N/A
	9. Chemistry	664	139	10	52	245	313	37	N/A	**669**	N/A	N/A
	10. Earth Science	6,740	169	500	4,811	1,285	135	6	N/A	N/A	**6,908**	N/A
	11. Physics	1,486	93	3	486	633	331	26	N/A	N/A	N/A	**1,507**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**33,005**	0.73	0.54	0.60	0.60	0.56	0.77	0.78	0.70	0.68	0.74
	2. World History	29,368	**29,825**	0.46	0.51	0.52	0.50	0.74	0.74	0.67	0.71	0.70
	3. Algebra I	4,886	4,461	**4,955**	N/A	N/A	N/A	0.52	0.54	0.60	0.47	0.39
	4. Geometry	9,612	8,950	N/A	**9,646**	N/A	N/A	0.61	0.63	0.70	0.56	0.80
	5. Algebra II	12,508	11,277	N/A	N/A	**12,535**	N/A	0.60	0.63	0.72	0.52	0.68
10	**6. Summ. H.S. Mathematics**	4,135	3,583	N/A	N/A	N/A	**4,138**	0.56	0.61	0.66	0.38	0.64
	7. Life Science	32,659	29,305	4,831	9,561	12,472	4,132	**32,822**	0.87	0.76	0.75	0.74
	8. Biology	14,040	13,240	3,121	5,599	3,799	862	14,014	**14,299**	N/A	N/A	N/A
	9. Chemistry	13,927	12,497	299	2,667	7,835	2,936	13,895	N/A	**13,959**	N/A	N/A
	10. Earth Science	1,408	1,313	637	442	182	29	1,397	N/A	N/A	**1,462**	N/A
	11. Physics	808	670	35	206	317	235	804	N/A	N/A	N/A	**812**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**37,868**	0.60	0.77	0.53	0.52	0.45	0.59	0.78	0.69	0.69	0.68
	2. World History	696	**720**	0.68	0.39	0.35	0.54	0.27	0.65	0.49	0.59	0.49
	3. History–Social Science	37,513	655	**37,997**	0.48	0.49	0.41	0.54	0.76	0.67	0.72	0.66
	4. Algebra I	2,733	200	2,717	**2,786**	N/A	N/A	N/A	0.57	0.59	0.45	0.75
	5. Geometry	5,285	153	5,278	N/A	**5,339**	N/A	N/A	0.59	0.61	0.47	0.71
11	**6. Algebra II**	9,905	109	9,894	N/A	N/A	**9,951**	N/A	0.49	0.60	0.39	0.63
	7. Summ. H.S. Mathematics	16,061	51	16,014	N/A	N/A	N/A	**16,075**	0.66	0.76	0.51	0.70
	8. Biology	9,210	226	9,278	896	1,340	1,820	4,527	**9,337**	N/A	N/A	N/A
	9. Chemistry	12,728	101	12,716	238	1,583	5,150	5,185	N/A	**12,782**	N/A	N/A
	10. Earth Science	2,625	90	2,679	628	713	407	430	N/A	N/A	**2,707**	N/A
	11. Physics	6,456	40	6,453	61	332	1,315	4,568	N/A	N/A	N/A	**6,474**

Table 8.C.14 CST Content Area Correlations (English Learner)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**172,150**	0.77					
	2. Mathematics	171,858	**172,560**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**137,562**	0.74					
	2. Mathematics	137,036	**138,773**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**116,658**	0.67					
	2. Mathematics	116,299	**118,636**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**93,779**	0.60	0.74				
	2. Mathematics	93,327	**95,669**	0.60				
	3. Science	93,494	93,939	**94,866**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**74,682**	0.65					
	2. Mathematics	74,258	**76,172**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**62,383**	0.60	0.64				
	2. Mathematics	61,261	**62,508**	N/A				
	3. Algebra I	619	N/A	**625**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**55,462**	0.68	0.51	0.52	0.56	–	0.65
	2. History–Social Science	55,195	**64,951**	0.49	0.48	0.52	–	0.69
	3. General Mathematics	27,727	34,315	**34,565**	N/A	N/A	N/A	0.59
	4. Algebra I	26,791	27,204	N/A	**27,279**	N/A	N/A	0.60
	5. Geometry	239	245	N/A	N/A	**246**	N/A	0.71
	6. Algebra II	7	7	N/A	N/A	N/A	**7**	–
	7. Science	55,009	55,964	28,199	26,895	244	7	**56,119**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**63,094**	0.68	0.50	0.43	0.55	0.55	0.74	0.71	0.66	0.62	0.66
	2. World History	3,785	**4,214**	0.43	0.47	0.71	0.70	–	0.73	0.60	0.68	0.66
	3. General Mathematics	8,779	500	**11,553**	N/A	N/A	N/A	N/A	0.48	0.30	0.50	0.41
	4. Algebra I	43,761	2,118	N/A	**45,105**	N/A	N/A	N/A	0.54	0.49	0.43	0.62
	5. Geometry	7,599	933	N/A	N/A	**7,688**	N/A	N/A	0.67	0.81	0.57	0.71
9	**6. Algebra II**	905	192	N/A	N/A	N/A	**928**	N/A	0.68	0.80	0.49	0.73
	7. Summ. H.S. Mathematics	32	5	N/A	N/A	N/A	N/A	**33**	–	–	–	–
	8. Biology	19,326	2,179	1,758	13,402	4,140	504	10	**21,303**	N/A	N/A	N/A
	9. Chemistry	521	318	23	214	209	72	1	N/A	**576**	N/A	N/A
	10. Earth Science	21,171	449	3,649	16,918	1,582	73	3	N/A	N/A	**24,284**	N/A
	11. Physics	1,170	25	16	781	318	55	1	N/A	N/A	N/A	**1,257**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**58,245**	0.66	0.38	0.46	0.50	0.57	0.67	0.65	0.69	0.62	0.67
	2. World History	49,275	**55,261**	0.36	0.42	0.52	0.55	0.66	0.65	0.68	0.64	0.63
	3. Algebra I	23,217	21,012	**24,013**	N/A	N/A	N/A	0.37	0.43	0.42	0.37	0.47
	4. Geometry	20,289	18,796	N/A	**20,653**	N/A	N/A	0.49	0.53	0.67	0.43	0.65
	5. Algebra II	5,944	5,454	N/A	N/A	**6,116**	N/A	0.53	0.57	0.74	0.53	0.72
10	**6. Summ. H.S. Mathematics**	362	290	N/A	N/A	N/A	**367**	0.59	0.70	0.69	–	0.79
	7. Life Science	56,473	49,463	22,959	20,070	5,914	360	**57,893**	0.77	0.72	0.65	0.65
	8. Biology	32,790	33,761	14,257	13,308	2,839	149	32,949	**36,225**	N/A	N/A	N/A
	9. Chemistry	6,121	5,564	781	2,811	2,136	150	6,118	N/A	**6,442**	N/A	N/A
	10. Earth Science	5,105	5,385	2,893	1,502	239	8	5,110	N/A	N/A	**5,985**	N/A
	11. Physics	894	738	209	379	239	23	882	N/A	N/A	N/A	**931**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**49,883**	0.53	0.68	0.34	0.38	0.36	0.42	0.63	0.57	0.58	0.62
	2. World History	2,747	**2,991**	0.57	0.34	0.42	0.41	0.61	0.60	0.50	0.60	0.62
	3. History–Social Science	48,295	2,576	**53,595**	0.31	0.34	0.35	0.40	0.63	0.58	0.62	0.59
	4. Algebra I	11,638	1,031	11,516	**12,038**	N/A	N/A	N/A	0.37	0.48	0.36	0.50
	5. Geometry	12,986	691	12,998	N/A	**13,307**	N/A	N/A	0.48	0.52	0.43	0.53
11	**6. Algebra II**	10,855	240	11,160	N/A	N/A	**11,328**	N/A	0.45	0.60	0.31	0.65
	7. Summ. H.S. Mathematics	2,847	70	2,839	N/A	N/A	N/A	**2,886**	0.53	0.74	0.38	0.74
	8. Biology	11,327	848	12,137	3,473	3,758	2,073	521	**12,475**	N/A	N/A	N/A
	9. Chemistry	10,426	257	10,833	610	2,667	5,274	1,264	N/A	**10,962**	N/A	N/A
	10. Earth Science	6,654	423	7,433	2,634	2,023	709	85	N/A	N/A	**7,643**	N/A
	11. Physics	2,783	71	2,889	192	578	1,178	647	N/A	N/A	N/A	**2,937**

Table 8.C.15 CST Content Area Correlations (Reclassified Fluent English Proficient)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**8,639**	0.66					
	2. Mathematics	8,632	**8,643**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**33,725**	0.65					
	2. Mathematics	33,690	**33,713**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**52,603**	0.61					
	2. Mathematics	52,571	**52,624**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**76,433**	0.63	0.69				
	2. Mathematics	76,368	**76,484**	0.61				
	3. Science	76,371	76,373	**76,434**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**86,106**	0.72					
	2. Mathematics	85,983	**86,161**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**91,732**	0.67	0.61				
	2. Mathematics	81,869	**82,094**	N/A				
	3. Algebra I	9,644	N/A	**9,653**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**98,055**	0.74	0.55	0.63	0.62	0.67	0.71
	2. History–Social Science	97,896	**99,196**	0.49	0.56	0.58	0.62	0.74
	3. General Mathematics	20,518	21,281	**21,348**	N/A	N/A	N/A	0.60
	4. Algebra I	70,212	70,301	N/A	**70,386**	N/A	N/A	0.64
	5. Geometry	6,694	6,694	N/A	N/A	**6,701**	N/A	0.66
	6. Algebra II	131	131	N/A	N/A	N/A	**131**	0.69
	7. Science	97,790	97,931	20,497	70,232	6,693	131	**98,033**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**107,040**	0.76	0.54	0.50	0.65	0.68	0.66	0.76	0.77	0.63	0.73
	2. World History	8,127	**8,202**	0.42	0.52	0.65	0.65	0.59	0.79	0.69	0.69	0.70
	3. General Mathematics	4,505	353	**4,817**	N/A	N/A	N/A	N/A	0.55	0.45	0.53	–
	4. Algebra I	51,359	2,504	N/A	**51,657**	N/A	N/A	N/A	0.55	0.58	0.45	0.68
	5. Geometry	40,658	3,779	N/A	N/A	**40,710**	N/A	N/A	0.69	0.82	0.58	0.76
9	**6. Algebra II**	8,914	1,332	N/A	N/A	N/A	**8,922**	N/A	0.70	0.82	0.59	0.76
	7. Summ. H.S. Mathematics	231	60	N/A	N/A	N/A	N/A	**231**	0.59	0.86	0.05	0.71
	8. Biology	58,687	5,617	1,044	21,832	28,692	6,760	175	**59,115**	N/A	N/A	N/A
	9. Chemistry	1,496	488	21	220	733	485	19	N/A	**1,501**	N/A	N/A
	10. Earth Science	24,102	501	1,498	17,130	5,082	298	11	N/A	N/A	**24,524**	N/A
	11. Physics	3,659	200	2	1,029	1,914	677	19	N/A	N/A	N/A	**3,684**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**108,613**	0.68	0.47	0.56	0.58	0.60	0.73	0.72	0.71	0.60	0.72
	2. World History	99,663	**100,610**	0.38	0.48	0.50	0.54	0.70	0.69	0.66	0.66	0.66
	3. Algebra I	17,783	16,528	**17,967**	N/A	N/A	N/A	0.44	0.47	0.55	0.41	0.56
	4. Geometry	40,008	37,813	N/A	**40,148**	N/A	N/A	0.58	0.57	0.69	0.51	0.77
	5. Algebra II	37,771	35,442	N/A	N/A	**37,817**	N/A	0.57	0.59	0.70	0.51	0.66
10	**6. Summ. H.S. Mathematics**	6,586	5,812	N/A	N/A	N/A	**6,592**	0.61	0.66	0.68	0.50	0.74
	7. Life Science	107,475	99,287	17,563	39,810	37,661	6,571	**107,883**	0.84	0.75	0.68	0.76
	8. Biology	52,147	50,432	11,526	24,041	12,475	1,562	51,931	**52,696**	N/A	N/A	N/A
	9. Chemistry	38,505	35,357	1,316	10,131	21,959	4,449	38,392	N/A	**38,593**	N/A	N/A
	10. Earth Science	4,839	4,675	2,013	1,845	599	47	4,813	N/A	N/A	**4,996**	N/A
	11. Physics	2,359	1,962	144	763	1,069	326	2,346	N/A	N/A	N/A	**2,366**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**102,049**	0.53	0.73	0.46	0.47	0.43	0.58	0.74	0.65	0.62	0.65
	2. World History	2,074	**2,106**	0.63	0.36	0.40	0.28	0.33	0.64	0.37	0.61	0.42
	3. History–Social Science	101,077	1,972	**101,989**	0.41	0.43	0.40	0.54	0.73	0.63	0.67	0.64
	4. Algebra I	7,691	528	7,601	**7,774**	N/A	N/A	N/A	0.46	0.55	0.41	0.60
	5. Geometry	17,533	439	17,464	N/A	**17,649**	N/A	N/A	0.51	0.56	0.49	0.62
11	**6. Algebra II**	32,974	360	32,938	N/A	N/A	**33,111**	N/A	0.45	0.58	0.33	0.58
	7. Summ. H.S. Mathematics	32,962	163	32,900	N/A	N/A	N/A	**33,008**	0.66	0.73	0.50	0.70
	8. Biology	20,718	519	20,732	2,149	4,069	5,405	7,420	**20,884**	N/A	N/A	N/A
	9. Chemistry	38,294	355	38,265	857	5,584	17,794	12,247	N/A	**38,437**	N/A	N/A
	10. Earth Science	7,536	222	7,635	1,636	2,412	1,460	867	N/A	N/A	**7,726**	N/A
	11. Physics	15,413	120	15,406	214	1,099	4,296	9,368	N/A	N/A	N/A	**15,471**

Table 8.C.16 CST Content Area Correlations (English Fluency unknown)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**659**	0.79					
	2. Mathematics	653	**659**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**625**	0.77					
	2. Mathematics	623	**641**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**567**	0.75					
	2. Mathematics	561	**580**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**494**	0.69	0.84				
	2. Mathematics	484	**500**	0.68				
	3. Science	486	489	**494**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**592**	0.76					
	2. Mathematics	580	**587**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**723**	0.69	0.38				
	2. Mathematics	692	**709**	N/A				
	3. Algebra I	19	N/A	**20**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**674**	0.79	0.61	0.65	–	–	0.78
	2. History–Social Science	664	**729**	0.56	0.61	–	–	0.79
	3. General Mathematics	335	377	**382**	N/A	N/A	N/A	0.73
	4. Algebra I	306	308	N/A	**313**	N/A	N/A	0.71
	5. Geometry	6	6	N/A	N/A	**6**	N/A	–
	6. Algebra II	1	1	N/A	N/A	N/A	**1**	–
	7. Science	657	665	337	308	6	1	**671**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**913**	0.78	0.70	0.50	0.64	0.64	–	0.80	0.41	0.73	0.87
	2. World History	97	**101**	–	0.44	0.68	–	–	0.83	–	0.90	–
	3. General Mathematics	137	4	**156**	N/A	N/A	N/A	N/A	0.39	–	0.56	–
	4. Algebra I	571	60	N/A	**580**	N/A	N/A	N/A	0.64	–	0.53	0.79
	5. Geometry	132	23	N/A	N/A	**133**	N/A	N/A	0.65	–	0.62	0.81
9	**6. Algebra II**	25	8	N/A	N/A	N/A	**25**	N/A	0.81	–	–	–
	7. Summ. H.S. Mathematics	1	1	N/A	N/A	N/A	N/A	**1**	–	–	–	–
	8. Biology	341	40	20	232	68	16	1	**353**	N/A	N/A	N/A
	9. Chemistry	11	7	0	5	3	3	0	N/A	**11**	N/A	N/A
	10. Earth Science	200	11	42	130	24	0	0	N/A	N/A	**211**	N/A
	11. Physics	33	9	2	11	18	2	0	N/A	N/A	N/A	**33**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**710**	0.77	0.37	0.57	0.51	0.76	0.78	0.78	0.75	0.55	–
	2. World History	552	**578**	0.39	0.52	0.55	0.68	0.75	0.76	0.70	0.62	–
	3. Algebra I	250	195	**254**	N/A	N/A	N/A	0.39	0.46	–	0.31	–
	4. Geometry	193	169	N/A	**195**	N/A	N/A	0.58	0.59	0.73	–	–
	5. Algebra II	113	99	N/A	N/A	**117**	N/A	0.55	0.45	0.75	–	–
10	**6. Summ. H.S. Mathematics**	13	13	N/A	N/A	N/A	**14**	0.64	–	–	–	–
	7. Life Science	673	542	238	185	115	13	**689**	0.83	0.77	0.48	–
	8. Biology	335	301	140	110	42	3	333	**351**	N/A	N/A	N/A
	9. Chemistry	120	106	5	40	59	8	119	N/A	**122**	N/A	N/A
	10. Earth Science	42	32	23	5	2	0	39	N/A	N/A	**45**	N/A
	11. Physics	10	8	3	4	1	3	9	N/A	N/A	N/A	**12**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**554**	0.59	0.79	0.35	0.65	0.33	0.29	0.75	0.47	0.76	0.72
	2. World History	29	**31**	0.59	–	–	–	–	0.78	–	–	–
	3. History–Social Science	509	23	**544**	0.35	0.56	0.29	0.18	0.72	0.38	0.75	0.71
	4. Algebra I	86	8	83	**92**	N/A	N/A	N/A	0.39	–	0.50	–
	5. Geometry	93	8	88	N/A	**98**	N/A	N/A	0.76	0.77	–	–
11	**6. Algebra II**	144	4	140	N/A	N/A	**145**	N/A	0.57	0.72	–	0.59
	7. Summ. H.S. Mathematics	57	1	56	N/A	N/A	N/A	**58**	0.77	0.68	–	0.50
	8. Biology	115	11	111	25	32	30	11	**121**	N/A	N/A	N/A
	9. Chemistry	104	2	102	4	12	58	21	N/A	**106**	N/A	N/A
	10. Earth Science	51	5	51	16	8	8	0	N/A	N/A	**56**	N/A
	11. Physics	38	1	39	0	5	15	16	N/A	N/A	N/A	**40**

Table 8.C.17 CST Content Area Correlations (Not Economically Disadvantaged)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**172,261**	0.74					
	2. Mathematics	171,990	**172,490**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**168,324**	0.73					
	2. Mathematics	167,678	**169,062**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**163,373**	0.70					
	2. Mathematics	162,862	**164,624**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**165,592**	0.70	0.75				
	2. Mathematics	164,871	**166,357**	0.68				
	3. Science	165,143	165,230	**165,969**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**171,473**	0.76					
	2. Mathematics	170,548	**171,806**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**174,493**	0.72	0.54				
	2. Mathematics	149,433	**150,456**	N/A				
	3. Algebra I	23,884	N/A	**23,901**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**180,801**	0.78	0.65	0.65	0.55	0.58	0.76
	2. History–Social Science	180,266	**186,270**	0.63	0.59	0.51	0.65	0.78
	3. General Mathematics	42,723	46,757	**47,086**	N/A	N/A	N/A	0.71
	4. Algebra I	116,129	116,356	N/A	**116,553**	N/A	N/A	0.68
	5. Geometry	20,030	20,018	N/A	N/A	**20,039**	N/A	0.60
	6. Algebra II	564	564	N/A	N/A	N/A	**564**	0.70
	7. Science	179,919	180,587	42,878	116,166	20,013	564	**180,873**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**204,913**	0.74	0.63	0.58	0.64	0.57	0.56	0.77	0.70	0.71	0.73
	2. World History	16,045	**16,344**	0.58	0.53	0.57	0.51	0.37	0.74	0.81	0.73	0.69
	3. General Mathematics	12,981	867	**15,104**	N/A	N/A	N/A	N/A	0.62	0.50	0.63	0.62
	4. Algebra I	89,675	4,807	N/A	**90,602**	N/A	N/A	N/A	0.61	0.74	0.53	0.68
	5. Geometry	77,604	7,276	N/A	N/A	**77,711**	N/A	N/A	0.66	0.77	0.58	0.75
9	**6. Algebra II**	20,705	2,846	N/A	N/A	N/A	**20,727**	N/A	0.60	0.69	0.53	0.72
	7. Summ. H.S. Mathematics	656	145	N/A	N/A	N/A	N/A	**656**	0.49	0.72	0.78	0.55
	8. Biology	112,548	10,310	2,683	35,252	57,623	16,242	431	**113,922**	N/A	N/A	N/A
	9. Chemistry	2,954	350	15	163	1,385	1,262	102	N/A	**2,965**	N/A	N/A
	10. Earth Science	49,630	1,512	5,731	34,111	9,140	914	30	N/A	N/A	**51,850**	N/A
	11. Physics	6,946	472	35	1,863	3,508	1,436	72	N/A	N/A	N/A	**6,996**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**206,680**	0.72	0.53	0.59	0.55	0.52	0.77	0.77	0.67	0.69	0.72
	2. World History	186,430	**191,112**	0.46	0.52	0.47	0.46	0.74	0.74	0.64	0.73	0.66
	3. Algebra I	34,731	32,003	**35,466**	N/A	N/A	N/A	0.52	0.54	0.59	0.50	0.64
	4. Geometry	65,864	61,714	N/A	**66,261**	N/A	N/A	0.61	0.63	0.70	0.56	0.75
	5. Algebra II	73,921	68,009	N/A	N/A	**74,051**	N/A	0.54	0.59	0.68	0.50	0.65
10	**6. Summ. H.S. Mathematics**	17,668	15,814	N/A	N/A	N/A	**17,682**	0.51	0.57	0.65	0.36	0.64
	7. Life Science	203,729	185,774	34,207	65,427	73,650	17,607	**205,099**	0.86	0.73	0.76	0.74
	8. Biology	90,879	87,296	22,247	39,368	20,759	3,465	90,513	**93,561**	N/A	N/A	N/A
	9. Chemistry	77,546	71,247	1,603	15,742	46,698	12,558	77,327	N/A	**77,711**	N/A	N/A
	10. Earth Science	11,471	11,054	4,949	4,074	1,185	130	11,357	N/A	N/A	**12,153**	N/A
	11. Physics	5,458	4,715	261	1,430	2,535	1,127	5,441	N/A	N/A	N/A	**5,480**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**204,658**	0.56	0.77	0.49	0.53	0.44	0.54	0.77	0.67	0.70	0.66
	2. World History	3,785	**4,001**	0.60	0.42	0.39	0.27	0.32	0.64	0.33	0.61	0.41
	3. History–Social Science	201,806	3,495	**206,207**	0.46	0.48	0.41	0.49	0.76	0.66	0.74	0.64
	4. Algebra I	15,434	1,138	15,278	**15,831**	N/A	N/A	N/A	0.52	0.51	0.47	0.68
	5. Geometry	28,571	740	28,493	N/A	**28,879**	N/A	N/A	0.57	0.62	0.54	0.66
11	**6. Algebra II**	55,965	480	55,885	N/A	N/A	**56,297**	N/A	0.49	0.59	0.36	0.60
	7. Summ. H.S. Mathematics	77,706	289	77,399	N/A	N/A	N/A	**77,810**	0.61	0.72	0.46	0.67
	8. Biology	47,613	1,142	48,052	4,467	7,132	10,561	21,260	**48,599**	N/A	N/A	N/A
	9. Chemistry	62,744	441	62,731	1,096	7,189	27,519	23,689	N/A	**63,091**	N/A	N/A
	10. Earth Science	15,408	544	15,927	3,308	3,784	2,857	2,477	N/A	N/A	**16,189**	N/A
	11. Physics	31,507	164	31,494	325	1,621	6,294	22,232	N/A	N/A	N/A	**31,653**

Table 8.C.18 CST Content Area Correlations (Economically Disadvantaged)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**289,475**	0.76					
	2. Mathematics	288,699	**290,131**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**271,334**	0.75					
	2. Mathematics	270,077	**273,394**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**264,171**	0.72					
	2. Mathematics	263,228	**267,338**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**262,687**	0.69	0.79				
	2. Mathematics	261,400	**265,371**	0.67				
	3. Science	261,854	262,321	**264,204**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**261,757**	0.75					
	2. Mathematics	260,323	**263,678**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**255,257**	0.71	0.54				
	2. Mathematics	239,519	**242,039**	N/A				
	3. Algebra I	13,938	N/A	**13,954**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**253,099**	0.78	0.62	0.63	0.57	0.70	0.76
	2. History–Social Science	252,059	**271,374**	0.60	0.58	0.52	0.67	0.78
	3. General Mathematics	83,550	96,458	**97,274**	N/A	N/A	N/A	0.67
	4. Algebra I	157,662	158,381	N/A	**158,718**	N/A	N/A	0.65
	5. Geometry	9,033	9,035	N/A	N/A	**9,045**	N/A	0.62
	6. Algebra II	178	178	N/A	N/A	N/A	**178**	0.71
	7. Science	251,448	253,318	84,253	157,813	9,032	178	**253,942**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**255,866**	0.79	0.61	0.54	0.64	0.64	0.73	0.79	0.79	0.71	0.75
	2. World History	15,648	**16,407**	0.52	0.56	0.70	0.71	0.76	0.83	0.67	0.75	0.66
	3. General Mathematics	23,765	1,508	**29,081**	N/A	N/A	N/A	N/A	0.63	0.72	0.61	0.57
	4. Algebra I	148,461	6,651	N/A	**151,109**	N/A	N/A	N/A	0.59	0.62	0.51	0.68
	5. Geometry	65,825	5,676	N/A	N/A	**66,045**	N/A	N/A	0.68	0.83	0.61	0.76
9	**6. Algebra II**	11,637	1,598	N/A	N/A	N/A	**11,678**	N/A	0.67	0.83	0.56	0.75
	7. Summ. H.S. Mathematics	219	49	N/A	N/A	N/A	N/A	**220**	0.66	0.69	0.68	–
	8. Biology	110,718	9,704	4,587	53,391	44,235	8,673	167	**114,376**	N/A	N/A	N/A
	9. Chemistry	2,357	951	59	556	1,119	563	14	N/A	**2,440**	N/A	N/A
	10. Earth Science	75,441	1,728	9,423	57,185	10,000	498	13	N/A	N/A	**81,563**	N/A
	11. Physics	6,897	320	39	2,962	3,019	839	5	N/A	N/A	N/A	**7,103**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**246,309**	0.74	0.50	0.58	0.57	0.59	0.78	0.76	0.72	0.70	0.74
	2. World History	218,460	**230,063**	0.44	0.53	0.50	0.53	0.75	0.74	0.68	0.72	0.69
	3. Algebra I	66,135	60,615	**67,869**	N/A	N/A	N/A	0.48	0.51	0.57	0.47	0.57
	4. Geometry	88,380	83,274	N/A	**89,138**	N/A	N/A	0.61	0.61	0.71	0.55	0.75
	5. Algebra II	56,811	53,620	N/A	N/A	**57,132**	N/A	0.56	0.59	0.69	0.51	0.66
10	**6. Summ. H.S. Mathematics**	7,082	6,355	N/A	N/A	N/A	**7,094**	0.59	0.66	0.68	0.57	0.72
	7. Life Science	240,913	217,818	65,160	87,689	56,530	7,063	**244,045**	0.85	0.76	0.74	0.76
	8. Biology	127,050	126,631	41,172	55,067	20,408	1,807	126,760	**133,740**	N/A	N/A	N/A
	9. Chemistry	57,696	53,531	2,949	18,210	30,646	4,544	57,484	N/A	**58,273**	N/A	N/A
	10. Earth Science	16,606	16,598	8,523	5,102	1,223	70	16,484	N/A	N/A	**18,363**	N/A
	11. Physics	4,383	3,742	484	1,688	1,692	370	4,345	N/A	N/A	N/A	**4,449**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**233,036**	0.61	0.78	0.48	0.51	0.45	0.55	0.78	0.67	0.69	0.69
	2. World History	8,259	**8,771**	0.68	0.37	0.44	0.36	0.35	0.66	0.44	0.66	0.55
	3. History–Social Science	228,682	7,966	**239,361**	0.45	0.48	0.44	0.52	0.77	0.66	0.72	0.68
	4. Algebra I	32,323	2,776	32,139	**33,278**	N/A	N/A	N/A	0.49	0.57	0.44	0.66
	5. Geometry	48,174	1,765	48,066	N/A	**48,862**	N/A	N/A	0.55	0.59	0.52	0.64
11	**6. Algebra II**	64,355	880	64,756	N/A	N/A	**65,233**	N/A	0.47	0.60	0.40	0.62
	7. Summ. H.S. Mathematics	46,175	304	46,108	N/A	N/A	N/A	**46,298**	0.62	0.72	0.46	0.69
	8. Biology	48,485	2,301	50,038	9,475	12,081	10,799	10,191	**50,801**	N/A	N/A	N/A
	9. Chemistry	69,431	894	69,937	2,178	12,540	33,740	17,046	N/A	**70,420**	N/A	N/A
	10. Earth Science	23,914	1,269	25,458	7,494	7,294	3,150	1,355	N/A	N/A	**25,979**	N/A
	11. Physics	24,685	257	24,822	575	2,551	7,840	12,639	N/A	N/A	N/A	**24,993**

Table 8.C.19 CST Content Area Correlations (Unknown Economic Status)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**821**	0.80					
	2. Mathematics	816	**825**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**749**	0.76					
	2. Mathematics	743	**773**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**657**	0.77					
	2. Mathematics	644	**668**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**589**	0.72	0.84				
	2. Mathematics	577	**597**	0.71				
	3. Science	577	581	**586**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**600**	0.75					
	2. Mathematics	582	**592**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**691**	0.69	0.89				
	2. Mathematics	654	**676**	N/A				
	3. Algebra I	24	N/A	**25**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**701**	0.83	0.68	0.66	0.05	–	0.80
	2. History–Social Science	688	**778**	0.62	0.63	0.35	–	0.82
	3. General Mathematics	329	379	**386**	N/A	N/A	N/A	0.74
	4. Algebra I	335	337	N/A	**351**	N/A	N/A	0.72
	5. Geometry	14	14	N/A	N/A	**15**	N/A	0.59
	6. Algebra II	3	3	N/A	N/A	N/A	**3**	–
	7. Science	687	700	336	340	14	3	**714**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**695**	0.81	0.70	0.51	0.56	0.64	–	0.80	–	0.74	0.79
	2. World History	54	**58**	–	0.54	–	–	–	0.89	–	0.77	–
	3. General Mathematics	119	8	**140**	N/A	N/A	N/A	N/A	0.71	–	0.61	–
	4. Algebra I	399	28	N/A	**414**	N/A	N/A	N/A	0.72	–	0.54	–
	5. Geometry	99	9	N/A	N/A	**99**	N/A	N/A	0.73	–	0.51	–
9	**6. Algebra II**	18	4	N/A	N/A	N/A	**18**	N/A	0.79	–	–	–
	7. Summ. H.S. Mathematics	3	3	N/A	N/A	N/A	N/A	**3**	–	–	–	–
	8. Biology	237	22	18	139	59	15	2	**254**	N/A	N/A	N/A
	9. Chemistry	3	2	0	2	0	1	0	N/A	**3**	N/A	N/A
	10. Earth Science	213	16	51	136	25	0	0	N/A	N/A	**233**	N/A
	11. Physics	11	1	0	7	2	2	0	N/A	N/A	N/A	**12**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**732**	0.77	0.49	0.54	0.51	0.23	0.77	0.76	0.70	0.76	–
	2. World History	596	**632**	0.42	0.49	0.41	–	0.76	0.75	0.62	0.86	–
	3. Algebra I	269	231	**274**	N/A	N/A	N/A	0.49	0.53	–	0.38	–
	4. Geometry	215	191	N/A	**218**	N/A	N/A	0.58	0.57	0.73	–	–
	5. Algebra II	101	92	N/A	N/A	**104**	N/A	0.51	0.33	0.72	–	–
10	**6. Summ. H.S. Mathematics**	11	10	N/A	N/A	N/A	**13**	–	–	–	–	–
	7. Life Science	686	575	256	206	99	10	**698**	0.85	0.69	0.68	–
	8. Biology	342	320	146	127	28	4	336	**362**	N/A	N/A	N/A
	9. Chemistry	122	113	3	45	60	6	120	N/A	**126**	N/A	N/A
	10. Earth Science	58	56	38	9	1	0	52	N/A	N/A	**64**	N/A
	11. Physics	10	8	4	2	2	3	9	N/A	N/A	N/A	**13**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**574**	0.68	0.79	0.59	0.56	0.48	0.40	0.76	0.58	0.64	0.52
	2. World History	20	**24**	0.78	–	–	–	–	–	–	–	–
	3. History–Social Science	525	14	**568**	0.54	0.53	0.42	0.45	0.72	0.56	0.74	0.64
	4. Algebra I	93	3	87	**98**	N/A	N/A	N/A	0.57	–	0.57	–
	5. Geometry	91	4	90	N/A	**96**	N/A	N/A	0.70	0.68	–	–
11	**6. Algebra II**	137	1	133	N/A	N/A	**140**	N/A	0.58	0.75	–	0.58
	7. Summ. H.S. Mathematics	57	2	52	N/A	N/A	N/A	**57**	0.66	0.87	–	0.55
	8. Biology	111	7	106	25	30	25	14	**121**	N/A	N/A	N/A
	9. Chemistry	96	1	93	9	17	54	11	N/A	**100**	N/A	N/A
	10. Earth Science	55	4	54	14	8	6	1	N/A	N/A	**60**	N/A
	11. Physics	40	0	41	2	4	12	19	N/A	N/A	N/A	**44**

Table 8.C.20 CST Content Area Correlations (No Special Education Services)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**427,298**	0.77					
	2. Mathematics	426,429	**427,038**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**416,041**	0.77					
	2. Mathematics	415,371	**415,738**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**405,330**	0.74					
	2. Mathematics	404,914	**405,185**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**406,223**	0.72	0.81				
	2. Mathematics	405,813	**406,014**	0.71				
	3. Science	405,587	405,547	**405,790**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**412,602**	0.78					
	2. Mathematics	412,070	**412,277**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**410,191**	0.74	0.58				
	2. Mathematics	372,243	**372,674**	N/A				
	3. Algebra I	37,291	N/A	**37,306**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**414,946**	0.80	0.65	0.67	0.59	0.63	0.79
	2. History–Social Science	413,577	**414,161**	0.60	0.62	0.55	0.67	0.80
	3. General Mathematics	115,941	115,636	**116,232**	N/A	N/A	N/A	0.70
	4. Algebra I	266,565	266,362	N/A	**266,859**	N/A	N/A	0.69
	5. Geometry	28,823	28,806	N/A	N/A	**28,837**	N/A	0.64
	6. Algebra II	737	737	N/A	N/A	N/A	**737**	0.71
	7. Science	413,494	413,237	115,589	266,355	28,801	737	**414,039**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**438,075**	0.79	0.63	0.57	0.68	0.65	0.66	0.80	0.81	0.73	0.76
	2. World History	29,916	**30,093**	0.56	0.59	0.67	0.63	0.58	0.81	0.80	0.75	0.70
	3. General Mathematics	30,703	1,785	**31,037**	N/A	N/A	N/A	N/A	0.61	0.63	0.61	0.59
	4. Algebra I	226,347	10,506	N/A	**227,393**	N/A	N/A	N/A	0.61	0.69	0.53	0.68
	5. Geometry	141,278	12,648	N/A	N/A	**141,437**	N/A	N/A	0.70	0.83	0.63	0.77
9	**6. Algebra II**	32,048	4,394	N/A	N/A	N/A	**32,070**	N/A	0.66	0.79	0.57	0.75
	7. Summ. H.S. Mathematics	872	197	N/A	N/A	N/A	N/A	**872**	0.60	0.76	0.64	0.58
	8. Biology	216,699	18,962	5,163	84,474	100,513	24,693	598	**217,190**	N/A	N/A	N/A
	9. Chemistry	5,183	1,219	59	687	2,453	1,791	116	N/A	**5,203**	N/A	N/A
	10. Earth Science	117,671	2,820	10,321	86,153	18,737	1,398	41	N/A	N/A	**118,137**	N/A
	11. Physics	13,418	778	59	4,519	6,418	2,259	77	N/A	N/A	N/A	**13,452**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**430,154**	0.75	0.51	0.61	0.58	0.57	0.79	0.78	0.72	0.70	0.76
	2. World History	385,998	**387,137**	0.45	0.54	0.51	0.51	0.76	0.74	0.68	0.72	0.70
	3. Algebra I	92,639	83,981	**93,340**	N/A	N/A	N/A	0.50	0.52	0.58	0.48	0.59
	4. Geometry	148,420	139,064	N/A	**148,804**	N/A	N/A	0.62	0.64	0.72	0.56	0.75
	5. Algebra II	128,971	119,737	N/A	N/A	**129,095**	N/A	0.57	0.61	0.70	0.50	0.67
10	**6. Summ. H.S. Mathematics**	24,606	22,036	N/A	N/A	N/A	**24,627**	0.57	0.63	0.68	0.44	0.68
	7. Life Science	423,433	383,013	90,969	147,206	128,378	24,526	**424,734**	0.86	0.76	0.75	0.77
	8. Biology	206,339	195,422	57,940	90,477	40,323	5,240	204,634	**207,081**	N/A	N/A	N/A
	9. Chemistry	133,174	122,505	4,334	33,088	76,516	17,011	132,692	N/A	**133,351**	N/A	N/A
	10. Earth Science	25,543	23,376	11,997	8,599	2,334	199	25,092	N/A	N/A	**25,670**	N/A
	11. Physics	9,580	8,201	687	3,009	4,161	1,484	9,521	N/A	N/A	N/A	**9,599**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**414,599**	0.58	0.79	0.48	0.52	0.46	0.58	0.79	0.69	0.70	0.70
	2. World History	11,027	**11,139**	0.64	0.39	0.41	0.31	0.31	0.65	0.37	0.63	0.46
	3. History–Social Science	408,386	10,188	**409,911**	0.45	0.48	0.43	0.53	0.78	0.67	0.73	0.68
	4. Algebra I	42,901	3,486	41,985	**43,324**	N/A	N/A	N/A	0.50	0.55	0.45	0.68
	5. Geometry	72,178	2,327	71,520	N/A	**72,522**	N/A	N/A	0.56	0.61	0.53	0.65
11	**6. Algebra II**	116,834	1,283	116,302	N/A	N/A	**117,115**	N/A	0.49	0.60	0.38	0.62
	7. Summ. H.S. Mathematics	122,831	588	122,386	N/A	N/A	N/A	**122,976**	0.64	0.74	0.48	0.70
	8. Biology	91,481	3,013	90,862	12,492	17,970	20,604	31,259	**91,841**	N/A	N/A	N/A
	9. Chemistry	128,797	1,265	128,327	3,101	18,968	59,403	40,285	N/A	**129,092**	N/A	N/A
	10. Earth Science	36,164	1,556	35,767	9,690	10,286	5,683	3,799	N/A	N/A	**36,365**	N/A
	11. Physics	55,122	394	54,947	822	3,957	13,722	34,590	N/A	N/A	N/A	**55,236**

Table 8.C.21 CST Content Area Correlations (Special Education Services)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**35,231**	0.81					
	2. Mathematics	35,049	**36,380**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**24,326**	0.79					
	2. Mathematics	23,106	**27,398**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**20,895**	0.75					
	2. Mathematics	19,966	**25,157**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**20,465**	0.72	0.82				
	2. Mathematics	19,014	**24,006**	0.71				
	3. Science	19,865	20,497	**22,687**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**19,992**	0.77					
	2. Mathematics	18,296	**22,536**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**19,066**	0.73	0.64				
	2. Mathematics	16,373	**19,404**	N/A				
	3. Algebra I	475	N/A	**494**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**19,634**	0.80	0.62	0.66	0.56	–	0.78
	2. History–Social Science	19,415	**44,077**	0.59	0.63	0.58	–	0.80
	3. General Mathematics	10,652	27,847	**28,395**	N/A	N/A	N/A	0.71
	4. Algebra I	7,555	8,701	N/A	**8,751**	N/A	N/A	0.71
	5. Geometry	254	261	N/A	N/A	**262**	N/A	0.61
	6. Algebra II	8	8	N/A	N/A	N/A	**8**	–
	7. Science	18,540	21,335	11,859	7,957	258	8	**21,457**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**23,362**	0.78	0.60	0.56	0.74	0.71	–	0.83	0.87	0.74	0.75
	2. World History	1,827	**2,701**	0.54	0.57	0.79	0.87	–	0.80	0.74	0.74	0.88
	3. General Mathematics	6,157	597	**13,246**	N/A	N/A	N/A	N/A	0.58	0.07	0.59	0.42
	4. Algebra I	12,175	977	N/A	**14,712**	N/A	N/A	N/A	0.60	0.77	0.56	0.69
	5. Geometry	2,250	313	N/A	N/A	**2,418**	N/A	N/A	0.79	0.89	0.68	0.77
9	**6. Algebra II**	311	54	N/A	N/A	N/A	**352**	N/A	0.74	0.88	0.65	0.84
	7. Summ. H.S. Mathematics	6	0	N/A	N/A	N/A	N/A	**7**	–	–	–	–
	8. Biology	6,799	1,068	2,121	4,305	1,404	236	2	**11,332**	N/A	N/A	N/A
	9. Chemistry	131	84	15	34	51	35	0	N/A	**205**	N/A	N/A
	10. Earth Science	7,599	434	4,876	5,270	428	14	2	N/A	N/A	**15,456**	N/A
	11. Physics	436	15	15	312	111	18	0	N/A	N/A	N/A	**658**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**23,538**	0.76	0.49	0.65	0.68	0.69	0.79	0.77	0.81	0.72	0.75
	2. World History	19,468	**34,584**	0.45	0.60	0.63	0.60	0.77	0.76	0.79	0.74	0.80
	3. Algebra I	8,488	8,852	**10,251**	N/A	N/A	N/A	0.51	0.51	0.69	0.46	0.54
	4. Geometry	6,037	6,114	N/A	**6,811**	N/A	N/A	0.68	0.69	0.77	0.64	0.82
	5. Algebra II	1,862	1,981	N/A	N/A	**2,189**	N/A	0.68	0.66	0.80	0.63	0.72
10	**6. Summ. H.S. Mathematics**	155	143	N/A	N/A	N/A	**162**	0.67	0.83	0.67	–	0.74
	7. Life Science	21,874	21,122	8,646	6,115	1,900	154	**25,070**	0.86	0.85	0.77	0.82
	8. Biology	11,917	18,778	5,617	4,084	869	36	12,951	**20,529**	N/A	N/A	N/A
	9. Chemistry	2,189	2,385	220	909	888	97	2,238	N/A	**2,758**	N/A	N/A
	10. Earth Science	2,591	4,330	1,512	586	75	1	2,799	N/A	N/A	**4,906**	N/A
	11. Physics	271	264	62	111	68	16	274	N/A	N/A	N/A	**343**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**23,641**	0.61	0.79	0.42	0.58	0.54	0.66	0.77	0.73	0.72	0.78
	2. World History	1,033	**1,649**	0.62	0.24	0.42	0.39	–	0.57	0.50	0.61	0.55
	3. History–Social Science	22,601	1,279	**36,149**	0.40	0.53	0.52	0.64	0.76	0.73	0.71	0.76
	4. Algebra I	4,945	427	5,511	**5,875**	N/A	N/A	N/A	0.43	0.61	0.41	0.41
	5. Geometry	4,653	180	5,122	N/A	**5,308**	N/A	N/A	0.60	0.67	0.61	0.72
11	**6. Algebra II**	3,622	78	4,470	N/A	N/A	**4,553**	N/A	0.55	0.70	0.51	0.67
	7. Summ. H.S. Mathematics	1,106	7	1,172	N/A	N/A	N/A	**1,188**	0.73	0.80	0.61	0.73
	8. Biology	4,721	432	7,318	1,472	1,272	779	206	**7,662**	N/A	N/A	N/A
	9. Chemistry	3,474	71	4,431	182	778	1,910	461	N/A	**4,516**	N/A	N/A
	10. Earth Science	3,209	260	5,664	1,123	798	330	34	N/A	N/A	**5,855**	N/A
	11. Physics	1,107	27	1,406	80	219	424	299	N/A	N/A	N/A	**1,450**

Table 8.C.22 CST Content Area Correlations (Special Education unknown)

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**28**	0.78					
	2. Mathematics	27	**28**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**40**	0.78					
	2. Mathematics	21	**93**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**1,976**	0.73					
	2. Mathematics	1,854	**2,288**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**2,180**	0.73	0.82				
	2. Mathematics	2,021	**2,305**	0.72				
	3. Science	2,122	2,088	**2,282**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**1,236**	0.77					
	2. Mathematics	1,087	**1,263**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**1,184**	0.75	0.50				
	2. Mathematics	990	**1,093**	N/A				
	3. Algebra I	80	N/A	**80**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**21**	0.90	–	–	–	–	0.77
	2. History–Social Science	21	**184**	0.34	0.07	–	–	0.85
	3. General Mathematics	9	111	**119**	N/A	N/A	N/A	0.48
	4. Algebra I	6	11	N/A	**12**	N/A	N/A	–
	5. Geometry	0	0	N/A	N/A	**0**	N/A	–
	6. Algebra II	0	0	N/A	N/A	N/A	**0**	–
	7. Science	20	33	19	7	0	0	**33**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**37**	–	–	0.02	–	–	–	–	–	0.74	–
	2. World History	4	**15**	–	–	–	–	–	–	–	–	–
	3. General Mathematics	5	1	**42**	N/A	N/A	N/A	N/A	–	–	–	–
	4. Algebra I	13	3	N/A	**20**	N/A	N/A	N/A	–	–	–	–
	5. Geometry	0	0	N/A	N/A	**0**	N/A	N/A	–	–	–	–
9	**6. Algebra II**	1	0	N/A	N/A	N/A	**1**	N/A	–	–	–	–
	7. Summ. H.S. Mathematics	0	0	N/A	N/A	N/A	N/A	**0**	–	–	–	–
	8. Biology	5	6	4	3	0	1	0	**30**	N/A	N/A	N/A
	9. Chemistry	0	0	0	0	0	0	0	N/A	**0**	N/A	N/A
	10. Earth Science	14	2	8	9	0	0	0	N/A	N/A	**53**	N/A
	11. Physics	0	0	0	1	0	0	0	N/A	N/A	N/A	**1**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**29**	0.86	–	–	–	–	0.79	0.80	–	–	–
	2. World History	20	**86**	0.11	–	–	–	0.77	0.73	–	–	–
	3. Algebra I	8	16	**18**	N/A	N/A	N/A	–	–	–	–	–
	4. Geometry	2	1	N/A	**2**	N/A	N/A	–	–	–	–	–
	5. Algebra II	0	3	N/A	N/A	**3**	N/A	–	–	–	–	–
10	**6. Summ. H.S. Mathematics**	0	0	N/A	N/A	N/A	**0**	–	–	–	–	–
	7. Life Science	21	32	8	1	1	0	**38**	0.75	–	–	–
	8. Biology	15	47	8	1	3	0	24	**53**	N/A	N/A	N/A
	9. Chemistry	1	1	1	0	0	0	1	N/A	**1**	N/A	N/A
	10. Earth Science	1	2	1	0	0	0	2	N/A	N/A	**4**	N/A
	11. Physics	0	0	0	0	0	0	0	N/A	N/A	N/A	**0**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**28**	–	0.64	–	–	–	–	–	–	–	–
	2. World History	4	**8**	–	–	–	–	–	–	–	–	–
	3. History–Social Science	26	8	**76**	–	–	–	–	0.85	–	–	–
	4. Algebra I	4	4	8	**8**	N/A	N/A	N/A	–	–	–	–
	5. Geometry	5	2	7	N/A	**7**	N/A	N/A	–	–	–	–
11	**6. Algebra II**	1	0	2	N/A	N/A	**2**	N/A	–	–	–	–
	7. Summ. H.S. Mathematics	1	0	1	N/A	N/A	N/A	**1**	–	–	–	–
	8. Biology	7	5	16	3	1	2	0	**18**	N/A	N/A	N/A
	9. Chemistry	0	0	3	0	0	0	0	N/A	**3**	N/A	N/A
	10. Earth Science	4	1	8	3	2	0	0	N/A	N/A	**8**	N/A
	11. Physics	3	0	4	0	0	0	1	N/A	N/A	N/A	**4**

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	28	43%	28	43%	28	37%	37	49%	37	49%	38	50%	40	53%	32	43%	34	45%	26	35%
B	8	12%	5	8%	11	14%	10	13%	10	13%	12	16%	12	16%	9	12%	14	19%	16	21%
C	28	43%	32	49%	37	49%	28	37%	27	36%	26	34%	21	28%	33	44%	27	36%	31	41%
D	1	2%	0	0%	0	0%	0	0%	1	1%	0	0%	2	3%	1	1%	0	0%	1	1%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
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	34	45%	24	40%	20	33%
B	7	9%	6	10%	2	3%
C	34	45%	28	47%	36	60%
D	0	0%	2	3%	2	3%
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	45	69%	42	65%	39	60%	38	58%	31	48%	35	54%
B	9	14%	9	14%	8	12%	11	17%	9	14%	12	18%
C	11	17%	13	20%	18	28%	15	23%	25	38%	18	28%
D	0	0%	1	2%	0	0%	1	2%	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	32	49%	26	40%	32	49%	31	48%	33	51%	33	51%	26	40%	12	18%
B	23	35%	3	5%	8	12%	22	34%	27	42%	14	22%	22	34%	9	14%
C	9	14%	33	51%	22	34%	10	15%	5	8%	16	25%	16	25%	30	46%
D	1	2%	3	5%	3	5%	2	3%	0	0%	1	2%	1	2%	11	17%
F	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	0	0%	3	5%
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	31	52%	30	50%	20	33%	20	33%	38	63%	31	52%	21	35%
B	12	20%	7	12%	4	7%	8	13%	8	13%	19	32%	27	45%
C	17	28%	22	37%	33	55%	30	50%	13	22%	10	17%	12	20%
D	0	0%	1	2%	3	5%	2	3%	1	2%	0	0%	0	0%
F	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%

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	10	17%	12	20%	9	15%	6	10%	8	14%	10	20%	11	18%	4	7%	5	8%	9	15%
B	13	22%	10	17%	8	14%	16	27%	13	22%	6	12%	10	17%	12	22%	10	17%	13	22%
C	28	48%	29	48%	35	59%	28	47%	33	56%	24	47%	29	48%	32	58%	29	48%	29	48%
D	6	10%	6	10%	5	8%	9	15%	2	3%	6	12%	8	13%	7	13%	8	13%	6	10%
F	1	2%	3	5%	2	3%	0	0%	3	5%	5	10%	2	3%	0	0%	8	13%	3	5%
Total	58	100%	60	100%	59	100%	59	100%	59	100%	51	100%	60	100%	55	100%	60	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%	4	13%	5	17%
B	4	13%	13	43%	4	13%
C	15	50%	8	27%	18	60%
D	4	13%	4	13%	3	10%
F	4	13%	1	3%	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	17	28%	18	30%	13	22%	11	18%	9	15%	5	8%
B	16	27%	13	22%	11	18%	18	30%	12	20%	13	22%
C	22	37%	24	40%	28	47%	26	43%	29	48%	30	50%
D	4	7%	5	8%	8	13%	3	5%	7	12%	7	12%
F	1	2%	0	0%	0	0%	2	3%	3	5%	5	8%
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	2	33%	9	30%	4	13%	5	17%	9	30%	1	17%	0	0%	1	17%
B	1	17%	8	27%	8	27%	4	13%	3	10%	2	33%	1	17%	1	17%
C	2	33%	7	23%	11	37%	18	60%	12	40%	3	50%	4	67%	1	17%
D	0	0%	2	7%	5	17%	2	7%	3	10%	0	0%	0	0%	1	17%
F	1	17%	4	13%	2	7%	1	3%	3	10%	0	0%	1	17%	2	33%
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	7	8%	6	7%	5	6%	9	11%	11	13%	16	19%	23	27%
B	20	24%	13	15%	8	10%	13	15%	19	23%	12	14%	16	19%
C	44	52%	45	54%	51	61%	51	61%	34	40%	32	38%	34	40%
D	11	13%	13	15%	14	17%	4	5%	15	18%	15	18%	2	2%
F	2	2%	7	8%	6	7%	7	8%	5	6%	9	11%	9	11%
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	–0.29	0.50	–1.00	0.94
Reading Comprehension	15	0.17	0.70	–1.12	1.27
Literary Response and Analysis	6	–0.08	0.78	–0.99	1.19
Written Conventions	14	–0.11	0.64	–1.12	1.08
Writing Strategies	8	0.28	0.55	–0.47	1.36
All operational items	65	–0.06	0.65	–1.12	1.36
Field-test items	58	0.05	0.85	–1.81	2.70

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	–0.73	0.70	–2.23	0.45
Reading Comprehension	15	–0.34	0.89	–1.79	1.55
Literary Response and Analysis	8	–0.33	0.56	–0.95	1.01
Written Conventions	13	–0.05	0.89	–1.38	1.40
Writing Strategies	9	–0.08	0.52	–1.10	0.60
All operational items	65	–0.36	0.80	–2.23	1.55
Field-test items	60	0.02	0.99	–2.26	2.18

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	–0.44	0.62	–1.51	0.53
Reading Comprehension	15	0.21	0.79	–1.42	1.37
Literary Response and Analysis	9	0.41	0.69	–1.29	1.27
Written Conventions	18	0.16	0.70	–0.78	1.74
Writing Strategies	15	0.63	0.60	–0.71	1.50
Writing Applications Score	1	–0.97	N/A	–0.97	–0.97
All operational multiple–choice items	75	0.15	0.78	–1.51	1.74
Field-test items	59	0.63	0.89	–1.04	2.80

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	–0.20	0.88	–1.94	1.31
Reading Comprehension	16	–0.30	0.60	–1.22	1.26
Literary Response and Analysis	12	–0.05	0.64	–1.25	0.90
Written Conventions	17	–0.39	0.88	–1.84	1.10
Writing Strategies	16	–0.01	0.72	–1.78	0.96
All operational items	75	–0.20	0.77	–1.94	1.31
Field-test items	59	0.28	0.81	–1.96	2.03

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	–0.17	0.93	–1.87	1.51
Reading Comprehension	17	0.36	0.79	–0.87	1.69
Literary Response and Analysis	12	0.02	0.82	–1.40	1.64
Written Conventions	16	–0.31	0.87	–1.73	1.61
Writing Strategies	17	0.24	0.70	–1.35	1.24
All operational items	75	0.04	0.86	–1.87	1.69
Field-test items	59	0.40	0.84	–1.70	2.32

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	–0.28	0.74	–1.77	0.96
Reading Comprehension	18	–0.02	0.99	–1.31	1.62
Literary Response and Analysis	13	0.42	0.60	–0.53	1.59
Written Conventions	16	0.00	0.89	–1.24	1.64
Writing Strategies	17	0.55	0.74	–1.09	1.65
Writing Applications Score	1	–1.17	N/A	–1.17	–1.17
All operational multiple–choice items	75	0.15	0.87	–1.77	1.65
Field-test items	51	1.07	0.86	–0.79	2.98

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	–0.21	0.88	–1.67	1.31
Reading Comprehension	18	–0.18	0.80	–1.69	1.19
Literary Response and Analysis	15	–0.00	0.66	–1.31	1.33
Written Conventions	16	–0.12	0.55	–1.49	0.81
Writing Strategies	17	0.26	0.50	–0.59	1.06
All operational items	75	–0.03	0.69	–1.69	1.33
Field-test items	60	0.17	1.10	–1.87	2.93

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	0.18	0.68	–0.81	1.01
Reading Comprehension	18	–0.21	0.68	–1.17	1.21
Literary Response and Analysis	16	–0.25	0.70	–1.74	0.96
Written Conventions	13	–0.01	0.40	–0.49	0.98
Writing Strategies	20	0.22	0.75	–1.31	1.59
All operational items	75	–0.03	0.69	–1.74	1.59
Field-test items	55	0.49	0.73	–0.75	2.44

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	–0.43	0.67	–1.73	0.42
Reading Comprehension	18	–0.38	0.55	–1.51	0.59
Literary Response and Analysis	16	–0.15	0.72	–1.12	1.64
Written Conventions	13	–0.33	0.81	–1.59	1.26
Writing Strategies	20	–0.14	0.74	–2.00	1.26
All operational items	75	–0.26	0.71	–2.00	1.64
Field-test items	60	0.48	0.94	–1.58	2.60

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	–0.60	0.52	–1.44	0.24
Reading Comprehension	19	–0.26	0.55	–1.57	0.82
Literary Response and Analysis	17	–0.09	0.79	–1.30	1.04
Written Conventions	9	–0.63	0.66	–1.80	0.65
Writing Strategies	22	–0.19	0.54	–1.53	0.96
All operational items	75	–0.28	0.65	–1.80	1.04
Field-test items	60	0.33	0.72	–0.98	1.90

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	–0.09	0.70	–1.53	1.10
Late Antiquity and the Middle Ages	14	–0.06	0.59	–1.32	1.14
Renaissance/Reformation	10	–0.25	0.58	–1.40	0.47
U.S. Constitution and the Early Republic	22	–0.02	0.64	–1.25	1.32
Civil War and Its Aftermath	13	–0.13	0.49	–1.12	0.79
All operational items	75	–0.09	0.62	–1.53	1.32
Field-test items	30	0.80	0.89	–1.27	2.33

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	–0.38	0.74	–1.68	1.15
Industrial Expansion and Imperialism	10	–0.35	0.56	–1.46	0.62
Causes and Effects of the First World War	14	–0.24	0.41	–1.02	0.55
Causes and Effects of the Second World War	13	–0.20	0.50	–1.14	0.77
International Developments in the Post–WW II Era	10	–0.10	0.58	–1.26	1.00
All operational items	60	–0.26	0.57	–1.68	1.15
Field-test items	30	0.49	0.66	–0.47	2.51

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	–0.25	0.80	–1.63	1.11
Industrialization and the U.S. Role as a World Power	13	–0.39	0.75	–2.25	0.78
United States Between the World Wars	12	–0.24	0.68	–1.40	1.08
World War II and Foreign Affairs	12	–0.27	0.72	–1.73	0.94
Post–World War II Domestic Issues	13	–0.22	0.62	–1.61	0.87
All operational items	60	–0.27	0.71	–2.25	1.11
Field-test items	30	0.09	0.83	–1.22	1.51

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	–0.67	0.79	–1.90	0.77
Multiplication, Division, and Fractions	23	–0.87	0.86	–2.25	1.12
Algebra and Functions	6	–1.01	0.97	–2.09	0.37
Measurement and Geometry	14	–1.07	0.84	–1.84	0.86
Statistics, Data Analysis, and Probability	7	–0.85	1.25	–2.46	0.82
All operational items	65	–0.88	0.91	–2.46	1.12
Field-test items	60	–0.62	1.14	–3.07	1.51

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	–0.64	1.22	–2.53	2.20
Addition, Subtraction, Multiplication, Division	16	–0.41	0.79	–2.05	0.73
Algebra and Functions	12	–0.85	0.62	–1.83	0.51
Measurement and Geometry	16	–0.89	0.92	–2.50	0.78
Statistics, Data Analysis, and Probability	5	–1.34	0.53	–2.01	–0.38
All operational items	65	–0.74	0.94	–2.53	2.20
Field-test items	60	–0.45	1.60	–3.47	3.49

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	–0.96	0.93	–2.10	1.32
Operations and Factoring	14	–0.64	0.46	–1.49	–0.09
Algebra and Functions	18	–0.81	0.68	–1.69	0.59
Measurement and Geometry	12	–0.23	0.73	–1.30	1.33
Statistics, Data Analysis, and Probability	4	–0.67	0.70	–1.40	0.16
All operational items	65	–0.70	0.77	–2.10	1.33
Field-test items	60	0.20	1.09	–2.41	2.24

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	–0.12	0.86	–1.76	1.43
Operations with Fractions and Decimals	17	–0.09	0.54	–0.88	1.18
Algebra and Functions	17	–0.42	1.02	–3.03	1.40
Measurement and Geometry	15	0.05	0.90	–1.27	1.97
Statistics, Data Analysis, and Probability	4	–0.85	0.30	–1.15	–0.47
All operational items	65	–0.20	0.86	–3.03	1.97
Field-test items	60	0.18	1.11	–2.57	2.34

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	–0.19	0.75	–1.41	1.06
Operations and Problem Solving with Fractions	10	–0.38	0.71	–2.16	0.57
Algebra and Functions	19	–0.54	0.94	–1.89	1.78
Measurement and Geometry	10	0.07	0.68	–0.84	1.50
Statistics, Data Analysis, and Probability	11	–0.14	0.95	–2.04	0.89
All operational items	65	–0.27	0.86	–2.16	1.78
Field-test items	60	0.60	0.94	–1.36	2.84

Table 8.D.29 IRT *b*-values for Mathematics, Grade Seven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.09	0.53	–0.88	1.53
Exponents, Powers, and Roots	8	0.19	0.62	–0.63	1.44
Quant. Relationships and Evaluating Expressions	10	–0.08	0.48	–0.87	0.50
Multistep Problems, Graphing, and Functions	15	–0.16	0.68	–1.21	0.96
Measurement and Geometry	13	–0.06	0.76	–1.30	0.97
Statistics, Data Analysis, and Probability	5	–0.42	0.67	–1.18	0.55
All operational items	65	–0.05	0.65	–1.30	1.53
Field-test items	60	0.78	0.98	–1.76	3.18

Table 8.D.30 IRT *b*-values for General Mathematics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.10	0.58	–0.96	1.13
Exponents, Powers, and Roots	10	0.43	0.37	–0.00	1.23
Quant. Relationships and Evaluating Expressions	11	0.09	0.63	–1.45	1.15
Multistep Problems, Graphing, and Functions	10	–0.12	0.56	–1.10	0.79
Measurement and Geometry	11	0.43	0.32	–0.14	1.23
Statistics, Data Analysis, and Probability	9	–0.23	0.63	–1.16	0.97
All operational items	65	0.13	0.58	–1.45	1.23
Field-test items	6	0.99	0.75	–0.20	2.01

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	–0.57	0.79	–2.42	0.74
Graphing and Systems of Linear Equations	14	–0.01	0.41	–0.59	0.71
Quadratics and Polynomials	21	0.01	0.53	–1.07	1.02
Functions and Rational Expressions	13	0.36	0.44	–0.19	1.32
All operational items	65	–0.08	0.66	–2.42	1.32
Field-test items	30	0.56	0.61	–0.68	1.64

Table 8.D.32 IRT *b*-values for Geometry

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Logic and Geometric Proofs	23	–0.90	0.65	–2.19	0.54
Volume and Area Formulas	11	–0.64	0.81	–1.64	1.27
Angle Relationships, Constructions, and Lines	16	–0.63	0.77	–2.06	0.77
Trigonometry	15	–0.83	0.55	–2.08	0.36
All operational items	65	–0.77	0.70	–2.19	1.27
Field-test items	30	0.27	0.76	–1.38	1.56

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	–0.78	0.94	–2.24	1.09
Quadratics, Conics, and Complex Numbers	16	–0.16	0.55	–1.40	0.71
Exponents and Logarithms	16	–0.54	0.44	–1.11	0.21
Series, Combinatorics, Probability and Statistics	14	–0.10	0.77	–1.14	1.23
All operational items	65	–0.42	0.77	–2.24	1.23
Field-test items	30	0.30	0.91	–1.56	1.85

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	–0.99	0.67	–2.15	0.49
Geometry	19	–0.79	0.75	–2.02	0.98
Algebra II	23	–0.76	0.55	–1.85	0.38
Probability and Statistics	5	–0.24	0.62	–1.35	0.45
All operational items	65	–0.79	0.68	–2.15	0.98
Field-test items	30	0.06	1.06	–2.31	1.52

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	0.76	–2.46	0.68
Graphing	9	–0.01	0.39	–0.52	0.65
Quadratics and Polynomials	14	0.22	0.54	–0.77	1.03
Functions and Rational Expressions	7	0.32	0.45	–0.32	0.93
Geometry	20	0.46	0.48	–0.25	1.72
All operational items	65	0.07	0.70	–2.46	1.72
Field-test items	6	0.64	0.41	0.08	1.38

Table 8.D.36 IRT *b*-values for Integrated Mathematics 2

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Algebra I	20	–0.33	0.49	–1.65	0.56
Logic and Geometric Proofs	22	–0.18	0.58	–1.42	0.97
Angle Relationships, Constructions, and Lines	8	–0.09	0.94	–1.33	1.35
Trigonometry	10	–0.18	0.53	–1.25	0.94
Algebra II: Probability and Statistics	5	0.43	0.50	–0.31	1.20
All operational items	65	–0.17	0.63	–1.65	1.35
Field-test items	6	0.47	0.57	–0.67	0.98

Table 8.D.37 IRT *b*-values for Integrated Mathematics 3

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Geometry	5	–0.67	0.63	–1.92	–0.23
Polynomials and Rational Expressions	19	–0.32	0.91	–1.98	1.22
Quadratics, Conics, and Complex Numbers	16	0.20	0.53	–1.12	1.06
Exponents and Logarithms	16	–0.22	0.34	–0.82	0.26
Series, Combinatorics, Probability and Statistics	9	0.31	0.79	–0.78	1.54
All operational items	65	–0.11	0.74	–1.98	1.54
Field-test items	6	0.85	0.82	–0.51	1.85

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	–0.86	0.36	–1.53	–0.43
Physical Science 4	8	–0.54	0.57	–1.48	0.03
Life Science 5	13	–0.62	0.56	–1.86	0.44
Life Science 4	9	–0.72	0.55	–1.50	0.42
Earth Science 5	11	–0.57	0.80	–1.73	0.75
Earth Science 4	8	–0.30	0.47	–1.10	0.44
All operational items	60	–0.62	0.60	–1.86	0.75
Field-test items	84	–0.01	1.02	–2.60	2.15

Table 8.D.39 IRT *b*-values for Science, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion	8	–0.14	0.80	–1.47	0.80
Forces, Density, and Buoyancy	13	–0.55	0.56	–1.40	0.68
Structure of Matter and Periodic Table	16	–0.37	0.78	–1.56	1.60
Earth in the Solar system	7	–0.58	0.88	–1.69	0.74
Reactions and the Chemistry of Living Systems	10	–0.12	0.63	–1.27	0.90
Investigation and Experimentation	6	–0.65	0.69	–1.54	0.29
All operational items	60	–0.39	0.74	–1.69	1.60
Field-test items	84	0.77	0.88	–1.33	2.95

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	0.21	0.86	–1.18	1.58
Genetics	12	–0.02	0.75	–1.30	1.11
Physiology	10	–0.46	0.58	–1.31	0.63
Ecology	11	–0.46	0.78	–1.61	1.24
Evolution	11	–0.29	0.69	–1.25	1.04
Investigation and Experimentation	6	–0.81	0.38	–1.40	–0.22
All operational items	60	–0.26	0.77	–1.61	1.58
Field-test items	84	0.35	0.82	–1.57	2.06

Table 8.D.41 IRT *b*-values for Biology

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Cell Biology	9	–0.47	0.57	–1.52	0.23
Genetics	18	–0.32	0.68	–1.92	1.11
Ecology and Evolution	16	–0.29	0.46	–1.16	0.38
Physiology	11	–0.61	0.70	–1.36	0.52
Investigation and Experimentation	6	–0.39	0.74	–1.11	1.18
All operational items	60	–0.40	0.63	–1.92	1.18
Field-test items	84	0.27	0.82	–2.37	2.73

Table 8.D.42 IRT *b*-values for Chemistry

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Atomic and Molecular Structure	8	–0.06	0.50	–0.76	0.90
Chemical Bonds, Biochemistry	9	–0.86	0.40	–1.38	–0.18
Kinetics, Thermodynamics	14	–0.49	0.34	–0.97	0.40
Chemical Reactions	13	–0.21	0.51	–1.05	0.45
Conservation of Matter and Stoichiometry	10	–0.10	0.69	–0.87	0.99
Investigation and Experimentation	6	–0.95	0.33	–1.43	–0.36
All operational items	60	–0.41	0.58	–1.43	0.99
Field-test items	84	0.28	0.81	–1.64	1.68

Table 8.D.43 IRT *b*-values for Earth Science

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Astronomy and Cosmology	12	–0.19	0.36	–1.10	0.47
Solid Earth	14	–0.15	0.47	–1.01	0.72
The Earth's Energy	28	–0.01	0.48	–1.15	0.78
Investigation and Experimentation	6	–0.28	0.34	–0.80	0.18
All operational items	60	–0.10	0.45	–1.15	0.78
Field-test items	84	0.83	0.63	–0.55	2.27

Table 8.D.44 IRT *b*-values for Physics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion and Forces	12	–0.40	0.49	–1.55	0.38
Conservation of Energy and Momentum	12	–0.21	0.56	–1.70	0.81
Heat and Thermodynamics	9	–0.25	0.73	–1.24	1.42
Waves	10	–0.01	0.56	–1.08	1.18
Electric and Magnetic Phenomena	11	0.17	0.44	–0.52	0.92
Investigation and Experimentation	6	–0.32	0.45	–0.90	0.28
All operational items	60	–0.16	0.58	–1.70	1.42
Field-test items	84	0.52	0.90	–1.50	2.79

Table 8.D.45 Distribution of IRT *b*-values for ELA

IRT *b*–value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
>=3.5										
3.0 – < 3.5										
2.5 – < 3.0										
2.0 – < 2.5										
1.5 – < 2.0		1	2		5	7		1	1	
1.0 – < 1.5	5	3	10	3	3	9	5	5	2	2
0.5 – < 1.0	8	5	14	14	19	11	16	12	4	6
0.0 – < 0.5	15	14	17	14	14	17	12	17	22	16
–0.5 – < 0.0	16	14	17	20	13	11	24	23	19	20
–1.0 – < –0.5	19	13	10	12	11	9	12	10	15	20
–1.5 – < –1.0	2	11	4	7	6	10	4	6	6	8
–2.0 – < –1.5		3	1	5	4	1	2	1	6	3
–2.5 – < –2.0		1								
–3.0 – < –2.5										
–3.5 – < –3.0										
< –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 *b*–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	4	1	2
0.5 – < 1.0	7	5	7
0.0 – < 0.5	26	13	12
–0.5 – < 0.0	20	26	17
–1.0 – < –0.5	10	9	13
–1.5 – < –1.0	7	5	5
–2.0 – < –1.5	1	1	3
–2.5 – < –2.0			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 *b*–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				1	2	1
1.0 – < 1.5	1	1	3	6	3	1
0.5 – < 1.0	6	6	2	4	9	11
0.0 – < 0.5	7	8	6	16	13	18
–0.5 – < 0.0	7	7	16	14	10	18
–1.0 – < –0.5	11	15	10	15	16	11
–1.5 – < –1.0	12	12	18	5	8	5
–2.0 – < –1.5	17	10	9	3	2	
–2.5 – < –2.0	4	3	1		2	
–3.0 – < –2.5		2				
–3.5 – < –3.0				1		
< –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 *b*–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	4	2	1	2		3	3	3
0.5 – < 1.0	15	10	3	7	1	13	7	10
0.0 – < 0.5	20	19	3	9	9	21	16	13
–0.5 – < 0.0	18	20	13	17	8	16	17	25
–1.0 – < –0.5	5	10	20	15	21	7	15	7
–1.5 – < –1.0	3	2	16	11	15	2	6	1
–2.0 – < –1.5			6	1	9		1	5
–2.5 – < –2.0		2	3	3	2	2		
–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 *b*–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							
1.5 – < 2.0		1	1				
1.0 – < 1.5			4	2			2
0.5 – < 1.0	2	7	6	3	4	6	3
0.0 – < 0.5	7	10	7	11	10	16	15
–0.5 – < 0.0	17	14	17	14	16	28	25
–1.0 – < –0.5	17	16	13	19	22	7	10
–1.5 – < –1.0	14	8	11	9	8	3	3
–2.0 – < –1.5	3	4	1	2			2
–2.5 – < –2.0							
–3.0 – < –2.5							
–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 *b*–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	1		2			2	1		1	
2.0 – < 2.5		1	1	1	2	4	1	2	1	
1.5 – < 2.0	2	4	7	2	2	12	3	4	7	5
1.0 – < 1.5	4	5	9	9	11	7	12	4	9	5
0.5 – < 1.0	10	6	16	12	11	13	7	16	12	11
0.0 – < 0.5	13	17	10	14	16	5	9	12	10	19
–0.5 – < 0.0	12	11	6	12	8	7	6	15	10	9
–1.0 – < –0.5	11	8	7	5	6	1	9	2	8	11
–1.5 – < –1.0	3	3	1	2	2		8		1	
–2.0 – < –1.5	2	2		2	1		4		1	
–2.5 – < –2.0		3								
–3.0 – < –2.5										
–3.5 – < –3.0										
< –3.5										
Total	58	60	59	59	59	51	60	55	60	60

Table 8.D.51 Distribution of IRT *b*-values for History–Social Science (field-test items)

IRT *b*–value	Grade 8	World History	Grade 11
>=3.5			
3.0 – < 3.5			
2.5 – < 3.0		1	
2.0 – < 2.5	3		
1.5 – < 2.0	3	2	1
1.0 – < 1.5	6	3	4
0.5 – < 1.0	5	5	5
0.0 – < 0.5	8	12	6
–0.5 – < 0.0	3	7	5
–1.0 – < –0.5	1		4
–1.5 – < –1.0	1		5
–2.0 – < –1.5			
–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 *b*–value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
>=3.5						
3.0 – < 3.5		1				1
2.5 – < 3.0					4	2
2.0 – < 2.5		1	4	2		4
1.5 – < 2.0	1	4	5	4	3	5
1.0 – < 1.5	7	7	6	10	14	10
0.5 – < 1.0	4	7	6	7	9	14
0.0 – < 0.5	7	7	12	10	17	11
–0.5 – < 0.0	5	6	11	14	6	9
–1.0 – < –0.5	10	5	8	5	4	2
–1.5 – < –1.0	10	4	4	3	3	1
–2.0 – < –1.5	11	4	3	2		1
–2.5 – < –2.0	3	5	1	2		
–3.0 – < –2.5	1	8		1		
–3.5 – < –3.0	1	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 *b*–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							
1.5 – < 2.0		3	2	1	2			2
1.0 – < 1.5	3	4	2	6	7	1		1
0.5 – < 1.0		10	10	9	2	2	3	1
0.0 – < 0.5	1	9	5	3	6	3	2	1
–0.5 – < 0.0	1	2	5	5	3			
–1.0 – < –0.5		2	4	2	4		1	1
–1.5 – < –1.0			2	3	3			
–2.0 – < –1.5				1	1			
–2.5 – < –2.0					2			
–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 *b*–value	Grade 5	Grade 8	Life Science	Biology	Chemistry	Earth Science	Physics
>=3.5							
3.0 – < 3.5							
2.5 – < 3.0		2		1			2
2.0 – < 2.5	1	4	1			3	
1.5 – < 2.0	3	13	5	5	3	8	9
1.0 – < 1.5	11	16	17	8	16	25	19
0.5 – < 1.0	13	16	12	14	13	20	14
0.0 – < 0.5	17	16	22	30	23	18	17
–0.5 – < 0.0	11	10	14	13	11	9	10
–1.0 – < –0.5	11	6	9	7	12	1	8
–1.5 – < –1.0	14	1	3	4	3		4
–2.0 – < –1.5	1		1	1	3		1
–2.5 – < –2.0	1			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, Grade Two (paper-and-pencil version and braille version)

Grade 2 (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	8.0009	150	**33**	6,208	–0.0345	310.6240	311
1	2	–4.4019	86.9591	150	**34**	6,449	0.0331	314.0667	314
2	2	–3.6883	125.5529	150	**35**	6,745	0.1010	317.4854	317
3	3	–3.2619	147.8206	150	**36**	7,103	0.1693	320.8775	321
4	5	–2.9529	163.3831	163	**37**	7,311	0.2379	324.2437	324
5	18	–2.7081	175.9457	176	**38**	7,629	0.3072	327.6587	328
6	43	–2.5037	186.4192	186	**39**	8,182	0.3772	331.2070	331
7	103	–2.3272	195.2438	195	**40**	8,389	0.4480	334.7827	335
8	231	–2.1710	203.0479	203	**41**	8,610	0.5198	338.4321	338
9	506	–2.0302	210.1150	210	**42**	9,246	0.5928	342.2038	342
10	766	–1.9015	216.6355	217	**43**	9,719	0.6672	345.9414	346
11	1,141	–1.7824	222.7423	223	**44**	9,924	0.7432	349.6500	350
12	1,701	–1.6713	228.2493	228	**45**	10,666	0.8209	353.4334	353
13	2,535	–1.5668	233.5446	234	**46**	11,214	0.9007	357.5898	358
14	3,219	–1.4678	238.4267	238	**47**	11,666	0.9828	361.7206	362
15	3,943	–1.3735	243.3887	243	**48**	12,078	1.0676	365.9444	366
16	4,614	–1.2832	247.8080	248	**49**	12,685	1.1555	370.4852	370
17	5,184	–1.1964	252.0921	252	**50**	13,268	1.2468	374.9881	375
18	5,508	–1.1126	256.4329	256	**51**	13,793	1.3424	379.5961	380
19	5,599	–1.0314	260.3862	260	**52**	14,092	1.4427	384.6320	385
20	5,576	–0.9524	264.4362	264	**53**	14,534	1.5485	390.0803	390
21	5,508	–0.8755	268.3858	268	**54**	14,913	1.6611	395.8218	396
22	5,363	–0.8003	272.1528	272	**55**	15,158	1.7816	401.6690	402
23	5,213	–0.7266	275.8607	276	**56**	15,385	1.9119	408.2627	408
24	5,238	–0.6541	279.5449	280	**57**	15,523	2.0544	415.2659	415
25	5,213	–0.5828	283.1898	283	**58**	15,505	2.2123	423.4319	423
26	5,230	–0.5124	286.5333	287	**59**	15,167	2.3906	432.3811	432
27	5,199	–0.4429	289.9527	290	**60**	14,333	2.5968	442.7438	443
28	5,353	–0.3739	293.5416	294	**61**	13,135	2.8434	455.4200	455
29	5,387	–0.3055	297.1067	297	**62**	11,246	3.1546	471.5099	472
30	5,774	–0.2375	300.3915	300	**63**	8,951	3.5830	494.5486	495
31	5,774	–0.1697	303.6647	304	**64**	5,515	4.2989	529.1203	529
32	5,956	–0.1021	307.1571	307	**65**	2,289	N/A	578.9992	600

Grade 2 (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	8.0009	150	**33**	0	–0.0171	311.5165	312
1	0	–4.3975	87.1460	150	**34**	1	0.0516	314.9988	315
2	0	–3.6837	125.7735	150	**35**	0	0.1205	318.4565	318
3	0	–3.2571	148.0489	150	**36**	0	0.1898	321.8896	322
4	0	–2.9480	163.6309	164	**37**	0	0.2597	325.2976	325
5	0	–2.7029	176.2111	176	**38**	0	0.3302	328.8273	329
6	0	–2.4984	186.6916	187	**39**	0	0.4016	332.4407	332
7	0	–2.3217	195.5207	196	**40**	0	0.4739	336.0881	336
8	0	–2.1653	203.3415	203	**41**	0	0.5474	339.8668	340
9	0	–2.0242	210.4196	210	**42**	0	0.6222	343.6929	344
10	0	–1.8953	216.9572	217	**43**	1	0.6986	347.4855	347
11	0	–1.7760	223.0806	223	**44**	0	0.7767	351.2587	351
12	0	–1.6646	228.5830	229	**45**	3	0.8569	355.3273	355
13	0	–1.5598	233.9098	234	**46**	0	0.9394	359.5500	360
14	0	–1.4605	238.7862	239	**47**	1	1.0246	363.7970	364
15	0	–1.3659	243.8052	244	**48**	0	1.1128	368.3027	368
16	0	–1.2752	248.1859	248	**49**	0	1.2045	372.9209	373
17	0	–1.1881	252.5114	253	**50**	1	1.3003	377.5793	378
18	1	–1.1039	256.8895	257	**51**	1	1.4009	382.5566	383
19	2	–1.0223	260.8148	261	**52**	0	1.5071	387.9801	388
20	0	–0.9430	264.9391	265	**53**	0	1.6199	393.7636	394
21	0	–0.8657	268.8857	269	**54**	0	1.7407	399.7328	400
22	0	–0.7900	272.6679	273	**55**	1	1.8713	406.2633	406
23	0	–0.7158	276.4062	276	**56**	0	2.0140	413.3439	413
24	2	–0.6429	280.1210	280	**57**	0	2.1722	421.4345	421
25	0	–0.5710	283.7941	284	**58**	1	2.3508	430.4766	430
26	0	–0.5001	287.0915	287	**59**	2	2.5573	440.8698	441
27	0	–0.4299	290.6269	291	**60**	0	2.8042	453.5509	454
28	0	–0.3604	294.2500	294	**61**	0	3.1156	469.6988	470
29	0	–0.2913	297.8501	298	**62**	0	3.5444	492.7846	493
30	0	–0.2225	301.0627	301	**63**	0	4.2605	527.7775	528
31	0	–0.1540	304.4806	304	**64**	0	N/A	578.9992	600
32	2	–0.0855	308.0106	308					

Note: Performance-level cut scores are highlighted.

Table 8.D.56 New Conversions for ELA, Grade Three

Grade 3									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
0	0	N/A	–12.3991	150	**33**	6,636	–0.3344	292.1669	292
1	1	–4.8193	50.3617	150	**34**	7,181	–0.2639	296.0294	296
2	1	–4.1004	88.8845	150	**35**	7,466	–0.1933	299.8990	300
3	2	–3.6689	113.0503	150	**36**	7,799	–0.1224	303.3316	303
4	0	–3.3550	130.3232	150	**37**	8,292	–0.0510	307.1252	307
5	3	–3.1054	143.8870	150	**38**	8,504	0.0210	311.0096	311
6	11	–2.8964	155.1825	155	**39**	9,058	0.0937	314.8966	315
7	25	–2.7154	164.8276	165	**40**	9,502	0.1672	318.7850	319
8	54	–2.5548	173.3283	173	**41**	9,800	0.2417	322.6920	323
9	152	–2.4098	181.1174	181	**42**	10,002	0.3174	327.0904	327
10	288	–2.2769	188.3086	188	**43**	10,577	0.3945	330.9942	331
11	503	–2.1538	194.9026	195	**44**	11,233	0.4732	335.2288	335
12	818	–2.0387	200.9967	201	**45**	11,615	0.5537	339.6891	340
13	1,253	–1.9303	206.7611	207	**46**	11,982	0.6363	343.7633	344
14	1,651	–1.8275	212.2686	212	**47**	12,536	0.7213	348.3944	348
15	2,285	–1.7295	217.6246	218	**48**	12,867	0.8090	353.3142	353
16	2,701	–1.6357	222.8236	223	**49**	13,677	0.8998	358.1477	358
17	3,163	–1.5453	227.6823	228	**50**	13,828	0.9942	363.2483	363
18	3,569	–1.4580	232.2668	232	**51**	14,342	1.0928	368.3447	368
19	3,854	–1.3735	236.6018	237	**52**	14,444	1.1962	373.7359	374
20	4,094	–1.2912	241.0300	241	**53**	14,780	1.3053	379.8259	380
21	4,211	–1.2110	245.2654	245	**54**	14,898	1.4212	385.8649	386
22	4,333	–1.1325	249.4365	249	**55**	15,029	1.5452	392.4720	392
23	4,492	–1.0557	253.5545	254	**56**	15,008	1.6790	399.5145	400
24	4,782	–0.9801	257.6019	258	**57**	14,535	1.8252	407.4366	407
25	4,881	–0.9057	261.6397	262	**58**	14,217	1.9869	416.1360	416
26	5,027	–0.8323	265.4114	265	**59**	13,394	2.1693	425.8051	426
27	5,222	–0.7598	269.3649	269	**60**	11,977	2.3797	437.2047	437
28	5,458	–0.6879	273.4317	273	**61**	10,447	2.6308	450.9531	451
29	5,752	–0.6166	277.3386	277	**62**	8,024	2.9465	468.1281	468
30	5,986	–0.5457	280.8260	281	**63**	5,593	3.3798	491.8379	492
31	6,186	–0.4752	284.4675	284	**64**	3,019	4.1008	530.2520	530
32	6,367	–0.4047	288.3126	288	**65**	1,020	N/A	594.9791	600

Performance-level cut scores are highlighted.

Table 8.D.57 New Conversion for ELA, Grade Four (paper-and-pencil version, with and without essay)

Grade 4 (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0014	150	**42**	5,200	0.0818	323.7398	324
1	0	–4.6897	83.4559	150	**43**	5,485	0.1398	326.4406	326
2	0	–3.9994	117.6988	150	**44**	5,824	0.1977	329.3596	329
3	0	–3.5921	138.1018	150	**45**	6,046	0.2558	332.2636	332
4	0	–3.2984	152.8763	153	**46**	6,038	0.3140	335.3688	335
5	3	–3.0657	164.7344	165	**47**	6,456	0.3724	338.3225	338
6	0	–2.8707	174.7502	175	**48**	6,840	0.4311	341.0607	341
7	0	–2.7012	183.4614	183	**49**	6,953	0.4901	344.1208	344
8	1	–2.5500	191.1952	191	**50**	7,119	0.5496	347.1606	347
9	4	–2.4125	198.0941	198	**51**	7,436	0.6095	350.1797	350
10	5	–2.2858	204.3918	204	**52**	7,794	0.6700	353.1781	353
11	15	–2.1677	210.2310	210	**53**	8,178	0.7311	356.1564	356
12	22	–2.0567	215.8035	216	**54**	8,397	0.7930	359.2014	359
13	51	–1.9517	221.1668	221	**55**	8,547	0.8558	362.4500	362
14	73	–1.8518	226.1203	226	**56**	8,929	0.9194	365.5729	366
15	143	–1.7564	231.0245	231	**57**	9,263	0.9842	368.8788	369
16	252	–1.6650	235.7592	236	**58**	9,344	1.0500	371.9638	372
17	397	–1.5771	240.1908	240	**59**	9,590	1.1172	375.3787	375
18	552	–1.4923	244.4194	244	**60**	10,039	1.1859	378.8253	379
19	822	–1.4103	248.4087	248	**61**	10,095	1.2561	382.4979	382
20	1,041	–1.3308	252.4373	252	**62**	10,300	1.3282	386.0201	386
21	1,435	–1.2537	256.2034	256	**63**	10,626	1.4023	389.8006	390
22	1,677	–1.1787	260.0024	260	**64**	10,688	1.4787	393.6253	394
23	1,993	–1.1056	263.7980	264	**65**	10,947	1.5577	397.5255	398
24	2,253	–1.0343	267.4100	267	**66**	11,079	1.6395	401.8028	402
25	2,658	–0.9645	270.8930	271	**67**	11,056	1.7245	406.0403	406
26	2,880	–0.8962	274.2876	274	**68**	10,903	1.8134	410.4374	410
27	2,987	–0.8293	277.8248	278	**69**	10,971	1.9064	415.0904	415
28	3,292	–0.7635	281.3057	281	**70**	10,858	2.0044	419.9432	420
29	3,309	–0.6988	284.5764	285	**71**	10,831	2.1082	425.2367	425
30	3,485	–0.6351	287.5307	288	**72**	10,434	2.2188	430.6992	431
31	3,699	–0.5724	290.6384	291	**73**	10,130	2.3376	436.6304	437
32	3,747	–0.5104	293.9079	294	**74**	9,563	2.4663	443.3909	443
33	3,853	–0.4491	296.8953	297	**75**	9,243	2.6072	450.7624	451
34	3,963	–0.3885	299.9763	300	**76**	8,197	2.7638	458.7815	459
35	4,168	–0.3285	303.1228	303	**77**	7,438	2.9408	468.2717	468
36	4,202	–0.2689	306.0065	306	**78**	6,493	3.1460	479.8355	480

Grade 4 (paper and pencil, without essay)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0014	150	**42**	250	0.4252	340.4892	340
1	1	–4.4373	93.8407	150	**43**	256	0.4867	343.5434	344
2	0	–3.7220	131.4661	150	**44**	248	0.5487	346.5750	347
3	0	–3.2940	153.5331	154	**45**	250	0.6112	349.7640	350
4	0	–2.9837	169.2302	169	**46**	256	0.6743	353.0656	353
5	2	–2.7378	181.6441	182	**47**	275	0.7381	356.0939	356
6	1	–2.5325	192.0208	192	**48**	275	0.8027	359.3565	359
7	1	–2.3553	200.7781	201	**49**	255	0.8684	362.7253	363
8	4	–2.1985	208.5832	209	**50**	262	0.9350	365.9073	366
9	8	–2.0574	215.7868	216	**51**	254	1.0029	369.4058	369
10	9	–1.9285	222.1216	222	**52**	277	1.0722	373.1365	373
11	26	–1.8095	228.1359	228	**53**	247	1.1430	376.5440	377
12	58	–1.6986	233.8116	234	**54**	236	1.2155	380.1338	380
13	79	–1.5945	239.0072	239	**55**	268	1.2900	383.9771	384
14	98	–1.4962	243.7989	244	**56**	251	1.3667	387.7842	388
15	160	–1.4027	248.5636	249	**57**	292	1.4458	391.6232	392
16	196	–1.3135	253.0565	253	**58**	259	1.5277	395.7344	396
17	197	–1.2280	257.4651	257	**59**	269	1.6129	400.0010	400
18	304	–1.1457	261.7246	262	**60**	255	1.7016	404.6030	405
19	306	–1.0662	265.4588	265	**61**	215	1.7946	409.2495	409
20	354	–0.9892	269.3630	269	**62**	242	1.8924	414.3097	414
21	354	–0.9144	273.1877	273	**63**	206	1.9960	419.3560	419
22	354	–0.8416	276.6444	277	**64**	176	2.1062	424.8301	425
23	347	–0.7706	280.4358	280	**65**	188	2.2246	430.7819	431
24	314	–0.7011	283.8721	284	**66**	183	2.3528	437.4525	437
25	291	–0.6330	287.2222	287	**67**	184	2.4932	444.6155	445
26	309	–0.5662	290.5620	291	**68**	163	2.6491	452.4581	452
27	308	–0.5004	293.8913	294	**69**	125	2.8254	461.2013	461
28	297	–0.4356	297.2080	297	**70**	89	3.0298	471.5431	472
29	246	–0.3716	300.5048	301	**71**	86	3.2748	484.2818	484
30	264	–0.3084	303.6651	304	**72**	57	3.5840	500.5417	501
31	244	–0.2458	306.5781	307	**73**	42	4.0108	523.0775	523
32	263	–0.1838	309.8396	310	**74**	17	4.7245	556.9900	557
33	277	–0.1222	313.0613	313	**75**	5	N/A	607.4990	600
34	273	–0.0610	316.1073	316					
35	286	–0.0001	319.0285	319					
36	266	0.0607	322.2224	322					

Grade 4 (paper-and-pencil)									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
37	4,454	–0.2098	308.8774	309	**79**	5,234	3.3918	494.3625	494
38	4,478	–0.1510	311.9679	312	**80**	3,991	3.7020	513.9696	514
39	4,710	–0.0925	314.6997	315	**81**	2,614	4.1299	542.2903	542
40	4,867	–0.0343	317.8894	318	**82**	1,353	4.8445	587.3646	587
41	4,934	0.0238	320.7422	321	**83**	499	N/A	643.4993	600

Grade 4 (paper and pencil, without essay)									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
37	291	0.1213	325.2559	325					
38	231	0.1819	328.0584	328					
39	282	0.2424	331.1969	331					
40	272	0.3032	334.3153	334					
41	256	0.3640	337.4129	337					

Note: Performance-level cut scores are highlighted.

Table 8.D.58 New Conversion for ELA, Grade Four (braille version, with and without essay)

Grade 4 (Braille)

Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0014	150	**40**	0	0.0791	323.6169	324
1	0	–4.6488	84.9332	150	**41**	0	0.1402	326.4606	326
2	0	–3.9590	120.1103	150	**42**	0	0.2012	329.5301	330
3	0	–3.5516	140.4597	150	**43**	1	0.2623	332.6150	333
4	0	–3.2574	155.0950	155	**44**	0	0.3236	335.8714	336
5	0	–3.0238	166.9410	167	**45**	1	0.3852	338.8983	339
6	0	–2.8277	176.9574	177	**46**	1	0.4470	341.8899	342
7	0	–2.6568	185.6940	186	**47**	0	0.5093	345.1045	345
8	0	–2.5040	193.4292	193	**48**	0	0.5720	348.2962	348
9	0	–2.3649	200.3946	200	**49**	0	0.6353	351.4647	351
10	0	–2.2363	206.8177	207	**50**	2	0.6993	354.6110	355
11	0	–2.1164	212.8011	213	**51**	1	0.7640	357.7331	358
12	0	–2.0034	218.5279	219	**52**	0	0.8296	361.1361	361
13	0	–1.8965	223.9861	224	**53**	0	0.8962	364.3888	364
14	0	–1.7946	228.9736	229	**54**	0	0.9639	367.9089	368
15	0	–1.6973	234.2006	234	**55**	0	1.0329	371.1017	371
16	0	–1.6038	238.8029	239	**56**	0	1.1032	374.6770	375
17	0	–1.5139	243.4276	243	**57**	2	1.1752	378.2522	378
18	0	–1.4272	247.5312	248	**58**	3	1.2489	382.1415	382
19	0	–1.3432	251.8456	252	**59**	0	1.3246	385.8305	386
20	0	–1.2618	255.8002	256	**60**	0	1.4025	389.8081	390
21	0	–1.1828	259.7931	260	**61**	0	1.4829	393.8351	394
22	0	–1.1058	263.7874	264	**62**	0	1.5662	397.9808	398
23	0	–1.0308	267.5796	268	**63**	0	1.6527	402.4745	402
24	0	–0.9575	271.2555	271	**64**	0	1.7430	406.9679	407
25	0	–0.8858	274.7913	275	**65**	0	1.8374	411.6623	412
26	0	–0.8155	278.6110	279	**66**	0	1.9368	416.6187	417
27	0	–0.7465	282.1593	282	**67**	0	2.0419	421.8768	422
28	0	–0.6787	285.6058	286	**68**	0	2.1538	427.5260	428
29	0	–0.6120	288.5870	289	**69**	0	2.2739	433.4776	433
30	0	–0.5461	292.0111	292	**70**	1	2.4039	440.1286	440
31	0	–0.4812	295.3683	295	**71**	0	2.5461	447.6150	448
32	0	–0.4170	298.5040	299	**72**	0	2.7040	455.7746	456
33	0	–0.3535	301.8039	302	**73**	0	2.8822	465.1458	465
34	0	–0.2906	304.9644	305	**74**	0	3.0887	476.6320	477

Grade 4 (Braille, without essay)

Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	–	N/A	0.0014	150	**40**	–	0.4415	341.3032	341
1	–	–4.3830	95.9098	150	**41**	–	0.5065	344.5182	345
2	–	–3.6662	133.9121	150	**42**	–	0.5721	347.7077	348
3	–	–3.2367	156.1592	156	**43**	–	0.6382	351.2656	351
4	–	–2.9249	172.0148	172	**44**	–	0.7051	354.5062	355
5	–	–2.6774	184.5791	185	**45**	–	0.7729	357.7807	358
6	–	–2.4706	194.9996	195	**46**	–	0.8416	361.4368	361
7	–	–2.2919	203.8640	204	**47**	–	0.9115	364.7499	365
8	–	–2.1336	211.9174	212	**48**	–	0.9827	368.2476	368
9	–	–1.9909	219.0324	219	**49**	–	1.0553	372.3193	372
10	–	–1.8604	225.5628	226	**50**	–	1.1296	375.8909	376
11	–	–1.7398	231.7391	232	**51**	–	1.2058	379.6222	380
12	–	–1.6273	237.4620	237	**52**	–	1.2841	383.6798	384
13	–	–1.5216	242.5444	243	**53**	–	1.3649	387.6973	388
14	–	–1.4216	247.5851	248	**54**	–	1.4484	391.7540	392
15	–	–1.3264	252.4312	252	**55**	–	1.5350	396.1013	396
16	–	–1.2355	257.0584	257	**56**	–	1.6253	400.6561	401
17	–	–1.1482	261.5954	262	**57**	–	1.7197	405.5173	406
18	–	–1.0641	265.5514	266	**58**	–	1.8189	410.5327	411
19	–	–0.9829	269.7036	270	**59**	–	1.9238	415.8711	416
20	–	–0.9040	273.7161	274	**60**	–	2.0354	421.3446	421
21	–	–0.8274	277.3218	277	**61**	–	2.1550	427.3078	427
22	–	–0.7526	281.3749	281	**62**	–	2.2845	433.9031	434
23	–	–0.6796	284.9239	285	**63**	–	2.4261	441.2311	441
24	–	–0.6081	288.4616	288	**64**	–	2.5833	449.1538	449
25	–	–0.5379	291.9873	292	**65**	–	2.7608	457.9890	458
26	–	–0.4688	295.5004	296	**66**	–	2.9663	468.2038	468
27	–	–0.4008	298.9978	299	**67**	–	3.2124	480.8738	481
28	–	–0.3337	302.4149	302	**68**	–	3.5228	497.0472	497
29	–	–0.2674	305.5378	306	**69**	–	3.9507	519.3237	519
30	–	–0.2017	308.8980	309	**70**	–	4.6657	553.9805	554
31	–	–0.1365	312.3309	312	**71**	–	N/A	607.4990	600
32	–	–0.0718	315.6045	316					
33	–	–0.0074	318.6401	319					
34	–	0.0567	322.0140	322					

Grade 4 (Braille)									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
35	0	–0.2282	307.9819	308	**75**	0	3.3358	491.0826	491
36	0	–0.1662	311.1693	311	**76**	0	3.6472	510.5445	511
37	0	–0.1045	314.1231	314	**77**	0	4.0763	538.8815	539
38	0	–0.0431	317.4265	317	**78**	0	4.7923	584.4269	584
39	0	0.0181	320.4400	320	**79**	0	N/A	643.4993	600

Grade 4 (Braille, without essay)									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
35	–	0.1207	325.2291	325					
36	–	0.1846	328.2010	328					
37	–	0.2485	331.5115	332					
38	–	0.3126	334.7991	335					
39	–	0.3769	338.0632	338					

Note: Performance-level cut scores are highlighted. To protect student privacy, the frequency distribution is not shown if based on 10 or fewer student records.

Table 8.D.59 New Conversions for ELA, Grade Five

Grade 5									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
0	0	N/A	25.0010	150	**38**	5,639	–0.1579	312.1910	312
1	4	–4.7844	76.2820	150	**39**	5,923	–0.0975	315.2937	315
2	1	–4.0684	111.9781	150	**40**	6,403	–0.0370	318.4037	318
3	0	–3.6398	136.0700	150	**41**	6,677	0.0236	321.1368	321
4	3	–3.3289	152.6454	153	**42**	6,858	0.0845	324.1428	324
5	1	–3.0824	165.4315	165	**43**	7,045	0.1458	327.2719	327
6	2	–2.8766	175.5460	176	**44**	7,466	0.2074	330.4061	330
7	1	–2.6988	184.5665	185	**45**	7,667	0.2696	333.5457	334
8	10	–2.5416	192.6090	193	**46**	8,021	0.3324	336.6906	337
9	12	–2.4000	199.7666	200	**47**	8,395	0.3958	339.8401	340
10	37	–2.2707	206.2329	206	**48**	8,874	0.4601	342.9938	343
11	70	–2.1513	212.4308	212	**49**	9,215	0.5253	346.1564	346
12	128	–2.0401	217.9240	218	**50**	9,427	0.5916	349.7734	350
13	201	–1.9356	223.1217	223	**51**	9,915	0.6590	352.9807	353
14	355	–1.8370	228.1254	228	**52**	10,377	0.7278	356.4741	356
15	553	–1.7432	232.8436	233	**53**	10,501	0.7981	359.8590	360
16	770	–1.6537	237.2334	237	**54**	10,967	0.8702	363.5966	364
17	1,095	–1.5680	241.4825	241	**55**	11,064	0.9441	367.4093	367
18	1,351	–1.4854	245.8688	246	**56**	11,575	1.0202	371.2250	371
19	1,665	–1.4058	249.7517	250	**57**	11,784	1.0987	375.0434	375
20	1,899	–1.3286	253.4799	253	**58**	12,112	1.1801	379.0757	379
21	2,220	–1.2537	257.1621	257	**59**	12,479	1.2646	383.4675	383
22	2,496	–1.1808	260.7605	261	**60**	12,563	1.3527	387.9315	388
23	2,791	–1.1096	264.4272	264	**61**	13,105	1.4450	392.3977	392
24	2,848	–1.0401	267.9028	268	**62**	13,111	1.5421	397.0783	397
25	3,038	–0.9719	271.3159	271	**63**	13,062	1.6449	402.1976	402
26	3,324	–0.9050	274.7043	275	**64**	13,430	1.7545	407.7433	408
27	3,416	–0.8392	277.8852	278	**65**	13,335	1.8720	413.6667	414
28	3,583	–0.7744	281.2338	281	**66**	12,655	1.9994	419.9828	420
29	3,803	–0.7104	284.5854	285	**67**	12,478	2.1391	427.1675	427
30	3,997	–0.6472	287.6696	288	**68**	11,920	2.2942	434.8527	435
31	4,230	–0.5847	290.7019	291	**69**	10,953	2.4697	443.5120	444
32	4,417	–0.5227	293.7449	294	**70**	9,937	2.6731	453.7740	454
33	4,592	–0.4612	296.7969	297	**71**	8,005	2.9172	466.0937	466
34	4,874	–0.4001	299.8585	300	**72**	6,098	3.2256	481.5873	482
35	5,106	–0.3393	302.9291	303	**73**	3,810	3.6513	504.2613	504
36	5,151	–0.2787	306.0083	306	**74**	1,901	4.3646	541.9979	542
37	5,533	–0.2183	309.0958	309	**75**	544	N/A	611.4990	600

Note: Performance-level cut scores are highlighted.

Table 8.D.60 New Conversions for ELA, Grade Six (paper-and-pencil version and braille version)

Grade 6 (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	0.0011	150	**38**	7,628	0.0818	321.0141	321
1	0	–4.6132	78.0653	150	**39**	7,795	0.1438	324.1180	324
2	0	–3.8952	117.3772	150	**40**	8,065	0.2060	327.1949	327
3	2	–3.4646	139.9535	150	**41**	8,300	0.2683	330.5415	331
4	3	–3.1517	155.9094	156	**42**	8,260	0.3309	333.7655	334
5	3	–2.9032	168.8955	169	**43**	8,537	0.3938	336.9243	337
6	4	–2.6955	179.4648	179	**44**	8,802	0.4571	340.1263	340
7	6	–2.5158	188.7138	189	**45**	9,097	0.5210	343.3956	343
8	10	–2.3566	196.7089	197	**46**	9,178	0.5854	346.5780	347
9	22	–2.2130	203.9658	204	**47**	9,559	0.6505	349.7511	350
10	41	–2.0818	210.7002	211	**48**	9,654	0.7165	353.1562	353
11	89	–1.9604	216.8770	217	**49**	9,806	0.7834	356.6339	357
12	159	–1.8473	222.8123	223	**50**	9,973	0.8513	360.2205	360
13	273	–1.7409	228.1474	228	**51**	10,298	0.9204	363.7836	364
14	474	–1.6403	233.3446	233	**52**	10,551	0.9909	367.3542	367
15	664	–1.5447	238.3891	238	**53**	10,778	1.0629	370.7568	371
16	1,015	–1.4533	242.8002	243	**54**	10,957	1.1366	374.5177	375
17	1,389	–1.3656	247.1882	247	**55**	10,920	1.2122	378.6181	379
18	1,778	–1.2812	251.5524	252	**56**	11,138	1.2899	382.3512	382
19	2,184	–1.1997	255.7756	256	**57**	11,397	1.3702	386.5499	387
20	2,686	–1.1207	259.6458	260	**58**	11,332	1.4533	390.9745	391
21	2,921	–1.0439	263.6969	264	**59**	11,401	1.5395	395.0989	395
22	3,290	–0.9692	267.5424	268	**60**	11,380	1.6294	399.6205	400
23	3,596	–0.8962	271.1708	271	**61**	11,468	1.7235	404.5426	405
24	3,910	–0.8248	274.8251	275	**62**	11,405	1.8224	409.7356	410
25	4,287	–0.7549	278.5748	279	**63**	11,125	1.9270	415.0167	415
26	4,419	–0.6862	282.1184	282	**64**	10,835	2.0383	420.6311	421
27	4,748	–0.6186	285.5482	286	**65**	10,476	2.1578	426.8292	427
28	4,989	–0.5520	288.9532	289	**66**	9,688	2.2870	433.4923	433
29	5,278	–0.4863	292.2722	292	**67**	9,355	2.4285	440.6638	441
30	5,581	–0.4213	295.3376	295	**68**	8,442	2.5856	448.6803	449
31	5,758	–0.3571	298.4991	298	**69**	7,572	2.7630	457.8594	458
32	5,940	–0.2934	301.7982	302	**70**	6,353	2.9685	468.5246	469
33	6,295	–0.2301	305.0702	305	**71**	5,161	3.2145	481.4253	481
34	6,626	–0.1673	308.3148	308	**72**	3,745	3.5249	498.3084	498
35	6,949	–0.1048	311.5318	312	**73**	2,267	3.9529	521.9124	522
36	6,962	–0.0425	314.7207	315	**74**	1,104	4.6679	555.4972	555
37	7,349	0.0197	317.8818	318	**75**	307	N/A	602.2691	600

Grade 6 (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0011	150	**38**	1	0.1237	323.1133	323
1	0	–4.6037	78.4470	150	**39**	0	0.1875	326.2845	326
2	0	–3.8853	117.8272	150	**40**	0	0.2516	329.5948	330
3	0	–3.4543	140.4330	150	**41**	1	0.3160	333.0489	333
4	0	–3.1410	156.4546	156	**42**	1	0.3807	336.2408	336
5	0	–2.8920	169.4446	169	**43**	0	0.4459	339.5683	340
6	0	–2.6837	180.0715	180	**44**	0	0.5116	342.8983	343
7	0	–2.5035	189.3278	189	**45**	0	0.5780	346.2381	346
8	0	–2.3438	197.3530	197	**46**	0	0.6451	349.4695	349
9	0	–2.1997	204.6493	205	**47**	1	0.7132	352.9897	353
10	0	–2.0679	211.4257	211	**48**	0	0.7823	356.5779	357
11	0	–1.9460	217.6201	218	**49**	1	0.8526	360.2869	360
12	0	–1.8322	223.6249	224	**50**	0	0.9242	363.9805	364
13	0	–1.7253	228.9382	229	**51**	1	0.9972	367.6510	368
14	0	–1.6241	234.1921	234	**52**	2	1.0720	371.2177	371
15	0	–1.5278	239.1915	239	**53**	0	1.1487	375.1920	375
16	0	–1.4357	243.6674	244	**54**	0	1.2275	379.3549	379
17	0	–1.3474	248.1215	248	**55**	1	1.3088	383.3474	383
18	0	–1.2622	252.5530	253	**56**	2	1.3928	387.7695	388
19	0	–1.1799	256.7117	257	**57**	1	1.4801	392.2781	392
20	1	–1.1002	260.7345	261	**58**	0	1.5709	396.6753	397
21	1	–1.0226	264.8075	265	**59**	0	1.6659	401.5235	402
22	0	–0.9470	268.6595	269	**60**	0	1.7658	406.7694	407
23	0	–0.8731	272.2981	272	**61**	0	1.8714	412.2408	412
24	0	–0.8008	276.1336	276	**62**	0	1.9837	417.8471	418
25	0	–0.7299	279.8883	280	**63**	2	2.1040	423.9777	424
26	0	–0.6602	283.4317	283	**64**	0	2.2342	430.7741	431
27	0	–0.5916	286.9245	287	**65**	0	2.3767	437.9883	438
28	1	–0.5240	290.3931	290	**66**	0	2.5346	445.9772	446
29	0	–0.4571	293.7191	294	**67**	0	2.7130	455.1573	455
30	0	–0.3910	296.7420	297	**68**	0	2.9192	465.8219	466
31	0	–0.3255	300.1328	300	**69**	0	3.1664	478.6044	479
32	1	–0.2605	303.4972	303	**70**	0	3.4777	495.2837	495
33	1	–0.1960	306.8351	307	**71**	0	3.9066	518.9513	519
34	0	–0.1317	310.1458	310	**72**	0	4.6227	553.3843	553
35	0	–0.0678	313.4292	313	**73**	0	N/A	602.2691	600
36	1	–0.0039	316.6849	317					
37	0	0.0599	319.9137	320					

Note: Performance-level cut scores are highlighted.

Table 8.D.61 New Conversions for ELA, Grade Seven (with and without essay)

Grade 7									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	–40.1188	150	**42**	5,279	0.0553	304.6304	305
1	0	–4.5602	40.8274	150	**43**	5,502	0.1151	308.1354	308
2	0	–3.8786	81.2571	150	**44**	5,856	0.1748	311.6231	312
3	0	–3.4846	104.2964	150	**45**	6,223	0.2345	315.0931	315
4	0	–3.2070	120.3373	150	**46**	6,400	0.2943	318.5453	319
5	0	–2.9916	133.0566	150	**47**	6,804	0.3543	321.9795	322
6	1	–2.8144	142.7942	150	**48**	6,996	0.4145	325.3954	325
7	0	–2.6623	151.1741	151	**49**	7,422	0.4750	328.7929	329
8	0	–2.5277	158.7689	159	**50**	7,662	0.5359	332.1718	332
9	1	–2.4058	165.9574	166	**51**	8,006	0.5972	335.5322	336
10	1	–2.2931	172.1567	172	**52**	8,320	0.6590	338.8738	339
11	4	–2.1876	177.9935	178	**53**	8,850	0.7214	342.6256	343
12	6	–2.0876	183.6363	184	**54**	9,031	0.7845	346.0561	346
13	26	–1.9919	189.2874	189	**55**	9,287	0.8483	349.9023	350
14	41	–1.8997	194.3341	194	**56**	9,829	0.9131	353.3157	353
15	64	–1.8105	199.1969	199	**57**	9,807	0.9789	357.2123	357
16	91	–1.7237	204.0482	204	**58**	10,182	1.0457	361.0843	361
17	150	–1.6392	208.9016	209	**59**	10,240	1.1138	364.9326	365
18	257	–1.5568	213.4940	213	**60**	10,801	1.1833	368.7566	369
19	392	–1.4761	218.1684	218	**61**	10,897	1.2544	372.6454	373
20	538	–1.3972	222.4948	222	**62**	11,113	1.3272	376.8420	377
21	680	–1.3200	226.9200	227	**63**	11,253	1.4020	380.7750	381
22	941	–1.2443	231.2256	231	**64**	11,504	1.4790	385.1168	385
23	1,187	–1.1701	235.4713	235	**65**	11,435	1.5585	389.4333	389
24	1,461	–1.0974	239.5331	240	**66**	11,382	1.6408	393.7679	394
25	1,704	–1.0259	243.5052	244	**67**	11,574	1.7263	398.2631	398
26	1,833	–0.9558	247.5701	248	**68**	11,634	1.8154	402.9082	403
27	2,044	–0.8868	251.4838	251	**69**	11,422	1.9088	407.7451	408
28	2,261	–0.8189	255.2884	255	**70**	11,342	2.0070	412.8187	413
29	2,485	–0.7521	258.9360	259	**71**	11,106	2.1109	418.0706	418
30	2,691	–0.6863	262.5860	263	**72**	10,702	2.2215	423.8115	424
31	2,856	–0.6213	266.2352	266	**73**	10,496	2.3403	429.8181	430
32	3,032	–0.5571	269.8818	270	**74**	10,066	2.4689	436.4083	436
33	3,242	–0.4936	273.5209	274	**75**	9,394	2.6096	443.8028	444
34	3,357	–0.4309	277.1523	277	**76**	8,538	2.7659	451.8771	452
35	3,588	–0.3687	280.7742	281	**77**	7,736	2.9425	461.4605	461
36	3,752	–0.3070	284.2893	284	**78**	6,530	3.1473	472.9938	473

Grade 7 (without essay)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0006	150	**42**	297	0.4422	324.4738	324
1	1	–4.5036	43.7161	150	**43**	279	0.5058	327.9865	328
2	0	–3.7867	85.2589	150	**44**	293	0.5698	331.5564	332
3	0	–3.3573	110.0917	150	**45**	302	0.6343	335.3305	335
4	0	–3.0453	127.8524	150	**46**	315	0.6995	338.9292	339
5	0	–2.7977	141.7914	150	**47**	298	0.7653	342.5800	343
6	2	–2.5908	153.4415	153	**48**	304	0.8320	346.3532	346
7	5	–2.4118	163.6442	164	**49**	325	0.8996	350.2348	350
8	4	–2.2533	172.5673	173	**50**	277	0.9683	354.0836	354
9	8	–2.1103	180.6635	181	**51**	316	1.0382	357.8933	358
10	9	–1.9795	187.9477	188	**52**	279	1.1094	361.7452	362
11	23	–1.8586	194.8724	195	**53**	273	1.1821	365.8785	366
12	39	–1.7458	201.2990	201	**54**	268	1.2566	370.1875	370
13	53	–1.6397	207.1692	207	**55**	285	1.3330	374.4527	374
14	99	–1.5394	212.7964	213	**56**	266	1.4115	378.8538	379
15	114	–1.4439	218.2375	218	**57**	272	1.4925	383.5011	384
16	173	–1.3526	223.3503	223	**58**	245	1.5763	388.2088	388
17	197	–1.2650	228.3862	228	**59**	277	1.6633	393.0893	393
18	234	–1.1806	233.1974	233	**60**	235	1.7538	398.1787	398
19	270	–1.0990	237.7482	238	**61**	222	1.8486	403.5178	404
20	306	–1.0199	242.2513	242	**62**	237	1.9482	409.0443	409
21	312	–0.9429	246.4636	246	**63**	202	2.0535	414.7880	415
22	291	–0.8680	250.5196	251	**64**	189	2.1654	421.1395	421
23	325	–0.7948	254.7461	255	**65**	173	2.2855	427.9783	428
24	287	–0.7231	258.8449	259	**66**	143	2.4154	435.2063	435
25	277	–0.6528	262.8831	263	**67**	135	2.5575	443.1504	443
26	337	–0.5838	266.7195	267	**68**	130	2.7150	452.0429	452
27	279	–0.5158	270.4285	270	**69**	116	2.8929	462.1602	462
28	262	–0.4488	274.1249	274	**70**	70	3.0989	473.9883	474
29	298	–0.3827	277.8056	278	**71**	60	3.3454	488.3255	488
30	266	–0.3173	281.4714	281	**72**	46	3.6562	506.6462	507
31	297	–0.2525	285.1216	285	**73**	21	4.0845	532.0444	532
32	278	–0.1883	288.7553	289	**74**	14	4.7996	569.7336	570
33	284	–0.1245	292.3718	292	**75**	4	N/A	625.1589	600
34	279	–0.0611	295.9701	296					
35	275	0.0020	299.5496	300					
36	266	0.0649	303.1093	303					

Grade 7									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
37	3,967	–0.2459	287.5783	288	**79**	5,370	3.3926	486.9875	487
38	4,274	–0.1851	291.0061	291	**80**	4,032	3.7021	504.5044	505
39	4,405	–0.1246	294.5758	295	**81**	2,636	4.1293	530.2417	530
40	4,758	–0.0644	298.0098	298	**82**	1,341	4.8430	569.8659	570
41	5,194	–0.0045	301.2523	301	**83**	422	N/A	628.5192	600

Grade 7 (without essay)									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
37	277	0.1276	306.6479	307					
38	311	0.1903	310.1654	310					
39	284	0.2531	313.6609	314					
40	261	0.3159	317.1337	317					
41	284	0.3789	320.6655	321					

Note: Performance-level cut scores are highlighted.

Table 8.D.62 New Conversions for ELA, Grade Eight (paper-and-pencil version and braille version)

Grade 8 (paper-and-pencil)

Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0007	150	**38**	6,600	0.0004	316.8737	317
1	5	–4.5723	56.2875	150	**39**	7,003	0.0597	320.1655	320
2	1	–3.8580	99.4304	150	**40**	7,206	0.1191	323.5796	324
3	2	–3.4311	124.0893	150	**41**	7,391	0.1787	327.2132	327
4	2	–3.1219	141.6507	150	**42**	7,648	0.2385	330.4352	330
5	5	–2.8770	155.4285	155	**43**	8,020	0.2987	333.7078	334
6	7	–2.6729	166.8647	167	**44**	7,876	0.3594	337.2876	337
7	5	–2.4969	176.8429	177	**45**	8,322	0.4205	340.5570	341
8	20	–2.3413	185.5633	186	**46**	8,422	0.4823	343.8137	344
9	47	–2.2014	193.5416	194	**47**	8,879	0.5448	347.5604	348
10	86	–2.0737	200.5396	201	**48**	9,137	0.6081	351.0624	351
11	152	–1.9559	207.3449	207	**49**	9,210	0.6724	354.4683	354
12	234	–1.8463	213.2978	213	**50**	9,536	0.7377	358.1513	358
13	377	–1.7435	219.3445	219	**51**	9,764	0.8042	362.2472	362
14	642	–1.6464	224.8154	225	**52**	10,215	0.8721	366.0189	366
15	890	–1.5542	229.7336	230	**53**	10,379	0.9415	369.6963	370
16	1,277	–1.4663	234.8580	235	**54**	10,747	1.0127	373.8085	374
17	1,696	–1.3820	239.4150	239	**55**	11,045	1.0858	377.9908	378
18	2,119	–1.3010	243.9371	244	**56**	11,247	1.1610	382.1476	382
19	2,556	–1.2228	248.3860	248	**57**	11,645	1.2387	386.4672	386
20	3,010	–1.1471	252.6026	253	**58**	11,909	1.3192	391.0596	391
21	3,375	–1.0737	256.6096	257	**59**	11,942	1.4029	395.7256	396
22	3,639	–1.0022	260.5836	261	**60**	12,056	1.4902	400.5981	401
23	3,839	–0.9324	264.6920	265	**61**	12,405	1.5818	405.7000	406
24	4,179	–0.8643	268.5719	269	**62**	12,266	1.6781	411.0906	411
25	4,338	–0.7975	272.3651	272	**63**	12,182	1.7802	416.9545	417
26	4,575	–0.7319	275.9229	276	**64**	12,068	1.8889	423.1222	423
27	4,645	–0.6674	279.4569	279	**65**	11,859	2.0057	429.5086	430
28	4,921	–0.6039	282.9678	283	**66**	11,147	2.1324	436.5878	437
29	5,027	–0.5413	286.4546	286	**67**	10,508	2.2713	444.5270	445
30	5,186	–0.4794	289.9192	290	**68**	9,692	2.4257	453.1437	453
31	5,311	–0.4181	293.3618	293	**69**	8,344	2.6004	462.9275	463
32	5,514	–0.3574	296.7829	297	**70**	7,140	2.8031	474.3702	474
33	5,648	–0.2971	300.1826	300	**71**	5,539	3.0465	488.1831	488
34	5,897	–0.2372	303.5614	304	**72**	3,757	3.3542	505.8808	506
35	6,134	–0.1775	306.9196	307	**73**	2,203	3.7791	530.1535	530
36	6,184	–0.1181	310.2576	310	**74**	938	4.4917	569.4037	569
37	6,528	–0.0588	313.5754	314	**75**	263	N/A	633.1989	600

Grade 8 (braille)

Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0007	150	**38**	0	0.0564	319.9787	320
1	0	–4.5497	57.3250	150	**39**	0	0.1173	323.4676	323
2	0	–3.8347	100.6249	150	**40**	0	0.1785	327.2025	327
3	0	–3.4072	125.3670	150	**41**	1	0.2399	330.5102	331
4	0	–3.0973	143.0094	150	**42**	0	0.3018	333.8899	334
5	0	–2.8519	156.8050	157	**43**	0	0.3641	337.5406	338
6	0	–2.6471	168.3516	168	**44**	0	0.4269	340.8930	341
7	0	–2.4704	178.3458	178	**45**	2	0.4905	344.3084	344
8	0	–2.3142	187.1131	187	**46**	0	0.5548	348.1180	348
9	0	–2.1736	195.1766	195	**47**	0	0.6200	351.7000	352
10	0	–2.0453	202.1103	202	**48**	0	0.6863	355.2527	355
11	0	–1.9269	209.0019	209	**49**	0	0.7537	359.1251	359
12	0	–1.8166	214.9894	215	**50**	3	0.8225	363.2970	363
13	0	–1.7130	221.0491	221	**51**	0	0.8927	367.1262	367
14	0	–1.6153	226.4462	226	**52**	0	0.9647	370.9848	371
15	0	–1.5224	231.5840	232	**53**	1	1.0385	375.3055	375
16	0	–1.4337	236.6002	237	**54**	2	1.1146	379.6007	380
17	0	–1.3487	241.2567	241	**55**	0	1.1930	383.9048	384
18	0	–1.2669	245.8773	246	**56**	0	1.2742	388.4609	388
19	0	–1.1880	250.3345	250	**57**	0	1.3586	393.2846	393
20	0	–1.1115	254.5534	255	**58**	0	1.4466	398.1193	398
21	0	–1.0372	258.5766	259	**59**	0	1.5388	403.3044	403
22	0	–0.9649	262.8238	263	**60**	2	1.6358	408.6713	409
23	0	–0.8943	266.8467	267	**61**	1	1.7385	414.4853	414
24	0	–0.8252	270.8467	271	**62**	0	1.8478	420.8337	421
25	0	–0.7575	274.5319	275	**63**	0	1.9653	427.2519	427
26	1	–0.6910	278.1655	278	**64**	0	2.0925	434.2150	434
27	0	–0.6255	281.7734	282	**65**	0	2.2320	442.2580	442
28	0	–0.5610	285.3576	285	**66**	0	2.3869	450.8882	451
29	1	–0.4973	288.9176	289	**67**	0	2.5623	460.6516	461
30	0	–0.4342	292.4546	292	**68**	0	2.7655	472.0852	472
31	0	–0.3718	295.9691	296	**69**	0	3.0095	485.8213	486
32	2	–0.3099	299.4613	299	**70**	0	3.3177	503.4613	503
33	0	–0.2484	302.9317	303	**71**	0	3.7432	527.4686	527
34	0	–0.1871	306.3807	306	**72**	0	4.4563	567.1463	567
35	0	–0.1261	309.8085	310	**73**	0	N/A	633.1989	600
36	2	–0.0653	313.2153	313					
37	0	–0.0045	316.6020	317					

Note: Performance-level cut scores are highlighted.

Table 8.D.63 New Conversions for ELA, Grade Nine (paper-and-pencil version and braille version)

Grade 9 (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	2	N/A	0.0007	150	**38**	7,398	–0.0005	317.8988	318
1	2	–4.5563	56.1478	150	**39**	7,620	0.0589	321.2969	321
2	6	–3.8432	99.9082	150	**40**	7,853	0.1183	324.6788	325
3	3	–3.4174	123.8222	150	**41**	8,088	0.1780	328.0445	328
4	4	–3.1092	141.9376	150	**42**	8,576	0.2379	331.3939	331
5	8	–2.8653	155.6354	156	**43**	8,920	0.2983	334.7268	335
6	10	–2.6622	166.9449	167	**44**	9,145	0.3590	338.0432	338
7	17	–2.4870	177.1999	177	**45**	9,453	0.4203	341.5947	342
8	28	–2.3323	185.6671	186	**46**	9,688	0.4823	345.1762	345
9	71	–2.1932	193.6060	194	**47**	10,055	0.5450	348.4604	348
10	105	–2.0663	200.7128	201	**48**	10,414	0.6085	352.1965	352
11	216	–1.9492	207.7574	208	**49**	10,822	0.6730	356.0349	356
12	361	–1.8403	213.5716	214	**50**	11,195	0.7386	359.3982	359
13	625	–1.7381	219.4634	219	**51**	11,472	0.8054	363.1892	363
14	989	–1.6416	224.8560	225	**52**	11,866	0.8736	367.0030	367
15	1,348	–1.5500	230.2017	230	**53**	12,000	0.9433	371.0815	371
16	1,878	–1.4626	235.2264	235	**54**	12,260	1.0148	375.1073	375
17	2,267	–1.3788	239.7758	240	**55**	12,231	1.0882	379.2708	379
18	2,797	–1.2983	244.2826	244	**56**	12,421	1.1638	383.5934	384
19	3,340	–1.2205	248.7657	249	**57**	12,392	1.2419	387.9091	388
20	3,849	–1.1452	253.2261	253	**58**	12,624	1.3229	392.7134	393
21	4,089	–1.0721	257.1197	257	**59**	12,578	1.4070	397.5819	398
22	4,412	–1.0010	261.3000	261	**60**	12,488	1.4948	402.5094	403
23	4,570	–0.9315	264.9857	265	**61**	12,184	1.5868	407.8396	408
24	4,627	–0.8636	269.1445	269	**62**	11,876	1.6837	413.2089	413
25	4,800	–0.7971	272.8249	273	**63**	11,495	1.7862	418.8581	419
26	4,831	–0.7318	276.4358	276	**64**	11,197	1.8956	425.1886	425
27	5,096	–0.6675	280.0284	280	**65**	10,340	2.0130	431.7903	432
28	5,190	–0.6042	283.6055	284	**66**	9,805	2.1403	439.0674	439
29	5,171	–0.5417	287.1641	287	**67**	9,045	2.2798	447.1860	447
30	5,618	–0.4799	290.7067	291	**68**	8,083	2.4349	456.0631	456
31	5,722	–0.4188	294.2332	294	**69**	6,999	2.6104	466.1173	466
32	5,936	–0.3581	297.7435	298	**70**	5,945	2.8138	477.8520	478
33	6,115	–0.2979	301.1390	301	**71**	4,852	3.0580	491.9263	492
34	6,277	–0.2380	304.1658	304	**72**	3,530	3.3665	509.7376	510
35	6,603	–0.1785	307.6083	308	**73**	2,182	3.7923	534.9806	535
36	6,701	–0.1190	311.0547	311	**74**	1,124	4.5059	575.2193	575
37	7,155	–0.0597	314.4829	314	**75**	396	N/A	639.4489	600

Grade 9 (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0007	150	**38**	0	0.0267	319.4550	319
1	0	–4.5476	56.5254	150	**39**	1	0.0870	322.8968	323
2	0	–3.8341	100.3253	150	**40**	0	0.1474	326.3219	326
3	0	–3.4081	124.3013	150	**41**	0	0.2081	329.7305	330
4	0	–3.0996	142.4268	150	**42**	0	0.2692	333.1225	333
5	0	–2.8554	156.1524	156	**43**	0	0.3306	336.4977	336
6	0	–2.6520	167.5125	168	**44**	0	0.3926	339.9876	340
7	0	–2.4765	177.7637	178	**45**	2	0.4552	343.6169	344
8	0	–2.3215	186.2659	186	**46**	0	0.5185	347.0903	347
9	0	–2.1820	194.2225	194	**47**	1	0.5827	350.6725	351
10	0	–2.0547	201.3844	201	**48**	0	0.6478	354.5419	355
11	0	–1.9374	208.4016	208	**49**	0	0.7140	358.1587	358
12	0	–1.8280	214.2557	214	**50**	1	0.7813	361.8191	362
13	0	–1.7255	220.1662	220	**51**	1	0.8501	365.7003	366
14	0	–1.6286	225.5989	226	**52**	0	0.9204	369.7422	370
15	1	–1.5366	230.9670	231	**53**	0	0.9924	373.8602	374
16	0	–1.4488	235.9784	236	**54**	0	1.0663	378.0378	378
17	0	–1.3646	240.5585	241	**55**	0	1.1425	382.3810	382
18	0	–1.2837	245.1146	245	**56**	1	1.2210	386.7720	387
19	0	–1.2054	249.6482	250	**57**	0	1.3025	391.5027	392
20	1	–1.1297	254.0643	254	**58**	0	1.3871	396.4490	396
21	0	–1.0561	258.0371	258	**59**	1	1.4754	401.4360	401
22	2	–0.9845	262.1849	262	**60**	1	1.5678	406.7482	407
23	1	–0.9146	265.9977	266	**61**	1	1.6652	412.2069	412
24	0	–0.8462	270.1222	270	**62**	0	1.7682	417.8786	418
25	1	–0.7791	273.8154	274	**63**	0	1.8780	424.1771	424
26	0	–0.7132	277.4680	277	**64**	0	1.9958	430.8509	431
27	1	–0.6484	281.1041	281	**65**	2	2.1236	438.1274	438
28	0	–0.5845	284.7243	285	**66**	0	2.2635	446.2587	446
29	0	–0.5213	288.3266	288	**67**	0	2.4190	455.1845	455
30	1	–0.4589	291.9130	292	**68**	0	2.5949	465.2637	465
31	0	–0.3971	295.4833	295	**69**	1	2.7987	477.0247	477
32	1	–0.3358	299.0038	299	**70**	0	3.0433	491.1363	491
33	0	–0.2749	302.3128	302	**71**	0	3.3522	508.9898	509
34	0	–0.2142	305.5279	306	**72**	0	3.7784	534.2759	534
35	0	–0.1539	309.0339	309	**73**	0	4.4923	574.6626	575
36	1	–0.0937	312.5223	313	**74**	0	N/A	639.4489	600
37	0	–0.0335	315.9967	316					

Note: Performance-level cut scores are highlighted.

Table 8.D.64 New Conversions for ELA, Grades Ten and Eleven

Grade 10										Grade 11									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	0.4011	150	**38**	6,489	–0.2314	304.6502	305	**0**	1	N/A	0.0003	150	**38**	6,213	–0.2543	296.9829	297
1	3	–4.8137	59.7347	150	**39**	6,891	–0.1720	307.8409	308	**1**	8	–4.7849	25.0648	150	**39**	6,500	–0.1957	300.4716	300
2	2	–4.0992	98.8299	150	**40**	7,393	–0.1125	310.8068	311	**2**	3	–4.0727	63.8565	150	**40**	6,824	–0.1370	303.9622	304
3	9	–3.6721	124.1288	150	**41**	7,514	–0.0528	313.7146	314	**3**	3	–3.6477	91.4764	150	**41**	6,925	–0.0780	307.4552	307
4	2	–3.3626	141.2819	150	**42**	7,810	0.0071	316.8757	317	**4**	8	–3.3404	110.5015	150	**42**	7,434	–0.0188	310.9500	311
5	16	–3.1175	154.2473	154	**43**	8,247	0.0674	320.0550	320	**5**	9	–3.0973	125.3098	150	**43**	7,815	0.0408	314.7628	315
6	16	–2.9132	164.7435	165	**44**	8,304	0.1282	323.2313	323	**6**	12	–2.8949	137.8935	150	**44**	8,065	0.1008	318.5072	319
7	25	–2.7368	173.9876	174	**45**	8,682	0.1894	326.4037	326	**7**	18	–2.7205	148.7506	150	**45**	8,533	0.1613	322.0641	322
8	31	–2.5810	182.2508	182	**46**	9,059	0.2513	329.5725	330	**8**	28	–2.5666	157.7920	158	**46**	8,805	0.2225	325.5767	326
9	65	–2.4407	189.6162	190	**47**	9,256	0.3139	332.8170	333	**9**	55	–2.4281	166.3018	166	**47**	9,105	0.2844	329.2612	329
10	130	–2.3128	196.2187	196	**48**	9,777	0.3773	336.2955	336	**10**	79	–2.3019	173.8057	174	**48**	9,630	0.3472	333.1176	333
11	225	–2.1947	202.3865	202	**49**	10,102	0.4417	339.5756	340	**11**	166	–2.1856	180.7911	181	**49**	10,111	0.4108	337.0640	337
12	387	–2.0847	208.1584	208	**50**	10,265	0.5072	343.0205	343	**12**	321	–2.0773	187.2772	187	**50**	10,372	0.4756	340.8493	341
13	642	–1.9815	213.5913	214	**51**	10,642	0.5739	346.3762	346	**13**	517	–1.9758	193.6845	194	**51**	10,858	0.5416	344.8977	345
14	1,027	–1.8841	218.7281	219	**52**	10,918	0.6419	350.0141	350	**14**	831	–1.8799	199.2719	199	**52**	11,033	0.6090	348.6832	349
15	1,442	–1.7916	223.4318	223	**53**	11,152	0.7115	353.7171	354	**15**	1,250	–1.7890	204.5747	205	**53**	11,358	0.6779	352.8343	353
16	2,000	–1.7034	227.9021	228	**54**	11,553	0.7829	357.0301	357	**16**	1,803	–1.7022	209.9680	210	**54**	11,904	0.7485	357.1259	357
17	2,499	–1.6188	232.3331	232	**55**	11,715	0.8562	361.0081	361	**17**	2,129	–1.6191	215.0334	215	**55**	12,262	0.8211	361.4314	361
18	3,089	–1.5374	236.7482	237	**56**	12,033	0.9317	365.0489	365	**18**	2,568	–1.5392	219.6612	220	**56**	12,634	0.8958	366.1729	366
19	3,596	–1.4589	240.9917	241	**57**	12,303	1.0097	368.9006	369	**19**	3,162	–1.4620	224.5365	225	**57**	12,848	0.9731	370.6969	371
20	3,944	–1.3829	244.8122	245	**58**	12,249	1.0906	373.1094	373	**20**	3,617	–1.3874	229.0867	229	**58**	12,970	1.0531	375.6495	376
21	4,065	–1.3092	248.6383	249	**59**	12,492	1.1746	377.4637	377	**21**	3,948	–1.3149	233.3086	233	**59**	13,032	1.1363	380.2158	380
22	4,207	–1.2374	252.4694	252	**60**	12,741	1.2624	382.1020	382	**22**	4,237	–1.2444	237.5253	238	**60**	13,206	1.2232	385.5694	386
23	4,435	–1.1674	256.0782	256	**61**	12,555	1.3544	387.0302	387	**23**	4,442	–1.1756	241.7360	242	**61**	12,894	1.3143	391.1681	391
24	4,423	–1.0989	259.6623	260	**62**	12,494	1.4513	392.0043	392	**24**	4,670	–1.1083	245.9426	246	**62**	12,726	1.4102	396.8278	397
25	4,469	–1.0318	263.0128	263	**63**	12,463	1.5540	397.4732	397	**25**	4,541	–1.0424	249.7517	250	**63**	12,559	1.5118	403.0100	403
26	4,409	–0.9660	266.3878	266	**64**	12,400	1.6635	403.0318	403	**26**	4,564	–0.9777	253.6761	254	**64**	11,925	1.6202	409.6387	410
27	4,436	–0.9013	269.8619	270	**65**	12,052	1.7811	408.9870	409	**27**	4,637	–0.9141	257.4079	257	**65**	11,427	1.7367	416.4298	416
28	4,515	–0.8376	273.1652	273	**66**	11,522	1.9086	415.7687	416	**28**	4,553	–0.8514	261.0991	261	**66**	10,664	1.8629	423.8414	424
29	4,755	–0.7747	276.3695	276	**67**	10,861	2.0485	422.9914	423	**29**	4,531	–0.7895	264.8880	265	**67**	9,616	2.0015	432.3657	432
30	4,753	–0.7126	279.5739	280	**68**	9,863	2.2040	431.2397	431	**30**	4,715	–0.7284	268.5223	269	**68**	8,389	2.1555	441.7483	442
31	4,898	–0.6511	282.7782	283	**69**	8,595	2.3801	440.4576	440	**31**	4,912	–0.6679	272.2168	272	**69**	7,011	2.3300	452.1998	452
32	5,092	–0.5902	285.9817	286	**70**	7,285	2.5842	451.0623	451	**32**	4,981	–0.6079	276.0659	276	**70**	5,435	2.5324	464.5871	465
33	5,278	–0.5297	289.1837	289	**71**	5,743	2.8290	464.1066	464	**33**	5,350	–0.5484	279.5522	280	**71**	3,818	2.7754	478.9537	479
34	5,641	–0.4696	292.3846	292	**72**	3,942	3.1385	480.5984	481	**34**	5,388	–0.4892	283.0380	283	**72**	2,311	3.0829	497.9458	498
35	5,833	–0.4098	295.3917	295	**73**	2,354	3.5656	503.7020	504	**35**	5,539	–0.4303	286.5237	287	**73**	1,058	3.5078	524.8502	525
36	6,074	–0.3503	298.3176	298	**74**	1,050	4.2803	541.9829	542	**36**	5,765	–0.3715	290.0097	290	**74**	378	4.2201	570.5036	571
37	6,255	–0.2908	301.4570	301	**75**	266	N/A	608.7990	600	**37**	6,191	–0.3129	293.4958	293	**75**	68	N/A	661.7838	600

Note: Performance-level cut scores are highlighted.

Table 8.D.65 New Conversions for History–Social Science, Grade Eight and World History

Grade 8

Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0007	150	**38**	7,689	–0.0564	311.0096	311
1	4	–4.5806	35.4862	150	**39**	7,910	0.0017	314.6381	315
2	2	–3.8683	67.3864	150	**40**	8,291	0.0599	318.2817	318
3	3	–3.4433	94.5475	150	**41**	8,126	0.1183	321.9416	322
4	2	–3.1358	116.1606	150	**42**	8,743	0.1769	325.6166	326
5	4	–2.8927	131.8145	150	**43**	8,581	0.2359	329.3066	329
6	6	–2.6903	144.8045	150	**44**	9,065	0.2953	333.0110	333
7	3	–2.5158	156.1041	156	**45**	9,380	0.3553	336.7297	337
8	13	–2.3618	165.9424	166	**46**	9,385	0.4158	340.7275	341
9	45	–2.2233	174.5328	175	**47**	9,565	0.4770	344.7776	345
10	73	–2.0971	182.4952	182	**48**	9,855	0.5391	348.5969	349
11	151	–1.9808	189.9174	190	**49**	10,055	0.6021	352.4538	352
12	264	–1.8725	196.8569	197	**50**	10,050	0.6662	356.6684	357
13	497	–1.7710	203.3116	203	**51**	10,392	0.7315	360.5825	361
14	863	–1.6752	209.3569	209	**52**	10,846	0.7981	364.7404	365
15	1,324	–1.5843	215.1176	215	**53**	10,693	0.8662	369.0982	369
16	1,844	–1.4976	220.5764	221	**54**	10,919	0.9361	373.4797	373
17	2,463	–1.4146	225.7308	226	**55**	10,974	1.0079	377.8722	378
18	3,057	–1.3348	230.7942	231	**56**	10,847	1.0819	382.3898	382
19	3,578	–1.2578	235.7799	236	**57**	11,067	1.1584	387.2578	387
20	4,230	–1.1833	240.5632	241	**58**	11,027	1.2376	392.2784	392
21	4,678	–1.1110	245.0332	245	**59**	11,148	1.3200	397.6491	398
22	5,061	–1.0406	249.2744	249	**60**	11,018	1.4061	403.2147	403
23	5,414	–0.9720	253.5449	254	**61**	10,986	1.4964	408.7935	409
24	5,605	–0.9050	257.8298	258	**62**	10,753	1.5915	414.5793	415
25	5,864	–0.8393	261.9173	262	**63**	10,651	1.6923	420.8789	421
26	5,739	–0.7749	265.7963	266	**64**	10,605	1.7999	427.7507	428
27	6,010	–0.7116	269.6910	270	**65**	9,989	1.9155	435.0778	435
28	6,034	–0.6492	273.6101	274	**66**	9,601	2.0410	442.8632	443
29	5,930	–0.5877	277.5508	278	**67**	9,195	2.1787	451.7630	452
30	6,287	–0.5269	281.5143	282	**68**	8,538	2.3319	461.3721	461
31	6,288	–0.4668	285.3477	285	**69**	7,860	2.5056	472.3100	472
32	6,567	–0.4072	289.0480	289	**70**	6,946	2.7072	485.1456	485
33	6,867	–0.3481	292.8821	293	**71**	5,516	2.9495	500.5466	501
34	6,925	–0.2893	296.6625	297	**72**	4,343	3.2562	520.2341	520
35	6,842	–0.2308	300.2234	300	**73**	2,811	3.6802	549.2891	549
36	7,272	–0.1726	303.8017	304	**74**	1,480	4.3918	595.3420	595
37	7,265	–0.1145	307.3971	307	**75**	448	N/A	661.2691	600

World History

Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	71	N/A	0.0003	150	**38**	12,559	0.3297	333.3444	333
1	186	–4.4941	34.3060	150	**39**	12,889	0.4074	338.3085	338
2	198	–3.7779	66.8031	150	**40**	13,134	0.4867	343.3372	343
3	154	–3.3490	96.3123	150	**41**	13,372	0.5679	348.4270	348
4	157	–3.0376	116.0964	150	**42**	13,458	0.6513	353.5793	354
5	144	–2.7904	132.7362	150	**43**	13,608	0.7373	359.4342	359
6	164	–2.5838	146.3377	150	**44**	14,073	0.8262	364.9050	365
7	197	–2.4050	157.3549	157	**45**	13,892	0.9185	371.0082	371
8	370	–2.2466	167.6022	168	**46**	14,042	1.0149	377.1828	377
9	624	–2.1037	177.1832	177	**47**	14,382	1.1159	383.4288	383
10	1,090	–1.9728	185.6348	186	**48**	13,979	1.2225	390.4823	390
11	1,606	–1.8516	193.1881	193	**49**	13,930	1.3357	397.6716	398
12	2,352	–1.7384	200.2720	200	**50**	13,651	1.4568	405.3618	405
13	3,280	–1.6318	207.1271	207	**51**	13,413	1.5876	414.1228	414
14	4,044	–1.5307	213.6345	214	**52**	12,896	1.7305	423.1946	423
15	4,697	–1.4343	219.8311	220	**53**	12,297	1.8888	433.0352	433
16	5,441	–1.3418	225.7374	226	**54**	11,500	2.0675	444.5218	445
17	5,931	–1.2529	231.5031	232	**55**	10,307	2.2740	458.0343	458
18	6,153	–1.1669	237.2913	237	**56**	9,121	2.5211	473.9397	474
19	6,429	–1.0834	242.6918	243	**57**	7,715	2.8324	493.7880	494
20	6,476	–1.0022	247.6594	248	**58**	5,757	3.2614	521.9407	522
21	6,729	–0.9228	252.6654	253	**59**	3,795	3.9775	570.7011	571
22	6,806	–0.8452	257.7433	258	**60**	1,749	N/A	666.7195	600
23	6,913	–0.7689	262.6089	263					
24	7,234	–0.6937	267.4806	267					
25	7,319	–0.6196	272.4293	272					
26	7,555	–0.5463	276.7423	277					
27	7,917	–0.4736	281.5864	282					
28	8,143	–0.4013	286.4255	286					
29	8,555	–0.3294	290.7820	291					
30	9,082	–0.2576	295.2433	295					
31	9,447	–0.1859	300.3137	300					
32	10,015	–0.1139	304.8496	305					
33	10,432	–0.0417	309.4460	309					
34	10,941	0.0310	314.1031	314					
35	11,227	0.1043	318.8212	319					
36	11,772	0.1784	323.6007	324					
37	12,042	0.2535	328.4418	328					

Note: Performance-level cut scores are highlighted.

Table 8.D.66 New Conversion for History–Social Science, Grade Eleven

Grade 11									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	4	N/A	0.0003	150	**31**	9,103	–0.1968	309.3016	309
1	12	–4.6094	35.0043	150	**32**	9,348	–0.1226	313.9767	314
2	10	–3.8874	69.0927	150	**33**	10,016	–0.0480	318.6911	319
3	11	–3.4530	100.0466	150	**34**	10,426	0.0269	323.4439	323
4	19	–3.1364	120.9087	150	**35**	10,901	0.1025	328.2343	328
5	23	–2.8843	136.8028	150	**36**	11,433	0.1788	333.0611	333
6	53	–2.6729	150.4372	150	**37**	11,569	0.2561	337.9234	338
7	138	–2.4897	162.4116	162	**38**	12,001	0.3346	343.2513	343
8	296	–2.3270	173.0235	173	**39**	12,728	0.4144	348.3891	348
9	551	–2.1800	182.3095	182	**40**	13,011	0.4958	353.3523	353
10	1,022	–2.0452	190.9262	191	**41**	13,406	0.5791	358.9831	359
11	1,676	–1.9202	198.8460	199	**42**	13,942	0.6646	364.0831	364
12	2,519	–1.8033	206.3392	206	**43**	14,209	0.7526	369.8552	370
13	3,361	–1.6931	213.8131	214	**44**	14,292	0.8436	375.6579	376
14	4,351	–1.5886	220.4113	220	**45**	14,684	0.9380	381.8206	382
15	5,385	–1.4889	226.5681	227	**46**	14,380	1.0363	387.9880	388
16	6,012	–1.3932	232.7744	233	**47**	14,595	1.1393	394.3906	394
17	6,538	–1.3011	238.6752	239	**48**	14,215	1.2478	401.6504	402
18	7,139	–1.2121	244.4588	244	**49**	13,683	1.3629	409.0641	409
19	7,123	–1.1257	250.0440	250	**50**	13,179	1.4859	416.6800	417
20	7,283	–1.0415	255.3733	255	**51**	12,534	1.6186	425.1679	425
21	7,255	–0.9593	260.5865	261	**52**	11,285	1.7633	434.5300	435
22	7,231	–0.8789	265.5752	266	**53**	10,090	1.9234	444.7659	445
23	7,305	–0.7999	270.9696	271	**54**	8,636	2.1038	456.4969	456
24	7,521	–0.7221	275.8256	276	**55**	7,228	2.3121	469.5739	470
25	7,589	–0.6454	280.2836	280	**56**	5,508	2.5609	485.9417	486
26	7,730	–0.5695	285.3375	285	**57**	4,089	2.8739	506.1347	506
27	7,732	–0.4942	290.3714	290	**58**	2,558	3.3043	534.4586	534
28	8,177	–0.4195	294.8809	295	**59**	1,310	4.0219	581.5887	582
29	8,510	–0.3452	299.5176	300	**60**	417	N/A	667.4795	600
30	8,784	–0.2710	304.6667	305					

Note: Performance-level cut scores are highlighted

Table 8.D.67 New Conversions for Mathematics, Grades Two and Three

Grade 2										Grade 3									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0000	150	**33**	4,863	–0.8667	276.6371	277	**0**	0	N/A	0.0000	150	**33**	3,904	–0.7263	279.1051	279
1	0	–5.3756	2.6747	150	**34**	5,250	–0.7930	281.1518	281	**1**	2	–5.2610	8.5184	150	**34**	4,250	–0.6529	283.3896	283
2	3	–4.6587	39.8296	150	**35**	5,564	–0.7190	286.0077	286	**2**	0	–4.5416	50.0441	150	**35**	4,523	–0.5791	287.8665	288
3	0	–4.2290	66.9679	150	**36**	5,899	–0.6445	290.5625	291	**3**	1	–4.1095	76.6690	150	**36**	5,045	–0.5049	292.1839	292
4	2	–3.9165	86.6283	150	**37**	6,175	–0.5695	295.0181	295	**4**	4	–3.7949	95.9023	150	**37**	5,250	–0.4301	296.6624	297
5	2	–3.6683	102.3721	150	**38**	6,584	–0.4938	299.6171	300	**5**	1	–3.5446	111.1472	150	**38**	5,553	–0.3547	301.3398	301
6	0	–3.4604	115.2215	150	**39**	7,083	–0.4173	304.4911	304	**6**	6	–3.3348	123.7527	150	**39**	6,147	–0.2783	305.7388	306
7	9	–3.2804	126.5928	150	**40**	7,267	–0.3398	309.2016	309	**7**	9	–3.1530	134.6952	150	**40**	6,484	–0.2010	310.2339	310
8	21	–3.1206	136.3105	150	**41**	7,912	–0.2611	314.2519	314	**8**	17	–2.9916	144.2447	150	**41**	6,956	–0.1226	314.9344	315
9	42	–2.9761	145.3577	150	**42**	8,515	–0.1812	319.3777	319	**9**	28	–2.8456	153.0476	153	**42**	7,193	–0.0428	319.6881	320
10	79	–2.8436	153.6004	154	**43**	9,023	–0.0997	324.5036	325	**10**	40	–2.7117	161.0047	161	**43**	7,908	0.0385	324.7563	325
11	169	–2.7207	160.9868	161	**44**	9,613	–0.0167	329.6279	330	**11**	81	–2.5876	168.2213	168	**44**	8,281	0.1216	329.7853	330
12	243	–2.6057	168.2678	168	**45**	9,970	0.0683	334.7639	335	**12**	167	–2.4715	175.3058	175	**45**	9,018	0.2066	334.9179	335
13	472	–2.4972	175.1834	175	**46**	10,486	0.1555	340.0654	340	**13**	230	–2.3619	181.9979	182	**46**	9,515	0.2938	339.9786	340
14	646	–2.3942	181.4231	181	**47**	11,107	0.2451	345.8083	346	**14**	339	–2.2579	187.9746	188	**47**	9,908	0.3836	345.1325	345
15	871	–2.2957	187.4699	187	**48**	11,885	0.3375	351.5674	352	**15**	482	–2.1587	193.8287	194	**48**	10,690	0.4763	350.8178	351
16	1,142	–2.2012	193.5176	194	**49**	12,511	0.4330	357.5100	358	**16**	595	–2.0634	199.6690	200	**49**	11,424	0.5723	356.5403	357
17	1,389	–2.1102	199.4127	199	**50**	13,088	0.5322	363.8394	364	**17**	717	–1.9717	205.3764	205	**50**	11,882	0.6721	362.3239	362
18	1,626	–2.0220	204.8543	205	**51**	13,928	0.6356	370.1461	370	**18**	853	–1.8829	210.5637	211	**51**	12,531	0.7763	368.6785	369
19	1,833	–1.9363	209.9710	210	**52**	14,901	0.7439	376.7491	377	**19**	971	–1.7968	215.3506	215	**52**	13,398	0.8855	375.3729	375
20	2,049	–1.8528	215.1905	215	**53**	15,727	0.8579	383.9245	384	**20**	1,205	–1.7129	220.4602	220	**53**	13,823	1.0007	382.1041	382
21	2,277	–1.7713	220.1922	220	**54**	16,724	0.9785	391.6726	392	**21**	1,306	–1.6309	225.1971	225	**54**	14,894	1.1230	389.4769	389
22	2,408	–1.6913	225.0740	225	**55**	17,788	1.1073	399.6415	400	**22**	1,445	–1.5507	230.3395	230	**55**	15,865	1.2537	397.4901	397
23	2,489	–1.6127	229.9679	230	**56**	18,350	1.2459	408.2352	408	**23**	1,601	–1.4719	235.0276	235	**56**	16,745	1.3948	405.8780	406
24	2,752	–1.5354	234.8734	235	**57**	19,407	1.3968	417.6923	418	**24**	1,864	–1.3944	239.6628	240	**57**	17,920	1.5486	414.9578	415
25	2,936	–1.4590	239.7935	240	**58**	20,282	1.5632	428.0830	428	**25**	1,980	–1.3179	243.7821	244	**58**	18,705	1.7187	425.0689	425
26	3,057	–1.3835	244.7285	245	**59**	20,771	1.7500	439.9298	440	**26**	2,141	–1.2424	248.3379	248	**59**	19,975	1.9099	436.5564	437
27	3,244	–1.3087	249.1230	249	**60**	21,461	1.9646	453.5699	454	**27**	2,421	–1.1676	252.9709	253	**60**	21,564	2.1303	449.9096	450
28	3,473	–1.2344	254.0242	254	**61**	21,271	2.2201	470.2793	470	**28**	2,629	–1.0934	257.1517	257	**61**	22,968	2.3926	466.0941	466
29	3,692	–1.1606	258.4475	258	**62**	20,645	2.5399	491.1832	491	**29**	2,740	–1.0196	261.6668	262	**62**	23,935	2.7209	486.1854	486
30	4,064	–1.0870	262.8201	263	**63**	18,237	2.9771	520.9220	521	**30**	3,052	–0.9461	265.8786	266	**63**	24,490	3.1689	514.2977	514
31	4,221	–1.0136	267.2561	267	**64**	14,003	3.7014	565.5582	566	**31**	3,342	–0.8728	270.3731	270	**64**	22,663	3.9066	559.2639	559
32	4,559	–0.9402	272.1182	272	**65**	7,386	N/A	632.1190	600	**32**	3,564	–0.7996	274.6229	275	**65**	15,989	N/A	633.7990	600

Note: Performance-level cut scores are highlighted.

Table 8.D.68 New Conversions for Mathematics, Grade Four (paper-and-pencil version and braille version)

Grade 4 (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	2.3408	150	**33**	3,712	–0.6846	289.4548	289
1	1	–5.0981	63.5813	150	**34**	3,876	–0.6147	293.0602	293
2	0	–4.3835	99.6702	150	**35**	3,988	–0.5446	296.6736	297
3	1	–3.9560	121.8612	150	**36**	4,308	–0.4740	300.2948	300
4	1	–3.6460	138.1806	150	**37**	4,491	–0.4029	303.9224	304
5	1	–3.4001	150.9171	151	**38**	4,709	–0.3311	307.5584	308
6	7	–3.1947	161.1668	161	**39**	4,869	–0.2585	311.2010	311
7	2	–3.0171	170.2425	170	**40**	5,136	–0.1849	314.8497	315
8	15	–2.8598	178.3550	178	**41**	5,359	–0.1103	318.8743	319
9	23	–2.7179	185.8789	186	**42**	5,631	–0.0343	322.6646	323
10	62	–2.5880	192.5197	193	**43**	6,176	0.0432	326.3385	326
11	126	–2.4678	198.5839	199	**44**	6,421	0.1223	330.4131	330
12	187	–2.3554	204.1620	204	**45**	6,789	0.2033	334.6041	335
13	265	–2.2497	209.6404	210	**46**	7,378	0.2866	338.8031	339
14	406	–2.1494	214.7364	215	**47**	7,922	0.3724	343.0085	343
15	583	–2.0538	219.7243	220	**48**	8,474	0.4610	347.6747	348
16	746	–1.9622	224.3462	224	**49**	9,033	0.5528	352.4037	352
17	970	–1.8741	228.8478	229	**50**	9,685	0.6484	357.1326	357
18	1,103	–1.7889	233.3462	233	**51**	10,300	0.7483	361.8714	362
19	1,372	–1.7063	237.5078	238	**52**	11,518	0.8532	367.6101	368
20	1,588	–1.6259	241.5317	242	**53**	12,545	0.9640	372.8733	373
21	1,651	–1.5474	245.5470	246	**54**	13,429	1.0816	378.6965	379
22	1,908	–1.4707	249.5689	250	**55**	14,972	1.2075	385.4730	385
23	1,940	–1.3953	253.2795	253	**56**	16,234	1.3436	392.2982	392
24	2,169	–1.3213	257.1479	257	**57**	18,095	1.4921	399.6825	400
25	2,294	–1.2483	260.8564	261	**58**	19,641	1.6565	408.0746	408
26	2,455	–1.1762	264.4263	264	**59**	21,510	1.8416	417.4565	417
27	2,677	–1.1049	268.2863	268	**60**	23,312	2.0551	428.0208	428
28	2,854	–1.0341	272.0235	272	**61**	25,192	2.3096	441.0856	441
29	2,990	–0.9638	275.6171	276	**62**	26,779	2.6289	457.3592	457
30	3,141	–0.8938	279.1923	279	**63**	27,837	3.0662	480.0316	480
31	3,227	–0.8241	282.4675	282	**64**	26,312	3.7910	516.5854	517
32	3,476	–0.7544	285.8823	286	**65**	18,742	N/A	575.5792	600

Grade 4 (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	2.3408	150	**33**	0	–0.6360	291.9620	292
1	0	–5.0716	64.5509	150	**34**	0	–0.5649	295.6267	296
2	0	–4.3565	100.8539	150	**35**	0	–0.4934	299.2982	299
3	0	–3.9286	123.1587	150	**36**	0	–0.4215	302.9750	303
4	0	–3.6181	139.5224	150	**37**	1	–0.3489	306.6593	307
5	0	–3.3717	152.2508	152	**38**	0	–0.2755	310.3491	310
6	0	–3.1658	162.5745	163	**39**	0	–0.2012	314.0440	314
7	0	–2.9877	171.6976	172	**40**	0	–0.1259	318.0174	318
8	0	–2.8299	179.8905	180	**41**	1	–0.0493	321.9379	322
9	0	–2.6875	187.3905	187	**42**	2	0.0288	325.6652	326
10	0	–2.5570	194.0419	194	**43**	0	0.1085	329.6987	330
11	0	–2.4363	200.1122	200	**44**	0	0.1902	333.9296	334
12	0	–2.3234	205.7890	206	**45**	0	0.2740	338.1746	338
13	0	–2.2171	211.2734	211	**46**	0	0.3603	342.4239	342
14	0	–2.1162	216.4442	216	**47**	0	0.4494	347.0680	347
15	0	–2.0201	221.4191	221	**48**	1	0.5417	351.8424	352
16	0	–1.9279	226.0862	226	**49**	1	0.6378	356.6173	357
17	0	–1.8391	230.6771	231	**50**	0	0.7382	361.3995	361
18	0	–1.7532	235.1493	235	**51**	1	0.8435	367.0889	367
19	0	–1.6700	239.3186	239	**52**	0	0.9547	372.4344	372
20	0	–1.5889	243.4113	243	**53**	1	1.0727	378.2377	378
21	0	–1.5098	247.5091	248	**54**	0	1.1990	385.0308	385
22	0	–1.4323	251.4839	251	**55**	0	1.3355	391.8788	392
23	1	–1.3562	255.2910	255	**56**	1	1.4844	399.2683	399
24	0	–1.2814	259.1934	259	**57**	0	1.6491	407.6788	408
25	0	–1.2076	262.8772	263	**58**	0	1.8346	417.0884	417
26	0	–1.1347	266.6319	267	**59**	0	2.0484	427.6499	428
27	0	–1.0624	270.5490	271	**60**	2	2.3033	440.7286	441
28	0	–0.9908	274.2459	274	**61**	0	2.6229	456.9994	457
29	1	–0.9195	277.8774	278	**62**	0	3.0605	479.6481	480
30	1	–0.8485	281.3520	281	**63**	0	3.7857	516.2771	516
31	0	–0.7777	284.7108	285	**64**	0	N/A	575.5792	600
32	0	–0.7069	288.3038	288					

Note: Performance-level cut scores are highlighted.

Table 8.D.69 New Conversions for Mathematics, Grades Five and Six

Grade 5									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	0.0000	150	**33**	6,994	–0.1574	309.7830	310
1	1	–4.7319	8.8376	150	**34**	7,227	–0.0866	314.4156	314
2	1	–3.9990	47.5389	150	**35**	7,516	–0.0156	319.0623	319
3	2	–3.5562	79.3331	150	**36**	7,735	0.0557	323.7276	324
4	1	–3.2329	102.0126	150	**37**	7,777	0.1275	328.4469	328
5	2	–2.9756	119.8206	150	**38**	8,121	0.1999	333.7645	334
6	1	–2.7603	134.5987	150	**39**	8,371	0.2730	338.4814	338
7	6	–2.5739	147.3119	150	**40**	8,618	0.3470	343.2088	343
8	15	–2.4087	158.5401	159	**41**	8,676	0.4220	348.0446	348
9	51	–2.2598	168.5006	169	**42**	9,076	0.4983	353.4496	353
10	72	–2.1235	177.6701	178	**43**	9,142	0.5760	358.7874	359
11	159	–1.9976	186.1779	186	**44**	9,571	0.6553	363.7636	364
12	267	–1.8800	194.0346	194	**45**	9,806	0.7365	369.2146	369
13	412	–1.7694	201.2460	201	**46**	9,967	0.8197	374.7278	375
14	661	–1.6647	208.3171	208	**47**	10,093	0.9055	380.4536	380
15	994	–1.5651	215.3784	215	**48**	10,527	0.9940	386.6519	387
16	1,355	–1.4697	221.5289	222	**49**	10,934	1.0857	392.9095	393
17	1,943	–1.3781	227.7431	228	**50**	11,122	1.1810	399.1825	399
18	2,289	–1.2896	233.7369	234	**51**	11,280	1.2806	405.7560	406
19	2,824	–1.2040	239.5244	240	**52**	11,833	1.3851	412.7337	413
20	3,262	–1.1209	244.9425	245	**53**	12,074	1.4954	420.0841	420
21	3,737	–1.0398	250.4352	250	**54**	12,423	1.6125	427.7980	428
22	4,314	–0.9607	255.8823	256	**55**	12,653	1.7378	435.9262	436
23	4,563	–0.8831	261.0663	261	**56**	13,104	1.8730	445.2082	445
24	4,865	–0.8070	266.2251	266	**57**	13,454	2.0206	455.0615	455
25	5,214	–0.7321	271.1536	271	**58**	13,728	2.1841	465.9075	466
26	5,488	–0.6582	275.9441	276	**59**	14,067	2.3681	478.2213	478
27	5,773	–0.5852	280.8945	281	**60**	14,543	2.5803	492.5413	493
28	5,968	–0.5129	285.6654	286	**61**	14,405	2.8333	509.6146	510
29	6,230	–0.4412	290.6853	291	**62**	14,758	3.1512	530.8658	531
30	6,437	–0.3699	295.3015	295	**63**	13,595	3.5867	560.3127	560
31	6,709	–0.2989	300.0060	300	**64**	11,392	4.3100	609.0558	600
32	6,730	–0.2281	305.1420	305	**65**	7,396	N/A	691.2489	600

Grade 6									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	0.0007	150	**33**	8,401	–0.2468	311.0265	311
1	4	–4.7715	52.6533	150	**34**	8,769	–0.1751	315.1751	315
2	1	–4.0508	91.8612	150	**35**	8,996	–0.1032	319.3255	319
3	1	–3.6176	117.2095	150	**36**	9,011	–0.0310	323.4768	323
4	0	–3.3020	135.3837	150	**37**	9,351	0.0417	327.6285	328
5	0	–3.0509	149.8644	150	**38**	9,880	0.1150	331.7797	332
6	13	–2.8404	162.0426	162	**39**	9,925	0.1890	335.9297	336
7	28	–2.6579	172.5418	173	**40**	10,211	0.2639	340.0776	340
8	59	–2.4959	181.8377	182	**41**	10,517	0.3399	344.3866	344
9	105	–2.3495	190.4124	190	**42**	10,435	0.4171	348.8679	349
10	258	–2.2153	198.1683	198	**43**	10,842	0.4957	353.2522	353
11	426	–2.0910	205.2039	205	**44**	11,075	0.5759	357.9222	358
12	657	–1.9747	211.9686	212	**45**	11,180	0.6580	362.6367	363
13	1,095	–1.8651	218.1818	218	**46**	11,105	0.7422	367.5418	368
14	1,466	–1.7611	224.1824	224	**47**	11,295	0.8288	372.6089	373
15	2,012	–1.6620	229.8720	230	**48**	11,429	0.9181	377.5124	378
16	2,608	–1.5670	235.3320	235	**49**	11,394	1.0106	382.7818	383
17	2,974	–1.4755	240.5174	241	**50**	11,538	1.1067	388.2535	388
18	3,621	–1.3872	245.4198	245	**51**	11,222	1.2070	394.0776	394
19	4,123	–1.3015	250.3354	250	**52**	11,693	1.3123	400.0996	400
20	4,501	–1.2182	255.2314	255	**53**	11,087	1.4232	406.4593	406
21	4,737	–1.1369	260.1805	260	**54**	11,145	1.5409	413.0324	413
22	5,079	–1.0574	264.5829	265	**55**	11,266	1.6668	420.1695	420
23	5,529	–0.9794	268.9178	269	**56**	11,077	1.8025	428.0333	428
24	5,745	–0.9028	273.3394	273	**57**	10,882	1.9506	436.7514	437
25	6,289	–0.8274	277.6991	278	**58**	10,805	2.1144	446.1757	446
26	6,482	–0.7529	282.0950	282	**59**	10,475	2.2987	456.6505	457
27	6,828	–0.6792	286.2115	286	**60**	10,044	2.5111	468.6561	469
28	7,047	–0.6062	290.3347	290	**61**	9,965	2.7643	483.3382	483
29	7,407	–0.5338	294.4639	294	**62**	9,220	3.0821	501.7804	502
30	7,760	–0.4618	298.5984	299	**63**	8,277	3.5177	527.5658	528
31	8,083	–0.3900	302.7375	303	**64**	6,689	4.2408	567.8653	568
32	8,022	–0.3184	306.8804	307	**65**	3,914	N/A	630.3291	600

Note: Performance-level cut scores are highlighted.

Table 8.D.70 New Conversions for Mathematics, Grade Seven (paper-and-pencil version and braille version)

Grade 7 (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	0.0007	150	**33**	8,277	–0.0203	317.9025	318
1	2	–4.4085	53.3072	150	**34**	8,343	0.0475	321.8689	322
2	0	–3.6937	95.5014	150	**35**	8,537	0.1154	326.0403	326
3	2	–3.2661	121.7414	150	**36**	8,753	0.1837	330.2953	330
4	0	–2.9559	140.5675	150	**37**	8,763	0.2524	334.5473	335
5	5	–2.7100	155.6118	156	**38**	8,991	0.3217	338.5551	339
6	10	–2.5046	168.0833	168	**39**	8,998	0.3916	342.5054	343
7	42	–2.3270	178.6065	179	**40**	9,102	0.4624	346.9226	347
8	70	–2.1698	188.1646	188	**41**	9,109	0.5342	351.4627	351
9	160	–2.0281	196.9767	197	**42**	9,289	0.6071	355.7478	356
10	307	–1.8984	204.9031	205	**43**	9,308	0.6814	360.2073	360
11	527	–1.7785	212.0904	212	**44**	9,375	0.7573	364.7624	365
12	928	–1.6665	218.6858	219	**45**	9,569	0.8349	369.2275	369
13	1,443	–1.5612	224.8432	225	**46**	9,228	0.9146	374.0131	374
14	2,008	–1.4614	230.8550	231	**47**	9,404	0.9966	379.0170	379
15	2,677	–1.3664	236.7222	237	**48**	9,572	1.0813	384.2058	384
16	3,311	–1.2754	242.2901	242	**49**	9,508	1.1691	389.1885	389
17	4,105	–1.1879	247.5709	248	**50**	9,571	1.2603	394.7423	395
18	4,753	–1.1035	252.5391	253	**51**	9,653	1.3558	400.7026	401
19	5,175	–1.0217	257.3766	257	**52**	9,382	1.4560	406.6672	407
20	5,628	–0.9422	262.2195	262	**53**	9,487	1.5618	412.9209	413
21	5,992	–0.8648	267.0672	267	**54**	9,339	1.6742	419.8846	420
22	6,306	–0.7891	271.7628	272	**55**	9,352	1.7947	426.6985	427
23	6,556	–0.7149	276.1287	276	**56**	9,049	1.9250	434.6384	435
24	6,765	–0.6421	280.3821	280	**57**	8,827	2.0675	443.4820	443
25	6,787	–0.5704	284.6370	285	**58**	8,719	2.2255	452.6534	453
26	7,009	–0.4997	288.8945	289	**59**	7,914	2.4038	463.5203	464
27	7,299	–0.4298	293.1536	293	**60**	7,569	2.6102	476.0790	476
28	7,501	–0.3606	297.4144	297	**61**	6,701	2.8570	490.6774	491
29	7,736	–0.2920	301.6762	302	**62**	5,979	3.1685	509.9181	510
30	8,004	–0.2238	305.7368	306	**63**	4,845	3.5973	535.5350	536
31	7,952	–0.1558	309.6948	310	**64**	3,484	4.3135	578.3788	578
32	8,229	–0.0880	313.8628	314	**65**	1,864	N/A	648.9990	600

Grade 7 (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0007	150	**33**	0	0.0146	319.9143	320
1	0	–4.3956	53.9819	150	**34**	0	0.0836	324.0506	324
2	0	–3.6804	96.5704	150	**35**	0	0.1529	328.3800	328
3	0	–3.2523	122.7037	150	**36**	0	0.2226	332.7064	333
4	0	–2.9417	141.5023	150	**37**	0	0.2928	336.9302	337
5	0	–2.6954	156.5604	157	**38**	0	0.3636	340.9238	341
6	0	–2.4895	169.0305	169	**39**	1	0.4353	345.1840	345
7	0	–2.3115	179.5433	180	**40**	2	0.5079	349.8082	350
8	0	–2.1538	189.1767	189	**41**	1	0.5816	354.2747	354
9	0	–2.0115	198.0177	198	**42**	1	0.6567	358.7188	359
10	0	–1.8814	205.9366	206	**43**	1	0.7333	363.3290	363
11	0	–1.7609	213.1425	213	**44**	0	0.8116	367.9018	368
12	0	–1.6484	219.7396	220	**45**	0	0.8920	372.6627	373
13	0	–1.5425	225.9421	226	**46**	1	0.9747	377.6916	378
14	0	–1.4422	232.0483	232	**47**	0	1.0600	382.9201	383
15	0	–1.3466	237.9341	238	**48**	1	1.1484	388.0154	388
16	0	–1.2550	243.5374	244	**49**	0	1.2403	393.5227	394
17	1	–1.1669	248.8120	249	**50**	0	1.3363	399.5099	400
18	0	–1.0818	253.8055	254	**51**	0	1.4371	405.5487	406
19	0	–0.9994	258.7233	259	**52**	1	1.5434	411.7862	412
20	0	–0.9192	263.6469	264	**53**	0	1.6564	418.8466	419
21	1	–0.8411	268.5762	269	**54**	0	1.7775	425.6250	426
22	1	–0.7646	273.2167	273	**55**	1	1.9082	433.5439	434
23	0	–0.6897	277.5932	278	**56**	1	2.0512	442.5051	443
24	0	–0.6161	281.9189	282	**57**	0	2.2097	451.6445	452
25	0	–0.5436	286.2471	286	**58**	0	2.3886	462.5265	463
26	0	–0.4720	290.5775	291	**59**	0	2.5954	475.1417	475
27	0	–0.4012	294.9101	295	**60**	0	2.8427	489.6932	490
28	0	–0.3311	299.2444	299	**61**	0	3.1546	508.9615	509
29	3	–0.2615	303.5796	304	**62**	0	3.5839	534.4570	534
30	1	–0.1922	307.5231	308	**63**	0	4.3006	577.4766	577
31	0	–0.1232	311.6509	312	**64**	0	N/A	648.9990	600
32	2	–0.0543	315.9609	316					

Note: Performance-level cut scores are highlighted.

Table 8.D.71 New Conversions for General Mathematics

General Mathematics									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
0	0	N/A	0.0003	150	**33**	4,929	0.1615	313.9590	314
1	1	–4.2068	49.7129	150	**34**	4,969	0.2278	318.0255	318
2	2	–3.4913	90.9427	150	**35**	4,802	0.2943	321.7709	322
3	2	–3.0632	117.4867	150	**36**	4,857	0.3611	325.9824	326
4	5	–2.7526	136.4295	150	**37**	4,806	0.4282	330.1976	330
5	9	–2.5064	151.5480	152	**38**	4,678	0.4959	334.4166	334
6	17	–2.3008	164.2612	164	**39**	4,677	0.5643	338.4908	338
7	45	–2.1232	174.8238	175	**40**	4,540	0.6334	342.2658	342
8	86	–1.9660	184.2745	184	**41**	4,450	0.7035	346.6527	347
9	204	–1.8244	193.1971	193	**42**	4,537	0.7748	351.3301	351
10	420	–1.6949	201.2720	201	**43**	4,314	0.8473	355.5706	356
11	704	–1.5753	208.5374	209	**44**	4,098	0.9214	359.9877	360
12	1,085	–1.4637	215.2551	215	**45**	3,931	0.9972	364.6626	365
13	1,683	–1.3589	221.4201	221	**46**	3,815	1.0750	369.1040	369
14	2,267	–1.2596	227.2752	227	**47**	3,737	1.1551	373.9710	374
15	2,848	–1.1652	233.1424	233	**48**	3,456	1.2379	379.0492	379
16	3,412	–1.0749	238.7976	239	**49**	3,298	1.3237	384.3258	384
17	4,133	–0.9881	244.0967	244	**50**	3,056	1.4129	389.4410	389
18	4,438	–0.9045	249.2041	249	**51**	2,953	1.5063	395.1886	395
19	4,873	–0.8235	253.9296	254	**52**	2,685	1.6043	401.3205	401
20	5,083	–0.7450	258.6622	259	**53**	2,493	1.7079	407.4647	407
21	5,234	–0.6684	263.4014	263	**54**	2,145	1.8181	414.1864	414
22	5,130	–0.5937	268.1469	268	**55**	1,979	1.9363	421.2929	421
23	5,081	–0.5206	272.7361	273	**56**	1,752	2.0642	428.7383	429
24	5,109	–0.4488	276.8997	277	**57**	1,440	2.2042	437.4849	437
25	5,127	–0.3783	281.0665	281	**58**	1,198	2.3597	446.8246	447
26	5,096	–0.3087	285.2383	285	**59**	938	2.5354	457.3571	457
27	5,169	–0.2401	289.4147	289	**60**	719	2.7390	469.8887	470
28	5,050	–0.1721	293.5954	294	**61**	526	2.9832	484.4561	484
29	4,943	–0.1047	297.7803	298	**62**	356	3.2916	503.4720	503
30	5,104	–0.0378	301.9692	302	**63**	207	3.7173	528.9814	529
31	5,075	0.0288	306.0246	306	**64**	94	4.4305	572.5403	573
32	5,180	0.0952	309.7586	310	**65**	21	N/A	648.9995	600

Note: Performance-level cut scores are highlighted.

Table 8.D.72 New Conversions for Algebra I (paper-and-pencil version and braille version)

Algebra I (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	–68.2504	150	**33**	16,048	–0.0295	327.2581	327
1	0	–4.4945	14.6267	150	**34**	15,958	0.0377	331.9759	332
2	13	–3.7686	65.5246	150	**35**	15,195	0.1050	336.6971	337
3	7	–3.3313	96.5531	150	**36**	14,943	0.1725	341.4204	341
4	12	–3.0128	118.8388	150	**37**	14,406	0.2404	346.1480	346
5	14	–2.7596	136.7581	150	**38**	14,131	0.3088	350.8811	351
6	36	–2.5479	151.7901	152	**39**	13,640	0.3779	355.6209	356
7	134	–2.3649	164.6278	165	**40**	13,309	0.4478	360.6129	361
8	331	–2.2029	175.9998	176	**41**	12,876	0.5186	365.8263	366
9	624	–2.0570	185.9414	186	**42**	12,702	0.5905	370.5930	371
10	1,269	–1.9238	195.1409	195	**43**	12,294	0.6638	375.5599	376
11	2,452	–1.8007	203.6501	204	**44**	11,946	0.7386	381.0378	381
12	4,047	–1.6860	212.0183	212	**45**	11,615	0.8151	386.3780	386
13	6,400	–1.5783	219.1241	219	**46**	11,240	0.8936	391.4877	391
14	9,185	–1.4765	226.7237	227	**47**	10,775	0.9744	397.5794	398
15	12,406	–1.3797	233.0803	233	**48**	10,580	1.0578	403.2618	403
16	15,878	–1.2873	239.9952	240	**49**	10,176	1.1442	409.4150	409
17	18,863	–1.1985	246.1981	246	**50**	9,748	1.2341	415.2636	415
18	21,120	–1.1131	251.7362	252	**51**	9,262	1.3281	422.1807	422
19	23,218	–1.0304	257.2872	257	**52**	8,963	1.4268	428.6834	429
20	24,119	–0.9503	263.4613	263	**53**	8,590	1.5311	435.9445	436
21	24,386	–0.8723	268.9464	269	**54**	8,149	1.6420	443.9790	444
22	24,459	–0.7962	273.7348	274	**55**	7,744	1.7609	452.6254	453
23	23,512	–0.7217	279.1788	279	**56**	7,205	1.8894	461.5316	462
24	22,652	–0.6488	283.9774	284	**57**	6,909	2.0302	471.2633	471
25	21,914	–0.5770	289.3595	289	**58**	6,497	2.1863	482.1035	482
26	20,902	–0.5064	294.1807	294	**59**	5,753	2.3628	494.5921	495
27	19,809	–0.4366	298.9195	299	**60**	5,231	2.5671	509.1273	509
28	19,233	–0.3676	303.6519	304	**61**	4,688	2.8119	526.2028	526
29	18,407	–0.2993	308.3791	308	**62**	3,890	3.1212	548.2636	548
30	17,656	–0.2314	313.1021	313	**63**	3,307	3.5477	578.8186	579
31	17,110	–0.1639	317.8222	318	**64**	2,486	4.2616	629.5024	600
32	16,521	–0.0967	322.5404	323	**65**	1,473	N/A	721.0744	600

Algebra I (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	–68.2504	150	**33**	0	0.0008	329.3846	329
1	0	–4.4851	15.3908	150	**34**	0	0.0691	334.1839	334
2	0	–3.7586	66.4630	150	**35**	0	0.1377	338.9863	339
3	0	–3.3209	97.4220	150	**36**	1	0.2065	343.7929	344
4	0	–3.0019	119.6819	150	**37**	0	0.2759	348.6052	349
5	0	–2.7482	137.5640	150	**38**	0	0.3458	353.4243	353
6	1	–2.5361	152.5817	153	**39**	0	0.4166	358.2515	358
7	0	–2.3526	165.4524	165	**40**	0	0.4882	363.7208	364
8	0	–2.1901	176.8372	177	**41**	2	0.5609	368.6357	369
9	0	–2.0438	186.8284	187	**42**	0	0.6349	373.4970	373
10	1	–1.9100	196.0619	196	**43**	1	0.7104	378.9834	379
11	0	–1.7865	204.6746	205	**44**	0	0.7876	384.5702	385
12	0	–1.6713	212.9594	213	**45**	0	0.8667	389.5659	390
13	0	–1.5631	220.2565	220	**46**	0	0.9482	395.7133	396
14	0	–1.4607	227.7306	228	**47**	1	1.0322	401.4506	401
15	2	–1.3634	234.2894	234	**48**	0	1.1193	407.7487	408
16	1	–1.2704	241.1655	241	**49**	0	1.2098	413.5221	414
17	0	–1.1811	247.3120	247	**50**	0	1.3044	420.5536	421
18	1	–1.0951	252.9249	253	**51**	0	1.4036	427.0798	427
19	3	–1.0118	258.7096	259	**52**	0	1.5085	434.2862	434
20	1	–0.9311	264.8020	265	**53**	0	1.6199	442.3055	442
21	0	–0.8524	270.1872	270	**54**	0	1.7393	451.0973	451
22	3	–0.7756	275.2165	275	**55**	0	1.8683	460.0348	460
23	1	–0.7005	280.5908	281	**56**	0	2.0095	469.8177	470
24	1	–0.6268	285.5798	286	**57**	0	2.1662	480.6559	481
25	0	–0.5543	290.9544	291	**58**	0	2.3431	493.1888	493
26	1	–0.4828	295.7728	296	**59**	0	2.5480	507.7553	508
27	1	–0.4123	300.5848	301	**60**	0	2.7932	524.9420	525
28	0	–0.3424	305.3913	305	**61**	0	3.1029	546.9939	547
29	1	–0.2732	310.1937	310	**62**	0	3.5299	577.6742	578
30	1	–0.2043	314.9929	315	**63**	0	4.2443	628.5509	600
31	0	–0.1358	319.7904	320	**64**	0	N/A	721.0744	600
32	0	–0.0675	324.5862	325					

Note: Performance-level cut scores are highlighted.

Table 8.D.73 New Conversions for Geometry (paper-and-pencil version and braille version)

Geometry (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Freq. Distrib.	Scale Score	Rprtd Score
0	2	N/A	–44.9995	150	33	9,634	–0.7495	303.5221	304
1	0	–5.1509	37.6876	150	34	9,537	–0.6810	307.6699	308
2	1	–4.4354	81.8825	150	35	9,394	–0.6123	311.9989	312
3	1	–4.0072	108.0845	150	36	9,243	–0.5433	315.9371	316
4	2	–3.6965	126.9985	150	37	9,267	–0.4738	319.9738	320
5	7	–3.4500	141.8067	150	38	9,029	–0.4037	324.4200	324
6	25	–3.2442	154.5516	155	39	9,036	–0.3328	328.3896	328
7	56	–3.0662	165.1418	165	40	8,962	–0.2610	332.9070	333
8	132	–2.9085	174.7388	175	41	9,070	–0.1882	336.8776	337
9	259	–2.7664	182.9531	183	42	8,543	–0.1141	341.3647	341
10	528	–2.6364	191.0104	191	43	8,537	–0.0386	345.9082	346
11	1,031	–2.5161	198.3498	198	44	8,426	0.0385	350.4635	350
12	1,673	–2.4038	204.9949	205	45	8,153	0.1175	355.0322	355
13	2,527	–2.2981	211.0744	211	46	8,247	0.1987	360.0179	360
14	3,600	–2.1980	217.1064	217	47	7,828	0.2822	365.1925	365
15	4,901	–2.1027	222.9852	223	48	7,875	0.3686	370.3914	370
16	6,055	–2.0114	228.3383	228	49	7,797	0.4582	375.6117	376
17	7,279	–1.9237	233.5628	234	50	7,386	0.5514	381.1749	381
18	8,347	–1.8389	238.3474	238	51	7,079	0.6488	387.0343	387
19	9,219	–1.7569	243.5409	244	52	6,919	0.7511	392.9274	393
20	9,805	–1.6771	248.1946	248	53	6,788	0.8593	399.1426	399
21	10,271	–1.5993	252.8272	253	54	6,313	0.9742	405.9906	406
22	10,495	–1.5233	257.4407	257	55	6,079	1.0973	413.4867	413
23	10,687	–1.4488	262.0367	262	56	5,770	1.2305	421.3645	421
24	10,635	–1.3756	266.0651	266	57	5,282	1.3760	429.9040	430
25	10,641	–1.3036	270.5829	271	58	5,190	1.5372	439.7755	440
26	10,342	–1.2325	274.6440	275	59	4,760	1.7191	450.6786	451
27	10,205	–1.1622	279.0778	279	60	4,481	1.9292	463.0697	463
28	10,120	–1.0925	283.1836	283	61	4,109	2.1802	478.3717	478
29	9,857	–1.0234	287.1417	287	62	3,562	2.4959	497.6504	498
30	9,861	–0.9546	291.4497	291	63	3,076	2.9295	523.6963	524
31	9,569	–0.8862	295.6402	296	64	2,173	3.6507	567.9831	568
32	9,568	–0.8178	299.5830	300	65	1,153	N/A	645.5995	600

Geometry (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	–	N/A	–44.9995	150	33	–	–0.6573	309.2247	309
1	–	–5.1229	39.1151	150	34	–	–0.5848	313.5718	314
2	–	–4.4064	83.5732	150	35	–	–0.5118	317.7257	318
3	–	–3.9771	109.9602	150	36	–	–0.4382	322.2679	322
4	–	–3.6653	128.9442	150	37	–	–0.3638	326.6478	327
5	–	–3.4177	143.8443	150	38	–	–0.2883	331.1953	331
6	–	–3.2106	156.6410	157	39	–	–0.2118	335.6024	336
7	–	–3.0314	167.2055	167	40	–	–0.1338	340.1642	340
8	–	–2.8725	176.7565	177	41	–	–0.0543	344.9673	345
9	–	–2.7290	185.2271	185	42	–	0.0270	349.7850	350
10	–	–2.5976	193.3490	193	43	–	0.1103	354.6191	355
11	–	–2.4760	200.7158	201	44	–	0.1961	359.8551	360
12	–	–2.3622	207.3506	207	45	–	0.2846	365.3350	365
13	–	–2.2550	213.6379	214	46	–	0.3762	370.8431	371
14	–	–2.1534	219.8812	220	47	–	0.4715	376.3763	376
15	–	–2.0564	225.6750	226	48	–	0.5710	382.3764	382
16	–	–1.9635	231.2240	231	49	–	0.6754	388.5923	389
17	–	–1.8740	236.3050	236	50	–	0.7855	394.8464	395
18	–	–1.7874	241.6350	242	51	–	0.9025	401.6556	402
19	–	–1.7034	246.6465	247	52	–	1.0276	409.1765	409
20	–	–1.6217	251.4866	251	53	–	1.1627	417.4297	417
21	–	–1.5418	256.3090	256	54	–	1.3102	425.8610	426
22	–	–1.4636	261.1157	261	55	–	1.4734	435.7599	436
23	–	–1.3869	265.4453	265	56	–	1.6573	447.0297	447
24	–	–1.3113	270.0892	270	57	–	1.8693	459.5134	460
25	–	–1.2368	274.4018	274	58	–	2.1225	474.8523	475
26	–	–1.1630	279.0203	279	59	–	2.4402	494.4023	494
27	–	–1.0900	283.3273	283	60	–	2.8756	520.7732	521
28	–	–1.0175	287.4823	287	61	–	3.5992	565.5231	566
29	–	–0.9453	292.0656	292	62	–	N/A	645.5995	600
30	–	–0.8733	296.3804	296					
31	–	–0.8014	300.5278	301					
32	–	–0.7295	304.6738	305					

Note: Performance-level cut scores are highlighted. To protect student privacy, the frequency distribution is not shown if based on 10 or fewer student records.

Table 8.D.74 New Conversions for Algebra II

Algebra II									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	–54.8295	150	**33**	7,749	–0.3825	311.2368	311
1	1	–4.8688	16.7576	150	**34**	7,584	–0.3127	315.8960	316
2	3	–4.1485	62.4468	150	**35**	7,676	–0.2426	320.5897	321
3	3	–3.7157	92.0397	150	**36**	7,652	–0.1722	325.2906	325
4	4	–3.4007	113.5062	150	**37**	7,519	–0.1014	329.9986	330
5	5	–3.1501	130.1369	150	**38**	7,423	–0.0301	334.7133	335
6	9	–2.9403	143.8772	150	**39**	7,459	0.0419	339.4343	339
7	27	–2.7586	156.0136	156	**40**	7,236	0.1148	344.1613	344
8	57	–2.5975	166.7072	167	**41**	7,029	0.1887	348.8940	349
9	132	–2.4519	176.2995	176	**42**	6,760	0.2638	353.6319	354
10	285	–2.3187	184.8983	185	**43**	6,647	0.3401	358.5106	359
11	501	–2.1953	192.9452	193	**44**	6,589	0.4181	363.7809	364
12	875	–2.0801	200.5030	201	**45**	6,211	0.4979	368.7116	369
13	1,373	–1.9716	207.9962	208	**46**	6,034	0.5797	374.1477	374
14	1,973	–1.8688	214.3479	214	**47**	5,841	0.6638	379.5880	380
15	2,788	–1.7708	220.7247	221	**48**	5,627	0.7506	385.2781	385
16	3,512	–1.6770	227.1255	227	**49**	5,355	0.8405	391.1374	391
17	4,261	–1.5869	232.9177	233	**50**	5,024	0.9339	397.1747	397
18	4,943	–1.4998	238.7182	239	**51**	4,803	1.0315	403.6741	404
19	5,612	–1.4154	243.9302	244	**52**	4,581	1.1338	410.1536	410
20	6,038	–1.3335	249.7169	250	**53**	4,279	1.2417	417.3394	417
21	6,599	–1.2536	254.9802	255	**54**	4,011	1.3564	424.8492	425
22	6,846	–1.1755	259.6120	260	**55**	3,804	1.4790	432.7732	433
23	7,127	–1.0990	264.7726	265	**56**	3,447	1.6115	441.4055	441
24	7,270	–1.0238	270.0183	270	**57**	3,234	1.7560	450.7447	451
25	7,365	–0.9499	274.6964	275	**58**	2,934	1.9161	461.2797	461
26	7,533	–0.8770	279.3086	279	**59**	2,709	2.0966	473.2333	473
27	7,534	–0.8049	283.9314	284	**60**	2,486	2.3051	486.5931	487
28	7,601	–0.7335	288.5653	289	**61**	2,088	2.5541	503.0551	503
29	7,870	–0.6627	293.2076	293	**62**	1,918	2.8673	523.6137	524
30	7,563	–0.5923	297.8593	298	**63**	1,511	3.2984	552.0845	552
31	7,585	–0.5222	302.5200	303	**64**	1,165	4.0166	599.7647	600
32	7,650	–0.4524	307.1896	307	**65**	795	N/A	681.5695	600

Note: Performance-level cut scores are highlighted.

Table 8.D.75 New Conversions for Summative High School Mathematics (paper-and-pencil version and braille version)

Summative High School Mathematics (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	–87.7995	150	**33**	2,098	–0.7663	279.6593	280
1	0	–5.1552	6.0956	150	**34**	2,281	–0.6981	283.9925	284
2	1	–4.4404	52.6986	150	**35**	2,343	–0.6297	288.2151	288
3	1	–4.0129	80.0531	150	**36**	2,473	–0.5610	292.4273	292
4	2	–3.7029	98.9754	150	**37**	2,560	–0.4917	296.7485	297
5	2	–3.4571	114.3760	150	**38**	2,714	–0.4219	300.8434	301
6	4	–3.2518	126.8050	150	**39**	2,868	–0.3514	305.3567	305
7	4	–3.0744	137.8242	150	**40**	2,978	–0.2800	309.8720	310
8	9	–2.9174	147.8119	150	**41**	3,081	–0.2075	314.3882	314
9	14	–2.7757	156.1427	156	**42**	3,292	–0.1339	318.9067	319
10	36	–2.6462	164.1914	164	**43**	3,384	–0.0588	323.4291	323
11	59	–2.5264	171.5762	172	**44**	3,558	0.0178	327.9569	328
12	88	–2.4146	178.6218	179	**45**	3,623	0.0963	332.8705	333
13	123	–2.3093	185.1452	185	**46**	3,849	0.1768	337.9813	338
14	224	–2.2096	191.2987	191	**47**	3,976	0.2597	343.1023	343
15	286	–2.1147	197.0259	197	**48**	4,307	0.3454	348.2387	348
16	391	–2.0238	202.6892	203	**49**	4,226	0.4341	353.5672	354
17	440	–1.9364	207.9790	208	**50**	4,524	0.5264	359.3078	359
18	580	–1.8520	213.2246	213	**51**	4,548	0.6229	365.1584	365
19	652	–1.7702	218.4225	218	**52**	4,694	0.7242	371.5222	372
20	739	–1.6907	223.2711	223	**53**	4,943	0.8311	377.9237	378
21	859	–1.6132	227.8117	228	**54**	5,118	0.9448	384.9332	385
22	941	–1.5375	232.2381	232	**55**	5,223	1.0665	392.5423	393
23	1,012	–1.4633	236.9821	237	**56**	5,335	1.1981	400.7637	401
24	1,146	–1.3903	241.5076	242	**57**	5,490	1.3419	409.6108	410
25	1,195	–1.3185	245.7646	246	**58**	5,665	1.5012	419.1096	419
26	1,282	–1.2476	250.3092	250	**59**	5,750	1.6810	430.2382	430
27	1,407	–1.1776	254.4483	254	**60**	5,735	1.8887	443.2942	443
28	1,480	–1.1082	259.0327	259	**61**	5,336	2.1372	458.3946	458
29	1,619	–1.0393	263.0596	263	**62**	5,056	2.4501	477.5828	478
30	1,759	–0.9708	267.0722	267	**63**	4,184	2.8805	504.3485	504
31	1,892	–0.9025	271.5881	272	**64**	3,094	3.5982	549.5397	550
32	1,883	–0.8344	275.6808	276	**65**	1,395	N/A	630.7795	600

Summative High School Mathematics (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	–	N/A	–87.7995	150	**33**	–	–0.7214	282.4464	282
1	–	–5.1321	7.4893	150	**34**	–	–0.6520	286.9255	287
2	–	–4.4168	54.3003	150	**35**	–	–0.5823	291.0237	291
3	–	–3.9889	81.4030	150	**36**	–	–0.5123	295.5801	296
4	–	–3.6783	100.5113	150	**37**	–	–0.4416	299.5900	300
5	–	–3.4320	115.9035	150	**38**	–	–0.3703	304.1519	304
6	–	–3.2262	128.3929	150	**39**	–	–0.2981	308.7299	309
7	–	–3.0483	139.4933	150	**40**	–	–0.2250	313.3070	313
8	–	–2.8908	149.3283	150	**41**	–	–0.1506	317.8848	318
9	–	–2.7486	157.8131	158	**42**	–	–0.0749	322.4649	322
10	–	–2.6185	165.8597	166	**43**	–	0.0023	327.0488	327
11	–	–2.4982	173.3774	173	**44**	–	0.0814	331.9105	332
12	–	–2.3858	180.3766	180	**45**	–	0.1625	337.0812	337
13	–	–2.2800	187.0143	187	**46**	–	0.2459	342.2608	342
14	–	–2.1797	193.0819	193	**47**	–	0.3321	347.4537	347
15	–	–2.0842	198.9061	199	**48**	–	0.4213	352.7565	353
16	–	–1.9927	204.6650	205	**49**	–	0.5141	358.5571	359
17	–	–1.9047	209.8185	210	**50**	–	0.6111	364.3969	364
18	–	–1.8196	215.3855	215	**51**	–	0.7128	370.8233	371
19	–	–1.7372	220.4230	220	**52**	–	0.8202	377.2772	377
20	–	–1.6571	225.3499	225	**53**	–	0.9343	384.3023	384
21	–	–1.5789	229.6978	230	**54**	–	1.0564	391.9276	392
22	–	–1.5025	234.4690	234	**55**	–	1.1884	400.1736	400
23	–	–1.4275	239.2881	239	**56**	–	1.3325	409.0538	409
24	–	–1.3538	243.5882	244	**57**	–	1.4922	418.5939	419
25	–	–1.2812	248.2144	248	**58**	–	1.6724	429.7169	430
26	–	–1.2095	252.5148	253	**59**	–	1.8804	442.7942	443
27	–	–1.1386	257.0388	257	**60**	–	2.1293	457.9408	458
28	–	–1.0683	261.3596	261	**61**	–	2.4424	477.1469	477
29	–	–0.9985	265.4461	265	**62**	–	2.8729	503.9291	504
30	–	–0.9290	269.8114	270	**63**	–	3.5912	549.2025	549
31	–	–0.8598	274.1956	274	**64**	–	N/A	630.7795	600
32	–	–0.7906	278.2430	278					

Note: Performance-level cut scores are highlighted. To protect student privacy, the frequency distribution is not shown if based on 10 or fewer student records.

Table 8.D.76 New Conversions for Integrated Mathematics 1 and Integrated Mathematics 2

Integrated Mathematics 1									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	–77.6988	150	**33**	392	0.1166	321.2727	321
1	0	–4.3859	–6.5730	150	**34**	350	0.1843	326.2023	326
2	1	–3.6560	44.9396	150	**35**	310	0.2521	331.1221	331
3	0	–3.2155	79.8953	150	**36**	266	0.3202	336.0541	336
4	0	–2.8942	104.0429	150	**37**	258	0.3886	341.2142	341
5	2	–2.6386	122.7393	150	**38**	229	0.4576	346.5242	347
6	3	–2.4248	138.1387	150	**39**	216	0.5272	351.4063	351
7	3	–2.2399	151.3789	151	**40**	187	0.5977	356.3063	356
8	4	–2.0763	163.0543	163	**41**	140	0.6690	361.4360	361
9	11	–1.9289	173.5137	174	**42**	162	0.7415	366.9628	367
10	24	–1.7943	183.0250	183	**43**	182	0.8154	372.2819	372
11	45	–1.6700	191.9472	192	**44**	127	0.8907	377.6259	378
12	88	–1.5542	200.5184	201	**45**	103	0.9678	383.5845	384
13	157	–1.4455	208.0380	208	**46**	85	1.0469	389.1009	389
14	210	–1.3427	215.8835	216	**47**	82	1.1283	394.8910	395
15	288	–1.2451	222.6568	223	**48**	86	1.2123	401.0394	401
16	364	–1.1518	229.4664	229	**49**	62	1.2994	407.2245	407
17	439	–1.0622	235.7532	236	**50**	64	1.3900	413.6741	414
18	554	–0.9760	241.8875	242	**51**	53	1.4847	420.7083	421
19	572	–0.8926	248.0749	248	**52**	37	1.5841	427.9801	428
20	618	–0.8118	253.9366	254	**53**	38	1.6891	435.1780	435
21	667	–0.7331	259.4970	259	**54**	21	1.8008	443.3894	443
22	664	–0.6564	265.1532	265	**55**	23	1.9204	451.8864	452
23	640	–0.5813	270.6840	271	**56**	26	2.0498	461.4224	461
24	657	–0.5077	275.9613	276	**57**	16	2.1914	471.6021	472
25	593	–0.4354	281.4788	281	**58**	15	2.3485	483.1169	483
26	579	–0.3641	286.4878	286	**59**	8	2.5259	495.7657	496
27	542	–0.2938	291.4862	291	**60**	6	2.7312	510.1714	510
28	460	–0.2243	296.4753	296	**61**	6	2.9772	527.9051	528
29	434	–0.1554	301.4547	301	**62**	6	3.2874	551.1150	551
30	472	–0.0870	306.4242	306	**63**	3	3.7151	583.8001	584
31	389	–0.0189	311.3843	311	**64**	3	4.4303	634.9207	600
32	399	0.0489	316.3332	316	**65**	1	N/A	714.6990	600

Integrated Mathematics 2									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	–60.2788	150	**33**	149	–0.1378	339.5992	340
1	0	–4.5143	42.1923	150	**34**	138	–0.0706	344.0841	344
2	0	–3.7993	93.8870	150	**35**	146	–0.0031	348.5407	349
3	0	–3.3716	123.4445	150	**36**	136	0.0647	352.9695	353
4	1	–3.0614	144.4863	150	**37**	114	0.1329	357.3709	357
5	0	–2.8155	161.2930	161	**38**	115	0.2017	361.7959	362
6	0	–2.6102	175.2114	175	**39**	100	0.2712	366.4503	366
7	1	–2.4328	187.0948	187	**40**	82	0.3415	371.1267	371
8	5	–2.2758	197.6631	198	**41**	77	0.4129	375.6661	376
9	15	–2.1342	207.0251	207	**42**	97	0.4854	380.5552	381
10	16	–2.0048	215.4253	215	**43**	70	0.5593	385.4222	385
11	27	–1.8852	223.4357	223	**44**	74	0.6348	390.3379	390
12	59	–1.7736	231.0316	231	**45**	67	0.7120	395.7327	396
13	68	–1.6686	238.1199	238	**46**	62	0.7913	401.1277	401
14	82	–1.5693	244.6997	245	**47**	46	0.8730	406.5487	407
15	128	–1.4746	250.7810	251	**48**	55	0.9573	412.2462	412
16	140	–1.3841	256.7905	257	**49**	36	1.0447	418.1627	418
17	165	–1.2971	262.7320	263	**50**	28	1.1357	424.0549	424
18	159	–1.2132	268.5341	269	**51**	36	1.2308	430.2521	430
19	195	–1.1319	273.7240	274	**52**	37	1.3307	437.1994	437
20	193	–1.0529	278.7580	279	**53**	37	1.4362	444.2979	444
21	190	–0.9760	283.7392	284	**54**	15	1.5484	451.7273	452
22	184	–0.9008	288.6727	289	**55**	16	1.6686	459.6170	460
23	188	–0.8272	293.5605	294	**56**	13	1.7987	468.3507	468
24	199	–0.7549	298.4048	298	**57**	15	1.9408	478.0259	478
25	181	–0.6837	303.2070	303	**58**	12	2.0986	488.6970	489
26	171	–0.6136	307.9679	308	**59**	12	2.2767	500.6138	501
27	168	–0.5442	312.6894	313	**60**	11	2.4829	515.0945	515
28	159	–0.4755	317.1279	317	**61**	10	2.7295	532.2113	532
29	164	–0.4074	321.4546	321	**62**	7	3.0407	553.4873	553
30	139	–0.3397	325.9552	326	**63**	7	3.4693	585.2160	585
31	159	–0.2723	330.5349	331	**64**	5	4.1852	633.6694	600
32	141	–0.2050	335.0827	335	**65**	5	N/A	699.9591	600

Note: Performance-level cut scores are highlighted.

Table 8.D.77 New Conversions for Integrated Mathematics 3

Integrated Mathematics 3									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
0	0	N/A	–100.7238	150	**33**	15	–0.0593	333.6027	334
1	0	–4.5518	–12.9636	150	**34**	24	0.0098	338.9393	339
2	0	–3.8297	41.8908	150	**35**	21	0.0790	343.9656	344
3	1	–3.3952	76.8044	150	**36**	19	0.1486	349.2374	349
4	0	–3.0786	101.8547	150	**37**	20	0.2185	354.2781	354
5	0	–2.8266	121.3825	150	**38**	21	0.2890	359.7733	360
6	0	–2.6156	137.6816	150	**39**	19	0.3602	365.2448	365
7	0	–2.4328	151.9703	152	**40**	19	0.4322	370.6929	371
8	0	–2.2706	164.4643	164	**41**	30	0.5052	376.1611	376
9	0	–2.1243	175.7906	176	**42**	26	0.5793	381.8348	382
10	0	–1.9903	186.1418	186	**43**	21	0.6548	387.7105	388
11	2	–1.8663	195.4419	195	**44**	21	0.7318	393.3594	393
12	4	–1.7506	204.4578	204	**45**	20	0.8106	399.4785	399
13	4	–1.6417	213.0643	213	**46**	20	0.8915	405.7782	406
14	14	–1.5386	220.7934	221	**47**	11	0.9747	412.3155	412
15	14	–1.4405	228.5233	229	**48**	8	1.0605	418.5573	419
16	11	–1.3466	235.4113	235	**49**	13	1.1494	425.5067	426
17	22	–1.2563	242.5095	243	**50**	12	1.2419	432.6529	433
18	20	–1.1693	249.1269	249	**51**	12	1.3385	439.8363	440
19	23	–1.0851	255.6832	256	**52**	15	1.4398	447.7344	448
20	25	–1.0033	261.8196	262	**53**	6	1.5468	455.9873	456
21	23	–0.9237	267.5978	268	**54**	8	1.6605	464.7507	465
22	25	–0.8459	273.3677	273	**55**	8	1.7821	474.1304	474
23	14	–0.7698	279.1282	279	**56**	6	1.9136	484.2687	484
24	14	–0.6951	284.8780	285	**57**	7	2.0572	495.3201	495
25	21	–0.6216	290.6162	291	**58**	0	2.2163	507.3613	507
26	25	–0.5491	296.3399	296	**59**	6	2.3959	521.1011	521
27	24	–0.4776	301.9658	302	**60**	1	2.6033	537.6744	538
28	20	–0.4068	306.9649	307	**61**	5	2.8513	557.4354	557
29	20	–0.3367	312.5008	313	**62**	1	3.1639	582.7245	583
30	18	–0.2669	317.5202	318	**63**	0	3.5938	618.7011	600
31	19	–0.1976	322.9709	323	**64**	0	4.3111	672.7128	600
32	27	–0.1284	328.0216	328	**65**	1	N/A	753.3237	600

Note: Performance-level cut scores are highlighted.

Table 8.D.78 New Conversions for Science, Grade Five (paper-and-pencil version and braille version)

Grade 5 (paper-and-pencil)										Grade 5 (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	47.3185	150	**31**	7,053	–0.5500	303.9477	304	**0**	0	N/A	47.3185	150	**31**	0	–0.5219	305.5647	306
1	0	–4.8587	68.8887	150	**32**	7,639	–0.4776	308.1231	308	**1**	0	–4.8502	69.0684	150	**32**	0	–0.4482	309.8189	310
2	3	–4.1432	93.5010	150	**33**	7,831	–0.4050	312.3101	312	**2**	0	–4.1344	93.9671	150	**33**	0	–0.3740	314.0934	314
3	3	–3.7149	121.3956	150	**34**	8,394	–0.3319	316.5286	317	**3**	0	–3.7058	121.8793	150	**34**	0	–0.2993	318.4060	318
4	2	–3.4040	138.3815	150	**35**	8,674	–0.2581	320.7858	321	**4**	0	–3.3946	138.9711	150	**35**	0	–0.2238	322.7605	323
5	3	–3.1573	153.0218	153	**36**	9,236	–0.1836	325.0823	325	**5**	0	–3.1475	153.5721	154	**36**	1	–0.1474	327.1691	327
6	7	–2.9511	165.3858	165	**37**	9,756	–0.1080	329.4426	329	**6**	0	–2.9409	165.9245	166	**37**	0	–0.0698	331.6434	332
7	24	–2.7727	175.5296	176	**38**	10,372	–0.0313	333.8646	334	**7**	0	–2.7621	176.1753	176	**38**	0	0.0091	336.1930	336
8	67	–2.6146	184.6489	185	**39**	10,848	0.0468	338.3698	338	**8**	0	–2.6036	185.2831	185	**39**	0	0.0896	340.8392	341
9	105	–2.4718	192.9998	193	**40**	11,348	0.1266	342.9730	343	**9**	0	–2.4605	193.6342	194	**40**	0	0.1720	345.5926	346
10	233	–2.3411	200.6301	201	**41**	11,544	0.2082	347.6840	348	**10**	0	–2.3293	201.3257	201	**41**	2	0.2566	350.4706	350
11	385	–2.2201	207.5338	208	**42**	12,460	0.2921	352.5196	353	**11**	0	–2.2078	208.2595	208	**42**	0	0.3438	355.5015	356
12	613	–2.1069	214.0656	214	**43**	12,971	0.3785	357.5069	358	**12**	0	–2.0942	214.7996	215	**43**	1	0.4338	360.7007	361
13	946	–2.0003	220.2549	220	**44**	13,669	0.4679	362.6578	363	**13**	0	–1.9871	221.0029	221	**44**	1	0.5273	366.0905	366
14	1,360	–1.8992	226.1396	226	**45**	14,115	0.5607	368.0084	368	**14**	0	–1.8855	226.9073	227	**45**	0	0.6248	371.7050	372
15	1,688	–1.8028	231.6609	232	**46**	14,583	0.6575	373.6000	374	**15**	0	–1.7885	232.5048	233	**46**	0	0.7269	377.5967	378
16	2,142	–1.7103	236.9874	237	**47**	15,306	0.7590	379.4614	379	**16**	1	–1.6954	237.8518	238	**47**	0	0.8346	383.8201	384
17	2,478	–1.6212	242.1349	242	**48**	15,720	0.8660	385.6314	386	**17**	0	–1.6058	243.0232	243	**48**	0	0.9488	390.4088	390
18	2,914	–1.5350	247.1212	247	**49**	16,223	0.9796	392.1674	392	**18**	0	–1.5190	248.0372	248	**49**	1	1.0709	397.4329	397
19	3,313	–1.4514	251.9648	252	**50**	16,729	1.1011	399.1943	399	**19**	0	–1.4347	252.9115	253	**50**	1	1.2027	405.0581	405
20	3,504	–1.3699	256.6522	257	**51**	16,942	1.2324	406.7809	407	**20**	0	–1.3526	257.6614	258	**51**	0	1.3466	413.3780	413
21	3,828	–1.2904	261.2308	261	**52**	17,196	1.3757	415.0352	415	**21**	0	–1.2723	262.2888	262	**52**	1	1.5059	422.5325	423
22	4,158	–1.2124	265.7252	266	**53**	17,058	1.5344	424.1931	424	**22**	0	–1.1935	266.8224	267	**53**	0	1.6855	432.9511	433
23	4,524	–1.1358	270.1434	270	**54**	16,579	1.7134	434.5784	435	**23**	0	–1.1162	271.2810	271	**54**	1	1.8929	444.9411	445
24	4,799	–1.0604	274.4968	274	**55**	15,704	1.9203	446.4795	446	**24**	0	–1.0399	275.6809	276	**55**	0	2.1410	459.2177	459
25	5,058	–0.9860	278.7972	279	**56**	13,770	2.1678	460.8485	461	**25**	1	–0.9646	280.0271	280	**56**	0	2.4533	477.5065	478
26	5,252	–0.9123	283.0468	283	**57**	11,690	2.4795	478.9971	479	**26**	1	–0.8900	284.3325	284	**57**	0	2.8830	501.9452	502
27	5,694	–0.8393	287.2672	287	**58**	8,458	2.9086	503.6774	504	**27**	1	–0.8159	288.6075	289	**58**	0	3.5998	546.6354	547
28	5,992	–0.7666	291.4553	291	**59**	4,991	3.6249	548.1332	548	**28**	0	–0.7422	292.8570	293	**59**	0	N/A	624.0193	600
29	6,364	–0.6943	295.6267	296	**60**	1,774	N/A	624.0193	600	**29**	0	–0.6687	297.0959	297					
30	6,653	–0.6222	299.7892	300						**30**	0	–0.5954	301.3278	301					

Note: Performance-level cut scores are highlighted.

Table 8.D.79 New Conversions for Science, Grade Eight (paper-and-pencil version and braille version)

Grade 8 (paper-and-pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	–96.6361	150	**31**	6,624	–0.3173	296.1385	296
1	3	–4.7084	–55.7441	150	**32**	7,052	–0.2417	302.4793	302
2	3	–3.9906	–15.7140	150	**33**	7,587	–0.1657	308.8467	309
3	5	–3.5600	21.7100	150	**34**	8,299	–0.0893	315.2603	315
4	1	–3.2468	48.7047	150	**35**	8,551	–0.0122	321.7304	322
5	5	–2.9977	70.9407	150	**36**	9,273	0.0657	328.2713	328
6	19	–2.7891	88.2331	150	**37**	9,724	0.1447	334.8953	335
7	42	–2.6083	103.4604	150	**38**	10,207	0.2249	341.6235	342
8	106	–2.4477	117.2834	150	**39**	11,075	0.3065	348.4704	348
9	219	–2.3024	129.4457	150	**40**	11,848	0.3898	355.4531	355
10	364	–2.1692	140.5642	150	**41**	12,187	0.4751	362.6077	363
11	540	–2.0456	151.0311	151	**42**	12,621	0.5626	369.9504	370
12	812	–1.9298	160.8902	161	**43**	13,480	0.6527	377.5089	378
13	1,222	–1.8206	169.9466	170	**44**	13,923	0.7458	385.3241	385
14	1,518	–1.7168	178.6441	179	**45**	14,551	0.8424	393.4246	393
15	2,007	–1.6176	186.9994	187	**46**	15,006	0.9430	401.8634	402
16	2,318	–1.5224	195.0393	195	**47**	15,863	1.0484	410.7026	411
17	2,629	–1.4305	202.7327	203	**48**	16,252	1.1593	420.0282	420
18	2,817	–1.3415	210.1749	210	**49**	16,641	1.2769	429.8981	430
19	3,127	–1.2551	217.4281	217	**50**	17,002	1.4025	440.4052	440
20	3,362	–1.1708	224.5127	225	**51**	16,707	1.5379	451.8007	452
21	3,608	–1.0883	231.4495	231	**52**	16,684	1.6855	464.2053	464
22	3,662	–1.0074	238.2463	238	**53**	16,335	1.8485	477.8274	478
23	3,932	–0.9279	244.9157	245	**54**	15,868	2.0321	493.3250	493
24	4,294	–0.8495	251.4847	251	**55**	15,167	2.2436	511.0988	511
25	4,441	–0.7720	257.9826	258	**56**	14,166	2.4957	532.2446	532
26	4,817	–0.6953	264.4170	264	**57**	12,514	2.8122	559.1550	559
27	5,054	–0.6192	270.8018	271	**58**	10,299	3.2466	595.2122	595
28	5,544	–0.5435	277.1555	277	**59**	7,680	3.9683	660.5382	600
29	5,718	–0.4680	283.4902	283	**60**	4,053	N/A	742.1487	600
30	6,079	–0.3927	289.8127	290					

Science Grade 8 (Braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	–96.6361	150	**31**	0	–0.2208	304.2270	304
1	0	–4.6542	–53.5008	150	**32**	0	–0.1423	310.8140	311
2	0	–3.9357	–11.7381	150	**33**	0	–0.0632	317.4480	317
3	0	–3.5044	27.7292	150	**34**	1	0.0166	324.1483	324
4	0	–3.1904	53.5572	150	**35**	0	0.0973	330.9201	331
5	0	–2.9405	75.3854	150	**36**	1	0.1792	337.7924	338
6	0	–2.7310	93.6114	150	**37**	0	0.2625	344.7770	345
7	0	–2.5493	108.4891	150	**38**	2	0.3473	351.8965	352
8	1	–2.3878	122.1308	150	**39**	3	0.4341	359.1768	359
9	0	–2.2417	134.6004	150	**40**	1	0.5230	366.6407	367
10	0	–2.1075	145.8933	150	**41**	0	0.6145	374.3084	374
11	0	–1.9829	156.2765	156	**42**	1	0.7090	382.2238	382
12	0	–1.8661	166.0954	166	**43**	0	0.8069	390.4480	390
13	0	–1.7557	175.4069	175	**44**	3	0.9088	399.0025	399
14	0	–1.6508	184.2792	184	**45**	0	1.0154	407.9404	408
15	0	–1.5505	192.6510	193	**46**	0	1.1275	417.3329	417
16	1	–1.4541	200.7236	201	**47**	0	1.2462	427.3160	427
17	2	–1.3609	208.5402	209	**48**	0	1.3730	437.9572	438
18	0	–1.2706	216.1283	216	**49**	1	1.5094	449.3653	449
19	0	–1.1828	223.5144	224	**50**	0	1.6580	461.8962	462
20	1	–1.0970	230.7313	231	**51**	0	1.8221	475.6651	476
21	0	–1.0130	237.7851	238	**52**	0	2.0066	491.1367	491
22	0	–0.9305	244.6960	245	**53**	0	2.2191	509.0775	509
23	0	–0.8492	251.5061	252	**54**	0	2.4723	530.1378	530
24	1	–0.7691	258.2330	258	**55**	0	2.7897	557.2680	557
25	0	–0.6897	264.8899	265	**56**	0	3.2250	593.3916	593
26	0	–0.6110	271.4914	271	**57**	0	3.9476	658.7221	600
27	2	–0.5327	278.0593	278	**58**	0	N/A	742.1487	600
28	0	–0.4547	284.6047	285					
29	0	–0.3769	291.1370	291					
30	0	–0.2990	297.6753	298					

Note: Performance-level cut scores are highlighted.

Table 8.D.80 New Conversion for Life Science (Grade 10) and Biology

Grade 10 Life Science									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	4	N/A	44.7476	150	**31**	8,916	–0.2019	312.2895	312
1	11	–4.5955	73.6178	150	**32**	9,478	–0.1257	316.5395	317
2	19	–3.8780	104.1178	150	**33**	9,690	–0.0491	320.8067	321
3	23	–3.4477	130.2494	150	**34**	9,948	0.0280	325.1139	325
4	19	–3.1347	148.4820	150	**35**	10,369	0.1059	329.4566	329
5	24	–2.8859	162.4965	162	**36**	10,741	0.1847	333.8472	334
6	50	–2.6775	174.0023	174	**37**	11,185	0.2645	338.3001	338
7	97	–2.4968	184.1029	184	**38**	11,337	0.3456	342.8279	343
8	231	–2.3364	193.1127	193	**39**	11,867	0.4283	347.4348	347
9	421	–2.1913	201.2699	201	**40**	12,199	0.5126	352.1429	352
10	816	–2.0582	208.7498	209	**41**	12,507	0.5990	356.9591	357
11	1,286	–1.9346	215.6594	216	**42**	12,729	0.6877	361.9066	362
12	1,880	–1.8189	222.0822	222	**43**	12,931	0.7791	366.9972	367
13	2,740	–1.7097	228.1646	228	**44**	13,157	0.8735	372.2605	372
14	3,600	–1.6060	233.9504	234	**45**	13,431	0.9715	377.7190	378
15	4,321	–1.5068	239.4865	239	**46**	13,803	1.0736	383.4204	383
16	4,974	–1.4115	244.8089	245	**47**	13,921	1.1805	389.3915	389
17	5,433	–1.3196	249.9435	250	**48**	14,043	1.2930	395.6803	396
18	6,004	–1.2305	254.9152	255	**49**	14,079	1.4123	402.3417	402
19	6,121	–1.1440	259.7466	260	**50**	13,771	1.5396	409.4487	409
20	6,433	–1.0595	264.4630	264	**51**	13,632	1.6768	417.0954	417
21	6,328	–0.9768	269.0776	269	**52**	13,505	1.8261	425.4127	425
22	6,426	–0.8957	273.6006	274	**53**	12,718	1.9910	434.5658	435
23	6,626	–0.8160	278.0494	278	**54**	12,197	2.1765	444.9797	445
24	6,612	–0.7373	282.4364	282	**55**	11,128	2.3899	456.9842	457
25	7,007	–0.6595	286.7739	287	**56**	9,971	2.6440	471.3061	471
26	7,476	–0.5824	291.0700	291	**57**	8,010	2.9625	489.3082	489
27	7,604	–0.5059	295.3383	295	**58**	5,990	3.3986	514.0652	514
28	7,938	–0.4297	299.5833	300	**59**	3,716	4.1220	555.4196	555
29	8,319	–0.3538	303.8191	304	**60**	1,454	N/A	602.3473	600
30	8,576	–0.2779	308.0512	308					

Biology									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	2	N/A	0.0007	150	**31**	10,915	–0.3280	317.9730	318
1	3	–4.6584	90.9817	150	**32**	11,252	–0.2549	321.5372	322
2	7	–3.9418	135.1034	150	**33**	11,367	–0.1815	325.1290	325
3	6	–3.5125	158.1811	158	**34**	11,943	–0.1076	328.7484	329
4	5	–3.2006	174.4156	174	**35**	12,468	–0.0331	332.3952	332
5	23	–2.9530	187.3432	187	**36**	12,858	0.0423	336.0691	336
6	50	–2.7459	197.6944	198	**37**	13,330	0.1187	339.8085	340
7	156	–2.5667	206.2933	206	**38**	13,769	0.1962	343.9972	344
8	304	–2.4078	214.1211	214	**39**	14,100	0.2752	347.7504	348
9	575	–2.2643	221.3187	221	**40**	14,340	0.3559	351.6759	352
10	1,021	–2.1329	228.0028	228	**41**	15,073	0.4385	355.8344	356
11	1,718	–2.0111	234.3182	234	**42**	15,530	0.5233	359.9010	360
12	2,590	–1.8973	239.9432	240	**43**	15,772	0.6107	364.3045	364
13	3,647	–1.7900	245.1813	245	**44**	16,067	0.7011	368.7346	369
14	4,866	–1.6883	250.4572	250	**45**	16,559	0.7950	373.5891	374
15	5,866	–1.5912	255.1466	255	**46**	16,609	0.8929	378.1706	378
16	6,754	–1.4980	259.6150	260	**47**	16,650	0.9955	383.2178	383
17	7,532	–1.4083	264.1202	264	**48**	16,858	1.1037	388.8749	389
18	8,108	–1.3215	268.4964	268	**49**	16,761	1.2184	394.5567	395
19	8,425	–1.2373	272.6188	273	**50**	16,694	1.3412	400.4923	400
20	8,776	–1.1552	276.7748	277	**51**	16,396	1.4738	407.0933	407
21	8,913	–1.0750	280.9139	281	**52**	15,799	1.6184	414.3648	414
22	8,815	–0.9965	284.6703	285	**53**	15,361	1.7786	422.3080	422
23	8,928	–0.9193	288.4576	288	**54**	14,353	1.9591	431.4822	431
24	9,325	–0.8432	292.2765	292	**55**	13,109	2.1676	441.7485	442
25	9,120	–0.7681	296.1270	296	**56**	11,901	2.4166	454.4726	454
26	9,368	–0.6938	299.5712	300	**57**	10,013	2.7300	470.2369	470
27	9,480	–0.6201	303.4236	303	**58**	7,650	3.1610	492.3321	492
28	9,963	–0.5468	306.9480	307	**59**	5,087	3.8793	529.0470	529
29	10,040	–0.4738	310.4284	310	**60**	2,231	N/A	595.4996	600
30	10,535	–0.4009	314.3563	314					

Note: Performance-level cut scores are highlighted.

Table 8.D.81 New Conversion for Chemistry

Chemistry									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
0	0	N/A	51.9904	150	**31**	6,177	–0.3449	310.0404	310
1	2	–4.6284	99.8144	150	**32**	6,327	–0.2727	313.4846	313
2	1	–3.9143	133.0932	150	**33**	6,667	–0.2002	316.9580	317
3	3	–3.4873	155.5564	156	**34**	6,836	–0.1271	320.4608	320
4	4	–3.1778	171.1889	171	**35**	6,929	–0.0534	323.9934	324
5	11	–2.9323	183.8446	184	**36**	7,152	0.0212	327.5558	328
6	32	–2.7274	193.5291	194	**37**	7,427	0.0968	331.4778	331
7	49	–2.5502	202.2489	202	**38**	7,557	0.1737	335.2604	335
8	116	–2.3933	210.0491	210	**39**	7,748	0.2520	338.9127	339
9	246	–2.2517	216.9078	217	**40**	7,722	0.3320	343.0196	343
10	468	–2.1221	223.1194	223	**41**	7,788	0.4139	346.7981	347
11	769	–2.0021	229.3082	229	**42**	8,186	0.4982	351.0506	351
12	1,069	–1.8900	234.7659	235	**43**	8,077	0.5850	355.3617	355
13	1,524	–1.7844	239.8769	240	**44**	8,055	0.6749	359.7064	360
14	2,047	–1.6842	244.6660	245	**45**	8,235	0.7682	364.2638	364
15	2,439	–1.5887	249.3851	249	**46**	8,231	0.8656	368.9853	369
16	2,861	–1.4971	253.9366	254	**47**	8,031	0.9677	374.0406	374
17	3,280	–1.4088	258.1432	258	**48**	8,062	1.0755	379.2585	379
18	3,582	–1.3234	262.0925	262	**49**	7,997	1.1898	384.7754	385
19	3,918	–1.2406	266.0728	266	**50**	7,769	1.3122	390.9724	391
20	4,104	–1.1598	270.0836	270	**51**	7,315	1.4443	397.3658	397
21	4,317	–1.0809	274.1266	274	**52**	7,028	1.5886	404.4562	404
22	4,529	–1.0036	277.7852	278	**53**	6,584	1.7484	412.2514	412
23	4,743	–0.9276	281.4371	281	**54**	6,035	1.9285	421.1356	421
24	4,973	–0.8528	285.1189	285	**55**	5,321	2.1366	430.9529	431
25	5,100	–0.7788	288.8310	289	**56**	4,475	2.3853	443.4394	443
26	5,119	–0.7056	292.2684	292	**57**	3,661	2.6983	458.8285	459
27	5,393	–0.6329	295.8587	296	**58**	2,855	3.1289	480.5356	481
28	5,795	–0.5607	299.3911	299	**59**	1,757	3.8467	517.2128	517
29	5,842	–0.4887	302.7489	303	**60**	733	N/A	584.6196	600
30	6,056	–0.4168	306.3917	306					

Note: Performance-level cut scores are highlighted.

Table 8.D.82 New Conversions for Earth Science (paper-and-pencil version and braille version)

Earth Science (paper–and–pencil)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	51.0104	150	**31**	4,855	–0.0342	311.8166	312
1	1	–4.2815	101.8248	150	**32**	5,143	0.0359	315.2886	315
2	1	–3.5680	135.2502	150	**33**	5,167	0.1063	318.7799	319
3	2	–3.1416	157.3698	157	**34**	5,398	0.1772	322.2903	322
4	11	–2.8326	173.0265	173	**35**	5,377	0.2487	325.8198	326
5	6	–2.5879	185.3204	185	**36**	5,523	0.3210	329.3679	329
6	15	–2.3836	195.6612	196	**37**	5,498	0.3943	332.9346	333
7	53	–2.2072	204.5953	205	**38**	5,613	0.4687	336.5195	337
8	90	–2.0511	211.9082	212	**39**	5,815	0.5445	340.1240	340
9	194	–1.9103	218.8766	219	**40**	5,834	0.6219	344.1950	344
10	392	–1.7816	225.1768	225	**41**	5,974	0.7012	347.8751	348
11	630	–1.6626	231.0248	231	**42**	5,917	0.7827	352.0438	352
12	976	–1.5514	236.5189	237	**43**	5,935	0.8667	356.2430	356
13	1,373	–1.4468	241.8329	242	**44**	5,943	0.9536	360.4617	360
14	1,891	–1.3478	246.9058	247	**45**	6,054	1.0439	364.8330	365
15	2,353	–1.2533	251.3880	251	**46**	5,917	1.1382	369.6214	370
16	2,772	–1.1629	255.8980	256	**47**	5,958	1.2371	374.4288	374
17	3,171	–1.0758	260.4156	260	**48**	5,884	1.3415	379.5270	380
18	3,456	–0.9917	264.5243	265	**49**	5,693	1.4525	384.9150	385
19	3,597	–0.9102	268.2129	268	**50**	5,300	1.5713	390.6908	391
20	3,829	–0.8308	272.3277	272	**51**	5,225	1.6998	397.0833	397
21	3,826	–0.7533	276.1200	276	**52**	4,655	1.8403	404.0974	404
22	3,960	–0.6774	279.8625	280	**53**	4,232	1.9962	411.7830	412
23	4,197	–0.6030	283.6280	284	**54**	3,612	2.1724	420.3182	420
24	4,142	–0.5297	287.0813	287	**55**	2,943	2.3764	430.5542	431
25	4,156	–0.4573	290.7364	291	**56**	2,181	2.6208	442.7223	443
26	4,463	–0.3858	294.2597	294	**57**	1,439	2.9294	458.0183	458
27	4,543	–0.3149	297.6337	298	**58**	861	3.3554	479.2920	479
28	4,603	–0.2444	301.3243	301	**59**	333	4.0686	515.0521	515
29	4,689	–0.1742	304.9310	305	**60**	75	N/A	579.7196	600
30	4,693	–0.1042	308.3640	308					

Earth Science (braille)									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	51.0104	150	**31**	1	–0.0002	313.5015	314
1	0	–4.2683	102.4879	150	**32**	0	0.0714	317.0454	317
2	0	–3.5544	136.0311	150	**33**	0	0.1433	320.6094	321
3	0	–3.1276	158.0877	158	**34**	1	0.2158	324.1935	324
4	0	–2.8182	173.7251	174	**35**	0	0.2890	327.7975	328
5	0	–2.5731	186.0333	186	**36**	0	0.3631	331.4210	331
6	0	–2.3684	196.3890	196	**37**	0	0.4384	335.0638	335
7	0	–2.1915	205.2914	205	**38**	0	0.5150	338.7267	339
8	0	–2.0349	212.7136	213	**39**	0	0.5932	342.6664	343
9	0	–1.8937	219.7406	220	**40**	0	0.6732	346.5982	347
10	1	–1.7645	226.0275	226	**41**	0	0.7554	350.6548	351
11	0	–1.6450	231.9049	232	**42**	1	0.8401	354.9253	355
12	0	–1.5333	237.4165	237	**43**	0	0.9276	359.2162	359
13	0	–1.4282	242.8175	243	**44**	0	1.0186	363.5271	364
14	0	–1.3285	247.8006	248	**45**	1	1.1135	368.3859	368
15	2	–1.2335	252.3588	252	**46**	0	1.2130	373.2781	373
16	0	–1.1424	256.9463	257	**47**	0	1.3180	378.3421	378
17	0	–1.0548	261.4305	261	**48**	0	1.4295	383.8256	384
18	1	–0.9700	265.5052	266	**49**	1	1.5489	389.5983	390
19	0	–0.8877	269.3304	269	**50**	0	1.6779	396.0080	396
20	1	–0.8076	273.5005	274	**51**	0	1.8189	403.0598	403
21	1	–0.7294	277.2891	277	**52**	2	1.9753	410.7616	411
22	0	–0.6527	281.1022	281	**53**	0	2.1519	419.2364	419
23	0	–0.5774	284.9136	285	**54**	0	2.3564	429.5510	430
24	1	–0.5032	288.3088	288	**55**	0	2.6013	441.7182	442
25	1	–0.4300	292.1804	292	**56**	0	2.9103	457.1136	457
26	0	–0.3575	295.6003	296	**57**	0	3.3368	478.4270	478
27	0	–0.2855	299.0541	299	**58**	0	4.0504	514.3377	514
28	0	–0.2140	302.9927	303	**59**	0	N/A	579.7196	600
29	0	–0.1427	306.4750	306					
30	0	–0.0715	309.9780	310					

Note: Performance-level cut scores are highlighted.

Table 8.D.83 New Conversion for Physics and Integrated/Coordinated Science 1

Physics									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	51.4129	150	**31**	1,811	–0.0873	323.8285	324
1	0	–4.3946	112.3293	150	**32**	1,810	–0.0156	327.2537	327
2	2	–3.6779	147.6948	150	**33**	1,889	0.0564	331.0142	331
3	1	–3.2485	168.7772	169	**34**	1,917	0.1288	334.5832	335
4	0	–2.9367	184.0039	184	**35**	2,069	0.2019	337.9993	338
5	1	–2.6892	196.2615	196	**36**	2,067	0.2758	341.7512	342
6	6	–2.4824	206.5266	207	**37**	2,169	0.3507	345.3086	345
7	13	–2.3034	215.2140	215	**38**	2,143	0.4267	349.0514	349
8	40	–2.1449	222.7683	223	**39**	2,232	0.5042	352.9396	353
9	56	–2.0018	229.9884	230	**40**	2,321	0.5833	356.8223	357
10	135	–1.8708	236.3407	236	**41**	2,509	0.6644	360.6997	361
11	225	–1.7497	242.1671	242	**42**	2,437	0.7476	364.8991	365
12	321	–1.6364	247.6744	248	**43**	2,516	0.8335	369.2478	369
13	446	–1.5298	252.9579	253	**44**	2,505	0.9223	373.5887	374
14	657	–1.4288	257.9501	258	**45**	2,574	1.0145	377.9211	378
15	752	–1.3325	262.6967	263	**46**	2,638	1.1108	382.5490	383
16	886	–1.2402	267.1771	267	**47**	2,614	1.2118	387.6361	388
17	972	–1.1513	271.6516	272	**48**	2,477	1.3184	392.8943	393
18	1,038	–1.0655	275.8524	276	**49**	2,477	1.4316	398.4115	398
19	1,197	–0.9822	279.8193	280	**50**	2,374	1.5528	404.3735	404
20	1,195	–0.9011	283.7813	284	**51**	2,258	1.6837	410.7731	411
21	1,269	–0.8220	287.7386	288	**52**	2,054	1.8268	417.8342	418
22	1,306	–0.7445	291.6921	292	**53**	1,963	1.9854	425.7679	426
23	1,325	–0.6684	295.3367	295	**54**	1,718	2.1643	434.5534	435
24	1,407	–0.5935	299.0968	299	**55**	1,457	2.3713	444.6806	445
25	1,415	–0.5196	302.7230	303	**56**	1,137	2.6188	457.0626	457
26	1,500	–0.4465	306.1674	306	**57**	929	2.9307	472.4967	472
27	1,512	–0.3740	309.9310	310	**58**	552	3.3601	493.9558	494
28	1,610	–0.3020	313.5337	314	**59**	334	4.0770	528.4556	528
29	1,616	–0.2304	316.9684	317	**60**	145	N/A	582.7871	600
30	1,744	–0.1588	320.4000	320					

Integrated/Coordinated Science 1									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	1	N/A	0.0000	150	**31**	1,481	–0.2035	313.7974	314
1	0	–4.4909	107.8461	150	**32**	1,513	–0.1317	317.2492	317
2	1	–3.7759	142.1943	150	**33**	1,500	–0.0595	320.7165	321
3	1	–3.3483	162.7325	163	**34**	1,553	0.0132	324.2066	324
4	2	–3.0383	177.6259	178	**35**	1,561	0.0865	327.7273	328
5	1	–2.7925	189.4336	189	**36**	1,510	0.1606	331.2868	331
6	7	–2.5872	199.2959	199	**37**	1,482	0.2356	334.8938	335
7	29	–2.4097	207.8216	208	**38**	1,408	0.3119	338.5578	339
8	44	–2.2525	215.3740	215	**39**	1,441	0.3896	342.2889	342
9	82	–2.1106	222.1880	222	**40**	1,365	0.4689	346.0988	346
10	193	–1.9808	228.4241	228	**41**	1,217	0.5501	350.0000	350
11	260	–1.8606	234.1971	234	**42**	1,113	0.6335	354.0071	354
12	411	–1.7483	239.5920	240	**43**	1,076	0.7195	358.1368	358
13	532	–1.6425	244.6735	245	**44**	1,012	0.8084	362.4082	362
14	690	–1.5422	249.4923	249	**45**	895	0.9008	366.8442	367
15	869	–1.4465	254.0887	254	**46**	740	0.9971	371.4717	371
16	922	–1.3548	258.4956	258	**47**	651	1.0871	375.7962	376
17	1,128	–1.2664	262.7400	263	**48**	603	1.1805	380.2831	380
18	1,180	–1.1810	266.8445	267	**49**	415	1.2782	384.9736	385
19	1,199	–1.1090	270.3012	270	**50**	381	1.3812	389.9204	390
20	1,167	–1.0376	273.7315	274	**51**	286	1.5223	396.7006	397
21	1,216	–0.9665	277.1474	277	**52**	243	1.6779	404.1747	404
22	1,242	–0.8782	281.3865	281	**53**	169	1.8516	412.5190	413
23	1,267	–0.7929	285.4856	285	**54**	138	2.0488	421.9905	422
24	1,297	–0.7102	289.4567	289	**55**	100	2.2551	431.9025	432
25	1,363	–0.6364	293.0052	293	**56**	67	2.5020	443.7618	444
26	1,382	–0.5633	296.5169	297	**57**	35	2.8132	458.7089	459
27	1,416	–0.4908	300.0000	300	**58**	26	3.2419	479.3029	479
28	1,407	–0.4187	303.4622	303	**59**	12	3.9581	513.7091	514
29	1,430	–0.3469	306.9111	307	**60**	3	N/A	1284.3041	600
30	1,465	–0.2752	310.3537	310					

Note: Performance-level cut scores are highlighted.

Table 8.D.84 New Conversions for Integrated/Coordinated Science 2 (paper-and-pencil version and braille version)

Integrated/Coordinated Science 2 (paper–and–pencil)									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
0	0	N/A	0.0000	150	**31**	117	–0.2887	311.1123	311
1	0	–4.5661	86.7794	150	**32**	106	–0.2180	314.8210	315
2	0	–3.8501	124.3299	150	**33**	100	–0.1470	318.5454	319
3	0	–3.4218	146.7958	150	**34**	81	–0.0755	322.2937	322
4	0	–3.1110	163.0921	163	**35**	107	–0.0035	326.0744	326
5	0	–2.8647	176.0134	176	**36**	90	0.0694	329.8967	330
6	0	–2.6589	186.8048	187	**37**	71	0.1433	333.7701	334
7	2	–2.4811	196.1311	196	**38**	84	0.2183	337.7052	338
8	7	–2.3236	204.3894	204	**39**	62	0.2947	341.7132	342
9	8	–2.1816	211.8363	212	**40**	66	0.3728	345.8068	346
10	10	–2.0518	218.6473	219	**41**	75	0.4527	350.0000	350
11	28	–1.9316	224.9480	225	**42**	83	0.5349	354.3088	354
12	38	–1.8195	230.8314	231	**43**	78	0.6196	358.7515	359
13	45	–1.6967	237.2673	237	**44**	75	0.7002	362.9783	363
14	68	–1.5816	243.3073	243	**45**	75	0.7824	367.2896	367
15	91	–1.4730	249.0031	249	**46**	62	0.8667	371.7088	372
16	107	–1.3701	254.3968	254	**47**	67	0.9535	376.2641	376
17	104	–1.2724	259.5227	260	**48**	47	1.0436	380.9903	381
18	112	–1.1792	264.4100	264	**49**	53	1.1378	385.9306	386
19	123	–1.0901	269.0829	269	**50**	53	1.2372	391.1408	391
20	106	–1.0047	273.5625	274	**51**	59	1.3722	398.2250	398
21	119	–0.9226	277.8666	278	**52**	33	1.5214	406.0482	406
22	114	–0.8717	280.5362	281	**53**	34	1.6882	414.7979	415
23	114	–0.8191	283.2963	283	**54**	33	1.8779	424.7472	425
24	108	–0.7567	286.5670	287	**55**	37	2.0985	436.3173	436
25	121	–0.6939	289.8649	290	**56**	23	2.3634	450.2101	450
26	104	–0.6303	293.1979	293	**57**	19	2.6976	467.7347	468
27	106	–0.5659	296.5737	297	**58**	12	3.1255	490.1755	490
28	92	–0.5006	300.0000	300	**59**	8	3.8409	527.6996	528
29	111	–0.4299	303.7097	304	**60**	4	N/A	1,375.1898	600
30	105	–0.3593	307.4112	307					

Integrated/Coordinated Science 2 (braille)									
Raw Scr.	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Freq. Distrib.**	**Theta**	**Scale Score**	**Rprtd Score**
0	–	N/A	0.0000	150	**31**	–	–0.2586	313.7075	314
1	–	–4.5579	108.8998	150	**32**	–	–0.1865	317.1431	317
2	–	–3.8415	143.0289	150	**33**	–	–0.1140	320.5976	321
3	–	–3.4468	161.8313	162	**34**	–	–0.0409	324.0791	324
4	–	–3.1635	175.3267	175	**35**	–	0.0330	327.5959	328
5	–	–2.9117	187.3214	187	**36**	–	0.1077	331.1570	331
6	–	–2.7278	196.0816	196	**37**	–	0.1836	334.7721	335
7	–	–2.5688	203.6547	204	**38**	–	0.2608	338.4517	338
8	–	–2.4045	211.4812	211	**39**	–	0.3397	342.2073	342
9	–	–2.2563	218.5417	219	**40**	–	0.4204	346.0519	346
10	–	–2.1207	225.0022	225	**41**	–	0.5033	350.0000	350
11	–	–1.9952	230.9813	231	**42**	–	0.5887	354.0684	354
12	–	–1.8599	237.4271	237	**43**	–	0.6838	358.5990	359
13	–	–1.7335	243.4453	243	**44**	–	0.7688	362.6470	363
14	–	–1.6149	249.0965	249	**45**	–	0.8645	367.2070	367
15	–	–1.5030	254.4286	254	**46**	–	0.9745	372.4488	372
16	–	–1.3969	259.4810	259	**47**	–	1.0922	378.0540	378
17	–	–1.2961	264.2858	264	**48**	–	1.2187	384.0825	384
18	–	–1.1875	269.4592	269	**49**	–	1.3558	390.6105	391
19	–	–1.0962	273.8062	274	**50**	–	1.4767	396.3723	396
20	–	–1.0087	277.9760	278	**51**	–	1.6074	402.5977	403
21	–	–0.9444	281.0382	281	**52**	–	1.7508	409.4304	409
22	–	–0.8984	283.2286	283	**53**	–	1.9114	417.0813	417
23	–	–0.8324	286.3753	286	**54**	–	2.1173	426.8873	427
24	–	–0.7659	289.5397	290	**55**	–	2.3637	438.6263	439
25	–	–0.6920	293.0597	293	**56**	–	2.6745	453.4293	453
26	–	–0.6189	296.5436	297	**57**	–	3.1028	473.8346	474
27	–	–0.5463	300.0000	300	**58**	–	3.8188	507.9395	508
28	–	–0.4742	303.4369	303	**59**	–	N/A	1278.7638	600
29	–	–0.4023	306.8620	307					
30	–	–0.3305	310.2830	310					

Note: Performance-level cut scores are highlighted. To protect student privacy, the frequency distribution is not shown if based on 10 or fewer student records.

Table 8.D.85 New Conversions for Integrated/Coordinated Science 3 and Integrated/Coordinated Science 4

Integrated/Coordinated Science 3									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0000	150	**31**	29	–0.1530	321.0805	321
1	1	–4.4331	111.5306	150	**32**	28	–0.0815	324.5813	325
2	0	–3.7179	146.5441	150	**33**	15	–0.0097	328.0982	328
3	0	–3.2903	167.4803	167	**34**	26	0.0626	331.6391	332
4	0	–2.9802	182.6613	183	**35**	23	0.1356	335.2120	335
5	0	–2.7344	194.6955	195	**36**	22	0.2094	338.8251	339
6	0	–2.5292	204.7453	205	**37**	20	0.2842	342.4876	342
7	0	–2.3518	213.4310	213	**38**	27	0.3602	346.2090	346
8	1	–2.1946	221.1233	221	**39**	21	0.4377	350.0000	350
9	5	–2.0529	228.0615	228	**40**	16	0.5168	353.8723	354
10	7	–1.9233	234.4093	234	**41**	17	0.5978	357.8390	358
11	10	–1.8033	240.2838	240	**42**	11	0.6810	361.9149	362
12	17	–1.6912	245.7716	246	**43**	14	0.7669	366.1170	366
13	17	–1.5857	250.9390	251	**44**	18	0.8471	370.0463	370
14	26	–1.4856	255.8376	256	**45**	14	0.9290	374.0543	374
15	31	–1.3902	260.5085	261	**46**	9	1.0129	378.1630	378
16	28	–1.2988	264.9854	265	**47**	6	1.0994	382.3986	382
17	31	–1.2107	269.2958	269	**48**	12	1.1892	386.7933	387
18	37	–1.1369	272.9120	273	**49**	4	1.2830	391.3875	391
19	36	–1.0639	276.4855	276	**50**	6	1.4117	397.6881	398
20	42	–0.9722	280.9729	281	**51**	3	1.5521	404.5641	405
21	36	–0.8840	285.2900	285	**52**	6	1.7070	412.1435	412
22	27	–0.8071	289.0573	289	**53**	3	1.8798	420.6044	421
23	33	–0.7315	292.7578	293	**54**	5	2.0759	430.2063	430
24	35	–0.6571	296.4022	296	**55**	2	2.3035	441.3498	441
25	26	–0.5836	300.0000	300	**56**	3	2.5507	453.4535	453
26	33	–0.5109	303.5603	304	**57**	3	2.8622	468.7061	469
27	38	–0.4387	307.0915	307	**58**	3	3.2914	489.7161	490
28	31	–0.3670	310.6015	311	**59**	0	4.0081	524.8054	525
29	23	–0.2956	314.0980	314	**60**	1	N/A	1,307.7630	600
30	30	–0.2243	317.5886	318					

Integrated/Coordinated Science 4									
Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score	Raw Scr.	Freq. Distrib.	Theta	Scale Score	Rprtd Score
0	0	N/A	0.0000	150	**31**	1	–0.1575	317.4086	317
1	0	–4.4643	110.8640	150	**32**	2	–0.0849	320.8884	321
2	0	–3.7485	145.1952	150	**33**	1	–0.0120	324.3845	324
3	0	–3.3201	165.7380	166	**34**	1	0.0614	327.9045	328
4	0	–3.0093	180.6440	181	**35**	0	0.1355	331.4562	331
5	0	–2.7627	192.4683	192	**36**	1	0.2104	335.0477	335
6	0	–2.5567	202.3495	202	**37**	1	0.2863	338.6879	339
7	1	–2.3785	210.8950	211	**38**	0	0.3634	342.3863	342
8	0	–2.2206	218.4680	218	**39**	1	0.4419	346.1532	346
9	0	–2.0781	225.3030	225	**40**	1	0.5221	350.0000	350
10	0	–1.9476	231.5602	232	**41**	0	0.6103	354.2295	354
11	2	–1.8268	237.3544	237	**42**	1	0.7025	358.6472	359
12	0	–1.7138	242.7704	243	**43**	0	0.7989	363.2737	363
13	0	–1.6074	247.8731	248	**44**	0	0.9003	368.1328	368
14	4	–1.5065	252.7130	253	**45**	0	1.0070	373.2527	373
15	4	–1.4102	257.3305	257	**46**	0	1.1199	378.6671	379
16	7	–1.3179	261.7584	262	**47**	0	1.2398	384.4171	384
17	1	–1.2412	265.4345	265	**48**	0	1.3678	390.5531	391
18	6	–1.1658	269.0533	269	**49**	0	1.5051	397.1383	397
19	1	–1.0912	272.6308	273	**50**	0	1.6234	402.8120	403
20	6	–1.0171	276.1804	276	**51**	0	1.7497	408.8682	409
21	3	–0.9255	280.5763	281	**52**	0	1.8862	415.4147	415
22	2	–0.8370	284.8180	285	**53**	0	2.0361	422.6024	423
23	5	–0.7515	288.9195	289	**54**	0	2.2039	430.6532	431
24	3	–0.6687	292.8930	293	**55**	0	2.3970	439.9117	440
25	1	–0.5942	296.4646	296	**56**	0	2.6273	450.9577	451
26	2	–0.5205	300.0000	300	**57**	0	2.9177	464.8829	465
27	1	–0.4473	303.5073	304	**58**	0	3.3195	484.1498	484
28	2	–0.3746	306.9944	307	**59**	0	4.0377	518.5960	519
29	3	–0.3022	310.4688	310	**60**	0	N/A	1,284.0941	600
30	1	–0.2298	313.9378	314					

Note: Performance-level cut scores are highlighted.

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 2	CSL70270.101	53	B+	A+	B+	C+	C+	B+	A+	A+	A+	A-
ELA Grade 2	CSL00046.OSA	60	A-	A+	B+	B+	C+	B+	A+	A+	A+	A+
ELA Grade 2	CSL00089.OSA	71	A+	A+	B+	A+	C+	B+	A+	A+	A+	A+
ELA Grade 3	CSR60171.087	11	A-	A-	A-	B-	C-	B-	B-	B-	A-	A+
ELA Grade 3	CSL10867.096	66	A+	A+	C+	B+	C+	C+	A+	A+	A+	A+
ELA Grade 4	CSR50649.146	9	A-	A-	B-	B-	C-	B-	B-	A-	A-	A+
ELA Grade 4	CSL80117.128	36	A+	A+	C+	C+	C+	C+	A+	B+	A+	A-
ELA Grade 4	CSL20240.010	41	A+	A+	B+	B+	C+	C+	A+	B+	A+	A-
ELA Grade 4	CSL70145.102	53	A+	A+	C+	C+	C+	C+	A+	A+	A+	A-
ELA Grade 5	CSR80306.324	17	A-	A-	C-	B-	C-	C-	B-	A-	B-	A-
ELA Grade 5	CSR80309.324	18	A-	A-	B-	B-	C-	B-	C-	B-	A-	A+
ELA Grade 5	CSL80161.134	46	A+	A-	C+	A+	B+	B+	A+	A+	A+	A-
ELA Grade 5	CSL40141.007	54	B+	A+	B+	A+	C+	B+	A+	B+	A+	A-
ELA Grade 5	CSL50012.046	64	A+	A-	C+	C+	C+	C+	A+	A+	A-	A-
ELA Grade 5	CSL00147.OSA	80	A+	A-	B+	B+	C+	B+	A+	A+	A-	A-
ELA Grade 6	CSW10613.070	62	A+	A+	C+	A+	B+	B+	A+	A+	A+	A-
ELA Grade 6	CSR30154.OSA	64	C-	A-	C-	C-	C-	C-	C-	C-	A-	A+
ELA Grade 7	CSR40329.004	2	C-	A-	A-	A-	A-	A-	A-	A-	A-	A+
ELA Grade 7	CSR106454.153	28	C-	A+	A-	A-	A-	A-	A-	A-	A-	A-
ELA Grade 7	CSL20889.090	74	A+	A+	C+	C+	C+	C+	A+	B+	A-	A-
ELA Grade 7	CSR60040.OSA	75	A-	A+	C-	A-	C-	C-	B-	A-	B-	A+
ELA Grade 7	CSL70312.OSA	82	B+	A-	A+	A+	A+	A+	A+	A-	B-	C-
ELA Grade 8	CSL50075.OSA	73	A-	A+	B+	A+	C+	B+	A-	A+	A-	A-
ELA Grade 9	CSR50580.156	33	A-	A-	C-	A-	B-	B-	A-	A-	A-	A+
ELA Grade 9	CSL20772.075	74	A+	A-	C+	A+	C+	C+	A+	A+	A+	A-
ELA Grade 10	CSR02154.293	22	A-	A-	A-	A-	C-	A-	A-	A-	A-	A+
ELA Grade 10	CSL20790.041	49	A+	A+	B-	A-	A-	B-	A-	A-	C-	A+
ELA Grade 10	CSL60195.OSA	69	C+	A+	A+	A+	A+	A+	A+	A+	A+	A-
ELA Grade 10	CSL70379.OSA	70	A+	A-	B-	A-	C-	B-	A-	A+	A-	A+
ELA Grade 11	CSR60480.202	29	A-	A-	C-	A-	C-	C-	B-	A-	A-	A+
ELA Grade 11	CSL60125.OSA	75	A+	A-	B-	B-	C-	B-	A-	A-	A-	A-
History-SS Grade 8	CSV40115	15	A+	A+	A-	A+	A+	A+	C+	A+	A+	A-
History-SS Grade 8	CSV70100	20	A+	A+	C+	A+	B+	B+	A+	A+	A+	A+
World History	CSV60140	50	C-	A-	A-	A-	A-	A-	A-	A-	A+	A+
History-SS Grade 11	CSV80017	28	B+	A+	A+	B+	B+	A+	A+	C+	A+	A-
History-SS Grade 11	CSV70075	66	A+	A-	A-	B-	A-	A-	A-	A-	C-	A-
Math Grade 5	CSM60093	15	C-	A-	A-	B-	B-	B-	B-	B-	B-	A+
High School Math	CSG70020	39	A+	A+	B-	A-	A-	B-	A-	A-	C-	A+
High School Math	CST40073	71	A-	A-	A-	C-	B-	B-	B-	A-	A-	A-

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
Integrated Math 2	CSA00295	1	A+	S	C+	S	B+	B+	A+	A+	A+	A-
Integrated Math 3	CST10215	65	A+	S	S	S	S	S	C+	S	S	S
Biology	CSB20142	15	C+	A-	A+	A+	A-	A-	A+	A+	A+	A+
Physics	CSP00136	5	C-	A-	A+	A-	A-	A+	A-	B-	A-	A+
Int/Coord Science 2	CSB60140	3	A-	S	A-	S	S	A-	C-	A-	B-	A-
Int/Coord Science 2	CSB20142	7	C+	S	B-	S	S	B-	A-	B+	A-	A-
Int/Coord Science 2	CSP60130	30	A-	S	C+	S	S	C+	A+	B+	A-	B-
Int/Coord Science 2	CSB70251	40	A-	S	C-	S	S	C-	A-	A-	A-	A+
Int/Coord Science 3	CSB80095	1	B-	S	S	S	S	S	B-	S	C-	S
Int/Coord Science 3	CSY80177	27	C+	S	S	S	S	S	A+	S	A-	S
Int/Coord Science 3	CSP60120	65	C-	S	S	S	S	S	A-	S	A+	S

* 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	CSL90326.OSA	2	62	A+	A+	C+	B+	C+	C+	A+	A+	A+	A-
ELA Grade 2	CSL90329.OSA	3	62	A+	A-	A+	C+	A+	A+	A+	A+	A+	A+
ELA Grade 2	CSR90450.362	6	44	A+	A-	A-	C-	B-	A-	A-	A-	A-	A-
ELA Grade 2	CSL80080.126	8	44	A-	A+	C+	A+	B+	C+	A+	A+	A+	A-
ELA Grade 2	CSL80082.126	9	47	A-	A+	B+	B+	C+	C+	A+	A+	A+	A-
ELA Grade 2	CSL80081.126	10	44	B+	A+	C+	A+	C+	C+	A+	A+	A+	A-
ELA Grade 3	CSR70329.243	6	42	A+	A-	B-	A-	C-	B-	A-	A-	A-	A-
ELA Grade 3	CSR90501.OSA	6	69	A+	A+	C+	A+	C+	C+	A+	A+	A+	A+
ELA Grade 4	CSR90271.355	1	32	A-	A-	C-	B-	C-	C-	A-	A-	A-	A+
ELA Grade 4	CSR80189.325	6	32	B-	B-	A-	B-	A-	A-	C-	B-	C-	A+
ELA Grade 4	CSL90168.151	9	31	A+	A+	C+	B+	C+	C+	A+	B+	A+	A-
ELA Grade 4	CSR90493.OSA	9	69	C-	A-	A-	A-	A-	A-	A-	A-	A-	A+
ELA Grade 5	CSR90110.339	2	39	A-	A-	A-	A-	C-	B-	A-	A-	A-	A+
ELA Grade 5	CSL90021.141	9	38	A+	A+	C+	A+	C+	C+	B+	B+	A+	A-
ELA Grade 6	CSR90487.OSA	6	72	C-	A-	A-	A-	B+	A-	A-	A-	B-	A-
ELA Grade 6	CSL90130.150	9	34	B-	A-	A-	C-	A-	A-	B-	A-	A-	A+
ELA Grade 6	CSL90128.150	9	38	A+	A+	C+	B+	C+	C+	A+	B+	A-	A-
ELA Grade 7	CSR90421.360	2	41	A+	A+	C+	A+	B+	B+	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 7	CSR90395.338	5	41	C-	A-	A+	A-	A-	A+	A-	A-	A-	A+
ELA Grade 7	CSL80224.125	10	39	A+	A+	B+	B+	C+	B+	A+	A+	A-	A-
ELA Grade 8	CSR90349.344	6	41	A+	A-	C-	B-	B-	B-	A-	A-	A-	A+
ELA Grade 9	CSR90162.337	1	42	C-	A-	A+	A-	A-	A+	A-	A-	A-	A+
ELA Grade 10	CSR90145.341	3	44	A-	A+	B-	A-	A-	A-	A-	A-	C-	A+
ELA Grade 11	CSL90062.149	10	42	A+	A-	B+	A+	C+	B+	A-	A-	A-	A-
History-SS Grade 8	CSV90039	2	33	C-	A-	A+	A+	A+	A+	A-	A-	B-	A+
Mathematics Grade 2	CSM90180	3	40	A+	A-	A+	C+	A+	A+	A+	A+	A+	A-
Mathematics Grade 2	CSM90297	6	40	A+	A-	B+	A-	C+	B+	A+	A+	A+	A+
Mathematics Grade 2	CSM90248	10	48	A+	A-	A-	C-	A-	A-	A-	A-	A-	A-
Mathematics Grade 2	CSM90252	10	49	A+	A-	A-	B-	B-	B-	B-	B-	C-	A-
Mathematics Grade 3	CSM90112	3	49	A-	A-	A-	C-	A-	A-	B-	B-	B-	A+
Mathematics Grade 3	CSM90137	4	49	A-	B-	A-	C-	B-	B-	B-	C-	B-	A+
Mathematics Grade 4	CSM90415	3	33	A-	A-	A-	B-	C-	A-	A-	A-	A-	A-
Mathematics Grade 4	CSM90417	5	34	A-	B-	A-	B-	A-	A-	A-	C-	B-	A-
Mathematics Grade 4	CSM90295	7	67	A-	B-	A-	C-	C-	A-	B-	B-	A-	A-
Mathematics Grade 5	CSM90331	4	32	C-	A-	A-	A-	B-	A-	C-	C-	B-	A+
Mathematics Grade 5	CSM90084	5	32	A-	A-	A-	C-	A-	A-	B-	B-	B-	A-
Mathematics Grade 5	CSM90340	5	51	A-	A-	A-	A-	A-	A-	B-	C-	A-	A+
Mathematics Grade 5	CSM90092	10	51	B-	A-	A-	B-	A-	A-	B-	C-	B-	A+
Mathematics Grade 6	CSM70007	8	27	C-	A-	A+	A-	A-	A-	A-	A-	A-	A+
Algebra II	CST90040	3	57	C-	A-	A-	B-	B-	A-	C-	B-	B-	A+
Science Grade 5	CSZ90246	6	21	A+	A-	A+	C-	A+	A-	A-	A-	A-	A+
Science Grade 8	CSZA0274	2	38	C-	A+	A-	A-	A-	A-	A-	A-	A+	A+
Science Grade 8	CSZA0080	8	61	A-	B-	C-	B-	C-	C-	B-	B-	A-	A+
Chemistry	CSCA0021	6	21	A-	S	A+	C-	A-	A+	A-	A-	A+	A-
Chemistry	CSCA0079	10	10	C-	S	A-	S	A-	A-	B-	B-	B-	A+
Earth Science	CSYA0092	12	31	A+	A+	A-	S	C-	A-	A-	A-	A-	A-
Physics	CSPA0013	14	16	B-	S	A-	S	A-	A-	A-	C-	A-	A-
Int/Coord Science 2	CSBA0088	1	9	A+	S	C+	S	S	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.3 DIF Classifications for ELA, Grade Two Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	5	8	1	2	1	2	2	3	2	3	0	0	6	9
A-	35	54	30	46	32	49	28	43	22	34	29	45	32	49	31	48	29	45	33	51	23	35
A+	29	45	35	54	27	42	33	51	31	48	31	48	32	49	31	48	34	52	32	49	28	43
B+	1	2	0	0	5	8	1	2	4	6	4	6	0	0	1	2	0	0	0	0	5	8
C+	0	0	0	0	0	0	1	2	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	2	3	0	0	1	2	1	2	0	0	1	2	1	2	1	2	0	0	0	0	3	5
A-	24	37	28	43	32	49	38	58	34	52	31	48	30	46	33	51	33	51	32	49	28	43
A+	39	60	37	57	29	45	22	34	28	43	30	46	32	49	31	48	32	49	33	51	27	42
B+	0	0	0	0	2	3	4	6	1	2	2	3	2	3	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	3	4	2	3	5	7	2	3	2	3	1	1	1	1	1	1	8	11
A-	30	39	39	51	33	43	38	50	29	38	35	46	37	49	39	51	37	49	36	47	32	42
A+	46	61	37	49	36	47	33	43	33	43	35	46	37	49	34	45	38	50	39	51	27	36
B+	0	0	0	0	2	3	1	1	5	7	1	1	0	0	2	3	0	0	0	0	5	7
C+	0	0	0	0	2	3	2	3	3	4	3	4	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	1	1	1	1	0	0	0	0	0	0	2	3
B-	2	3	0	0	4	5	3	4	3	4	4	5	1	1	1	1	2	3	0	0	7	9
A-	30	40	34	45	31	41	32	43	33	44	31	41	30	40	31	41	33	44	41	55	33	44
A+	41	55	41	55	30	40	36	48	29	39	30	40	42	56	42	56	40	53	34	45	24	32
B+	2	3	0	0	7	9	3	4	5	7	8	11	1	1	1	1	0	0	0	0	5	7
C+	0	0	0	0	2	3	1	1	3	4	1	1	0	0	0	0	0	0	0	0	4	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1
B-	2	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	5
A-	31	41	36	48	37	49	35	47	37	49	36	48	33	44	35	47	33	44	41	55	29	39
A+	40	53	39	52	34	45	39	52	34	45	36	48	41	55	38	51	41	55	34	45	37	49
B+	1	1	0	0	1	1	0	0	3	4	2	3	0	0	1	1	0	0	0	0	3	4
C+	0	0	0	0	1	1	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.8 DIF Classifications for ELA, Grade Seven Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	1	0	0	1	1	1	1	0	0	0	0	0	0	1	1	4	5
B-	3	4	0	0	4	5	1	1	4	5	3	4	1	1	0	0	3	4	0	0	8	11
A-	30	39	40	53	29	38	33	43	30	39	30	39	29	38	35	46	33	43	41	54	26	34
A+	37	49	36	47	34	45	41	54	33	43	34	45	46	61	40	53	40	53	34	45	27	36
B+	4	5	0	0	7	9	0	0	7	9	7	9	0	0	1	1	0	0	0	0	10	13
C+	0	0	0	0	1	1	1	1	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	5	7	1	1	3	4	3	4	0	0	0	0	2	3	0	0	6	8
A-	32	43	35	47	31	41	33	44	36	48	37	49	34	45	35	47	36	48	38	51	28	37
A+	42	56	40	53	35	47	41	55	32	43	32	43	41	55	40	53	37	49	37	49	34	45
B+	1	1	0	0	4	5	0	0	3	4	3	4	0	0	0	0	0	0	0	0	6	8
C+	0	0	0	0	0	0	0	0	1	1	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.10 DIF Classifications for ELA, Grade Nine Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	1	1	0	0	6	8	1	1	3	4	5	7	1	1	1	1	0	0	0	0	8	11
A-	34	45	35	47	25	33	29	39	33	44	30	40	32	43	31	41	35	47	36	48	25	33
A+	40	53	40	53	39	52	45	60	37	49	37	49	42	56	43	57	40	53	39	52	37	49
B+	0	0	0	0	3	4	0	0	1	1	2	3	0	0	0	0	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.11 DIF Classifications for ELA, Grade Ten Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	0	0	0	0	0	0	1	1	0	0	3	4
B-	0	0	0	0	4	5	0	0	0	0	2	3	0	0	0	0	0	0	0	0	2	3
A-	40	53	35	47	31	41	31	41	30	40	32	43	31	41	34	45	32	43	39	52	25	33
A+	34	45	40	53	40	53	44	59	42	56	41	55	44	59	41	55	42	56	36	48	43	57
B+	0	0	0	0	0	0	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	1	1	0	0	0	0	0	0	0	0	2	3
B-	2	3	0	0	2	3	1	1	1	1	2	3	2	3	0	0	2	3	0	0	5	7
A-	30	40	40	53	33	44	31	41	33	44	34	45	34	45	40	53	29	39	35	47	28	37
A+	43	57	35	47	36	48	43	57	39	52	36	48	39	52	35	47	44	59	40	53	37	49
B+	0	0	0	0	3	4	0	0	0	0	2	3	0	0	0	0	0	0	0	0	3	4
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.13 DIF Classifications for History–Social Science, Grade Eight Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	5
A-	30	40	39	52	34	45	32	43	42	56	35	47	40	53	32	43	33	44	35	47	26	35
A+	43	57	36	48	37	49	43	57	32	43	39	52	34	45	41	55	42	56	40	53	40	53
B+	0	0	0	0	2	3	0	0	1	1	1	1	0	0	1	1	0	0	0	0	3	4
C+	0	0	0	0	1	1	0	0	0	0	0	0	1	1	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	29	48	30	50	33	55	29	48	33	55	36	60	27	45	29	48	24	40	26	43	30	50
A+	29	48	30	50	26	43	31	52	27	45	24	40	33	55	31	52	36	60	34	57	27	45
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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	0	0	1	2
B-	3	5	0	0	2	3	1	2	0	0	0	0	1	2	0	0	0	0	0	0	5	8
A-	24	40	30	50	24	40	31	52	26	43	29	48	25	42	30	50	26	43	29	48	24	40
A+	30	50	30	50	34	57	27	45	32	53	31	52	34	57	28	47	33	55	31	52	25	42
B+	3	5	0	0	0	0	1	2	2	3	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	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.16 DIF Classifications for Mathematics, Grade Two Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	1	2	0	0	0	0	0	0	1	2	0	0	6	9
A-	26	40	34	52	28	43	24	37	25	38	28	43	28	43	30	46	27	42	30	46	24	37
A+	37	57	31	48	37	57	39	60	39	60	37	57	37	57	35	54	37	57	35	54	35	54
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.17 DIF Classifications for Mathematics, Grade Three Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	5	8	0	0	0	0	0	0	1	2	0	0	1	2	1	2	0	0	0	0	6	9
A-	26	40	33	51	34	52	31	48	27	42	31	48	31	48	25	38	33	51	34	52	26	40
A+	32	49	32	49	31	48	32	49	35	54	34	52	32	49	37	57	32	49	31	48	26	40
B+	2	3	0	0	0	0	2	3	2	3	0	0	1	2	2	3	0	0	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.18 DIF Classifications for Mathematics, Grade Four Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	2	3	1	2	0	0	5	8
A-	26	40	28	43	35	54	33	51	31	48	33	51	26	40	31	48	30	46	34	52	25	38
A+	37	57	37	57	30	46	31	48	33	51	32	49	38	58	32	49	34	52	31	48	33	51
B+	0	0	0	0	0	0	1	2	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.19 DIF Classifications for Mathematics, Grade Five Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	2	3	0	0	0	0	3	5	2	3	1	2	2	3	3	5	1	2	0	0	6	9
A-	25	38	31	48	33	51	30	46	27	42	32	49	28	43	28	43	32	49	33	51	23	35
A+	37	57	34	52	32	49	30	46	36	55	32	49	34	52	32	49	32	49	32	49	31	48
B+	0	0	0	0	0	0	2	3	0	0	0	0	1	2	2	3	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.20 DIF Classifications for Mathematics, Grade Six Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	1	2	2	3	2	3	1	2	1	2	3	5	0	0	6	9
A-	26	40	34	52	28	43	31	48	30	46	31	48	29	45	29	45	28	43	31	48	22	34
A+	34	52	31	48	33	51	32	49	33	51	31	48	34	52	34	52	34	52	34	52	32	49
B+	2	3	0	0	2	3	1	2	0	0	1	2	1	2	1	2	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	0	0	0	0	5	8
A-	28	43	29	45	32	49	28	43	26	40	29	45	30	46	30	46	33	51	35	54	24	37
A+	33	51	36	55	32	49	37	57	36	55	36	55	35	54	32	49	32	49	30	46	32	49
B+	1	2	0	0	1	2	0	0	1	2	0	0	0	0	2	3	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.22 DIF Classifications for General Mathematics Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	2	3	1	2	0	0	0	0	0	0	0	0	4	6
A-	27	42	29	45	29	45	26	40	28	43	29	45	26	40	33	51	31	48	32	49	24	37
A+	35	54	36	55	36	55	36	55	35	54	35	54	39	60	32	49	34	52	33	51	35	54
B+	1	2	0	0	0	0	1	2	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.23 DIF Classifications for Algebra I Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	31	48	27	42	32	49	28	43	28	43	29	45	30	46	29	45	18	28	25	38	25	38
A+	34	52	38	58	33	51	37	57	37	57	36	55	35	54	36	55	45	69	40	62	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	33	51	35	54	32	49	32	49	33	51	33	51	32	49	33	51	24	37	29	45	32	49
A+	31	48	30	46	33	51	33	51	32	49	32	49	33	51	32	49	41	63	36	55	32	49
B+	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	3	5	1	2	4	6
A-	26	40	33	51	25	38	29	45	25	38	26	40	29	45	33	51	23	35	23	35	29	45
A+	39	60	32	49	40	62	36	55	40	62	39	60	36	55	32	49	39	60	41	63	32	49
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	0	0	0	0	1	2	0	0	2	3
B-	2	3	0	0	2	3	1	2	3	5	3	5	2	3	2	3	2	3	0	0	5	8
A-	26	40	30	46	22	34	25	38	22	34	21	32	26	40	27	42	26	40	32	49	21	32
A+	36	55	35	54	41	63	38	58	40	62	41	63	36	55	36	55	36	55	33	51	35	54
B+	1	2	0	0	0	0	0	0	0	0	0	0	1	2	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.27 DIF Classifications for Integrated Mathematics 1 Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	1	2	0	0	0	0	0	0	0	0	0	0	1	2	1	2	4	6
A-	35	54	29	45	31	48	0	0	30	46	34	52	28	43	34	52	24	37	25	38	25	38
A+	30	46	32	49	33	51	0	0	35	54	31	48	37	57	31	48	40	62	39	60	34	52
B+	0	0	2	3	0	0	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	4	6	1	2	1	2	0	0	1	2	0	0	5	8
A-	27	42	0	0	36	55	0	0	28	43	31	48	31	48	31	48	32	49	30	46	28	43
A+	38	58	0	0	25	38	0	0	28	43	32	49	33	51	34	52	32	49	35	54	24	37
B+	0	0	0	0	3	5	0	0	5	8	1	2	0	0	0	0	0	0	0	0	7	11
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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	7	11	0	0	0	0	0	0	10	15
A-	28	43	0	0	0	0	0	0	0	0	0	0	24	37	0	0	0	0	0	0	22	34
A+	33	51	0	0	0	0	0	0	0	0	0	0	29	45	0	0	0	0	0	0	27	42
B+	1	2	0	0	0	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	5	8
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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	30	50	30	50	32	53	31	52	30	50	31	52	31	52	28	47	29	48	28	47
A+	30	50	30	50	29	48	28	47	29	48	29	48	29	48	29	48	31	52	31	52	30	50
B+	0	0	0	0	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	2
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	0	0	2	3	0	0	4	7
A-	26	43	29	48	32	53	30	50	33	55	31	52	29	48	31	52	17	28	33	55	25	42
A+	31	52	31	52	27	45	29	48	27	45	29	48	29	48	29	48	41	68	27	45	27	45
B+	1	2	0	0	1	2	1	2	0	0	0	0	1	2	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.32 DIF Classifications for Grade Ten Life Science Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	32	53	29	48	28	47	31	52	29	48	28	47	26	43	29	48	30	50	29	48	33	55
A+	26	43	31	52	30	50	29	48	30	50	32	53	34	57	31	52	30	50	31	52	23	38
B+	2	3	0	0	2	3	0	0	1	2	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.33 DIF Classifications for Biology Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	32	53	27	45	34	57	29	48	32	53	31	52	32	53	32	53	29	48	29	48
A+	30	50	28	47	32	53	26	43	31	52	28	47	28	47	28	47	28	47	31	52	27	45
B+	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	0	0	3	5
A-	27	45	30	50	27	45	29	48	28	47	27	45	28	47	26	43	26	43	29	48	21	35
A+	32	53	30	50	31	52	31	52	32	53	33	55	32	53	34	57	33	55	31	52	35	58
B+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	0	0	0	0	0	0	0	0	3	5
A-	24	40	30	50	29	48	27	45	27	45	27	45	29	48	25	42	24	40	33	55	25	42
A+	32	53	30	50	31	52	33	55	33	55	33	55	31	52	35	58	36	60	27	45	31	52
B+	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	0	0	2	3	1	2	0	0	0	0	1	2	4	7	0	0	7	12
A-	22	37	31	52	27	45	26	43	28	47	27	45	31	52	24	40	26	43	33	55	21	35
A+	36	60	28	47	33	55	32	53	31	52	33	55	29	48	35	58	30	50	27	45	31	52
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.37 DIF Classifications for Integrated/Coordinated Science 1 Operational Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5
A-	27	45	32	53	28	47	31	52	31	52	30	50	34	57	30	50	27	45	26	43	28	47
A+	32	53	28	47	30	50	28	47	29	48	30	50	26	43	30	50	33	55	34	57	28	47
B+	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	1	2	0	0	0	0	0	0	2	3
B-	5	8	0	0	6	10	0	0	0	0	4	7	2	3	2	3	2	3	2	3	12	20
A-	27	45	0	0	27	45	0	0	0	0	26	43	28	47	28	47	30	50	24	40	14	23
A+	26	43	0	0	18	30	0	0	0	0	24	40	28	47	26	43	28	47	34	57	20	33
B+	1	2	0	0	7	12	0	0	0	0	4	7	1	2	4	7	0	0	0	0	10	17
C+	1	2	0	0	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	3
Small N	0	0	60	100	0	0	60	100	60	100	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	0	0	2	3
B-	4	7	0	0	0	0	0	0	0	0	0	0	4	7	0	0	3	5	0	0	8	13
A-	23	38	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	28	47	0	0	31	52	0	0	23	38
B+	1	2	0	0	0	0	0	0	0	0	0	0	3	5	0	0	2	3	0	0	6	10
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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	0	0	0	0	0	0	0	0	1	2
B-	0	0	1	2	1	2	8	14	8	14	0	0	0	0	0	0	1	2	1	2	13	22
A-	22	38	30	52	28	48	24	41	21	36	29	50	31	53	30	52	34	59	45	78	17	29
A+	35	60	27	47	23	40	21	36	19	33	23	40	26	45	27	47	23	40	12	21	15	26
B+	1	2	0	0	3	5	3	5	7	12	2	3	1	2	1	2	0	0	0	0	7	12
C+	0	0	0	0	3	5	1	2	3	5	4	7	0	0	0	0	0	0	0	0	5	9
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	58	100	58	100	58	100	58	100	58	100	58	100	58	100	58	100	58	100	58	100	58	100

Table 8.E.42 DIF Classifications for ELA, Grade Three Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	8	13	3	5	2	3	1	2	3	5	4	7	0	0	14	23
A-	26	43	34	57	23	38	27	45	24	40	25	42	33	55	31	52	31	52	31	52	18	30
A+	34	57	26	43	29	48	24	40	25	42	29	48	26	43	25	42	25	42	29	48	17	28
B+	0	0	0	0	5	8	1	2	6	10	3	5	0	0	1	2	0	0	0	0	9	15
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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	0	0	1	2	1	2	1	2	0	0	1	2	0	0	3	5
B-	1	2	1	2	0	0	8	14	4	7	1	2	1	2	2	3	0	0	0	0	8	14
A-	28	47	35	59	22	37	28	47	27	46	25	42	33	56	39	66	34	58	24	41	27	46
A+	29	49	23	39	32	54	22	37	25	42	31	53	24	41	17	29	24	41	35	59	16	27
B+	0	0	0	0	3	5	1	2	1	2	0	0	0	0	1	2	0	0	0	0	4	7
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.44 DIF Classifications for ELA, Grade Five Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	6	10	2	3	3	5	2	3	1	2	1	2	0	0	7	12
A-	34	58	31	53	23	39	26	44	31	53	28	47	34	58	42	71	42	71	29	49	29	49
A+	25	42	28	47	32	54	27	46	23	39	26	44	22	37	15	25	16	27	30	51	20	34
B+	0	0	0	0	1	2	0	0	1	2	1	2	1	2	1	2	0	0	0	0	1	2
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.45 DIF Classifications for ELA, Grade Six Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	3
B-	2	3	1	2	3	5	2	3	4	7	2	3	6	10	1	2	2	3	0	0	10	17
A-	19	32	39	66	21	36	37	63	25	42	23	39	25	42	39	66	39	66	29	49	21	36
A+	37	63	19	32	32	54	18	31	28	47	32	54	28	47	18	31	18	31	30	51	23	39
B+	0	0	0	0	2	3	1	2	1	2	1	2	0	0	1	2	0	0	0	0	2	3
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.46 DIF Classifications for ELA, Grade Seven Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	0	0	0	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	2	4
A-	11	22	25	49	11	22	23	45	14	27	11	22	14	27	28	55	30	59	31	61	13	25
A+	39	76	26	51	31	61	24	47	30	59	33	65	37	73	23	45	21	41	20	39	25	49
B+	0	0	0	0	8	16	3	6	5	10	7	14	0	0	0	0	0	0	0	0	8	16
C+	0	0	0	0	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	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	51	100	51	100	51	100	51	100	51	100	51	100	51	100	51	100	51	100	51	100	51	100

Table 8.E.47 DIF Classifications for ELA, Grade Eight Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	1	2	2	3	2	3	3	5	4	7	2	3	1	2	0	0	4	7	0	0	9	15
A-	20	33	32	53	28	47	31	52	33	55	30	50	35	58	33	55	40	67	38	63	21	35
A+	36	60	24	40	29	48	26	43	23	38	28	47	23	38	27	45	16	27	22	37	25	42
B+	3	5	2	3	0	0	0	0	0	0	0	0	1	2	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.48 DIF Classifications for ELA, Grade Nine Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	2	4	0	0	2	4	3	5	3	5	1	2	2	4	0	0	1	2	0	0	7	13
A-	14	25	37	67	18	33	34	62	28	51	22	40	33	60	39	71	46	84	32	58	19	35
A+	36	65	18	33	33	60	16	29	22	40	30	55	20	36	16	29	8	15	23	42	23	42
B+	2	4	0	0	2	4	2	4	2	4	2	4	0	0	0	0	0	0	0	0	5	9
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	55	100	55	100	55	100	55	100	55	100	55	100	55	100	55	100	55	100	55	100	55	100

Table 8.E.49 DIF Classifications for ELA, Grade Ten Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	0	0	1	2
B-	0	0	2	3	3	5	2	3	1	2	2	3	0	0	0	0	0	0	0	0	5	8
A-	21	35	26	43	24	40	31	52	36	60	24	40	33	55	35	58	40	67	31	52	31	52
A+	38	63	32	53	32	53	26	43	21	35	34	57	26	43	25	42	19	32	29	48	20	33
B+	1	2	0	0	1	2	1	2	2	3	0	0	1	2	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.50 DIF Classifications for ELA, Grade Eleven Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	0	0	0	0	0	0	1	2	0	0	0	0	3	5
A-	16	27	26	43	21	35	38	63	22	37	20	33	43	72	47	78	44	73	41	68	28	47
A+	43	72	34	57	35	58	20	33	35	58	37	62	17	28	12	20	16	27	19	32	23	38
B+	1	2	0	0	4	7	0	0	2	3	3	5	0	0	0	0	0	0	0	0	5	8
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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
B-	0	0	0	0	2	7	0	0	0	0	0	0	1	3	1	3	2	7	0	0	3	10
A-	18	60	20	67	10	33	16	53	14	47	11	37	20	67	23	77	19	63	14	47	17	57
A+	11	37	10	33	17	57	14	47	16	53	18	60	9	30	6	20	9	30	16	53	8	27
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	15	50	19	63	9	30	20	67	12	40	11	37	23	77	24	80	24	80	21	70	21	70
A+	15	50	11	37	21	70	10	33	18	60	19	63	7	23	6	20	5	17	9	30	8	27
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	7	0	0	1	3	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	13
A-	8	27	22	73	15	50	23	77	15	50	17	57	21	70	24	80	23	77	23	77	18	60
A+	19	63	8	27	14	47	7	23	14	47	13	43	9	30	6	20	6	20	7	23	6	20
B+	1	3	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	2	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	0	0	0	0	1	2	0	0	2	3
B-	1	2	0	0	1	2	5	8	2	3	1	2	1	2	1	2	0	0	0	0	6	10
A-	23	38	34	57	16	27	23	38	15	25	16	27	24	40	33	55	24	40	41	68	15	25
A+	36	60	25	42	41	68	28	47	40	67	42	70	34	57	26	43	35	58	19	32	29	48
B+	0	0	1	2	2	3	2	3	2	3	1	2	1	2	0	0	0	0	0	0	6	10
C+	0	0	0	0	0	0	1	2	1	2	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	0	0	0	0	2	3
B-	3	5	1	2	0	0	7	12	4	7	2	3	8	13	10	17	6	10	0	0	15	25
A-	34	57	43	72	16	27	27	45	29	48	21	35	32	53	32	53	38	63	37	62	19	32
A+	22	37	16	27	42	70	22	37	25	42	36	60	19	32	17	28	16	27	23	38	16	27
B+	1	2	0	0	2	3	2	3	2	3	1	2	1	2	0	0	0	0	0	0	8	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	3	0	0	0	0	1	2	0	0	0	0	3	5
B-	3	5	2	3	0	0	5	8	2	3	0	0	4	7	4	7	4	7	0	0	7	12
A-	32	53	34	57	14	23	32	53	25	42	18	30	33	55	36	60	39	65	36	60	27	45
A+	25	42	24	40	44	73	20	33	31	52	41	68	23	38	19	32	17	28	24	40	20	33
B+	0	0	0	0	2	3	2	3	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.57 DIF Classifications for Mathematics, Grade Five Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	2	0	0	0	0	1	2	3	5	0	0	0	0	4	7
B-	2	3	1	2	0	0	4	7	4	7	0	0	7	12	5	8	4	7	0	0	9	15
A-	29	48	34	57	17	28	29	48	28	47	21	35	26	43	31	52	34	57	30	50	22	37
A+	28	47	23	38	43	72	24	40	26	43	39	65	26	43	20	33	22	37	30	50	21	35
B+	0	0	2	3	0	0	2	3	2	3	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.58 DIF Classifications for Mathematics, Grade Six Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	2	3	1	2	0	0	5	8	1	2	0	0	2	3	3	5	1	2	0	0	11	18
A-	34	57	40	67	23	38	33	55	38	63	29	48	37	62	38	63	44	73	32	53	24	40
A+	23	38	19	32	36	60	21	35	21	35	30	50	21	35	19	32	15	25	28	47	23	38
B+	0	0	0	0	1	2	1	2	0	0	1	2	0	0	0	0	0	0	0	0	1	2
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.59 DIF Classifications for Mathematics, Grade Seven Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	3	5	0	0	0	0	0	0	0	0	1	2	0	0	4	7
A-	24	40	24	40	15	25	25	42	22	37	21	35	39	65	36	60	41	68	38	63	27	45
A+	36	60	36	60	44	73	31	52	37	62	39	65	21	35	24	40	18	30	22	37	26	43
B+	0	0	0	0	1	2	1	2	1	2	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.60 DIF Classifications for General Mathematics Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	4	67	1	17	3	50	3	50	3	50	5	83	3	50	3	50	4	67	3	50
A+	4	67	2	33	5	83	3	50	3	50	3	50	1	17	3	50	3	50	2	33	3	50
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	3	0	0	0	0	0	0	0	0	1	3	0	0	2	7
A-	18	60	18	60	13	43	18	60	14	47	13	43	21	70	21	70	17	57	14	47	15	50
A+	12	40	12	40	17	57	11	37	16	53	17	57	9	30	9	30	12	40	16	53	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	16	53	16	53	6	20	20	67	15	50	10	33	20	67	20	67	14	47	15	50	17	57
A+	14	47	14	47	24	80	10	33	15	50	20	67	10	33	10	33	16	53	15	50	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.63 DIF Classifications for Algebra II Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	3	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	1	3
B-	0	0	0	0	1	3	1	3	1	3	1	3	0	0	1	3	1	3	0	0	1	3
A-	10	33	20	67	14	47	19	63	19	63	13	43	17	57	20	67	14	47	17	57	18	60
A+	19	63	10	33	15	50	9	30	10	33	16	53	12	40	9	30	15	50	13	43	9	30
B+	0	0	0	0	0	0	1	3	0	0	0	0	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.64 DIF Classifications for Summative High School Mathematics Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	4	13	2	7	0	0	0	0	0	0	2	7	0	0	8	27
A-	10	33	20	67	11	37	15	50	13	43	11	37	16	53	17	57	14	47	13	43	7	23
A+	18	60	10	33	19	63	11	37	15	50	19	63	13	43	13	43	14	47	17	57	14	47
B+	1	3	0	0	0	0	0	0	0	0	0	0	1	3	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.65 DIF Classifications for Integrated Mathematics 1 Field-test Items

DIF	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	5	83	2	33	4	67	0	0	5	83	4	67	3	50	3	50	4	67	3	50	3	50
A+	1	17	3	50	2	33	0	0	1	17	2	33	3	50	3	50	2	33	3	50	2	33
B+	0	0	1	17	0	0	0	0	0	0	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	0	0	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	5	83	0	0	2	33	0	0	2	33	1	17	3	50	4	67	2	33	3	50	1	17
A+	1	17	0	0	4	67	0	0	4	67	5	83	3	50	2	33	4	67	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	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	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	4	67	0	0	0	0	0	0	0	0	0	0	3	50	0	0	0	0	0	0	2	33
A+	1	17	0	0	0	0	0	0	0	0	0	0	3	50	0	0	0	0	0	0	3	50
B+	1	17	0	0	0	0	0	0	0	0	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	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	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	0	0	2	2	1	1	3	4	5	6	1	1	4	5	3	4	1	1	0	0	9	11
A-	49	58	48	57	32	38	46	55	36	43	38	45	45	54	53	63	58	69	37	44	50	60
A+	35	42	33	39	50	60	33	39	43	51	45	54	35	42	28	33	24	29	47	56	20	24
B+	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	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	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	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	2	2
B-	5	6	1	1	1	1	5	6	0	0	1	1	3	4	2	2	3	4	0	0	10	12
A-	40	48	48	57	35	42	57	68	48	57	39	46	54	64	53	63	56	67	41	49	40	48
A+	36	43	34	40	43	51	22	26	35	42	43	51	27	32	29	35	25	30	43	51	28	33
B+	2	2	1	1	4	5	0	0	0	0	0	0	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	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	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	3	4	2	2	4	5	0	0	2	2	2	2	0	0	3	4	1	1	9	11
A-	41	49	49	58	37	44	56	67	53	63	43	51	56	67	65	77	62	74	51	61	40	48
A+	39	46	30	36	44	52	24	29	30	36	39	46	26	31	19	23	19	23	32	38	29	35
B+	3	4	2	2	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	6	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	3	4	0	0	3	4	1	1	0	0	0	0	1	1	0	0	0	0	7	8
A-	51	61	46	55	28	33	44	52	35	42	30	36	54	64	61	73	51	61	53	63	42	50
A+	33	39	35	42	55	65	37	44	48	57	54	64	30	36	22	26	33	39	31	37	34	40
B+	0	0	0	0	1	1	0	0	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	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2
B-	1	1	3	4	3	4	2	2	3	4	2	2	4	5	3	4	7	8	3	4	18	21
A-	44	52	13	15	46	55	26	31	47	56	45	54	58	69	52	62	51	61	50	60	38	45
A+	37	44	8	10	34	40	19	23	34	40	37	44	22	26	29	35	26	31	30	36	24	29
B+	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
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	36	43	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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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-	4	5	1	1	2	2	0	0	6	7	2	2	4	5	2	2	1	1	0	0	14	17
A-	44	52	38	45	42	50	0	0	45	54	48	57	54	64	55	65	61	73	49	58	41	49
A+	36	43	44	52	39	46	0	0	32	38	34	40	26	31	27	32	22	26	34	40	26	31
B+	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
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	M-F		W-Aml		W-Asn		W-Pacl		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	1	0	0	0	0	1	1
B-	2	2	0	0	3	4	0	0	5	6	2	2	4	5	4	5	7	8	4	5	19	23
A-	50	60	0	0	39	46	0	0	47	56	45	54	52	62	57	68	43	51	36	43	30	36
A+	32	38	0	0	39	46	0	0	28	33	37	44	28	33	21	25	33	39	42	50	25	30
B+	0	0	0	0	3	4	0	0	4	5	0	0	0	0	1	1	1	1	2	2	9	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	84	100	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.75 DIF Classifications for Integrated/Coordinated Science 1 Field-test Items

DIF	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	17	1	17	0	0	0	0	0	0	0	0	0	0	0	0	2	33
A-	3	50	3	50	2	33	4	67	4	67	4	67	5	83	5	83	4	67	5	83	2	33
A+	3	50	3	50	3	50	1	17	2	33	2	33	1	17	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	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	17	0	0	1	17	0	0	0	0	1	17	0	0	0	0	0	0	1	17	2	33
A-	2	33	0	0	0	0	0	0	0	0	1	17	0	0	1	17	4	67	4	67	0	0
A+	3	50	0	0	3	50	0	0	0	0	2	33	6	100	4	67	2	33	1	17	1	17
B+	0	0	0	0	1	17	0	0	0	0	2	33	0	0	1	17	0	0	0	0	2	33
C+	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17
Small N	0	0	6	100	0	0	6	100	6	100	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	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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	2	33	0	0	4	67	0	0	3	50
A+	3	50	0	0	0	0	0	0	0	0	0	0	4	67	0	0	2	33	0	0	3	50
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	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		NonD-Dis		Total	
category	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

Rigorous quality control procedures were implemented throughout the test development, administration, scoring, and reporting processes. As part of this effort, ETS maintains an Office of Testing Integrity (OTI) that resides in the ETS legal department. The OTI provides quality assurance services for all testing programs administered by ETS. In addition, the Office of Professional Standards Compliance at ETS publishes and maintains the *ETS Standards for Quality and Fairness,* which supports the OTI's goals and activities. The purposes of the *ETS Standards for Quality and Fairness* are to help ETS design, develop, and deliver technically sound, fair, and useful products and services; and to help the public and auditors evaluate those products and services.

In addition, each department at ETS that is involved in the testing cycle designs and implements an independent set of procedures to ensure the quality of its products. In the next sections, these procedures are described.

Quality Control of Item Development

The item development process for the CSTs is described in detail in Chapter 3, starting on page 190. The next sections highlight elements of the process devoted specifically to the quality control of item development.

Item Specifications

ETS maintains item specifications for each 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 who have a thorough understanding of the California content standards. The item writers are carefully screened and selected by senior ETS content staff and approved by the CDE. Only those with strong content and teaching backgrounds are invited to participate in an extensive training program for item writers.

Internal Contractor Reviews

Once items have been written, ETS assessment specialists make sure that each item goes through an intensive internal review process. Every step of this process is designed to produce items that exceed industry standards for quality. It includes three rounds of content reviews, two rounds of editorial reviews, an internal fairness review, and a high-level review and approval by a content-area director. A carefully designed and monitored workflow and detailed checklists help to ensure that all items meet the specifications for the process.

Content Review

ETS assessment specialists make sure that the test items and related materials comply with ETS's written guidelines for clarity, style, accuracy, and appropriateness and with approved item specifications.

The artwork and graphics for the items are created during the internal content review period so assessment specialists can evaluate the correctness and appropriateness of the art early in the item development process. ETS selects visuals that are relevant to the item content

and that are easily understood so students do not struggle to determine the purpose or meaning of the questions.

Editorial Review

Another step in the ETS internal review process involves a team of specially trained editors who check questions for clarity, correctness of language, grade-level appropriateness of language, adherence to style guidelines, and conformity to acceptable item-writing practices. The editorial review also includes rounds of copyediting and proofreading. ETS strives for error-free items beginning with the initial rounds of review.

Fairness Review

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

Assessment Director Review

As a final quality control step, the content area's assessment director or another senior-level content reviewer 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 194 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 197 in Chapter 3 for additional information on the function of the SPAR panel within the item-review process.

Data Review of Field-tested Items

ETS field tests newly developed items to obtain statistical information about item performance. This information is used to evaluate items that are candidates for use in operational test forms. The items and item statistics are examined carefully at data review meetings, where content experts discuss items that have poor statistics and do not meet the psychometric criteria for item quality. The CDE defines the criteria for acceptable or unacceptable item statistics. These criteria ensure that the item (1) has an appropriate level of difficulty for the target population; (2) discriminates well between examinees that differ in ability; and (3) conforms well to the statistical model underlying the measurement of the intended constructs. The results of analyses for differential item functioning (DIF) are used to make judgments about the appropriateness of items for various subgroups.

The ETS content experts make recommendations about whether to accept or reject each item for inclusion in the California item bank. The CDE content experts review the recommendations and make the final decision on each item.

Quality Control of the Item Bank

After the data review, items are placed in the item bank along with their statistics and reviewers' evaluations of their quality. ETS then delivers the items to the CDE through the California electronic item bank. The item bank database is maintained by a staff of application systems programmers, led by the Item Bank Manager, at ETS. All processes are logged; all change requests—including item bank updates for item availability status—are tracked; and all output and California item bank deliveries are quality-controlled for accuracy.

Quality of the item bank and secure transfer of the California item bank to the CDE 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 off site, to prevent loss from system breakdown or a natural disaster.
- The offsite backup files are kept in secure storage, with access limited to authorized personnel only.
- Advanced network security measures are used to prevent unauthorized electronic access to the item bank.

Quality Control of Test Form Development

The ETS Assessment Development group is committed to providing the highest quality product to the students of California and has in place a number of quality control (QC) checks to ensure that outcome. During the item development process, there are multiple senior reviews of items and passages, including one by the assessment director. Test forms certification is a formal quality control process established as a final checkpoint prior to printing. In it, content, editorial, and senior development staff review test forms for accuracy and clueing issues.

ETS also includes quality checks throughout preparation of the form planners. A form planner specifications document is developed by the test development team lead with input from ETS's item bank and statistics groups; this document is then reviewed by all team members who build forms at a training session specific to form planners before the form-

building process starts. After trained content team members sign off on a form planner, a representative from the internal QC group reviews each file for accuracy against the specifications document. Assessment directors review and sign off on form planners prior to processing.

As processes are refined and enhanced, ETS will implement further QC checks as appropriate.

Quality Control of Test Materials

Collecting Test Materials

Once the tests are administered, school districts return scorable and nonscorable materials within five working days after the last selected testing day of each test administration period. For the writing administration, 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 documents and executing subsequent data processing programs, ETS conducts an end-to-end test. As part of this test, ETS prepares approximately 700 test cases covering all tests and many scenarios designed to exercise particular business rule logic. ETS marks answer documents for those 700 test cases. They are then scanned, scored, and aggregated. The results at various inspection points are checked by psychometricians and Data Quality Services staff. Additionally, a post-scan test file of approximately 50,000 records across the STAR Program is scored and aggregated to test a broader range of scoring and aggregation scenarios. These procedures assure that students and school districts receive the correct scores when the actual scoring process is carried out.

Scoring and Reporting Specifications

ETS develops standardized scoring procedures and specifications so testing materials are processed and scored accurately. These documents include:

- General Reporting Specifications
- Form Planner Specifications
- Aggregation Rules
- “What If” . . . List
- Edit Specifications
- Reporting Cluster Names and Item Numbers
- 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 265. 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 students in grades four and seven for whom there is either a multiple-choice score but no writing score or 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 267 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 15, 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:

- The correct items are used for linking;
- The scaling evaluation process, including stability analysis and subsequent removal of items from the linking set (if any), is implemented according to specification (see details in the "Evaluation of Scaling" section in Chapter 8, on page 394); and
- The resulting 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 score conversion tables are generated, the psychometricians carry out quality control checks on each scoring table. Scoring tables are checked to verify the following:

- All raw scores are included in the tables;
- Scale scores increase as raw scores increase;
- The minimum reported scale score is 150 and maximum reported scale score is 600; and
- The cut points for the performance levels are correctly identified.

As a check on the reasonableness of the performance levels, psychometricians compare results from the current year with results from the past year at the cut points and the percentage of students in each performance level within the equating samples. After all quality control steps are completed and any differences are resolved, a senior psychometrician inspects the scoring tables as the final step in quality control before ETS delivers them to Pearson.

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. The resulting classical, IRT, and DIF statistics for all items are provided to test development staff in specially designed Excel spreadsheets called “statistical offloads.” The offloads are thoroughly checked by the psychometric staff before their release for test development review.

Quality Control of Reporting

For the quality control of various STAR student and summary reports, four general areas are evaluated, including the following:

1. Comparing report formats to input sources from the CDE-approved samples
2. Validating and verifying the report data by querying the appropriate student data
3. Evaluating the production print execution performance by comparing the number of report copies, sequence of report order, and offset characteristics to the CDE’s requirements
4. Proofreading reports by the CDE, ETS, and Pearson prior to any school district mailings

All reports are required to include a single, accurate CDS code, a charter school number (if applicable), a school district name, and a school name. All elements conform to the CDE’s official CDS code and naming records. From the start of processing through scoring and reporting, the CDS Master File is used to verify and confirm accurate codes and names. The CDS Master File is provided by the CDE to ETS throughout the year as updates are available.

For students who use more than one answer document, the matching process, as described on page 613, 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, foldered as they are expected to look in production. The CDE and ETS review and sign off on the report package after a thorough review.

Upon the CDE’s approval of the reports generated from the pilot districts, Pearson proceeds with the first production batch test. The first production batch is selected to validate a subset of school districts that 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—2010, 2011, and 2012—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 correspond to 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 621 contains the number of examinees assessed and the means and standard deviations of examinees' scale scores in the base year and in 2010, 2011, and 2012 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 622;

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.17 show for each CST the distribution of scale scores observed in the base year and in 2010, 2011, and 2012. 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 632, present, respectively, 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 administered the items. 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, 2010, 2011, and 2012

Content Area	CST*	Number of Examinees (valid scores)				Scale Score Mean and Standard Deviation							
						Base		2010		2011		2012	
		Base	2010	2011	2012	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
English–Language Arts	2	475,958	452,078	458,752	462,557	332	56	357	65	360	67	361	67
	3	481,246	437,450	434,795	440,407	324	61	342	63	345	62	347	64
	4	475,575	436,696	429,809	428,201	339	50	370	62	372	60	375	59
	5	473,745	431,294	434,092	428,868	332	47	359	54	362	58	366	57
	6	479,861	435,708	431,155	433,830	332	52	357	54	358	56	364	57
	7	477,359	440,521	435,408	430,441	330	52	356	61	360	61	367	61
	8	456,264	450,321	440,118	434,601	324	50	357	63	362	63	365	62
	9	470,879	488,206	476,121	461,474	333	55	354	60	358	62	361	62
	10	416,277	479,925	465,026	453,721	324	52	341	61	346	58	348	59
	11	357,365	449,140	444,788	438,268	321	61	337	67	342	65	345	63
History–Social Science	8	455,348	467,683	461,566	458,422	321	46	348	70	353	71	357	70
	World History	396,419	475,350	473,651	467,412	315	56	337	76	342	75	346	76
	11	340,923	442,015	446,459	446,136	328	60	341	73	345	73	347	70
Mathematics	2	478,715	452,806	459,483	463,446	357	77	382	86	382	85	383	87
	3	484,064	439,938	437,217	443,229	344	74	395	92	401	91	399	89
	4	483,007	440,352	433,835	432,630	344	67	390	79	392	78	395	81
	5	475,808	433,919	437,504	432,325	332	74	383	92	393	93	395	92
	6	481,069	436,749	432,693	436,076	331	62	361	75	365	78	367	76
	7	482,393	408,894	399,818	393,171	325	58	352	69	355	68	360	73
	General Mathematics	448,652	219,970	199,316	189,071	302	45	315	56	317	58	318	56
	Algebra I	422,233	746,242	736,345	708,443	312	58	324	72	327	73	330	75
	Geometry	240,503	408,572	407,012	406,408	317	62	317	66	320	68	323	70
	Algebra II	148,314	264,960	277,282	286,125	318	56	324	69	328	72	331	71
	Summ. H.S. Math	70,589	130,562	139,940	149,833	329	80	359	78	359	77	363	78
	Integrated Math 1	13,897	11,260	11,943	13,442	278	45	292	51	294	56	292	51
	Integrated Math 2	9,563	3,830	4,483	5,127	324	51	322	60	323	55	323	57
	Integrated Math 3	10,029	795	730	806	301	64	327	78	320	79	338	72
Science	5	483,931	432,500	435,933	430,759	318	44	362	71	367	70	367	66
	8	478,667	450,168	440,698	435,529	331	71	375	99	386	97	395	99
	10 Life Science	461,634	465,836	458,763	449,842	327	58	348	67	353	68	357	69
	Biology	298,475	544,737	551,808	555,736	333	48	347	58	352	62	355	61
	Chemistry	144,933	256,509	265,079	275,129	328	44	337	55	340	53	342	56
	Earth Science	80,096	217,760	215,259	206,454	314	43	328	49	331	50	335	50
	Physics	41,760	72,735	76,065	80,743	321	49	349	54	354	54	355	53
	Int/Coord Science 1	61,146	63,991	54,656	46,200	298	31	310	40	313	41	314	40
	Int/Coord Science 2	25,546	5,356	4,111	3,759	298	35	311	38	312	44	315	52
	Int/Coord Science 3	10,317	1,344	1,283	968	298	31	310	42	309	40	311	44
	Int/Coord Science 4	1,498	365	157	65	297	39	296	31	289	37	285	29

* Numbers indicate grade-level tests.

Table 10.A.2 Percentage of Proficient and Above and Percentage of Advanced Across Base Year, 2010, 2011, and 2012

		% Proficient and Above				% Advanced			
Content Area	**CST***	**Base**	**2010**	**2011**	**2012**	**Base**	**2010**	**2011**	**2012**
English–Language Arts	**2**	37%	53%	56%	59%	12%	24%	27%	29%
	3	34%	43%	46%	48%	11%	18%	18%	19%
	4	40%	63%	65%	67%	16%	36%	37%	39%
	5	36%	59%	60%	62%	10%	26%	31%	31%
	6	36%	55%	55%	60%	13%	25%	27%	30%
	7	36%	55%	58%	62%	10%	23%	24%	29%
	8	31%	54%	57%	60%	9%	29%	30%	33%
	9	38%	55%	55%	57%	14%	24%	28%	29%
	10	34%	45%	48%	51%	11%	22%	21%	24%
	11	33%	43%	45%	48%	11%	21%	21%	22%
History–Social Science	**8**	27%	47%	51%	52%	6%	25%	27%	29%
	World History	24%	41%	44%	46%	8%	20%	23%	22%
	11	32%	45%	48%	49%	12%	20%	21%	23%
Mathematics	**2**	53%	62%	66%	64%	24%	36%	36%	35%
	3	45%	65%	68%	70%	19%	38%	41%	42%
	4	46%	68%	71%	71%	18%	42%	45%	44%
	5	35%	61%	63%	65%	10%	29%	34%	33%
	6	35%	52%	53%	54%	10%	23%	24%	24%
	7	30%	48%	49%	52%	7%	18%	18%	21%
	General Mathematics	17%	27%	28%	28%	1%	5%	6%	6%
	Algebra I	22%	31%	33%	35%	4%	9%	10%	11%
	Geometry	28%	27%	30%	32%	7%	8%	9%	10%
	Algebra II	27%	31%	33%	34%	6%	11%	12%	12%
	Summative H.S. Math	40%	54%	54%	54%	14%	22%	20%	20%
	Integrated Math 1	7%	13%	15%	13%	1%	2%	2%	2%
	Integrated Math 2	28%	27%	29%	27%	5%	7%	5%	6%
	Integrated Math 3	21%	37%	32%	42%	4%	10%	10%	11%
Science	**5**	24%	56%	58%	59%	3%	25%	25%	25%
	8	38%	59%	64%	66%	17%	38%	42%	45%
	10 Life Science	34%	46%	50%	53%	13%	23%	26%	27%
	Biology	35%	46%	49%	52%	10%	21%	24%	26%
	Chemistry	28%	38%	38%	43%	8%	14%	14%	17%
	Earth Science	21%	33%	35%	38%	4%	9%	12%	12%
	Physics	28%	49%	52%	52%	9%	21%	22%	25%
	Int/Coord Science 1	7%	18%	20%	20%	1%	2%	3%	3%
	Int/Coord Science 2	8%	15%	19%	25%	1%	3%	6%	8%
	Int/Coord Science 3	7%	16%	16%	18%	2%	4%	5%	4%
	Int/Coord Science 4	12%	4%	6%	3%	2%	1%	1%	0%

* Numbers indicate grade-level tests.

Table 10.A.3 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for ELA (Grades Two through Four)

Observed Score Distributions	ELA Grade 2				ELA Grade 3				ELA Grade 4			
	Base	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	240	2,129	2,588	2,289	308	1,364	1,010	1,020	66	1,122	1,551	1,857
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	139	3,138	2,274	2,631
510 – 539	887	5,132	6,274	5,515	1,311	3,504	3,041	3,019	377	N/A	3,656	4,033
480 – 509	1,813	7,874	9,623	8,951	2,685	5,567	5,492	5,593	1,842	13,611	11,127	11,870
450 – 479	7,314	21,688	26,360	24,381	4,312	7,824	7,588	18,471	6,601	21,214	24,892	25,255
420 – 449	19,751	40,831	31,465	45,008	21,378	32,560	33,198	25,371	22,955	52,828	41,786	52,548
390 – 419	49,410	58,483	79,364	75,514	43,618	40,472	54,643	58,789	43,316	79,293	75,770	78,008
360 – 389	71,250	81,685	79,848	77,585	62,872	71,021	69,925	72,292	84,007	76,706	85,180	78,163
330 – 359	94,531	83,444	68,355	75,954	84,558	88,543	86,401	84,487	98,630	71,612	71,797	73,883
300 – 329	83,370	58,847	60,788	58,952	85,966	77,791	67,985	70,423	102,071	54,543	57,429	54,926
270 – 299	81,964	45,606	46,585	42,198	74,260	54,395	55,285	43,566	79,811	40,578	37,377	32,484
240 – 269	53,950	39,015	36,034	35,935	59,332	33,274	32,005	37,042	33,745	18,619	15,788	11,785
210 – 239	10,723	6,946	11,042	9,868	36,770	18,915	15,218	17,223	1,887	3,297	1,146	736
180 – 209	681	384	412	377	3,579	2,063	2,861	3,014	86	113	27	18
150 – 179	74	14	14	30	297	157	143	97	42	22	9	4

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.4 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for ELA (Grades Five through Seven)

Observed Score Distributions	ELA Grade 5				ELA Grade 6				ELA Grade 7			
	Base	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	2	147	449	544	8	157	249	307	5	986	436	1,781
540 – 569	17	691	1,552	1,901	83	631	932	1,104	58	8	1,307	N/A
510 – 539	52	N/A	N/A	N/A	280	1,513	2,048	2,267	124	1,484	2,489	2,657
480 – 509	486	4,907	8,812	9,908	730	2,635	3,291	8,906	640	5,861	8,538	9,508
450 – 479	3,236	11,707	17,282	17,942	5,717	15,856	18,223	13,925	3,344	17,162	13,043	23,120
420 – 449	12,685	42,092	36,322	48,006	17,978	26,994	37,201	48,798	17,331	44,215	45,827	41,298
390 – 419	38,962	66,338	81,315	66,043	45,713	72,449	67,465	68,112	42,144	65,099	67,278	69,633
360 – 389	85,226	96,336	82,834	93,045	70,509	98,381	78,581	86,019	78,339	76,701	79,534	89,313
330 – 359	95,169	81,352	80,316	79,357	99,972	78,239	85,751	81,196	97,939	86,036	79,588	73,222
300 – 329	107,987	63,514	56,691	59,209	103,656	69,013	71,569	63,613	94,738	63,479	64,270	58,210
270 – 299	95,141	40,547	43,913	34,400	80,513	43,326	43,975	42,567	72,970	40,227	41,081	36,618
240 – 269	32,629	20,743	20,968	16,365	44,894	23,279	19,882	15,265	55,422	30,439	23,838	19,470
210 – 239	2,023	2,800	3,488	2,077	9,375	3,134	1,870	1,700	13,435	7,934	7,521	5,082
180 – 209	81	107	135	60	370	86	94	38	807	850	634	510
150 – 179	49	13	15	11	63	15	24	13	63	40	24	19

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.5 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for ELA (Grades Eight and Nine)

Observed Score Distributions	ELA Grade 8				ELA Grade 9			
	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	2	291	1,143	263	12	291	907	1,520
540 – 569	29	1,195	N/A	938	N/A	N/A	N/A	N/A
510 – 539	101	2,684	2,062	2,203	244	724	4,523	5,712
480 – 509	670	4,595	9,061	9,296	1,303	4,358	4,263	4,852
450 – 479	3,569	23,769	25,192	25,176	3,851	17,461	20,112	21,028
420 – 449	12,529	46,629	46,329	45,582	25,959	41,812	41,146	40,389
390 – 419	29,574	63,207	61,023	72,763	44,345	80,153	75,115	73,248
360 – 389	63,374	79,036	76,627	75,048	83,004	88,278	84,237	84,645
330 – 359	101,910	75,416	80,529	77,053	81,584	82,696	88,585	88,271
300 – 329	90,505	67,544	61,838	58,593	85,135	72,615	68,507	63,812
270 – 299	85,870	46,458	42,078	39,521	73,465	56,875	48,426	42,368
240 – 269	50,819	31,616	28,239	22,717	61,789	34,188	31,796	29,955
210 – 239	15,975	7,263	5,682	5,116	9,313	8,239	8,031	5,202
180 – 209	1,263	547	280	305	736	447	413	420
150 – 179	74	71	35	27	139	69	60	52

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.6 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for ELA (Grades Ten and Eleven)

Observed Score Distributions	ELA Grade 10				ELA Grade 11			
	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	4	255	238	266	7	157	664	446
540 – 569	30	N/A	898	1,050	30	797	N/A	N/A
510 – 539	101	1,061	N/A	N/A	127	1,804	1,486	1,058
480 – 509	233	2,521	2,188	6,296	956	3,041	6,913	2,311
450 – 479	2,771	10,440	9,445	13,028	2,949	17,438	12,380	16,264
420 – 449	12,778	28,083	36,884	29,319	13,930	26,734	26,949	28,669
390 – 419	31,520	63,876	62,488	60,931	36,133	53,431	57,424	61,531
360 – 389	67,587	88,260	87,993	86,088	46,449	66,445	73,254	76,952
330 – 359	75,621	83,611	84,644	92,724	64,409	70,135	75,330	75,266
300 – 329	78,075	78,847	77,466	67,585	56,885	72,744	73,264	70,006
270 – 299	73,872	51,677	49,163	51,275	49,299	50,448	46,939	44,339
240 – 269	63,352	49,247	40,781	33,548	48,982	47,703	41,220	36,653
210 – 239	9,598	20,779	11,854	10,699	32,029	33,148	25,266	21,464
180 – 209	637	1,194	924	838	4,785	4,824	3,417	3,085
150 – 179	98	74	60	74	395	291	282	224

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.7 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 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	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	27	1,888	2,606	1,928	272	3,875	4,490	5,544	537	2,265	1,909	1,727
540 – 569	52	2,558	3,021	2,811	444	N/A	N/A	N/A	788	N/A	N/A	N/A
510 – 539	215	3,670	4,251	4,343	746	4,800	5,063	5,757	1,138	3,058	2,949	2,558
480 – 509	525	10,514	11,592	12,462	2,303	6,744	6,918	7,715	3,608	11,003	11,136	9,597
450 – 479	2,718	21,950	23,308	25,593	3,793	17,758	18,478	19,428	5,248	16,337	17,441	15,864
420 – 449	6,477	35,917	28,094	40,846	11,633	34,392	34,618	36,693	15,541	31,950	35,109	33,909
390 – 419	27,490	50,386	64,721	54,932	24,051	51,643	50,921	54,973	27,975	49,100	54,441	55,672
360 – 389	55,012	72,452	66,051	75,738	35,020	64,241	63,949	56,389	36,715	62,134	67,700	71,507
330 – 359	92,444	68,172	78,737	67,355	65,735	59,014	73,094	79,020	62,312	68,366	69,824	74,148
300 – 329	107,943	77,432	64,534	70,719	82,269	73,555	67,310	75,876	58,600	59,058	56,048	67,088
270 – 299	106,390	52,952	54,520	50,908	87,207	58,068	66,599	48,571	77,412	57,661	52,651	46,054
240 – 269	46,713	52,290	40,478	36,591	63,293	55,726	48,147	40,587	40,738	40,506	37,522	36,031
210 – 239	8,698	15,059	17,656	12,266	17,397	34,031	26,702	26,266	9,226	32,592	31,855	25,647
180 – 209	582	2,343	1,831	1,848	1,997	9,321	5,873	8,328	957	7,352	7,305	5,768
150 – 179	62	100	166	82	259	2,182	1,489	2,265	128	633	569	566

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.8 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for Mathematics (Grades Two through Four)

Observed Score Distributions	Mathematics Grade 2				Mathematics Grade 3				Mathematics Grade 4			
	Base	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	3,738	7,088	6,174	7,386	1,937	16,752	20,680	15,989	2,426	14,698	13,182	18,742
540 – 569	8,415	14,218	12,909	14,003	4,873	21,337	25,838	22,663	N/A	N/A	N/A	N/A
510 – 539	N/A	18,881	17,656	18,237	N/A	21,791	N/A	24,490	5,756	21,753	21,387	26,312
480 – 509	12,573	21,133	20,532	20,645	17,600	21,038	26,266	23,935	N/A	23,646	25,145	27,837
450 – 479	32,641	43,106	44,114	42,732	11,424	38,395	47,207	44,532	20,478	23,868	25,579	26,779
420 – 449	37,323	40,459	43,332	41,053	40,292	34,161	58,650	38,680	27,937	64,988	70,100	48,506
390 – 419	57,377	54,449	75,135	72,269	44,193	59,712	47,145	50,530	63,690	69,177	56,874	75,481
360 – 389	69,650	71,145	58,206	57,644	71,908	62,927	61,515	66,528	74,616	62,916	78,612	62,766
330 – 359	72,800	53,273	55,131	65,572	79,857	51,242	46,669	58,836	83,703	59,730	48,970	55,704
300 – 329	67,476	47,297	46,744	46,384	69,963	47,367	46,901	40,241	72,451	44,988	42,084	40,683
270 – 299	55,778	37,840	36,659	32,310	65,285	35,166	29,919	29,878	57,578	30,839	30,779	27,266
240 – 269	35,573	21,760	21,084	24,687	45,186	17,302	16,649	16,827	49,060	18,717	14,871	16,683
210 – 239	17,584	15,671	13,832	13,808	22,633	9,194	7,309	7,381	23,003	4,614	5,884	5,445
180 – 209	6,386	5,383	6,397	5,674	7,633	3,021	2,147	2,363	2,079	398	332	398
150 – 179	1,401	1,103	1,578	1,042	1,280	533	322	356	230	20	36	28

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.9 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for Mathematics (Grades Five through Seven)

Observed Score Distributions	Mathematics Grade 5				Mathematics Grade 6				Mathematics Grade 7			
	Base	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	1,866	14,014	18,455	18,788	773	3,382	3,877	3,914	1,103	3,143	3,729	5,348
540 – 569	2,139	10,238	13,101	13,595	1,775	6,238	6,648	6,689	N/A	3,174	N/A	N/A
510 – 539	3,103	22,375	27,236	29,163	2,578	7,978	8,358	8,277	1,238	4,144	3,355	10,824
480 – 509	8,844	23,533	27,225	14,543	3,428	9,088	19,557	19,185	3,926	10,372	9,769	6,701
450 – 479	18,019	34,796	26,388	41,249	14,502	30,298	21,013	20,519	9,495	12,565	20,107	24,202
420 – 449	30,072	34,288	49,173	50,254	19,027	31,486	43,008	44,030	13,843	30,398	33,047	36,569
390 – 419	34,532	54,716	45,318	45,169	38,914	53,364	43,305	45,147	32,688	44,245	47,508	38,094
360 – 389	49,002	50,770	60,620	49,964	55,083	64,305	63,374	67,941	62,871	68,962	60,095	65,967
330 – 359	67,533	56,366	44,497	52,004	76,422	70,518	68,637	72,885	76,441	71,423	69,130	63,010
300 – 329	78,553	51,403	54,068	50,688	101,270	62,535	60,202	60,633	101,910	65,315	63,788	57,084
270 – 299	81,066	37,077	37,296	35,110	94,165	51,820	49,336	47,558	102,494	48,537	52,578	48,224
240 – 269	64,433	31,665	21,966	23,565	57,901	35,837	34,601	30,564	63,364	35,783	29,159	28,966
210 – 239	29,106	10,797	10,153	6,581	13,926	8,975	9,557	7,838	11,551	9,979	7,065	7,583
180 – 209	5,912	1,704	1,824	1,499	1,207	876	1,174	848	1,355	776	450	537
150 – 179	1,628	177	184	153	98	49	46	48	114	78	38	62

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.10 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for General Mathematics, Algebra I, and Geometry

Observed Score Distributions	General Mathematics				Algebra I				Geometry			
	Base	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	30	72	146	115	730	6,213	6,302	7,266	502	774	831	1,153
540 – 569	N/A	N/A	N/A	N/A	476	3,297	3,574	3,890	N/A	1,671	1,640	2,173
510 – 539	34	153	197	207	1,362	7,994	8,749	4,688	642	2,349	2,457	3,076
480 – 509	190	726	1,046	882	2,035	10,090	11,352	17,481	2,167	2,790	3,086	3,562
450 – 479	1,040	2,594	1,879	1,657	6,303	18,998	20,787	21,858	3,431	10,942	12,026	13,350
420 – 449	2,681	5,030	6,811	6,369	10,471	32,042	33,827	34,964	7,148	13,939	15,683	16,242
390 – 419	11,868	13,307	10,717	10,276	21,071	49,689	51,895	52,520	17,911	21,754	25,595	26,101
360 – 389	33,352	23,485	26,823	25,391	33,295	74,663	74,868	74,745	24,998	40,518	45,772	46,214
330 – 359	66,928	34,614	28,334	32,002	57,900	91,325	91,218	88,274	35,697	57,447	51,529	51,693
300 – 329	104,553	45,983	40,951	34,916	93,657	115,574	111,766	104,978	44,558	68,886	74,242	74,709
270 – 299	113,647	44,098	36,849	35,575	84,289	151,235	143,713	133,254	45,494	80,200	71,721	70,596
240 – 269	86,916	36,462	30,857	28,891	77,155	127,035	135,897	127,590	38,232	77,393	64,403	61,112
210 – 239	25,178	12,289	13,060	11,295	30,552	52,908	36,131	32,040	17,584	26,321	34,572	32,710
180 – 209	2,009	1,046	1,568	1,414	2,631	4,641	5,547	4,346	1,972	3,399	3,252	3,491
150 – 179	226	111	78	81	306	538	719	549	167	189	203	226

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.11 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for Algebra II and Summative High School Mathematics

Observed Score Distributions	Algebra II				Summative High School Mathematics			
	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	1	1,173	1,890	1,960	200	1,257	1,348	1,395
540 – 569	18	1,122	1,497	1,511	562	2,449	2,616	3,094
510 – 539	134	1,406	1,809	1,918	N/A	N/A	N/A	N/A
480 – 509	806	3,772	4,613	4,574	2,047	3,250	3,684	4,184
450 – 479	2,328	4,802	8,609	8,877	1,440	8,216	9,468	10,392
420 – 449	3,770	12,357	10,722	11,262	5,383	13,511	10,404	11,485
390 – 419	9,383	20,218	22,705	24,042	6,229	13,652	16,060	21,713
360 – 389	16,379	25,697	28,328	30,302	8,138	20,741	23,886	19,303
330 – 359	21,288	37,071	39,707	50,073	11,928	18,084	23,101	24,506
300 – 329	31,089	49,872	51,036	45,896	10,321	19,506	17,468	21,875
270 – 299	35,689	44,289	43,676	52,736	7,470	13,922	14,641	15,531
240 – 269	19,598	39,620	40,072	32,222	5,780	9,410	9,972	9,888
210 – 239	7,036	19,411	18,940	17,477	6,187	4,693	5,715	4,783
180 – 209	751	3,823	3,420	3,034	3,778	1,623	1,386	1,464
150 – 179	44	327	258	241	1,126	248	191	220

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.12 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for Integrated Mathematics 1, 2, and 3

Observed Score Distributions	Integrated Mathematics 1				Integrated Mathematics 2				Integrated Mathematics 3			
	Base	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	11	7	26	7	4	16	7	17	10	6	4	2
540 – 569	7	4	13	6	14	9	2	7	28	1	2	5
510 – 539	15	12	22	12	16	21	18	21	27	8	7	7
480 – 509	14	15	42	23	45	24	23	24	94	16	13	13
450 – 479	40	56	61	65	103	75	71	59	137	18	23	22
420 – 449	67	120	168	149	265	105	119	138	191	50	32	52
390 – 419	170	283	385	294	615	179	243	340	494	72	63	80
360 – 389	418	637	642	799	1,087	365	464	541	749	86	65	136
330 – 359	910	941	1,335	1,466	1,638	672	847	983	1,176	96	89	99
300 – 329	1,880	2,042	2,043	2,436	2,566	793	1,119	982	1,474	123	108	128
270 – 299	3,258	3,003	2,969	3,471	1,973	836	881	1,149	1,959	108	97	99
240 – 269	4,729	2,674	2,708	3,075	1,075	598	548	674	2,525	111	125	113
210 – 239	2,045	1,144	1,215	1,301	154	123	128	170	936	76	80	43
180 – 209	306	285	294	314	5	14	13	21	209	20	17	6
150 – 179	27	37	20	24	3	0	0	1	20	4	5	1

Table 10.A.13 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for Science Grade Five, Grade Eight, and Grade Ten Life Science

Observed Score Distributions	Grade 5				Grade 8				Grade 10 Life Science			
	Base	2010	2011	2012	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	3	3,230	3,049	1,774	1,428	18,005	16,914	22,032	238	1,400	1,249	1,454
540 – 569	30	6,895	7,024	4,991	2,429	10,426	10,454	12,514	648	3,397	3,287	3,716
510 – 539	105	N/A	N/A	N/A	4,190	11,612	24,832	29,333	1,121	N/A	5,458	5,990
480 – 509	590	10,022	10,307	8,458	5,863	26,286	28,406	15,868	4,068	12,549	7,609	8,010
450 – 479	1,414	26,049	27,043	25,460	13,160	29,262	29,735	49,726	6,808	18,477	20,664	21,099
420 – 449	7,041	44,680	46,483	49,343	26,047	45,048	45,829	49,896	15,540	34,348	39,355	38,420
390 – 419	21,141	44,952	62,327	67,092	36,389	59,382	58,615	45,423	38,323	51,857	57,538	55,525
360 – 389	49,769	81,911	70,666	73,394	61,392	41,130	53,185	52,213	59,085	66,460	69,077	79,972
330 – 359	93,778	67,829	70,443	69,546	76,067	60,206	45,460	42,860	74,451	86,301	81,836	69,836
300 – 329	141,637	61,786	62,001	65,237	85,106	48,526	45,496	40,763	91,629	73,457	64,723	73,234
270 – 299	106,602	45,482	42,853	37,686	67,991	30,299	27,297	29,021	85,472	59,855	51,693	41,751
240 – 269	55,651	30,457	26,446	20,195	57,597	29,734	25,344	17,485	71,350	40,270	38,070	35,293
210 – 239	5,829	8,242	6,577	6,750	32,609	19,229	15,006	16,577	11,828	15,591	16,076	13,827
180 – 209	298	913	675	790	7,222	14,248	10,163	6,957	942	1,697	1,927	1,565
150 – 179	43	52	39	43	1,177	6,775	3,962	4,861	131	177	201	150

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.14 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for Biology and Chemistry

Observed Score Distributions	Biology				Chemistry			
	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	116	1,463	2,397	2,231	58	738	715	733
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
510 – 539	296	3,601	5,161	5,087	194	1,589	1,581	1,757
480 – 509	605	5,426	7,416	7,650	343	N/A	2,464	2,855
450 – 479	4,176	15,577	19,932	21,914	1,124	5,671	3,005	3,661
420 – 449	8,273	32,657	38,571	42,823	2,962	8,014	12,177	15,831
390 – 419	23,001	54,875	59,472	65,650	8,384	27,119	22,156	28,696
360 – 389	46,191	107,146	108,487	114,045	16,327	32,888	42,194	48,611
330 – 359	63,010	110,403	96,508	95,938	32,963	56,173	62,188	54,505
300 – 329	75,800	91,438	90,505	94,863	43,117	57,075	56,289	51,986
270 – 299	56,802	73,455	78,247	62,302	31,085	41,958	42,516	44,073
240 – 269	19,192	44,746	38,381	39,363	7,878	22,271	17,971	19,651
210 – 239	931	3,726	6,496	3,618	475	2,922	1,767	2,668
180 – 209	74	199	204	229	18	84	51	92
150 – 179	8	25	31	23	5	7	5	10

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.15 Observed Score Distributions of CSTs Across Base Year, 2010, 2011, and 2012 for Earth Science and Physics

Observed Score Distributions	Earth Science				Physics			
	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	0	41	70	75	14	108	157	145
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
510 – 539	13	164	285	333	56	328	403	334
480 – 509	44	427	684	N/A	87	498	691	552
450 – 479	82	818	1,249	2,300	378	1,599	2,084	2,066
420 – 449	723	5,255	7,338	8,736	1,064	3,769	4,945	5,138
390 – 419	3,236	18,123	16,766	19,415	2,796	8,905	10,620	11,640
360 – 389	9,151	30,796	32,361	35,450	4,605	14,500	14,163	17,793
330 – 359	14,570	45,336	46,260	40,587	7,444	15,633	18,610	16,807
300 – 329	17,607	50,484	48,056	45,450	9,342	14,166	12,051	13,018
270 – 299	21,654	42,583	38,051	33,120	9,552	8,861	8,940	9,709
240 – 269	12,070	20,812	20,321	18,616	6,003	4,004	3,146	3,287
210 – 239	909	2,856	3,681	2,283	400	351	246	244
180 – 209	32	53	119	74	18	11	6	7
150 – 179	5	12	18	15	1	2	3	3

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.16 Observed Score Distributions of CSTs Across 2010, 2011, and 2012 for Integrated/Coordinated Science 1 and 2

Observed Score Distributions	Integrated/Coordinated Science 1				Integrated/Coordinated Science 2			
	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	0	3	8	3	0	0	0	4
540 – 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
510 – 539	0	15	13	12	0	2	2	8
480 – 509	0	27	N/A	N/A	0	2	8	12
450 – 479	9	39	84	61	4	12	12	42
420 – 449	31	322	324	305	38	28	60	70
390 – 419	332	1,139	1,323	1,079	270	119	173	179
360 – 389	1,727	5,713	5,082	4,316	997	399	315	379
330 – 359	7,452	12,755	12,092	10,612	3,294	915	640	609
300 – 329	18,481	17,742	15,267	13,326	6,926	1,673	1,152	819
270 – 299	21,017	16,176	12,051	10,133	8,906	1,459	1,180	893
240 – 269	11,376	8,723	6,903	5,732	4,557	715	514	606
210 – 239	675	1,302	1,442	579	543	31	53	129
180 – 209	42	30	63	37	9	1	1	9
150 – 179	4	5	4	5	2	0	1	0

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Table 10.A.17 Observed Score Distributions of CSTs Across 2010, 2011, and 2012 for Integrated/Coordinated Science 3 and 4

Observed Score Distributions	Integrated/Coordinated Science 3				Integrated/Coordinated Science 4			
	Base	2010	2011	2012	Base	2010	2011	2012
570 – 600	0	1	0	1	0	0	0	0
540 – 569	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A
510 – 539	0	1	0	0	N/A	0	0	0
480 – 509	4	2	1	3	0	0	N/A	0
450 – 479	10	8	1	6	2	0	0	0
420 – 449	23	18	11	10	5	0	1	0
390 – 419	133	28	53	19	28	2	0	0
360 – 389	298	89	76	84	66	6	4	0
330 – 359	879	201	208	172	204	40	19	5
300 – 329	2,959	397	349	253	340	125	29	14
270 – 299	4,683	390	383	246	484	107	49	21
240 – 269	1,233	197	193	160	320	77	49	22
210 – 239	90	11	8	13	43	8	6	3
180 – 209	3	1	0	0	5	0	0	0
150 – 179	2	0	0	1	1	0	0	0

A frequency count of "N/A" indicates that there are no obtainable scale scores within that scale-score range.

Appendix 10.B—Historical Comparisons Tables

Table 10.B.1 Mean Proportion Correct for Operational Test Items Across Base Year, 2010, 2011, and 2012

Content Area	CST*	Mean *p*-value			
		Base	2010	2011	2012
English–Language Arts	2	0.59	0.68	0.69	0.68
	3	0.61	0.68	0.68	0.68
	4	0.56	0.70	0.67	0.67
	5	0.53	0.67	0.69	0.69
	6	0.56	0.66	0.65	0.65
	7	0.56	0.65	0.67	0.68
	8	0.55	0.66	0.66	0.66
	9	0.55	0.63	0.64	0.65
	10	0.54	0.65	0.65	0.66
	11	0.54	0.63	0.64	0.65
History–Social Science	8	0.48	0.61	0.63	0.64
	World History	0.47	0.61	0.62	0.64
	11	0.51	0.61	0.62	0.62
Mathematics	2	0.74	0.76	0.77	0.76
	3	0.68	0.78	0.80	0.79
	4	0.68	0.78	0.79	0.80
	5	0.56	0.68	0.70	0.71
	6	0.56	0.65	0.66	0.66
	7	0.52	0.60	0.61	0.63
	General Mathematics	0.45	0.50	0.52	0.52
	Algebra I	0.45	0.49	0.50	0.51
	Geometry	0.55	0.53	0.55	0.56
	Algebra II	0.51	0.54	0.55	0.56
	Summ. High School Mathematics	0.66	0.72	0.73	0.73
	Integrated Mathematics 1	0.34	0.41	0.43	0.42
	Integrated Mathematics 2	0.43	0.46	0.46	0.45
	Integrated Mathematics 3	0.45	0.50	0.47	0.52
Science	5	0.47	0.69	0.70	0.71
	8	0.50	0.68	0.69	0.71
	10 Life Science	0.51	0.63	0.64	0.65
	Biology	0.53	0.61	0.63	0.64
	Chemistry	0.53	0.61	0.62	0.63
	Earth Science	0.49	0.55	0.58	0.60
	Physics	0.51	0.61	0.63	0.63
	Integrated/Coordinated Science 1	0.41	0.48	0.51	0.52
	Integrated/Coordinated Science 2	0.43	0.47	0.49	0.52
	Integrated/Coordinated Science 3	0.36	0.45	0.45	0.47
	Integrated/Coordinated Science 4	0.41	0.42	0.41	0.37

* Numbers indicate grade-level tests.

Table 10.B.2 Mean IRT *b*-values for Operational Test Items Across Base Year, 2010, 2011, and 2012

Content Area	CST*	Mean IRT *b*-value			
		Base	2010	2011	2012
English–Language Arts	2	–0.10	–0.18	–0.17	–0.06
	3	–0.35	–0.44	–0.40	–0.36
	4	0.09	–0.14	0.08	0.15
	5	0.07	–0.16	–0.28	–0.20
	6	–0.04	–0.09	–0.05	0.04
	7	0.17	0.14	0.09	0.15
	8	–0.11	–0.18	–0.08	–0.03
	9	–0.02	–0.07	–0.04	–0.03
	10	–0.05	–0.34	–0.27	–0.26
	11	–0.09	–0.28	–0.28	–0.28
History–Social Science	8	0.18	–0.09	–0.12	–0.09
	World History	0.16	–0.25	–0.21	–0.26
	11	–0.01	–0.27	–0.29	–0.27
Mathematics	2	–1.00	–0.90	–0.91	–0.88
	3	–0.76	–0.73	–0.76	–0.74
	4	–0.70	–0.64	–0.67	–0.70
	5	–0.24	–0.20	–0.20	–0.20
	6	–0.26	–0.30	–0.28	–0.27
	7	–0.03	–0.02	–0.05	–0.05
	General Mathematics	0.18	0.17	0.11	0.13
	Algebra I	–0.04	–0.08	–0.07	–0.08
	Geometry	–0.81	–0.75	–0.77	–0.77
	Algebra II	–0.35	–0.44	–0.43	–0.42
	Summ. H. S. Mathematics	–0.92	–0.81	–0.84	–0.79
	Integrated Mathematics 1	0.28	0.10	0.07	0.07
	Integrated Mathematics 2	–0.06	–0.22	–0.22	–0.17
	Integrated Mathematics 3	–0.24	–0.12	–0.11	–0.11
Science	5	–0.19	–0.64	–0.63	–0.62
	8	0.10	–0.42	–0.34	–0.39
	10 Life Science	–0.04	–0.31	–0.29	–0.26
	Biology	–0.18	–0.39	–0.40	–0.40
	Chemistry	–0.17	–0.40	–0.38	–0.41
	Earth Science	0.06	0.01	–0.05	–0.10
	Physics	–0.21	–0.16	–0.18	–0.16
	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, 2010, 2011, and 2012

Content Area	CST*	Mean Point-Biserial Correlation			
		Base	2010	2011	2012
English–Language Arts	2	0.43	0.46	0.48	0.48
	3	0.44	0.43	0.43	0.44
	4	0.41	0.45	0.45	0.44
	5	0.38	0.42	0.43	0.42
	6	0.40	0.41	0.42	0.42
	7	0.38	0.42	0.41	0.41
	8	0.37	0.43	0.43	0.43
	9	0.40	0.42	0.42	0.42
	10	0.41	0.45	0.44	0.43
	11	0.41	0.44	0.43	0.42
History–Social Science	8	0.32	0.43	0.43	0.43
	World History	0.37	0.45	0.44	0.44
	11	0.39	0.44	0.45	0.43
Mathematics	2	0.42	0.45	0.45	0.45
	3	0.43	0.45	0.45	0.44
	4	0.47	0.47	0.46	0.47
	5	0.41	0.45	0.46	0.46
	6	0.41	0.45	0.46	0.45
	7	0.39	0.43	0.42	0.44
	General Mathematics	0.32	0.38	0.39	0.39
	Algebra I	0.34	0.40	0.41	0.42
	Geometry	0.39	0.42	0.43	0.43
	Algebra II	0.35	0.40	0.41	0.41
	Summative H.S. Mathematics	0.46	0.43	0.43	0.43
	Integrated Mathematics 1	0.26	0.30	0.32	0.30
	Integrated Mathematics 2	0.32	0.36	0.34	0.35
	Integrated Mathematics 3	0.35	0.40	0.41	0.38
Science	5	0.33	0.43	0.43	0.42
	8	0.35	0.44	0.43	0.44
	10 Life Science	0.41	0.44	0.45	0.45
	Biology	0.39	0.44	0.45	0.45
	Chemistry	0.36	0.42	0.40	0.42
	Earth Science	0.38	0.41	0.41	0.41
	Physics	0.41	0.42	0.42	0.42
	Integrated/Coordinated Science 1	0.28	0.35	0.36	0.36
	Integrated/Coordinated Science 2	0.31	0.33	0.37	0.41
	Integrated/Coordinated Science 3	0.27	0.36	0.36	0.37
	Integrated/Coordinated Science 4	0.32	0.28	0.32	0.26

* Numbers indicate grade-level tests.

Table 10.B.4 Score Reliabilities (Cronbach's Alpha) and SEM of CSTs Across Base Year, 2010, 2011, and 2012

Content Area	CST*	Reliability				SEM			
		Base	2010	2011	2012	Base	2010	2011	2012
English–Language Arts	2	0.93	0.94	0.95	0.95	3.5	3.3	3.2	3.3
	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	3.6	3.6
	5	0.92	0.93	0.94	0.94	3.9	3.6	3.5	3.5
	6	0.93	0.93	0.93	0.93	3.7	3.6	3.6	3.6
	7	0.92	0.94	0.93	0.93	3.9	3.6	3.6	3.5
	8	0.91	0.94	0.94	0.94	4.0	3.6	3.6	3.6
	9	0.93	0.94	0.94	0.94	3.8	3.7	3.7	3.7
	10	0.93	0.95	0.94	0.94	4.0	3.6	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	0.94	0.94	0.94	4.0	3.7	3.7	3.7
	World History	0.89	0.93	0.93	0.93	3.6	3.3	3.3	3.3
	11	0.90	0.93	0.93	0.92	3.5	3.3	3.3	3.3
Mathematics	2	0.92	0.94	0.94	0.94	3.2	2.9	2.9	3.0
	3	0.93	0.94	0.94	0.94	3.3	2.9	2.8	2.8
	4	0.94	0.94	0.94	0.94	3.3	2.9	2.8	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	3.3	3.3	3.3
	7	0.91	0.93	0.93	0.93	3.7	3.5	3.5	3.4
	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	0.93	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	0.92	0.92	0.92	3.7	3.6	3.5	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	0.84	0.87	0.85	3.6	3.6	3.6	3.7
	Integrated Mathematics 2	0.87	0.90	0.88	0.89	3.6	3.6	3.7	3.7
	Integrated Mathematics 3	0.89	0.92	0.92	0.91	3.7	3.6	3.6	3.6
Science	5	0.86	0.93	0.92	0.92	3.6	3.2	3.2	3.2
	8	0.88	0.93	0.92	0.93	3.5	3.2	3.2	3.1
	10 Life Science	0.92	0.93	0.93	0.93	3.4	3.3	3.2	3.2
	Biology	0.91	0.93	0.93	0.93	3.5	3.3	3.3	3.3
	Chemistry	0.89	0.92	0.91	0.92	3.5	3.4	3.4	3.3
	Earth Science	0.90	0.91	0.92	0.92	3.6	3.5	3.5	3.4
	Physics	0.92	0.92	0.92	0.92	3.5	3.4	3.3	3.3
	Int/Coord Science 1	0.81	0.88	0.89	0.88	3.6	3.6	3.5	3.5
	Int/Coord Science 2	0.85	0.87	0.90	0.91	3.5	3.6	3.5	3.5
	Int/Coord Science 3	0.80	0.88	0.89	0.90	3.5	3.5	3.5	3.5
	Int/Coord Science 4	0.85	0.81	0.86	0.78	3.6	3.5	3.5	3.6

* Numbers indicate grade-level tests.