California Department of Education
Assessment and Accountability Division

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Acronyms and Initialisms Used in the *CST Technical Report*

ADA	Americans with Disabilities Act
ARP	Assessment Review Panel
API	Academic Performance Index
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
CI	confidence interval
CMA	California Modified Assessment
CR	constructed response
CRL	California Reading List
CSTs	California Standards Tests
CSEMs	conditional standard errors of measurement
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 curve
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
NRT	norm-referenced test
NPS	nonpublic, nonsectarian school
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
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
WRMSD	weighted root-mean-square differences

Chapter 1: Introduction

Background

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

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

During its 2010 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 individualized education programs (IEPs) who meet the CMA eligibility criteria approved by the SBE[1]
- California Alternate Performance Assessment (CAPA), produced for students with an IEP and have a significant cognitive disability 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)[2]

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 relative 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.

[1] In 2010, the CMA was administered in ELA in grades three through nine, in grade-level mathematics in grades three through seven, in end-of-course (EOC) Algebra I in grades seven through eleven, and in science in grades five, eight, and ten.

[2] In 2010, the STS was administered in reading/language arts (RLA) in grades two through eleven, in grade-level mathematics in grades two through seven, and in EOC Algebra I in grades seven through eleven and EOC Geometry in grades eight through eleven.

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. Students in grade 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 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 2010, 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 400,000 to 500,000 test-takers in 2010. Volumes for the EOC CSTs varied by content. For Algebra I (750,000), Biology (546,000), Geometry (410,000), and World History (482,000), there were more than 400,000 examinees. For all other tests, there were less.

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[3]), or the CAPA. This requirement includes English learners

[3] In 2010, students eligible to take the CMA could take the CMA for ELA in grades three through nine; the grade-level CMA for Mathematics in grades three through seven; the EOC CMA for Algebra I; and/or the CMA for Science in grades five, eight and ten.

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 significant 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 test. For the grade seven ELA test, 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 (California *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 California *EC* Section 60602 Web page at http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=60001-61000&file=60600-60603) [Note: the preceding Web address is no longer valid.] :

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

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

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

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

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

Testing Window

The CSTs are administered at different times, depending on the progression of the school year within each particular school district. Specifically, schools must administer the CSTs within a 21-day window which begins 10 days before and ends 10 days after the day on

which 85 percent of the instructional year is completed. School districts may use all or any part of the 21 days for testing but are encouraged to schedule testing over no more than a 10- to 15-day period (California *Code of Regulations [CCR], Title 5,* Education, Division 1, Chapter 2, Subchapter 3.75, Article 2, § 855; in the California Department of Education (CDE) Web document at http://www.cde.ca.gov/ta/tg/sr/starregs0207cln.doc).

Significant STAR Developments in 2010

Changes to the STAR Contract as Required by Legislated Budget Expenditure Activities

In September 2009, the SBE and the CDE approved amendments to the STAR contract in order to meet legislative budgetary requirements under the Assembly Bill 1 of the 2009–10 Fourth Extraordinary Session (ABX4 1) (Chapter 1, Statutes of 2009) and Bill 1 of the 2009–10 Third Extraordinary Session (SBX3 1) (Chapter 1, Statutes of 2009), Section (SEC) 12.42, to maximize contract savings during the California budget crisis. As part of the contract amendments, the following changes were made for the 2010 test administration that impacted the CSTs:

- **Suspension of the CST for Writing test in grade four—**The writing portion of the grade four ELA tests for the CSTs and CMA was not administered due to the suspension. However, the reporting scales of the grade four ELA tests have not been changed and the results remain comparable to previous years.
- **Reduction in the number of reviews by Assessment Review Panels (ARPs)—**As part of the contract amendment, formal ARP meetings for data reviews, differential item function (DIF) reviews, and forms reviews were eliminated. The ARP meetings for new item reviews continue to be held.
- **Elimination of new released test questions (RTQs)—**In previous years, the CDE retired and released 25 percent of the operational items to the public. Beginning with the 2010 posting, the CDE eliminated the release of new test questions as a means to retain more items for future administrations and to eliminate the costs associated with the production of the RTQs.
- **Reduction in the refresh rate and number of forms administered—**The refresh rate, or rate of replacement, for the operational test items was reduced from 50 percent to 35 percent. In addition, the number of test forms to be administered was reduced. This change cut back on the overall test development activities for the CSTs without impacting the test results or the future viability of the item pool.
- **Elimination of updates and the distribution of the administration videos and DVDs—**The annual updates to the test administration and CAPA training videos were eliminated. The production and distribution of the DVDs containing these videos were also eliminated. The training videos produced for the 2009 administration were made available to district STAR coordinators and test administrators on the STAR Web site at http://www.startest.org. Documents listing test administration updates for the 2010 administration were also made available on that Web site. District STAR coordinators and test administrators had the option to view the videos directly from the Web site or download the videos to their local computers.
- **Elimination of audio CDs—**As an accommodation for students with disabilities, audio CDs had been used in lieu of teacher read-aloud since 2007. For the 2010 administration, test administrators read aloud the test questions to the students that

needed the read-aloud accommodation. This is similar to the administration of read-aloud accommodations conducted in STAR administrations prior to 2007.

- **Reduction in the number of Pre-Test, CAPA Train-the-Trainer, and Post-Test Workshops—**The overall number of Pre-Test and CAPA Train-the-Trainer Workshops was reduced from 11 workshops in 2009 to three workshops in 2010. One Pre-Test Workshop was held in Northern California (Sacramento County), another in Southern California (Ventura County), and a third was conducted via Webcast. The archive of the Webcast was made available for later viewing on the San Diego County Office of Education's Web site. The number of Post-Test Workshops was reduced from five in-person workshops to one Webcast. There appeared to be no significant negative impact from the reduction of the workshops on the test administration process.
- **Reduction in the weight of paper used to print test materials—**The weight of the paper used to print the nonscannable test booklets, manuals, and *Directions for Administration (DFAs)* were reduced to a lighter weight, which reduced paper and shipping costs. There appeared to be no impact to the test administration process.
- **Elimination of the STAR Teacher Reports—**Prior to the 2009 administration, school districts could request the STAR Teacher Reports for the CSTs for ELA and mathematics. The Teacher Reports were eliminated beginning with the 2009 administration.
- **Elimination of the security audits—**The activities to train auditors and conduct site visits before, during, and after testing to randomly selected school districts were eliminated. Reviews of testing irregularities were conducted by the CDE. ETS continued to conduct investigations of security breaches at the CDE's direction.
- **Elimination of the mark discrimination analysis—**The mark discrimination analysis was eliminated beginning with the 2009 administration.
- **Elimination of the language translations for the Student Report Interpretation Guides—**The translation of the CST, CMA, and CAPA Student Report Interpretation Guides into other languages was subsumed by the CDE Clearinghouse for Multilingual Documents. Translations of the guides are available on the California Department of Education Web site at http://www.cde.ca.gov/ta/tg/sr/resources.asp.

Limitations of the Assessment

Score Interpretation

A school district may use CST results to help make decisions about student placement, promotion, retention, or other considerations related to student achievement. However, it is important to remember that a single test can provide only limited information. Other relevant information should be considered as well. It is advisable for parents to evaluate their child's strengths and weaknesses in the relevant topics by reviewing classroom work and progress reports in addition to the child's CST results (CDE, 2009). It is important to note that student scores in a content area contain measurement error and could vary somewhat if students were retested.

Out-of-Level Testing

Testing below a student's grade is not allowed in CSTs or any test in the STAR Program; all students are required to take the test for the grade in which they are enrolled. Districts are advised to review all IEPs to ensure that any provision for testing below a student's grade level has been removed.

Score Comparison

When comparing 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 2010 grade three mathematics tests; it would not be appropriate to compare scores obtained on the grade three mathematics test with those obtained on the grade four mathematics test. The reviewer may compare results for the same content area and grade, within a school, between schools, or between a school and its district, its county, or the state within the same year or to previous years. Comparisons between scores obtained in different grades or content areas should be avoided.

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.

California Department of Education

The CDE oversees California's public school system, which is responsible for the education of more than seven million children and young adults in more than 9,000 schools. The CDE's mission is to provide leadership, assistance, oversight, and resources so that every child in California has access to a competent and effective educational system. As part of its mission to promote district and school accountability for improving student achievement as defined by the SBE, the CDE oversees the development and administration of the STAR Program.

Contractors

Educational Testing Service

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

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

Pearson

ETS also monitors and manages the work of Pearson, subcontractor to ETS for the STAR Program. Activities conducted by Pearson include 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 2010. 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 applicable to the construction of CSTs for 2010.
- Chapter 5 presents the processes involved in the actual administration of the 2010 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 2010 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 proficiency-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 DIF for each CST.
- Chapter 9 highlights the importance of controlling and maintaining the quality of the CSTs.
- Chapter 10 presents historical comparisons of various item- and test-level results for the past three years and for the base year.

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

Reference

California Department of Education. (2009). *Interpreting 2009 STAR program test results*. Sacramento, CA. http://www.cde.ca.gov/ta/tg/sr/documents/star09intrprslt.pdf. [Note: the preceding Web address is no longer valid.]

Chapter 2: An Overview of CST Processes

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

Item Development

Item Formats

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

Item Development Specifications

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

The item specifications describe the characteristics of the items that should be written to measure each content standard. The item specifications help ensure that the items in the CSTs measure the content standards in the same way. To do this, the item specifications provide detailed information to item writers that are developing items for the CSTs.

The items selected for each CST undergo an extensive item review process that is designed to provide the best standards-based tests possible. Details about the item development specifications, the item review process, the item utilization plan, and the rules for arranging items on the forms are presented in Chapter 3, starting on page 189.

Item Banking

The newly developed items are placed in the item bank along with the corresponding information obtained at the review sessions. Items that are accepted by the content experts are updated to a “field-test ready” status; items that are rejected are updated to a “rejected before use” status. ETS then delivers the items to the CDE by means of a delivery of the California electronic item bank.

Items are field tested to obtain information about item performance and to obtain statistics that can be used to assemble operational forms. ETS then prepares the items and the associated statistics for another round of review by content experts and various external review organizations such as the ARPs, which are described starting on page 193; and the Statewide Pupil Assessment Review (SPAR) panel, described starting on page 196. Subsequent updates to item content and statistics are based on 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 and Released Test Questions

Previously, the item utilization plan assumed that each year, 50 percent of items on an operational form would be refreshed (replaced); these items remained in the item bank for

future use. In addition, the plan declared that 25 percent of the operational items must be released to the public every year; the questions were selected from prior test administrations (2003–08). Because RTQs were posted on the Internet for public viewing, they would not appear on future CSTs.

Beginning in 2010, the item utilization plan was modified to reflect changes in the item development process due to a budget reduction; the item refresh rate was reduced from 50 percent to 35 percent. This change reduced the overall test development activities for CSTs without impacting the test form comparability or the future viability of the item pool. In addition, the RTQs are no longer produced. The RTQs that had been released in prior years will remain posted on the Internet for public use. This change is expected to serve as a means to retain more items for future administrations and to eliminate the costs associated with the production of the RTQs.

Test Assembly

Test Length

The number of items in each CST and the estimated time to complete a test is presented in Appendix 2.A on page 23. The CSTs for ELA consist of 75 items[4] with the exception of the CSTs for ELA administered in grades two and three, which consist of 65 items each. The CSTs for Mathematics are composed of 65 items and the CSTs for Science are composed of 60 items each. The CST for History–Social Science (Grade 8) consists of 75 items, while the CST for U.S. History administered in grade eleven and the end-of-course CST for World History consist of 60 items. The considerations in deciding upon the test length are described on page 201 in Chapter 4.

Test Blueprints

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

Although the test blueprints call for the number of items at the individual standard level, scores for the CST items are grouped into subcontent areas referred to as “reporting clusters.” For each CST reporting cluster, the percentage of questions correctly answered is reported on a student’s score report. A description of the CST reporting clusters and the standards that compose each reporting cluster is 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 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 they are used to equate the test forms administered each year. After the linking items are approved, assessment specialists populate the rest of the test form. Another consideration is the difficulty of each item. Test developers strive to ensure that there are some easy and some hard items and that there are a number of items

[4] Scores for the 2010 CST for ELA (Grade 8) were based on 74 items following removal of one item from scoring due to poor item performance.

in the middle range of difficulty. The detailed rules are presented in Chapter 4, which begins on page 201.

Psychometric Criteria

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

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

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

Three types of assembly targets are developed for each CST: the total test target, the linking block target, and reporting cluster targets. These targets are provided to test developers before a test construction cycle begins. The test developers and psychometricians work together to design the tests to these targets.

The staff also assesses the projected test characteristics during the preliminary review of the assembled forms. The test targets used for the 2010 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 in Chapter 4.

Test Administration

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

Test Security and Confidentiality

All tests within the STAR Program are secure documents. For the CST administration, every person having access to test materials maintains the security and confidentiality of the tests. ETS's Code of Ethics requires that all test information, including tangible materials (such as test booklets, test questions, test results), confidential files, processes, and activities are kept secure. To ensure security for all tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI). A detailed description of the OTI and its mission is presented in Chapter 5, on page 245.

In its pursuit of enforcing secure practices, ETS and the OTI strive to safeguard the various processes involved in a test development and administration cycle. Those processes are listed below. The practices related to each process are discussed in detail in Chapter 5, starting on page 245.

- Test development
- Item and data review
- Item banking
- Transfer of forms and items to the CDE
- Security of electronic files using a firewall

- Printing and publishing
- Test administration
- Test delivery
- Processing and scoring
- Data management
- Transfer of scores via secure data exchange
- Statistical analysis
- Reporting and posting results
- Student confidentiality
- Student test results

Procedures to Maintain Standardization

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

Test Administrators

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

Staff at school districts who are central to the processes include district STAR coordinators, test examiners, proctors, and scribes. The responsibilities of each of the staff members are included in the *STAR District and Test Site Coordinator Manual* (CDE, 2010), which is described in more detail on page 251 in Chapter 5.

Test Directions

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

***Directions for Administration* (*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 251 for more information)

***District and Test Site Coordinator Manual*—**Test administration procedures for district STAR coordinators and test site coordinators (see page 251 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 252 for more information)

Test Variations, Accommodations, and Modifications

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

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

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

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

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

Category 2: Accommodations—Eligible students are permitted to take the CSTs with accommodations specified in their IEP or Section 504 plan for use on the CSTs or for use during classroom instruction and assessment. Examples of accommodations are large-print or braille versions of the CSTs or providing more than one day for a test designed for a single sitting.

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

Appendix 2.C presents the 2010 Matrix of Test Variations, Accommodations, and Modifications for Administration of California Statewide Assessments. The matrix provides a complete list of the variations, accommodations, and modifications that were allowed for the STAR Program in 2010.

Test Variations, Accommodation and Modification Summaries

The percentage of students using various testing variations, accommodations and modifications during the 2010 administration of all 38 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 in the total testing population. The next section presents the results for students in special education and for those not in special education. The final section presents the results for various categories based on the following levels of English-language proficiency:

- **English only (EO)—**A student for whom there is a report of English as the primary language (i.e., language first learned, most frequently used at home, or most frequently spoken by the parents or adults in the home) on the "Home Language Survey"

- **Initially fluent English proficient (I-FEP)—**A student whose primary language is a language other than English who initially met the district criteria for determining proficiency in English
- **English learner (EL)—**A student who first learned or has a home language other than English who was determined to lack sufficient fluency in English on the basis of state oral language (K–12) and literacy (3–12) assessments to succeed in the school's regular instructional program (For students tested for initial classification prior to May 2001, this determination is made on the basis of the state-approved instrument the district was using. For students tested after May 2001, use the 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 CST for grade seven ELA also includes accommodations related to the writing task. Additional modifications are included for CSTs for mathematics that involved the use of calculators, arithmetic tables, and manipulatives.

Scores

The CST total test raw scores equal the sum of examinees' scores on the multiple-choice test items. In grade seven, the total ELA raw score equals the sum of examinees' scores on both the multiple-choice items and the writing task. Examinee responses to the writing task are rated on a 0–4 scale by a single reader. The writing score is obtained by doubling the rating and is reported on a scale with possible scores of 0, 2, 4, 6 and 8. Details about CST writing scores and scoring rubrics are described on page 263 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 16. 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. The state's target is for all students to score at the proficient or advanced level.

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

Detailed descriptions of CST scores are described on page 262 in Chapter 7.

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 following sections present the types of aggregation performed on individual and group CST scores.

Individual Scores

Table 7.1 and Table 7.2 in Chapter 7 offer summary statistics for individual scores, 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 level are provided in Table 7.B.1 through Table 7.B.6 in Appendix 7.B.

Group Scores

In Table 7.C.1 through Table 7.C.38, students are grouped by demographic characteristics including gender, ethnicity, English proficiency, use of special education services, and economic status. The tables show the numbers of students with valid scores[5] 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 269 provides definitions for the demographic groups included in the tables.

Equating

The CSTs are equated to a reference form using a common-item nonequivalent groups data collection design and methods based on item response theory (Hambleton & Swaminathan, 1985). The “base” or “reference” calibrations for the CSTs were established by calibrating samples of item response data from a specific administration. Doing so established a scale to which subsequent item calibrations could be linked. The 2010 items were placed on the reference scale using a set of linking items selected from the 2009 forms and re-administered in 2010.

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 item which is used to obtain calibrations for the writing prompt in the CSTs for ELA administered in grade 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.

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[5] Valid scores are based on cases where examinees met one or more 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.

Scaling

Calibrations of the 2010 items were linked to the previously obtained reference scale estimates using linking items and the Stocking and Lord (1983) procedure. In the case of the one-parameter model calibrations, this procedure is equivalent to setting the mean of the new item parameter estimates for the linking set equal to the mean of the previously scaled estimates. The linking set is a collection of items in a current test form that also appeared in last year's form and was scaled at that time.

The linking process is carried out iteratively by inspecting differences between the transformed new and old (reference) estimates for the linking items and removing items for which the item difficulty estimates changed significantly. Items with large weighted root-mean-square differences (WRMSD) between item characteristic curves (ICCs) based on the old and new difficulty estimates were removed from the linking set. The differences are calculated using the following formula:

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

where,

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

n_g is the number of intervals/groups,

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

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

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

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

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

True Score Equating

Once the new item calibrations for each test are transformed to the base scale, IRT true score equating procedures are used to transform the new form number-correct scores to their respective reference form number-correct scale. These converted raw scores can then be transformed to scale scores through table lookup and linear interpolation.

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

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

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 grade seven ELA, $\xi(\theta)$ is based on a sum of multiple-choice and constructed response essay items; the relationship can be defined as:

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

where,

s_x is the value for score category x,

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

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

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

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

For each integer score ξ_n on the new form, the true-score equating procedure first solves for the corresponding ability estimate using equation (2.2) except in the case of the CST for ELA tests in grade seven, 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 2010 CSTs are presented in Table 8.D.55 through Table 8.D.78 in Appendix 8.D, starting on page 544. The raw scores and corresponding transformed scale scores are listed on those tables.

For all the 2010 CSTs, scale scores were adjusted at both ends of the scale so that the minimum reported scale score was 150 and the maximum reported scale score was 600. The scale score ranges defining the various performance levels are presented in Table 2.1, below.

Table 2.1 Scale Scores Ranges for Performance Levels

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced
English–Language Arts	**2**	150 – 261	262 – 299	300 – 349	350 – 401	402 – 600
	3	150 – 258	259 – 299	300 – 349	350 – 401	402 – 600
	4	150 – 268	269 – 299	300 – 349	350 – 392	393 – 600
	5	150 – 270	271 – 299	300 – 349	350 – 394	395 – 600
	6	150 – 267	268 – 299	300 – 349	350 – 393	394 – 600
	7	150 – 262	263 – 299	300 – 349	350 – 400	401 – 600
	8	150 – 265	266 – 299	300 – 349	350 – 394	395 – 600
	9	150 – 264	265 – 299	300 – 349	350 – 396	397 – 600
	10	150 – 262	263 – 299	300 – 349	350 – 391	392 – 600
	11	150 – 258	259 – 299	300 – 349	350 – 395	396 – 600
History–Social Science	**8**	150 – 270	271 – 299	300 – 349	350 – 395	396 – 600
	World History	150 – 274	275 – 299	300 – 349	350 – 399	400 – 600
	11	150 – 269	270 – 299	300 – 349	350 – 400	401 – 600
Mathematics	**2**	150 – 235	236 – 299	300 – 349	350 – 413	414 – 600
	3	150 – 235	236 – 299	300 – 349	350 – 413	414 – 600
	4	150 – 244	245 – 299	300 – 349	350 – 400	401 – 600
	5	150 – 247	248 – 299	300 – 349	350 – 429	430 – 600
	6	150 – 252	253 – 299	300 – 349	350 – 414	415 – 600
	7	150 – 256	257 – 299	300 – 349	350 – 413	414 – 600
	General Mathematics	150 – 256	257 – 299	300 – 349	350 – 413	414 – 600
	Algebra I	150 – 252	253 – 299	300 – 349	350 – 427	428 – 600
	Geometry	150 – 246	247 – 299	300 – 349	350 – 417	418 – 600
	Algebra II	150 – 256	257 – 299	300 – 349	350 – 415	416 – 600

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

* Numbers indicate grade-level tests.

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

Equating Samples

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

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

Table 2.2 Sample Selected to Establish Reference Form

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

As of 2003, equating samples were selected from available student records in a data file obtained near the end of May. As anticipated, these data consisted of only 5 to 10 percent of the total STAR testing data that were available once testing was completed. It was necessary to use these partial student samples for equating to meet score reporting deadlines. 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[6] were used from 2003 to 2007. 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. Only students with valid results on the CSTs are included in the equating samples.

Equating the Braille Versions of the CSTs

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

In 2010, this process was applied to the CSTs for Biology, Earth Science, Integrated/ Coordinated Science 1, and Integrated/Coordinated Science 2. For each of those CSTs, one item could not be translated into braille.

Scaling the CSTs for Integrated/Coordinated Science

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

Special procedures have been used to scale the Integrated/Coordinated Science tests in recent years. This is due, in part, to the small numbers of students available at the time of the scaling. The special procedures are also needed because 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 "parent"' science CSTs: Earth Science, Biology, Chemistry, and Physics).[7] The following procedures are used for the Integrated/Coordinated Science tests to obtain composite performance level cut scores:

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

As an illustration, Table 2.3 shows the number-correct scores defining each of the performance-level cut points on the 60-item, content-specific science CSTs. As shown in the table, the minimum number-correct score needed in Biology to achieve a below-basic classification is 20; the minimum number-correct score needed to achieve a basic classification is 26; and so forth.

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[6] The 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 end-of-course assessments address content standards for specific courses and are presented to students at a variety of grade levels, it is the SBE's recommendation that students begin Algebra I in grade eight, continue with Geometry in grade nine, Algebra II in grade ten, and complete the CST for Summative High School Mathematics in grade eleven. World History is recommended for students in grade ten.

[7] These integrated tests are constructed by taking intact blocks of items from the four content-based science CSTs.

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

Performance Levels	Biology	Chemistry	Earth Science	Physics
Below Basic	20	21	20	18
Basic	26	28	26	24
Proficient	40	42	40	38
Advanced	49	51	50	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 2.4. For example, 12 Biology items are included on the CST for Integrated/Coordinated Science 1. On the basis of these items, the minimum number-correct score needed to achieve a below-basic classification is 4 (4.0610 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.[8]

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

Performance Level	Biology	Chemistry	Earth Science	Physics	Total Test Cut Score
Below Basic	4.0610	5.8010	6.3458	4.2991	20
Basic	5.3170	7.6845	8.1998	5.6960	26
Proficient	8.2142	11.4003	12.4119	8.9101	40
Advanced	9.9950	13.7400	15.2865	11.1914	50
N items	12	16	18	14	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[9] at levels similar to those used for the other science CSTs are assigned on the basis of scaling functions.

[8] Step-by-step computation:

1. The content-based tests are equated in the standard way.
2. The subsections for each test are scaled up to the total test. This allows for the translation of the cut score on the total content-based test to the subsection. The result is a fractional number-correct cut on the subscore. The cut for the integrated test is the truncated sum of the fractional cuts for the respective tests; that is, the number-correct cut.
3. The thetas associated with the number correct on the scaled-up sections from the respective tests are weighted by the proportional contribution to the total score to form a composite theta associated with each raw score.
4. Scaling constants are applied to the thetas to obtain the scale-score values.

[9] These scale scores are obtained by linear interpolation between thetas corresponding to the raw scores. The source tables with thetas and unrounded scale scores are provided in Table 8.D.76 through Table 8.D.78. This information is available upon request.

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Appendix 2.A—CST Item 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]	–	–	–	–	–	–	–	–
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 test in grade seven is given on a separate date from the multiple-choice tests. Writing test times are not included in the estimated time for English–Language Arts multiple-choice tests.

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

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

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

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

Appendix 2.B—Reporting Clusters

English–Language Arts

English–Language Arts Standards Test (Grade Two)

Reading	
Word Analysis and Vocabulary Development	22 items
Reading Comprehension	15 items
Literary Response and Analysis	6 items
Writing	
Written Conventions	14 items
Writing Strategies	8 items

English–Language Arts Standards Test (Grade Three)

Reading	
Word Analysis and Vocabulary Development	20 items
Reading Comprehension	15 items
Literary Response and Analysis	8 items
Writing	
Written Conventions	13 items
Writing Strategies	9 items

English–Language Arts Standards Test (Grade Four)

Reading	
Word Analysis and Vocabulary Development	18 items
Reading Comprehension	15 items
Literary Response and Analysis	9 items
Writing	
Written Conventions	18 items
Writing Strategies	15 items

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	8 items[1]
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

[1] The test blueprint calls for nine items in this reporting cluster. However, an item was removed due to poor item performance, leaving this cluster with eight 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 Organic and Biochemistry, Standards: CH10.a–c	9 items

Kinetics, Thermodynamics	
Gases and Their Properties, Standards: CH4.a–f Chemical Thermodynamics, Standards: CH7.a–d Solutions, Standards: CH6.a–d	14 items
Chemical Reactions	
Acids and Bases, Standards: CH5.a–d Reaction Rates, Standards: CH8.a–c Chemical Equilibrium, Standards: CH9.a–b	13 items
Conservation of Matter and Stoichiometry	
Standards: CH3.a–e	10 items
Investigation and Experimentation	
Standards: CHIE1.a–n	6 items

Earth Science Standards Test

Astronomy and Cosmology	
Earth's Place in the Universe, Standards: ES1.a–f, ES2.a–d	12 items
Solid Earth	
Dynamic Earth Processes, Standards: ES3.a–e California Geology, Standards: ES9.a–c	14 items
The Earth's Energy	
Energy in the Earth System, Standards: ES4.a–c, ES5.a–e, ES6.a–c Structure and Composition of the Atmosphere, Standards: ES8.a–c Biogeochemical Cycles, Standards: ES7.a–c	28 items
Investigation and Experimentation	
Standards: ESIE1.a–n	6 items

Physics Standards Test

Motion and Forces	
Standards: PH1.a–g	12 items
Conservation of Energy and Momentum	
Standards: PH2.a–g	12 items
Heat and Thermodynamics	
Standards: PH3.a–e	9 items
Waves	
Standards: PH4.a–f	10 items
Electric and Magnetic Phenomena	
Standards: PH5.a–i	11 items
Investigation and Experimentation	
Standards: PHIE1.a–n	6 items

Science Standards Test (Integrated/Coordinated Science 1)

Biology/Life Sciences	
Ecology, Standards: BI6.a–f Evolution, Standards: BI8.a–b and BI8.e	10 items
Chemistry	
Atomic and Molecular Structure, Standards: CH1.a–e Chemical Bonds, Standards: CH2.a–c Acids and Bases, Standards: CH5.a, c	15 items

Chemical Thermodynamics, Standards: CH7.b–c	
Earth Sciences	
Dynamic Earth Processes, Standards: ES3.a–e Biogeochemical Cycles, Standards: ES7.a–c 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—2010 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
Responses dictated [orally, or in MCE or ASL] to a scribe for selected-response items (multiple-choice questions)	2
Word processing software with spell and grammar check tools turned off for the essay responses (writing portion of the test)	2
Essay responses dictated orally or in MCE to a scribe, audio recorder, or speech-to-text converter and the student provides all spelling and language conventions	2
Assistive device that does not interfere with the independent work of the student on the multiple-choice and/or essay responses (writing portion of the test)	2
Braille transcriptions provided by the test contractor	2
Large-print versions Test items enlarged if font larger than required on large-print versions	2
Test over more than one day for a test or test part to be administered in a single sitting	2
Supervised breaks within a section of the test	2
Administration of the test at the most beneficial time of day to the student	2
Test administered at home or in hospital by a test examiner	2
Dictionary	3

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

All = All students may be provided these test variations.

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

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

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

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

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

Appendix 2.D—Special Services Summary Tables

Note:

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

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

Special Services Summary for ELA, Grades Two and Three				
All Tested	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	280	0.06%	179	0.04%
C: Dictated responses to a scribe	89	0.02%	44	0.01%
F: Used non-interfering assistive device	60	0.01%	26	0.01%
G: Used Braille version of test	18	0.00%	13	0.00%
H: Used large-print version of test	180	0.04%	167	0.04%
J: Tested during more than one day	1,071	0.24%	646	0.15%
K: Had supervised breaks	3,805	0.84%	2,505	0.57%
L: Most beneficial time of day	1,886	0.42%	987	0.23%
M: Administered at home or in a hospital	45	0.01%	25	0.01%
N: Used a dictionary	1	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	47	0.01%	15	0.00%
V: Used interfering assistive device	4	0.00%	1	0.00%
W: Used an unlisted modification	54	0.01%	20	0.00%
X: Used an unlisted accommodation	850	0.19%	559	0.13%
Y: Leave blank	170	0.04%	107	0.02%
Z: Examiner read test questions aloud	1,225	0.27%	563	0.13%
Accom. or Mod. is in Section 504 plan	166	0.04%	168	0.04%
Accom. or Mod. is in IEP	5,719	1.26%	3,602	0.82%
English Learner Test Variation A	610	0.13%	511	0.12%
English Learner Test Variation B	122	0.03%	92	0.02%
English Learner Test Variation C	325	0.07%	258	0.06%
Any Accom., Mod., or EL Variation	7,221	1.59%	4,754	1.08%
No Accom., Mod., or EL Variation	446,905	98.41%	433,790	98.92%
Students Not in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	40	0.01%	36	0.01%
C: Dictated responses to a scribe	13	0.00%	15	0.00%
F: Used non-interfering assistive device	2	0.00%	5	0.00%
G: Used Braille version of test	1	0.00%	2	0.00%
H: Used large-print version of test	29	0.01%	28	0.01%

Special Services Summary for ELA, Grades Two and Three				
J: Tested during more than one day	166	0.04%	103	0.03%
K: Had supervised breaks	599	0.14%	387	0.09%
L: Most beneficial time of day	268	0.06%	146	0.04%
M: Administered at home or in a hospital	32	0.01%	20	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%	1	0.00%
V: Used interfering assistive device	2	0.00%	1	0.00%
W: Used an unlisted modification	9	0.00%	2	0.00%
X: Used an unlisted accommodation	185	0.04%	94	0.02%
Y: Leave blank	34	0.01%	26	0.01%
Z: Examiner read test questions aloud	180	0.04%	87	0.02%
Accom. or Mod. is in Section 504 plan	154	0.04%	157	0.04%
Accom. or Mod. is in IEP	802	0.19%	437	0.11%
English Learner Test Variation A	563	0.13%	491	0.12%
English Learner Test Variation B	99	0.02%	78	0.02%
English Learner Test Variation C	268	0.06%	235	0.06%
Any Accom., Mod., or EL Variation	1,865	0.45%	1,351	0.33%
No Accom., Mod., or EL Variation	416,282	99.55%	409,550	99.67%
Students in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	236	0.66%	138	0.50%
C: Dictated responses to a scribe	76	0.21%	29	0.11%
F: Used non-interfering assistive device	57	0.16%	21	0.08%
G: Used Braille version of test	16	0.04%	9	0.03%
H: Used large-print version of test	143	0.40%	130	0.47%
J: Tested during more than one day	903	2.51%	539	1.95%
K: Had supervised breaks	3,201	8.91%	2,100	7.61%
L: Most beneficial time of day	1,617	4.50%	840	3.04%
M: Administered at home or in a hospital	13	0.04%	5	0.02%
N: Used a dictionary	1	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	46	0.13%	14	0.05%
V: Used interfering assistive device	2	0.01%	0	0.00%
W: Used an unlisted modification	44	0.12%	18	0.07%
X: Used an unlisted accommodation	661	1.84%	463	1.68%
Y: Leave blank	136	0.38%	81	0.29%
Z: Examiner read test questions aloud	1,041	2.90%	472	1.71%
Accom. or Mod. is in Section 504 plan	12	0.03%	11	0.04%
Accom. or Mod. is in IEP	4,897	13.62%	3,134	11.35%
English Learner Test Variation A	47	0.13%	20	0.07%
English Learner Test Variation B	23	0.06%	14	0.05%
English Learner Test Variation C	57	0.16%	23	0.08%
Any Accom., Mod., or EL Variation	5,336	14.85%	3,372	12.22%
No Accom., Mod., or EL Variation	30,608	85.15%	24,229	87.78%

Special Services Summary for ELA, Grades Two and Three				
English-Only Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	189	0.07%	117	0.05%
C: Dictated responses to a scribe	72	0.03%	28	0.01%
F: Used non-interfering assistive device	41	0.02%	19	0.01%
G: Used Braille version of test	8	0.00%	8	0.00%
H: Used large-print version of test	129	0.05%	113	0.05%
J: Tested during more than one day	709	0.28%	453	0.19%
K: Had supervised breaks	2,362	0.94%	1,647	0.68%
L: Most beneficial time of day	1,156	0.46%	676	0.28%
M: Administered at home or in a hospital	30	0.01%	20	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	33	0.01%	13	0.01%
V: Used interfering assistive device	2	0.00%	0	0.00%
W: Used an unlisted modification	36	0.01%	13	0.01%
X: Used an unlisted accommodation	546	0.22%	349	0.14%
Y: Leave blank	118	0.05%	77	0.03%
Z: Examiner read test questions aloud	743	0.29%	375	0.15%
Accom. or Mod. is in Section 504 plan	125	0.05%	139	0.06%
Accom. or Mod. is in IEP	3,572	1.42%	2,355	0.97%
English Learner Test Variation A	10	0.00%	15	0.01%
English Learner Test Variation B	7	0.00%	3	0.00%
English Learner Test Variation C	20	0.01%	3	0.00%
Any Accom., Mod., or EL Variation	4,019	1.59%	2,700	1.12%
No Accom., Mod., or EL Variation	247,996	98.41%	239,434	98.88%
Initially Fluent English Proficient (I-FEP) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	5	0.03%	3	0.02%
C: Dictated responses to a scribe	2	0.01%	1	0.01%
F: Used non-interfering assistive device	2	0.01%	0	0.00%
G: Used Braille version of test	2	0.01%	0	0.00%
H: Used large-print version of test	4	0.02%	3	0.02%
J: Tested during more than one day	15	0.08%	6	0.03%
K: Had supervised breaks	49	0.26%	34	0.18%
L: Most beneficial time of day	20	0.11%	12	0.06%
M: Administered at home or in a hospital	1	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	2	0.01%	1	0.01%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.01%
X: Used an unlisted accommodation	11	0.06%	8	0.04%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	12	0.06%	7	0.04%
Accom. or Mod. is in Section 504 plan	3	0.02%	6	0.03%
Accom. or Mod. is in IEP	67	0.36%	47	0.25%

Special Services Summary for ELA, Grades Two and Three				
English Learner Test Variation A	6	0.03%	4	0.02%
English Learner Test Variation B	0	0.00%	1	0.01%
English Learner Test Variation C	0	0.00%	0	0.00%
Any Accom., Mod., or EL Variation	78	0.42%	63	0.33%
No Accom., Mod., or EL Variation	18,636	99.58%	18,771	99.67%
English Learner (EL) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	81	0.05%	50	0.03%
C: Dictated responses to a scribe	15	0.01%	14	0.01%
F: Used non-interfering assistive device	16	0.01%	7	0.00%
G: Used Braille version of test	8	0.00%	4	0.00%
H: Used large-print version of test	41	0.02%	34	0.02%
J: Tested during more than one day	343	0.20%	179	0.12%
K: Had supervised breaks	1,371	0.79%	793	0.53%
L: Most beneficial time of day	698	0.40%	289	0.19%
M: Administered at home or in a hospital	14	0.01%	5	0.00%
N: Used a dictionary	1	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	12	0.01%	0	0.00%
V: Used interfering assistive device	1	0.00%	1	0.00%
W: Used an unlisted modification	18	0.01%	6	0.00%
X: Used an unlisted accommodation	288	0.17%	191	0.13%
Y: Leave blank	52	0.03%	27	0.02%
Z: Examiner read test questions aloud	462	0.27%	176	0.12%
Accom. or Mod. is in Section 504 plan	37	0.02%	20	0.01%
Accom. or Mod. is in IEP	2,047	1.17%	1,150	0.77%
English Learner Test Variation A	591	0.34%	489	0.33%
English Learner Test Variation B	115	0.07%	86	0.06%
English Learner Test Variation C	303	0.17%	255	0.17%
Any Accom., Mod., or EL Variation	3,080	1.77%	1,927	1.30%
No Accom., Mod., or EL Variation	171,141	98.23%	146,631	98.70%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	1	0.01%	1	0.00%
C: Dictated responses to a scribe	0	0.00%	1	0.00%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used Braille version of test	0	0.00%	0	0.00%
H: Used large-print version of test	2	0.02%	4	0.01%
J: Tested during more than one day	2	0.02%	3	0.01%
K: Had supervised breaks	9	0.11%	11	0.04%
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%
O: Examiner presented using MCE or ASL	0	0.00%	1	0.00%

Special Services Summary for ELA, Grades Two and Three				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.02%	5	0.02%
Y: Leave blank	0	0.00%	2	0.01%
Z: Examiner read test questions aloud	3	0.04%	2	0.01%
Accom. or Mod. is in Section 504 plan	1	0.01%	2	0.01%
Accom. or Mod. is in IEP	13	0.15%	22	0.08%
English Learner Test Variation A	0	0.00%	1	0.00%
English Learner Test Variation B	0	0.00%	2	0.01%
English Learner Test Variation C	1	0.01%	0	0.00%
Any Accom., Mod., or EL Variation	16	0.19%	27	0.10%
No Accom., Mod., or EL Variation	8,531	99.81%	28,383	99.90%

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	388	0.09%
C: Dictated responses to a scribe	38	0.01%
F: Used non-interfering assistive device	26	0.01%
G: Used Braille version of test	17	0.00%
H: Used large-print version of test	132	0.03%
J: Tested during more than one day	547	0.13%
K: Had supervised breaks	2,476	0.57%
L: Most beneficial time of day	831	0.19%
M: Administered at home or in a hospital	29	0.01%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	6	0.00%
T: Used word processing with tools on	0	0.00%
W: Used an unlisted modification	18	0.00%
X: Used an unlisted accommodation	577	0.13%
Y: Leave blank	124	0.03%
Z: Examiner read test questions aloud	373	0.09%
Accom. or Mod. is in Section 504 plan	227	0.05%
Accom. or Mod. is in IEP	3,521	0.81%
English Learner Test Variation A	442	0.10%
English Learner Test Variation B	93	0.02%
English Learner Test Variation C	220	0.05%
Any Accom., Mod., or EL Variation	4,563	1.04%
No Accom., Mod., or EL Variation	432,812	98.96%
Students Not in Special Education	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	58	0.01%
C: Dictated responses to a scribe	10	0.00%
F: Used non-interfering assistive device	4	0.00%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	30	0.01%
J: Tested during more than one day	88	0.02%
K: Had supervised breaks	393	0.10%
L: Most beneficial time of day	138	0.03%
M: Administered at home or in a hospital	20	0.00%
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	110	0.03%
Y: Leave blank	28	0.01%
Z: Examiner read test questions aloud	50	0.01%
Accom. or Mod. is in Section 504 plan	219	0.05%
Accom. or Mod. is in IEP	405	0.10%

Special Services Summary for ELA, Grade Four		
English Learner Test Variation A	417	0.10%
English Learner Test Variation B	76	0.02%
English Learner Test Variation C	194	0.05%
Any Accom., Mod., or EL Variation	1,252	0.30%
No Accom., Mod., or EL Variation	410,938	99.70%
Students in Special Education	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	329	1.31%
C: Dictated responses to a scribe	28	0.11%
F: Used non-interfering assistive device	22	0.09%
G: Used Braille version of test	16	0.06%
H: Used large-print version of test	102	0.41%
J: Tested during more than one day	458	1.82%
K: Had supervised breaks	2,080	8.26%
L: Most beneficial time of day	692	2.75%
M: Administered at home or in a hospital	9	0.04%
N: Used a dictionary	3	0.01%
O: Examiner presented using MCE or ASL	6	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	16	0.06%
X: Used an unlisted accommodation	466	1.85%
Y: Leave blank	96	0.38%
Z: Examiner read test questions aloud	323	1.28%
Accom. or Mod. is in Section 504 plan	8	0.03%
Accom. or Mod. is in IEP	3,110	12.36%
English Learner Test Variation A	25	0.10%
English Learner Test Variation B	17	0.07%
English Learner Test Variation C	26	0.10%
Any Accom., Mod., or EL Variation	3,305	13.13%
No Accom., Mod., or EL Variation	21,866	86.87%
English-Only Students	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	298	0.12%
C: Dictated responses to a scribe	30	0.01%
F: Used non-interfering assistive device	15	0.01%
G: Used Braille version of test	10	0.00%
H: Used large-print version of test	105	0.04%
J: Tested during more than one day	402	0.17%
K: Had supervised breaks	1,610	0.67%
L: Most beneficial time of day	565	0.23%
M: Administered at home or in a hospital	22	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	5	0.00%

Special Services Summary for ELA, Grade Four		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	10	0.00%
X: Used an unlisted accommodation	404	0.17%
Y: Leave blank	90	0.04%
Z: Examiner read test questions aloud	250	0.10%
Accom. or Mod. is in Section 504 plan	188	0.08%
Accom. or Mod. is in IEP	2,324	0.96%
English Learner Test Variation A	3	0.00%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	6	0.00%
Any Accom., Mod., or EL Variation	2,662	1.10%
No Accom., Mod., or EL Variation	239,110	98.90%
Initially Fluent English Proficient (I-FEP) Students	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	13	0.04%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used Braille version of test	2	0.01%
H: Used large-print version of test	5	0.02%
J: Tested during more than one day	11	0.04%
K: Had supervised breaks	69	0.23%
L: Most beneficial time of day	25	0.08%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.01%
X: Used an unlisted accommodation	9	0.03%
Y: Leave blank	5	0.02%
Z: Examiner read test questions aloud	10	0.03%
Accom. or Mod. is in Section 504 plan	5	0.02%
Accom. or Mod. is in IEP	106	0.35%
English Learner Test Variation A	3	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	0	0.00%
Any Accom., Mod., or EL Variation	119	0.39%
No Accom., Mod., or EL Variation	30,355	99.61%
English Learner (EL) Students	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	77	0.06%
C: Dictated responses to a scribe	7	0.01%
F: Used non-interfering assistive device	9	0.01%
G: Used Braille version of test	5	0.00%
H: Used large-print version of test	21	0.02%
J: Tested during more than one day	127	0.10%
K: Had supervised breaks	757	0.62%

Special Services Summary for ELA, Grade Four		
L: Most beneficial time of day	224	0.18%
M: Administered at home or in a hospital	5	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	5	0.00%
X: Used an unlisted accommodation	155	0.13%
Y: Leave blank	24	0.02%
Z: Examiner read test questions aloud	110	0.09%
Accom. or Mod. is in Section 504 plan	30	0.02%
Accom. or Mod. is in IEP	1,040	0.85%
English Learner Test Variation A	431	0.35%
English Learner Test Variation B	87	0.07%
English Learner Test Variation C	212	0.17%
Any Accom., Mod., or EL Variation	1,717	1.41%
No Accom., Mod., or EL Variation	119,956	98.59%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 4**	**Pct. of Total**
B: Marked responses in test booklet	0	0.00%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used Braille version of test	0	0.00%
H: Used large-print version of test	1	0.00%
J: Tested during more than one day	7	0.02%
K: Had supervised breaks	32	0.07%
L: Most beneficial time of day	12	0.03%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	8	0.02%
Y: Leave blank	5	0.01%
Z: Examiner read test questions aloud	3	0.01%
Accom. or Mod. is in Section 504 plan	4	0.01%
Accom. or Mod. is in IEP	43	0.10%
English Learner Test Variation A	3	0.01%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	2	0.00%
Any Accom., Mod., or EL Variation	53	0.12%
No Accom., Mod., or EL Variation	42,935	99.88%

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	399	0.09%	294	0.07%
C: Dictated responses to a scribe	30	0.01%	33	0.01%
F: Used non-interfering assistive device	34	0.01%	16	0.00%
G: Used Braille version of test	17	0.00%	17	0.00%
H: Used large-print version of test	145	0.03%	116	0.03%
J: Tested during more than one day	607	0.14%	493	0.11%
K: Had supervised breaks	2,758	0.64%	1,901	0.44%
L: Most beneficial time of day	917	0.21%	684	0.16%
M: Administered at home or in a hospital	39	0.01%	40	0.01%
N: Used a dictionary	5	0.00%	3	0.00%
O: Examiner presented using MCE or ASL	4	0.00%	8	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	17	0.00%	19	0.00%
X: Used an unlisted accommodation	588	0.14%	788	0.18%
Y: Leave blank	120	0.03%	152	0.03%
Z: Examiner read test questions aloud	386	0.09%	337	0.08%
Accom. or Mod. is in Section 504 plan	283	0.07%	178	0.04%
Accom. or Mod. is in IEP	3,788	0.88%	3,164	0.72%
English Learner Test Variation A	295	0.07%	496	0.11%
English Learner Test Variation B	75	0.02%	66	0.02%
English Learner Test Variation C	157	0.04%	316	0.07%
Any Accom., Mod., or EL Variation	4,683	1.08%	4,155	0.95%
No Accom., Mod., or EL Variation	427,321	98.92%	432,278	99.05%
Students Not in Special Education	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	70	0.02%	51	0.01%
C: Dictated responses to a scribe	7	0.00%	4	0.00%
F: Used non-interfering assistive device	8	0.00%	2	0.00%
G: Used Braille version of test	3	0.00%	0	0.00%
H: Used large-print version of test	31	0.01%	21	0.01%
J: Tested during more than one day	85	0.02%	61	0.01%
K: Had supervised breaks	381	0.09%	241	0.06%
L: Most beneficial time of day	146	0.04%	79	0.02%
M: Administered at home or in a hospital	24	0.01%	28	0.01%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	1	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	1	0.00%	2	0.00%
X: Used an unlisted accommodation	114	0.03%	94	0.02%
Y: Leave blank	29	0.01%	16	0.00%
Z: Examiner read test questions aloud	51	0.01%	20	0.00%
Accom. or Mod. is in Section 504 plan	261	0.06%	167	0.04%
Accom. or Mod. is in IEP	384	0.09%	249	0.06%

Special Services Summary for ELA, Grades Five and Six				
English Learner Test Variation A	273	0.07%	456	0.11%
English Learner Test Variation B	54	0.01%	60	0.01%
English Learner Test Variation C	138	0.03%	296	0.07%
Any Accom., Mod., or EL Variation	1,063	0.26%	1,030	0.25%
No Accom., Mod., or EL Variation	406,394	99.74%	410,806	99.75%
Students in Special Education	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	329	1.34%	243	0.99%
C: Dictated responses to a scribe	22	0.09%	29	0.12%
F: Used non-interfering assistive device	26	0.11%	14	0.06%
G: Used Braille version of test	14	0.06%	17	0.07%
H: Used large-print version of test	114	0.46%	94	0.38%
J: Tested during more than one day	520	2.12%	430	1.75%
K: Had supervised breaks	2,373	9.67%	1,656	6.74%
L: Most beneficial time of day	769	3.13%	604	2.46%
M: Administered at home or in a hospital	15	0.06%	12	0.05%
N: Used a dictionary	5	0.02%	2	0.01%
O: Examiner presented using MCE or ASL	3	0.01%	8	0.03%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	16	0.07%	17	0.07%
X: Used an unlisted accommodation	472	1.92%	692	2.82%
Y: Leave blank	91	0.37%	135	0.55%
Z: Examiner read test questions aloud	335	1.37%	315	1.28%
Accom. or Mod. is in Section 504 plan	22	0.09%	11	0.04%
Accom. or Mod. is in IEP	3,396	13.84%	2,905	11.82%
English Learner Test Variation A	22	0.09%	40	0.16%
English Learner Test Variation B	21	0.09%	6	0.02%
English Learner Test Variation C	19	0.08%	20	0.08%
Any Accom., Mod., or EL Variation	3,612	14.72%	3,115	12.67%
No Accom., Mod., or EL Variation	20,918	85.28%	21,467	87.33%
English-Only Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	306	0.13%	231	0.09%
C: Dictated responses to a scribe	25	0.01%	25	0.01%
F: Used non-interfering assistive device	25	0.01%	12	0.00%
G: Used Braille version of test	9	0.00%	15	0.01%
H: Used large-print version of test	101	0.04%	80	0.03%
J: Tested during more than one day	456	0.19%	368	0.15%
K: Had supervised breaks	1,793	0.74%	1,324	0.54%
L: Most beneficial time of day	636	0.26%	476	0.20%
M: Administered at home or in a hospital	32	0.01%	32	0.01%
N: Used a dictionary	2	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	4	0.00%	7	0.00%

Special Services Summary for ELA, Grades Five and Six				
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	11	0.00%	8	0.00%
X: Used an unlisted accommodation	389	0.16%	507	0.21%
Y: Leave blank	85	0.04%	103	0.04%
Z: Examiner read test questions aloud	225	0.09%	208	0.09%
Accom. or Mod. is in Section 504 plan	242	0.10%	141	0.06%
Accom. or Mod. is in IEP	2,481	1.03%	2,132	0.87%
English Learner Test Variation A	4	0.00%	10	0.00%
English Learner Test Variation B	7	0.00%	7	0.00%
English Learner Test Variation C	9	0.00%	19	0.01%
Any Accom., Mod., or EL Variation	2,865	1.19%	2,428	1.00%
No Accom., Mod., or EL Variation	238,321	98.81%	241,466	99.00%
Initially Fluent English Proficient (I-FEP) Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	13	0.04%	10	0.03%
C: Dictated responses to a scribe	0	0.00%	2	0.01%
F: Used non-interfering assistive device	1	0.00%	0	0.00%
G: Used Braille version of test	4	0.01%	0	0.00%
H: Used large-print version of test	14	0.04%	7	0.02%
J: Tested during more than one day	17	0.05%	13	0.04%
K: Had supervised breaks	78	0.23%	54	0.15%
L: Most beneficial time of day	24	0.07%	21	0.06%
M: Administered at home or in a hospital	2	0.01%	1	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
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	22	0.07%	35	0.10%
Y: Leave blank	11	0.03%	3	0.01%
Z: Examiner read test questions aloud	11	0.03%	11	0.03%
Accom. or Mod. is in Section 504 plan	8	0.02%	7	0.02%
Accom. or Mod. is in IEP	133	0.40%	113	0.31%
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%	0	0.00%
Any Accom., Mod., or EL Variation	152	0.45%	124	0.34%
No Accom., Mod., or EL Variation	33,417	99.55%	36,210	99.66%
English Learner (EL) Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	64	0.07%	33	0.04%
C: Dictated responses to a scribe	4	0.00%	4	0.00%
F: Used non-interfering assistive device	8	0.01%	3	0.00%
G: Used Braille version of test	3	0.00%	2	0.00%
H: Used large-print version of test	21	0.02%	13	0.02%
J: Tested during more than one day	118	0.12%	97	0.12%
K: Had supervised breaks	837	0.86%	462	0.57%

Special Services Summary for ELA, Grades Five and Six				
L: Most beneficial time of day	239	0.25%	155	0.19%
M: Administered at home or in a hospital	5	0.01%	6	0.01%
N: Used a dictionary	3	0.00%	1	0.00%
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	6	0.01%	8	0.01%
X: Used an unlisted accommodation	164	0.17%	213	0.26%
Y: Leave blank	24	0.02%	41	0.05%
Z: Examiner read test questions aloud	142	0.15%	107	0.13%
Accom. or Mod. is in Section 504 plan	26	0.03%	21	0.03%
Accom. or Mod. is in IEP	1,089	1.12%	805	1.00%
English Learner Test Variation A	286	0.29%	483	0.60%
English Learner Test Variation B	67	0.07%	58	0.07%
English Learner Test Variation C	146	0.15%	295	0.37%
Any Accom., Mod., or EL Variation	1,565	1.61%	1,465	1.82%
No Accom., Mod., or EL Variation	95,927	98.39%	79,223	98.18%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 5**	**Pct. of Total**	**Grade 6**	**Pct. of Total**
B: Marked responses in test booklet	16	0.03%	18	0.02%
C: Dictated responses to a scribe	1	0.00%	2	0.00%
F: Used non-interfering assistive device	0	0.00%	1	0.00%
G: Used Braille version of test	1	0.00%	0	0.00%
H: Used large-print version of test	9	0.02%	13	0.02%
J: Tested during more than one day	15	0.03%	13	0.02%
K: Had supervised breaks	49	0.08%	59	0.08%
L: Most beneficial time of day	18	0.03%	31	0.04%
M: Administered at home or in a hospital	0	0.00%	1	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	2	0.00%
X: Used an unlisted accommodation	11	0.02%	31	0.04%
Y: Leave blank	0	0.00%	5	0.01%
Z: Examiner read test questions aloud	8	0.01%	11	0.01%
Accom. or Mod. is in Section 504 plan	7	0.01%	9	0.01%
Accom. or Mod. is in IEP	83	0.14%	107	0.14%
English Learner Test Variation A	5	0.01%	2	0.00%
English Learner Test Variation B	0	0.00%	1	0.00%
English Learner Test Variation C	1	0.00%	2	0.00%
Any Accom., Mod., or EL Variation	99	0.17%	128	0.17%
No Accom., Mod., or EL Variation	59,210	99.83%	74,905	99.83%

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	212	0.05%
C: Dictated responses to a scribe	29	0.01%
D: Used word processing with tools off	385	0.09%
E: Dictated essay with conventions	53	0.01%
F: Used non-interfering assistive device	56	0.01%
G: Used Braille version of test	26	0.01%
H: Used large-print version of test	141	0.03%
J: Tested during more than one day	370	0.08%
K: Had supervised breaks	1,861	0.42%
L: Most beneficial time of day	721	0.16%
M: Administered at home or in a hospital	95	0.02%
N: Used a dictionary	7	0.00%
O: Examiner presented using MCE or ASL	23	0.01%
T: Used word processing with tools on	20	0.00%
U: Dictated essay without conventions	8	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	53	0.01%
X: Used an unlisted accommodation	859	0.19%
Y: Leave blank	266	0.06%
Z: Examiner read test questions aloud	759	0.17%
Accom. or Mod. is in Section 504 plan	313	0.07%
Accom. or Mod. is in IEP	3,664	0.83%
English Learner Test Variation A	1,257	0.28%
English Learner Test Variation B	66	0.01%
English Learner Test Variation C	1,106	0.25%
Any Accom., Mod., or EL Variation	6,135	1.39%
No Accom., Mod., or EL Variation	435,343	98.61%
Students Not in Special Education	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	39	0.01%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	137	0.03%
E: Dictated essay with conventions	16	0.00%
F: Used non-interfering assistive device	7	0.00%
G: Used Braille version of test	0	0.00%
H: Used large-print version of test	26	0.01%
J: Tested during more than one day	39	0.01%
K: Had supervised breaks	198	0.05%
L: Most beneficial time of day	72	0.02%
M: Administered at home or in a hospital	59	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	2	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	8	0.00%
X: Used an unlisted accommodation	111	0.03%
Y: Leave blank	58	0.01%
Z: Examiner read test questions aloud	56	0.01%
Accom. or Mod. is in Section 504 plan	290	0.07%
Accom. or Mod. is in IEP	281	0.07%
English Learner Test Variation A	1,211	0.29%
English Learner Test Variation B	60	0.01%
English Learner Test Variation C	1,076	0.26%
Any Accom., Mod., or EL Variation	2,542	0.61%
No Accom., Mod., or EL Variation	414,351	99.39%
Students in Special Education	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	173	0.70%
C: Dictated responses to a scribe	29	0.12%
D: Used word processing with tools off	248	1.01%
E: Dictated essay with conventions	37	0.15%
F: Used non-interfering assistive device	49	0.20%
G: Used Braille version of test	26	0.11%
H: Used large-print version of test	115	0.47%
J: Tested during more than one day	328	1.34%
K: Had supervised breaks	1,654	6.73%
L: Most beneficial time of day	644	2.62%
M: Administered at home or in a hospital	36	0.15%
N: Used a dictionary	7	0.03%
O: Examiner presented using MCE or ASL	23	0.09%
T: Used word processing with tools on	18	0.07%
U: Dictated essay without conventions	8	0.03%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	43	0.18%
X: Used an unlisted accommodation	748	3.05%
Y: Leave blank	207	0.84%
Z: Examiner read test questions aloud	701	2.85%
Accom. or Mod. is in Section 504 plan	23	0.09%
Accom. or Mod. is in IEP	3,371	13.72%
English Learner Test Variation A	46	0.19%
English Learner Test Variation B	6	0.02%
English Learner Test Variation C	30	0.12%
Any Accom., Mod., or EL Variation	3,581	14.58%
No Accom., Mod., or EL Variation	20,983	85.42%

Special Services Summary for ELA, Grade Seven		
English-Only Students	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	154	0.06%
C: Dictated responses to a scribe	16	0.01%
D: Used word processing with tools off	341	0.14%
E: Dictated essay with conventions	42	0.02%
F: Used non-interfering assistive device	33	0.01%
G: Used Braille version of test	11	0.00%
H: Used large-print version of test	93	0.04%
J: Tested during more than one day	247	0.10%
K: Had supervised breaks	1,264	0.52%
L: Most beneficial time of day	490	0.20%
M: Administered at home or in a hospital	69	0.03%
N: Used a dictionary	7	0.00%
O: Examiner presented using MCE or ASL	15	0.01%
T: Used word processing with tools on	18	0.01%
U: Dictated essay without conventions	7	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	33	0.01%
X: Used an unlisted accommodation	554	0.23%
Y: Leave blank	194	0.08%
Z: Examiner read test questions aloud	465	0.19%
Accom. or Mod. is in Section 504 plan	262	0.11%
Accom. or Mod. is in IEP	2,455	1.01%
English Learner Test Variation A	19	0.01%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	45	0.02%
Any Accom., Mod., or EL Variation	2,903	1.19%
No Accom., Mod., or EL Variation	241,256	98.81%
Initially Fluent English Proficient (I-FEP) Students	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	6	0.02%
C: Dictated responses to a scribe	3	0.01%
D: Used word processing with tools off	14	0.04%
E: Dictated essay with conventions	2	0.01%
F: Used non-interfering assistive device	4	0.01%
G: Used Braille version of test	2	0.01%
H: Used large-print version of test	6	0.02%
J: Tested during more than one day	10	0.03%
K: Had supervised breaks	43	0.13%
L: Most beneficial time of day	17	0.05%
M: Administered at home or in a hospital	7	0.02%
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%
U: Dictated essay without conventions	0	0.00%

Special Services Summary for ELA, Grade Seven		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	22	0.07%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	18	0.06%
Accom. or Mod. is in Section 504 plan	13	0.04%
Accom. or Mod. is in IEP	94	0.29%
English Learner Test Variation A	9	0.03%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	9	0.03%
Any Accom., Mod., or EL Variation	130	0.40%
No Accom., Mod., or EL Variation	32,504	99.60%
English Learner (EL) Students	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	34	0.04%
C: Dictated responses to a scribe	5	0.01%
D: Used word processing with tools off	12	0.02%
E: Dictated essay with conventions	4	0.01%
F: Used non-interfering assistive device	11	0.01%
G: Used Braille version of test	7	0.01%
H: Used large-print version of test	17	0.02%
J: Tested during more than one day	92	0.12%
K: Had supervised breaks	450	0.59%
L: Most beneficial time of day	176	0.23%
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	8	0.01%
T: Used word processing with tools on	1	0.00%
U: Dictated essay without conventions	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	17	0.02%
X: Used an unlisted accommodation	232	0.30%
Y: Leave blank	62	0.08%
Z: Examiner read test questions aloud	241	0.31%
Accom. or Mod. is in Section 504 plan	18	0.02%
Accom. or Mod. is in IEP	915	1.19%
English Learner Test Variation A	1,217	1.59%
English Learner Test Variation B	62	0.08%
English Learner Test Variation C	1,032	1.35%
Any Accom., Mod., or EL Variation	2,832	3.69%
No Accom., Mod., or EL Variation	73,835	96.31%

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	18	0.02%
C: Dictated responses to a scribe	5	0.01%
D: Used word processing with tools off	17	0.02%
E: Dictated essay with conventions	4	0.00%
F: Used non-interfering assistive device	8	0.01%
G: Used Braille version of test	6	0.01%
H: Used large-print version of test	24	0.03%
J: Tested during more than one day	19	0.02%
K: Had supervised breaks	97	0.11%
L: Most beneficial time of day	35	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	1	0.00%
U: Dictated essay without conventions	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	50	0.06%
Y: Leave blank	6	0.01%
Z: Examiner read test questions aloud	32	0.04%
Accom. or Mod. is in Section 504 plan	19	0.02%
Accom. or Mod. is in IEP	189	0.22%
English Learner Test Variation A	6	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	12	0.01%
Any Accom., Mod., or EL Variation	243	0.28%
No Accom., Mod., or EL Variation	87,056	99.72%

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	223	0.05%	139	0.03%
C: Dictated responses to a scribe	24	0.01%	27	0.01%
F: Used non-interfering assistive device	51	0.01%	8	0.00%
G: Used Braille version of test	18	0.00%	18	0.00%
H: Used large-print version of test	136	0.03%	78	0.02%
J: Tested during more than one day	372	0.08%	367	0.07%
K: Had supervised breaks	1,588	0.35%	2,056	0.42%
L: Most beneficial time of day	551	0.12%	459	0.09%
M: Administered at home or in a hospital	98	0.02%	89	0.02%
N: Used a dictionary	4	0.00%	202	0.04%
O: Examiner presented using MCE or ASL	12	0.00%	7	0.00%
V: Used interfering assistive device	4	0.00%	4	0.00%
W: Used an unlisted modification	5	0.00%	12	0.00%
X: Used an unlisted accommodation	564	0.12%	428	0.09%
Y: Leave blank	157	0.03%	170	0.03%
Z: Examiner read test questions aloud	258	0.06%	401	0.08%
Accom. or Mod. is in Section 504 plan	144	0.03%	70	0.01%
Accom. or Mod. is in IEP	2,667	0.59%	3,114	0.64%
English Learner Test Variation A	681	0.15%	816	0.17%
English Learner Test Variation B	85	0.02%	178	0.04%
English Learner Test Variation C	566	0.13%	1,204	0.25%
Any Accom., Mod., or EL Variation	4,034	0.89%	4,901	1.00%
No Accom., Mod., or EL Variation	447,342	99.11%	485,423	99.00%
Students Not in Special Education	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	37	0.01%	25	0.01%
C: Dictated responses to a scribe	4	0.00%	3	0.00%
F: Used non-interfering assistive device	5	0.00%	2	0.00%
G: Used Braille version of test	1	0.00%	1	0.00%
H: Used large-print version of test	23	0.01%	10	0.00%
J: Tested during more than one day	30	0.01%	29	0.01%
K: Had supervised breaks	182	0.04%	200	0.04%
L: Most beneficial time of day	55	0.01%	23	0.01%
M: Administered at home or in a hospital	72	0.02%	50	0.01%
N: Used a dictionary	0	0.00%	20	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	4	0.00%
X: Used an unlisted accommodation	57	0.01%	62	0.01%
Y: Leave blank	14	0.00%	33	0.01%
Z: Examiner read test questions aloud	22	0.01%	33	0.01%
Accom. or Mod. is in Section 504 plan	137	0.03%	64	0.01%
Accom. or Mod. is in IEP	186	0.04%	278	0.06%

Special Services Summary for ELA, Grades Eight and Nine				
English Learner Test Variation A	647	0.15%	779	0.17%
English Learner Test Variation B	83	0.02%	143	0.03%
English Learner Test Variation C	553	0.13%	1,178	0.26%
Any Accom., Mod., or EL Variation	1,368	0.32%	1,833	0.40%
No Accom., Mod., or EL Variation	424,277	99.68%	455,724	99.60%
Students in Special Education	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	185	0.72%	114	0.35%
C: Dictated responses to a scribe	20	0.08%	24	0.07%
F: Used non-interfering assistive device	46	0.18%	6	0.02%
G: Used Braille version of test	17	0.07%	17	0.05%
H: Used large-print version of test	112	0.44%	68	0.21%
J: Tested during more than one day	342	1.33%	338	1.03%
K: Had supervised breaks	1,403	5.46%	1,849	5.65%
L: Most beneficial time of day	494	1.92%	433	1.32%
M: Administered at home or in a hospital	26	0.10%	38	0.12%
N: Used a dictionary	4	0.02%	182	0.56%
O: Examiner presented using MCE or ASL	11	0.04%	7	0.02%
V: Used interfering assistive device	3	0.01%	4	0.01%
W: Used an unlisted modification	5	0.02%	8	0.02%
X: Used an unlisted accommodation	503	1.96%	365	1.11%
Y: Leave blank	143	0.56%	137	0.42%
Z: Examiner read test questions aloud	235	0.91%	368	1.12%
Accom. or Mod. is in Section 504 plan	7	0.03%	6	0.02%
Accom. or Mod. is in IEP	2,472	9.61%	2,828	8.64%
English Learner Test Variation A	34	0.13%	37	0.11%
English Learner Test Variation B	2	0.01%	35	0.11%
English Learner Test Variation C	13	0.05%	26	0.08%
Any Accom., Mod., or EL Variation	2,657	10.33%	3,060	9.34%
No Accom., Mod., or EL Variation	23,054	89.67%	29,685	90.66%
English-Only Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	162	0.07%	98	0.04%
C: Dictated responses to a scribe	12	0.00%	18	0.01%
F: Used non-interfering assistive device	35	0.01%	4	0.00%
G: Used Braille version of test	9	0.00%	6	0.00%
H: Used large-print version of test	92	0.04%	60	0.02%
J: Tested during more than one day	298	0.12%	265	0.10%
K: Had supervised breaks	1,131	0.45%	1,362	0.50%
L: Most beneficial time of day	389	0.16%	339	0.12%
M: Administered at home or in a hospital	71	0.03%	66	0.02%
N: Used a dictionary	2	0.00%	112	0.04%
O: Examiner presented using MCE or ASL	9	0.00%	1	0.00%

Special Services Summary for ELA, Grades Eight and Nine				
V: Used interfering assistive device	4	0.00%	2	0.00%
W: Used an unlisted modification	5	0.00%	6	0.00%
X: Used an unlisted accommodation	382	0.15%	304	0.11%
Y: Leave blank	102	0.04%	123	0.04%
Z: Examiner read test questions aloud	154	0.06%	231	0.08%
Accom. or Mod. is in Section 504 plan	120	0.05%	62	0.02%
Accom. or Mod. is in IEP	1,819	0.73%	2,050	0.75%
English Learner Test Variation A	6	0.00%	19	0.01%
English Learner Test Variation B	1	0.00%	3	0.00%
English Learner Test Variation C	12	0.00%	21	0.01%
Any Accom., Mod., or EL Variation	2,113	0.85%	2,293	0.84%
No Accom., Mod., or EL Variation	247,116	99.15%	272,187	99.16%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	10	0.03%	6	0.01%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	1	0.00%	0	0.00%
G: Used Braille version of test	3	0.01%	2	0.00%
H: Used large-print version of test	5	0.02%	1	0.00%
J: Tested during more than one day	9	0.03%	4	0.01%
K: Had supervised breaks	36	0.11%	57	0.14%
L: Most beneficial time of day	9	0.03%	10	0.02%
M: Administered at home or in a hospital	5	0.02%	1	0.00%
N: Used a dictionary	0	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	16	0.05%	7	0.02%
Y: Leave blank	8	0.03%	9	0.02%
Z: Examiner read test questions aloud	6	0.02%	8	0.02%
Accom. or Mod. is in Section 504 plan	7	0.02%	1	0.00%
Accom. or Mod. is in IEP	71	0.22%	83	0.20%
English Learner Test Variation A	1	0.00%	1	0.00%
English Learner Test Variation B	0	0.00%	0	0.00%
English Learner Test Variation C	2	0.01%	5	0.01%
Any Accom., Mod., or EL Variation	90	0.28%	95	0.23%
No Accom., Mod., or EL Variation	31,756	99.72%	40,612	99.77%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	30	0.04%	23	0.03%
C: Dictated responses to a scribe	8	0.01%	7	0.01%
F: Used non-interfering assistive device	12	0.02%	1	0.00%
G: Used Braille version of test	3	0.00%	3	0.00%
H: Used large-print version of test	14	0.02%	9	0.01%
J: Tested during more than one day	56	0.08%	88	0.11%
K: Had supervised breaks	351	0.49%	537	0.69%

Special Services Summary for ELA, Grades Eight and Nine				
L: Most beneficial time of day	118	0.16%	98	0.13%
M: Administered at home or in a hospital	16	0.02%	13	0.02%
N: Used a dictionary	2	0.00%	81	0.10%
O: Examiner presented using MCE or ASL	3	0.00%	6	0.01%
V: Used interfering assistive device	0	0.00%	2	0.00%
W: Used an unlisted modification	0	0.00%	5	0.01%
X: Used an unlisted accommodation	142	0.20%	102	0.13%
Y: Leave blank	42	0.06%	33	0.04%
Z: Examiner read test questions aloud	91	0.13%	146	0.19%
Accom. or Mod. is in Section 504 plan	12	0.02%	6	0.01%
Accom. or Mod. is in IEP	641	0.89%	838	1.08%
English Learner Test Variation A	670	0.93%	793	1.02%
English Learner Test Variation B	84	0.12%	172	0.22%
English Learner Test Variation C	550	0.76%	1,163	1.50%
Any Accom., Mod., or EL Variation	1,669	2.31%	2,343	3.02%
No Accom., Mod., or EL Variation	70,688	97.69%	75,225	96.98%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Pct. of Total**	**Grade 9**	**Pct. of Total**
B: Marked responses in test booklet	20	0.02%	12	0.01%
C: Dictated responses to a scribe	3	0.00%	2	0.00%
F: Used non-interfering assistive device	3	0.00%	3	0.00%
G: Used Braille version of test	2	0.00%	7	0.01%
H: Used large-print version of test	25	0.03%	8	0.01%
J: Tested during more than one day	8	0.01%	8	0.01%
K: Had supervised breaks	61	0.06%	88	0.09%
L: Most beneficial time of day	33	0.03%	12	0.01%
M: Administered at home or in a hospital	6	0.01%	8	0.01%
N: Used a dictionary	0	0.00%	6	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	19	0.02%	14	0.01%
Y: Leave blank	5	0.01%	5	0.01%
Z: Examiner read test questions aloud	6	0.01%	16	0.02%
Accom. or Mod. is in Section 504 plan	4	0.00%	1	0.00%
Accom. or Mod. is in IEP	124	0.13%	129	0.13%
English Learner Test Variation A	1	0.00%	2	0.00%
English Learner Test Variation B	0	0.00%	3	0.00%
English Learner Test Variation C	0	0.00%	13	0.01%
Any Accom., Mod., or EL Variation	144	0.15%	153	0.16%
No Accom., Mod., or EL Variation	97,053	99.85%	96,518	99.84%

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	185	0.04%	167	0.04%
C: Dictated responses to a scribe	42	0.01%	43	0.01%
F: Used non-interfering assistive device	23	0.00%	15	0.00%
G: Used Braille version of test	29	0.01%	16	0.00%
H: Used large-print version of test	123	0.03%	126	0.03%
J: Tested during more than one day	361	0.07%	345	0.08%
K: Had supervised breaks	2,957	0.61%	2,471	0.55%
L: Most beneficial time of day	578	0.12%	486	0.11%
M: Administered at home or in a hospital	104	0.02%	99	0.02%
N: Used a dictionary	273	0.06%	257	0.06%
O: Examiner presented using MCE or ASL	21	0.00%	19	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	35	0.01%	38	0.01%
X: Used an unlisted accommodation	552	0.11%	459	0.10%
Y: Leave blank	173	0.04%	158	0.03%
Z: Examiner read test questions aloud	566	0.12%	526	0.12%
Accom. or Mod. is in Section 504 plan	94	0.02%	79	0.02%
Accom. or Mod. is in IEP	4,144	0.86%	3,604	0.80%
English Learner Test Variation A	632	0.13%	386	0.09%
English Learner Test Variation B	159	0.03%	107	0.02%
English Learner Test Variation C	1,006	0.21%	725	0.16%
Any Accom., Mod., or EL Variation	5,810	1.20%	4,837	1.07%
No Accom., Mod., or EL Variation	476,508	98.80%	446,738	98.93%
Students Not in Special Education	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	21	0.00%	14	0.00%
C: Dictated responses to a scribe	8	0.00%	4	0.00%
F: Used non-interfering assistive device	2	0.00%	1	0.00%
G: Used Braille version of test	1	0.00%	1	0.00%
H: Used large-print version of test	17	0.00%	14	0.00%
J: Tested during more than one day	27	0.01%	22	0.01%
K: Had supervised breaks	248	0.06%	196	0.05%
L: Most beneficial time of day	48	0.01%	45	0.01%
M: Administered at home or in a hospital	52	0.01%	42	0.01%
N: Used a dictionary	14	0.00%	19	0.00%
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	1	0.00%	1	0.00%
X: Used an unlisted accommodation	38	0.01%	32	0.01%
Y: Leave blank	43	0.01%	23	0.01%
Z: Examiner read test questions aloud	44	0.01%	30	0.01%
Accom. or Mod. is in Section 504 plan	87	0.02%	73	0.02%
Accom. or Mod. is in IEP	275	0.06%	230	0.06%

Special Services Summary for ELA, Grades Ten and Eleven				
English Learner Test Variation A	559	0.13%	329	0.08%
English Learner Test Variation B	131	0.03%	85	0.02%
English Learner Test Variation C	975	0.22%	696	0.17%
Any Accom., Mod., or EL Variation	1,593	0.36%	1,164	0.28%
No Accom., Mod., or EL Variation	440,467	99.64%	414,793	99.72%
Students in Special Education	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	164	0.41%	153	0.43%
C: Dictated responses to a scribe	33	0.08%	39	0.11%
F: Used non-interfering assistive device	21	0.05%	14	0.04%
G: Used Braille version of test	28	0.07%	15	0.04%
H: Used large-print version of test	106	0.26%	112	0.31%
J: Tested during more than one day	333	0.83%	323	0.91%
K: Had supervised breaks	2,702	6.72%	2,274	6.39%
L: Most beneficial time of day	528	1.31%	440	1.24%
M: Administered at home or in a hospital	52	0.13%	57	0.16%
N: Used a dictionary	259	0.64%	236	0.66%
O: Examiner presented using MCE or ASL	20	0.05%	18	0.05%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	34	0.08%	37	0.10%
X: Used an unlisted accommodation	514	1.28%	427	1.20%
Y: Leave blank	130	0.32%	135	0.38%
Z: Examiner read test questions aloud	521	1.29%	495	1.39%
Accom. or Mod. is in Section 504 plan	7	0.02%	6	0.02%
Accom. or Mod. is in IEP	3,861	9.60%	3,370	9.46%
English Learner Test Variation A	73	0.18%	57	0.16%
English Learner Test Variation B	28	0.07%	22	0.06%
English Learner Test Variation C	31	0.08%	29	0.08%
Any Accom., Mod., or EL Variation	4,209	10.46%	3,669	10.30%
No Accom., Mod., or EL Variation	36,027	89.54%	31,938	89.70%
English-Only Students	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	134	0.05%	130	0.05%
C: Dictated responses to a scribe	26	0.01%	28	0.01%
F: Used non-interfering assistive device	10	0.00%	8	0.00%
G: Used Braille version of test	19	0.01%	13	0.01%
H: Used large-print version of test	85	0.03%	96	0.04%
J: Tested during more than one day	272	0.10%	250	0.10%
K: Had supervised breaks	1,942	0.71%	1,555	0.60%
L: Most beneficial time of day	431	0.16%	367	0.14%
M: Administered at home or in a hospital	72	0.03%	75	0.03%
N: Used a dictionary	154	0.06%	132	0.05%
O: Examiner presented using MCE or ASL	12	0.00%	12	0.00%

Special Services Summary for ELA, Grades Ten and Eleven				
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	15	0.01%	18	0.01%
X: Used an unlisted accommodation	364	0.13%	313	0.12%
Y: Leave blank	118	0.04%	116	0.05%
Z: Examiner read test questions aloud	307	0.11%	309	0.12%
Accom. or Mod. is in Section 504 plan	78	0.03%	74	0.03%
Accom. or Mod. is in IEP	2,644	0.97%	2,331	0.91%
English Learner Test Variation A	3	0.00%	2	0.00%
English Learner Test Variation B	3	0.00%	0	0.00%
English Learner Test Variation C	12	0.00%	6	0.00%
Any Accom., Mod., or EL Variation	2,956	1.09%	2,585	1.00%
No Accom., Mod., or EL Variation	269,020	98.91%	254,650	99.00%
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%	6	0.02%
C: Dictated responses to a scribe	3	0.01%	3	0.01%
F: Used non-interfering assistive device	1	0.00%	0	0.00%
G: Used Braille version of test	3	0.01%	1	0.00%
H: Used large-print version of test	3	0.01%	5	0.01%
J: Tested during more than one day	3	0.01%	6	0.02%
K: Had supervised breaks	76	0.19%	76	0.20%
L: Most beneficial time of day	14	0.04%	8	0.02%
M: Administered at home or in a hospital	3	0.01%	6	0.02%
N: Used a dictionary	6	0.02%	5	0.01%
O: Examiner presented using MCE or ASL	1	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	7	0.02%	1	0.00%
X: Used an unlisted accommodation	16	0.04%	10	0.03%
Y: Leave blank	6	0.02%	4	0.01%
Z: Examiner read test questions aloud	10	0.03%	13	0.03%
Accom. or Mod. is in Section 504 plan	2	0.01%	0	0.00%
Accom. or Mod. is in IEP	121	0.31%	103	0.27%
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%
Any Accom., Mod., or EL Variation	135	0.34%	115	0.30%
No Accom., Mod., or EL Variation	39,385	99.66%	38,595	99.70%
English Learner (EL) Students	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	31	0.04%	20	0.03%
C: Dictated responses to a scribe	9	0.01%	9	0.01%
F: Used non-interfering assistive device	7	0.01%	6	0.01%
G: Used Braille version of test	4	0.01%	1	0.00%
H: Used large-print version of test	18	0.02%	18	0.03%
J: Tested during more than one day	74	0.10%	78	0.13%
K: Had supervised breaks	811	1.12%	731	1.19%

Special Services Summary for ELA, Grades Ten and Eleven				
L: Most beneficial time of day	105	0.14%	94	0.15%
M: Administered at home or in a hospital	17	0.02%	15	0.02%
N: Used a dictionary	98	0.13%	106	0.17%
O: Examiner presented using MCE or ASL	7	0.01%	6	0.01%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	13	0.02%	18	0.03%
X: Used an unlisted accommodation	151	0.21%	122	0.20%
Y: Leave blank	41	0.06%	36	0.06%
Z: Examiner read test questions aloud	231	0.32%	191	0.31%
Accom. or Mod. is in Section 504 plan	7	0.01%	5	0.01%
Accom. or Mod. is in IEP	1,193	1.64%	1,025	1.67%
English Learner Test Variation A	622	0.86%	380	0.62%
English Learner Test Variation B	154	0.21%	107	0.17%
English Learner Test Variation C	985	1.36%	713	1.16%
Any Accom., Mod., or EL Variation	2,489	3.43%	1,970	3.20%
No Accom., Mod., or EL Variation	70,149	96.57%	59,568	96.80%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 10**	**Pct. of Total**	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	14	0.01%	11	0.01%
C: Dictated responses to a scribe	4	0.00%	3	0.00%
F: Used non-interfering assistive device	5	0.01%	1	0.00%
G: Used Braille version of test	2	0.00%	1	0.00%
H: Used large-print version of test	17	0.02%	7	0.01%
J: Tested during more than one day	9	0.01%	9	0.01%
K: Had supervised breaks	112	0.12%	100	0.11%
L: Most beneficial time of day	21	0.02%	13	0.01%
M: Administered at home or in a hospital	9	0.01%	3	0.00%
N: Used a dictionary	13	0.01%	13	0.01%
O: Examiner presented using MCE or ASL	1	0.00%	1	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	1	0.00%
X: Used an unlisted accommodation	20	0.02%	12	0.01%
Y: Leave blank	7	0.01%	2	0.00%
Z: Examiner read test questions aloud	15	0.02%	13	0.01%
Accom. or Mod. is in Section 504 plan	7	0.01%	0	0.00%
Accom. or Mod. is in IEP	166	0.17%	131	0.14%
English Learner Test Variation A	6	0.01%	2	0.00%
English Learner Test Variation B	1	0.00%	0	0.00%
English Learner Test Variation C	7	0.01%	1	0.00%
Any Accom., Mod., or EL Variation	205	0.21%	148	0.16%
No Accom., Mod., or EL Variation	97,074	99.79%	93,265	99.84%

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	381	0.08%
C: Dictated responses to a scribe	31	0.01%
F: Used non-interfering assistive device	75	0.02%
G: Used Braille version of test	18	0.00%
H: Used large-print version of test	160	0.03%
J: Tested during more than one day	567	0.12%
K: Had supervised breaks	2,848	0.61%
L: Most beneficial time of day	973	0.21%
M: Administered at home or in a hospital	92	0.02%
N: Used a dictionary	6	0.00%
O: Examiner presented using MCE or ASL	52	0.01%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	25	0.01%
X: Used an unlisted accommodation	923	0.20%
Y: Leave blank	217	0.05%
Z: Examiner read test questions aloud	2,769	0.59%
Accom. or Mod. is in Section 504 plan	138	0.03%
Accom. or Mod. is in IEP	6,212	1.33%
English Learner Test Variation A	567	0.12%
English Learner Test Variation B	88	0.02%
English Learner Test Variation C	436	0.09%
English Learner Test Variation D	370	0.08%
Any Accom., Mod., or EL Variation	7,785	1.66%
No Accom., Mod., or EL Variation	460,734	98.34%
Students Not in Special Education	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	45	0.01%
C: Dictated responses to a scribe	2	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	20	0.00%
J: Tested during more than one day	44	0.01%
K: Had supervised breaks	187	0.04%
L: Most beneficial time of day	69	0.02%
M: Administered at home or in a hospital	59	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	1	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	10	0.00%
Z: Examiner read test questions aloud	114	0.03%

Special Services Summary for History–Social Science, Grade Eight		
Accom. or Mod. is in Section 504 plan	132	0.03%
Accom. or Mod. is in IEP	278	0.07%
English Learner Test Variation A	526	0.12%
English Learner Test Variation B	66	0.02%
English Learner Test Variation C	415	0.10%
English Learner Test Variation D	322	0.08%
Any Accom., Mod., or EL Variation	1,401	0.33%
No Accom., Mod., or EL Variation	423,790	99.67%
Students in Special Education	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	335	0.77%
C: Dictated responses to a scribe	29	0.07%
F: Used non-interfering assistive device	73	0.17%
G: Used Braille version of test	17	0.04%
H: Used large-print version of test	139	0.32%
J: Tested during more than one day	523	1.21%
K: Had supervised breaks	2,654	6.13%
L: Most beneficial time of day	901	2.08%
M: Administered at home or in a hospital	32	0.07%
N: Used a dictionary	6	0.01%
O: Examiner presented using MCE or ASL	50	0.12%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	23	0.05%
X: Used an unlisted accommodation	855	1.98%
Y: Leave blank	207	0.48%
Z: Examiner read test questions aloud	2,645	6.11%
Accom. or Mod. is in Section 504 plan	6	0.01%
Accom. or Mod. is in IEP	5,910	13.66%
English Learner Test Variation A	41	0.09%
English Learner Test Variation B	22	0.05%
English Learner Test Variation C	21	0.05%
English Learner Test Variation D	48	0.11%
Any Accom., Mod., or EL Variation	6,360	14.70%
No Accom., Mod., or EL Variation	36,917	85.30%
English-Only Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	249	0.10%
C: Dictated responses to a scribe	13	0.01%
F: Used non-interfering assistive device	34	0.01%
G: Used Braille version of test	8	0.00%
H: Used large-print version of test	101	0.04%
J: Tested during more than one day	379	0.15%
K: Had supervised breaks	1,770	0.68%
L: Most beneficial time of day	611	0.24%
M: Administered at home or in a hospital	71	0.03%
N: Used a dictionary	3	0.00%

Special Services Summary for History–Social Science, Grade Eight		
O: Examiner presented using MCE or ASL	32	0.01%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	16	0.01%
X: Used an unlisted accommodation	569	0.22%
Y: Leave blank	110	0.04%
Z: Examiner read test questions aloud	1,497	0.58%
Accom. or Mod. is in Section 504 plan	116	0.04%
Accom. or Mod. is in IEP	3,611	1.40%
English Learner Test Variation A	5	0.00%
English Learner Test Variation B	7	0.00%
English Learner Test Variation C	9	0.00%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	4,021	1.56%
No Accom., Mod., or EL Variation	254,391	98.44%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	10	0.03%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	4	0.01%
G: Used Braille version of test	3	0.01%
H: Used large-print version of test	5	0.02%
J: Tested during more than one day	9	0.03%
K: Had supervised breaks	58	0.18%
L: Most beneficial time of day	16	0.05%
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	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	26	0.08%
Y: Leave blank	2	0.01%
Z: Examiner read test questions aloud	51	0.16%
Accom. or Mod. is in Section 504 plan	3	0.01%
Accom. or Mod. is in IEP	136	0.42%
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	1	0.00%
Any Accom., Mod., or EL Variation	153	0.48%
No Accom., Mod., or EL Variation	31,995	99.52%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	98	0.12%
C: Dictated responses to a scribe	14	0.02%
F: Used non-interfering assistive device	35	0.04%
G: Used Braille version of test	4	0.01%

Special Services Summary for History–Social Science, Grade Eight		
H: Used large-print version of test	30	0.04%
J: Tested during more than one day	164	0.21%
K: Had supervised breaks	910	1.15%
L: Most beneficial time of day	298	0.38%
M: Administered at home or in a hospital	14	0.02%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	20	0.03%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	9	0.01%
X: Used an unlisted accommodation	289	0.36%
Y: Leave blank	101	0.13%
Z: Examiner read test questions aloud	1,122	1.41%
Accom. or Mod. is in Section 504 plan	13	0.02%
Accom. or Mod. is in IEP	2,215	2.79%
English Learner Test Variation A	557	0.70%
English Learner Test Variation B	81	0.10%
English Learner Test Variation C	424	0.53%
English Learner Test Variation D	363	0.46%
Any Accom., Mod., or EL Variation	3,327	4.19%
No Accom., Mod., or EL Variation	76,130	95.81%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	21	0.02%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used Braille version of test	2	0.00%
H: Used large-print version of test	23	0.02%
J: Tested during more than one day	11	0.01%
K: Had supervised breaks	83	0.09%
L: Most beneficial time of day	39	0.04%
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%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	27	0.03%
Y: Leave blank	4	0.00%
Z: Examiner read test questions aloud	90	0.09%
Accom. or Mod. is in Section 504 plan	5	0.01%
Accom. or Mod. is in IEP	208	0.21%

Special Services Summary for History–Social Science, Grade Eight		
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	2	0.00%
Any Accom., Mod., or EL Variation	236	0.24%
No Accom., Mod., or EL Variation	97,352	99.76%

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	20	131	1	152	0.03%
C: Dictated responses to a scribe	1	34	2	37	0.01%
F: Used non-interfering assistive device	1	17	0	18	0.00%
G: Used Braille version of test	2	17	0	19	0.00%
H: Used large-print version of test	9	94	3	106	0.02%
J: Tested during more than one day	78	235	35	348	0.07%
K: Had supervised breaks	211	2,096	131	2,438	0.51%
L: Most beneficial time of day	81	381	36	498	0.10%
M: Administered at home or in a hospital	7	64	9	80	0.02%
N: Used a dictionary	1	51	4	56	0.01%
O: Examiner presented using MCE or ASL	3	33	0	36	0.01%
V: Used interfering assistive device	1	1	0	2	0.00%
W: Used an unlisted modification	0	15	0	15	0.00%
X: Used an unlisted accommodation	34	419	39	492	0.10%
Y: Leave blank	9	110	11	130	0.03%
Z: Examiner read test questions aloud	65	763	16	844	0.18%
Accom. or Mod. is in Section 504 plan	6	73	3	82	0.02%
Accom. or Mod. is in IEP	316	2,989	187	3,492	0.72%
English Learner Test Variation A	22	346	14	382	0.08%
English Learner Test Variation B	6	69	2	77	0.02%
English Learner Test Variation C	36	606	32	674	0.14%
English Learner Test Variation D	171	959	56	1,186	0.25%
Any Accom., Mod., or EL Variation	553	4,686	286	5,525	1.15%
No Accom., Mod., or EL Variation	33,707	425,508	17,352	476,567	98.85%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	2	21	0	23	0.01%
C: Dictated responses to a scribe	1	6	0	7	0.00%
F: Used non-interfering assistive device	0	1	0	1	0.00%
G: Used Braille version of test	0	1	0	1	0.00%
H: Used large-print version of test	1	15	1	17	0.00%
J: Tested during more than one day	0	14	1	15	0.00%
K: Had supervised breaks	16	179	12	207	0.05%
L: Most beneficial time of day	0	35	1	36	0.01%
M: Administered at home or in a hospital	4	39	6	49	0.01%
N: Used a dictionary	0	6	1	7	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	1	29	4	34	0.01%
Y: Leave blank	1	28	1	30	0.01%
Z: Examiner read test questions aloud	6	43	1	50	0.01%

Special Services Summary for World History					
Accom. or Mod. is in Section 504 plan	6	68	3	77	0.02%
Accom. or Mod. is in IEP	20	185	20	225	0.05%
English Learner Test Variation A	22	279	13	314	0.07%
English Learner Test Variation B	2	49	1	52	0.01%
English Learner Test Variation C	33	577	31	641	0.14%
English Learner Test Variation D	168	916	55	1,139	0.26%
Any Accom., Mod., or EL Variation	228	1,616	107	1,951	0.44%
No Accom., Mod., or EL Variation	30,971	394,534	15,432	440,937	99.56%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	18	110	1	129	0.33%
C: Dictated responses to a scribe	0	27	2	29	0.07%
F: Used non-interfering assistive device	1	16	0	17	0.04%
G: Used Braille version of test	2	16	0	18	0.05%
H: Used large-print version of test	8	79	2	89	0.23%
J: Tested during more than one day	78	220	34	332	0.85%
K: Had supervised breaks	195	1,913	119	2,227	5.68%
L: Most beneficial time of day	81	345	35	461	1.18%
M: Administered at home or in a hospital	3	25	3	31	0.08%
N: Used a dictionary	1	45	3	49	0.13%
O: Examiner presented using MCE or ASL	3	33	0	36	0.09%
V: Used interfering assistive device	1	1	0	2	0.01%
W: Used an unlisted modification	0	14	0	14	0.04%
X: Used an unlisted accommodation	33	390	35	458	1.17%
Y: Leave blank	8	82	10	100	0.26%
Z: Examiner read test questions aloud	59	719	14	792	2.02%
Accom. or Mod. is in Section 504 plan	0	5	0	5	0.01%
Accom. or Mod. is in IEP	296	2,799	166	3,261	8.32%
English Learner Test Variation A	0	67	1	68	0.17%
English Learner Test Variation B	4	20	1	25	0.06%
English Learner Test Variation C	3	29	1	33	0.08%
English Learner Test Variation D	3	43	1	47	0.12%
Any Accom., Mod., or EL Variation	325	3,065	178	3,568	9.11%
No Accom., Mod., or EL Variation	2,733	30,962	1,920	35,615	90.89%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	12	100	1	113	0.04%
C: Dictated responses to a scribe	0	18	2	20	0.01%
F: Used non-interfering assistive device	1	6	0	7	0.00%
G: Used Braille version of test	0	10	0	10	0.00%
H: Used large-print version of test	7	63	3	73	0.03%
J: Tested during more than one day	71	168	32	271	0.10%
K: Had supervised breaks	169	1,373	99	1,641	0.61%
L: Most beneficial time of day	74	272	35	381	0.14%
M: Administered at home or in a hospital	6	48	8	62	0.02%
N: Used a dictionary	0	31	3	34	0.01%

Special Services Summary for World History					
O: Examiner presented using MCE or ASL	0	14	0	14	0.01%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	8	0	8	0.00%
X: Used an unlisted accommodation	31	263	24	318	0.12%
Y: Leave blank	8	80	6	94	0.03%
Z: Examiner read test questions aloud	32	401	11	444	0.16%
Accom. or Mod. is in Section 504 plan	4	62	3	69	0.03%
Accom. or Mod. is in IEP	242	1,873	143	2,258	0.84%
English Learner Test Variation A	4	1	1	6	0.00%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	3	3	0	6	0.00%
English Learner Test Variation D	2	3	0	5	0.00%
Any Accom., Mod., or EL Variation	267	2,085	157	2,509	0.93%
No Accom., Mod., or EL Variation	18,423	240,027	9,415	267,865	99.07%
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	0	3	0	3	0.01%
F: Used non-interfering assistive device	0	1	0	1	0.00%
G: Used Braille version of test	0	3	0	3	0.01%
H: Used large-print version of test	0	3	0	3	0.01%
J: Tested during more than one day	0	3	0	3	0.01%
K: Had supervised breaks	5	48	2	55	0.14%
L: Most beneficial time of day	2	9	0	11	0.03%
M: Administered at home or in a hospital	0	1	0	1	0.00%
N: Used a dictionary	0	2	0	2	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	1	0	1	0.00%
X: Used an unlisted accommodation	0	16	1	17	0.04%
Y: Leave blank	0	5	0	5	0.01%
Z: Examiner read test questions aloud	1	14	0	15	0.04%
Accom. or Mod. is in Section 504 plan	0	2	0	2	0.00%
Accom. or Mod. is in IEP	4	80	3	87	0.22%
English Learner Test Variation A	0	0	0	0	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	2	0	2	0.00%
Any Accom., Mod., or EL Variation	5	93	3	101	0.25%
No Accom., Mod., or EL Variation	3,433	35,536	1,027	39,996	99.75%

Special Services Summary for World History					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	16	0	19	0.03%
C: Dictated responses to a scribe	1	9	0	10	0.01%
F: Used non-interfering assistive device	0	6	0	6	0.01%
G: Used Braille version of test	1	2	0	3	0.00%
H: Used large-print version of test	0	11	0	11	0.02%
J: Tested during more than one day	6	57	3	66	0.09%
K: Had supervised breaks	30	582	27	639	0.89%
L: Most beneficial time of day	4	84	1	89	0.12%
M: Administered at home or in a hospital	0	8	1	9	0.01%
N: Used a dictionary	1	18	1	20	0.03%
O: Examiner presented using MCE or ASL	3	17	0	20	0.03%
V: Used interfering assistive device	1	0	0	1	0.00%
W: Used an unlisted modification	0	6	0	6	0.01%
X: Used an unlisted accommodation	3	120	13	136	0.19%
Y: Leave blank	0	17	5	22	0.03%
Z: Examiner read test questions aloud	30	314	5	349	0.49%
Accom. or Mod. is in Section 504 plan	1	4	0	5	0.01%
Accom. or Mod. is in IEP	57	889	37	983	1.37%
English Learner Test Variation A	18	338	11	367	0.51%
English Learner Test Variation B	6	66	2	74	0.10%
English Learner Test Variation C	32	594	31	657	0.91%
English Learner Test Variation D	168	939	55	1,162	1.62%
Any Accom., Mod., or EL Variation	265	2,319	119	2,703	3.76%
No Accom., Mod., or EL Variation	5,187	59,783	4,137	69,107	96.24%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	4	12	0	16	0.02%
C: Dictated responses to a scribe	0	4	0	4	0.00%
F: Used non-interfering assistive device	0	4	0	4	0.00%
G: Used Braille version of test	1	2	0	3	0.00%
H: Used large-print version of test	2	17	0	19	0.02%
J: Tested during more than one day	0	6	0	6	0.01%
K: Had supervised breaks	5	84	2	91	0.09%
L: Most beneficial time of day	0	14	0	14	0.01%
M: Administered at home or in a hospital	1	6	0	7	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	1	0	1	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	19	1	20	0.02%
Y: Leave blank	1	8	0	9	0.01%
Z: Examiner read test questions aloud	2	32	0	34	0.03%

Special Services Summary for World History					
Accom. or Mod. is in Section 504 plan	1	5	0	6	0.01%
Accom. or Mod. is in IEP	11	137	3	151	0.15%
English Learner Test Variation A	0	6	0	6	0.01%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	1	7	0	8	0.01%
English Learner Test Variation D	0	9	1	10	0.01%
Any Accom., Mod., or EL Variation	13	172	4	189	0.19%
No Accom., Mod., or EL Variation	6,586	89,490	2,720	98,796	99.81%

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	141	0.03%
C: Dictated responses to a scribe	42	0.01%
F: Used non-interfering assistive device	14	0.00%
G: Used Braille version of test	14	0.00%
H: Used large-print version of test	108	0.02%
J: Tested during more than one day	242	0.05%
K: Had supervised breaks	2,006	0.45%
L: Most beneficial time of day	394	0.09%
M: Administered at home or in a hospital	79	0.02%
N: Used a dictionary	66	0.01%
O: Examiner presented using MCE or ASL	41	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	6	0.00%
X: Used an unlisted accommodation	388	0.09%
Y: Leave blank	136	0.03%
Z: Examiner read test questions aloud	646	0.15%
Accom. or Mod. is in Section 504 plan	66	0.01%
Accom. or Mod. is in IEP	2,956	0.67%
English Learner Test Variation A	308	0.07%
English Learner Test Variation B	80	0.02%
English Learner Test Variation C	582	0.13%
English Learner Test Variation D	693	0.16%
Any Accom., Mod., or EL Variation	4,360	0.98%
No Accom., Mod., or EL Variation	439,030	99.02%
Students Not in Special Education	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	14	0.00%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	13	0.00%
J: Tested during more than one day	9	0.00%
K: Had supervised breaks	155	0.04%
L: Most beneficial time of day	39	0.01%
M: Administered at home or in a hospital	36	0.01%
N: Used a dictionary	5	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	28	0.01%
Y: Leave blank	11	0.00%
Z: Examiner read test questions aloud	28	0.01%

Special Services Summary for History–Social Science, Grade Eleven		
Accom. or Mod. is in Section 504 plan	64	0.02%
Accom. or Mod. is in IEP	179	0.04%
English Learner Test Variation A	257	0.06%
English Learner Test Variation B	62	0.02%
English Learner Test Variation C	556	0.14%
English Learner Test Variation D	651	0.16%
Any Accom., Mod., or EL Variation	1,317	0.32%
No Accom., Mod., or EL Variation	407,959	99.68%
Students in Special Education	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	127	0.37%
C: Dictated responses to a scribe	39	0.11%
F: Used non-interfering assistive device	13	0.04%
G: Used Braille version of test	13	0.04%
H: Used large-print version of test	95	0.28%
J: Tested during more than one day	233	0.68%
K: Had supervised breaks	1,851	5.43%
L: Most beneficial time of day	354	1.04%
M: Administered at home or in a hospital	43	0.13%
N: Used a dictionary	61	0.18%
O: Examiner presented using MCE or ASL	40	0.12%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	6	0.02%
X: Used an unlisted accommodation	360	1.06%
Y: Leave blank	125	0.37%
Z: Examiner read test questions aloud	617	1.81%
Accom. or Mod. is in Section 504 plan	2	0.01%
Accom. or Mod. is in IEP	2,775	8.14%
English Learner Test Variation A	51	0.15%
English Learner Test Variation B	18	0.05%
English Learner Test Variation C	26	0.08%
English Learner Test Variation D	42	0.12%
Any Accom., Mod., or EL Variation	3,041	8.92%
No Accom., Mod., or EL Variation	31,063	91.08%
English-Only Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	116	0.05%
C: Dictated responses to a scribe	29	0.01%
F: Used non-interfering assistive device	7	0.00%
G: Used Braille version of test	11	0.00%
H: Used large-print version of test	81	0.03%
J: Tested during more than one day	168	0.07%
K: Had supervised breaks	1,259	0.50%
L: Most beneficial time of day	290	0.11%
M: Administered at home or in a hospital	58	0.02%
N: Used a dictionary	37	0.01%

Special Services Summary for History–Social Science, Grade Eleven		
O: Examiner presented using MCE or ASL	22	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	5	0.00%
X: Used an unlisted accommodation	250	0.10%
Y: Leave blank	99	0.04%
Z: Examiner read test questions aloud	357	0.14%
Accom. or Mod. is in Section 504 plan	61	0.02%
Accom. or Mod. is in IEP	1,873	0.74%
English Learner Test Variation A	4	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	5	0.00%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	2,077	0.82%
No Accom., Mod., or EL Variation	250,532	99.18%
Initially Fluent English Proficient (I-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	6	0.02%
C: Dictated responses to a scribe	3	0.01%
F: Used non-interfering 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	69	0.18%
L: Most beneficial time of day	7	0.02%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	2	0.01%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	8	0.02%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	12	0.03%
Accom. or Mod. is in Section 504 plan	0	0.00%
Accom. or Mod. is in IEP	90	0.24%
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	4	0.01%
Any Accom., Mod., or EL Variation	103	0.27%
No Accom., Mod., or EL Variation	38,154	99.73%
English Learner (EL) Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	12	0.02%
C: Dictated responses to a scribe	9	0.02%
F: Used non-interfering assistive device	6	0.01%
G: Used Braille version of test	1	0.00%

Special Services Summary for History–Social Science, Grade Eleven		
H: Used large-print version of test	17	0.03%
J: Tested during more than one day	57	0.10%
K: Had supervised breaks	583	0.98%
L: Most beneficial time of day	82	0.14%
M: Administered at home or in a hospital	13	0.02%
N: Used a dictionary	23	0.04%
O: Examiner presented using MCE or ASL	19	0.03%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	115	0.19%
Y: Leave blank	30	0.05%
Z: Examiner read test questions aloud	257	0.43%
Accom. or Mod. is in Section 504 plan	4	0.01%
Accom. or Mod. is in IEP	865	1.46%
English Learner Test Variation A	302	0.51%
English Learner Test Variation B	80	0.13%
English Learner Test Variation C	572	0.96%
English Learner Test Variation D	673	1.13%
Any Accom., Mod., or EL Variation	2,022	3.41%
No Accom., Mod., or EL Variation	57,293	96.59%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked responses in test booklet	7	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	6	0.01%
J: Tested during more than one day	9	0.01%
K: Had supervised breaks	88	0.10%
L: Most beneficial time of day	13	0.01%
M: Administered at home or in a hospital	4	0.00%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	13	0.01%
Y: Leave blank	3	0.00%
Z: Examiner read test questions aloud	20	0.02%
Accom. or Mod. is in Section 504 plan	1	0.00%
Accom. or Mod. is in IEP	118	0.13%

Special Services Summary for History–Social Science, Grade Eleven		
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	8	0.01%
Any Accom., Mod., or EL Variation	139	0.15%
No Accom., Mod., or EL Variation	92,423	99.85%

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	284	0.06%	196	0.04%
C: Dictated responses to a scribe	87	0.02%	46	0.01%
F: Used non-interfering assistive device	59	0.01%	34	0.01%
G: Used Braille version of test	17	0.00%	14	0.00%
H: Used large-print version of test	178	0.04%	175	0.04%
J: Tested during more than one day	937	0.21%	648	0.15%
K: Had supervised breaks	3,524	0.78%	2,536	0.58%
L: Most beneficial time of day	1,755	0.39%	1,031	0.23%
M: Administered at home or in a hospital	45	0.01%	29	0.01%
N: Used a dictionary	3	0.00%	4	0.00%
O: Examiner presented using MCE or ASL	59	0.01%	39	0.01%
Q: Used a calculator	15	0.00%	11	0.00%
R: Used an arithmetic table	23	0.01%	26	0.01%
S: Used math manipulatives	72	0.02%	10	0.00%
V: Used interfering assistive device	2	0.00%	0	0.00%
W: Used an unlisted modification	49	0.01%	31	0.01%
X: Used an unlisted accommodation	870	0.19%	711	0.16%
Y: Leave blank	145	0.03%	98	0.02%
Z: Examiner read test questions aloud	2,700	0.59%	3,537	0.80%
Accom. or Mod. is in Section 504 plan	173	0.04%	215	0.05%
Accom. or Mod. is in IEP	6,144	1.35%	5,674	1.29%
English Learner Test Variation A	617	0.14%	502	0.11%
English Learner Test Variation B	103	0.02%	91	0.02%
English Learner Test Variation C	302	0.07%	248	0.06%
English Learner Test Variation D	231	0.05%	147	0.03%
Any Accom., Mod., or EL Variation	7,826	1.72%	7,009	1.59%
No Accom., Mod., or EL Variation	445,999	98.28%	433,715	98.41%
Students Not in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	44	0.01%	41	0.01%
C: Dictated responses to a scribe	16	0.00%	16	0.00%
F: Used non-interfering assistive device	7	0.00%	5	0.00%
G: Used Braille version of test	2	0.00%	4	0.00%
H: Used large-print version of test	28	0.01%	31	0.01%
J: Tested during more than one day	140	0.03%	106	0.03%
K: Had supervised breaks	561	0.13%	375	0.09%
L: Most beneficial time of day	256	0.06%	143	0.03%
M: Administered at home or in a hospital	34	0.01%	19	0.00%
N: Used a dictionary	3	0.00%	3	0.00%
O: Examiner presented using MCE or ASL	4	0.00%	4	0.00%
Q: Used a calculator	3	0.00%	4	0.00%
R: Used an arithmetic table	4	0.00%	10	0.00%
S: Used math manipulatives	5	0.00%	3	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	7	0.00%	4	0.00%
X: Used an unlisted accommodation	177	0.04%	131	0.03%
Y: Leave blank	35	0.01%	25	0.01%
Z: Examiner read test questions aloud	421	0.10%	512	0.12%
Accom. or Mod. is in Section 504 plan	159	0.04%	199	0.05%
Accom. or Mod. is in IEP	886	0.21%	705	0.17%
English Learner Test Variation A	572	0.14%	474	0.12%
English Learner Test Variation B	81	0.02%	77	0.02%
English Learner Test Variation C	254	0.06%	226	0.05%
English Learner Test Variation D	220	0.05%	142	0.03%
Any Accom., Mod., or EL Variation	2,104	0.50%	1,718	0.42%
No Accom., Mod., or EL Variation	415,786	99.50%	409,269	99.58%
Students in Special Education	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	236	0.66%	149	0.50%
C: Dictated responses to a scribe	71	0.20%	30	0.10%
F: Used non-interfering assistive device	51	0.14%	27	0.09%
G: Used Braille version of test	14	0.04%	9	0.03%
H: Used large-print version of test	142	0.40%	138	0.46%
J: Tested during more than one day	797	2.22%	537	1.81%
K: Had supervised breaks	2,959	8.24%	2,146	7.23%
L: Most beneficial time of day	1,498	4.17%	884	2.98%
M: Administered at home or in a hospital	11	0.03%	10	0.03%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	55	0.15%	35	0.12%
Q: Used a calculator	12	0.03%	7	0.02%
R: Used an arithmetic table	19	0.05%	16	0.05%
S: Used math manipulatives	67	0.19%	7	0.02%
V: Used interfering assistive device	2	0.01%	0	0.00%
W: Used an unlisted modification	41	0.11%	27	0.09%
X: Used an unlisted accommodation	689	1.92%	578	1.95%
Y: Leave blank	110	0.31%	73	0.25%
Z: Examiner read test questions aloud	2,275	6.34%	3,009	10.14%
Accom. or Mod. is in Section 504 plan	14	0.04%	16	0.05%
Accom. or Mod. is in IEP	5,241	14.60%	4,931	16.61%
English Learner Test Variation A	45	0.13%	27	0.09%
English Learner Test Variation B	22	0.06%	14	0.05%
English Learner Test Variation C	48	0.13%	22	0.07%
English Learner Test Variation D	11	0.03%	5	0.02%
Any Accom., Mod., or EL Variation	5,705	15.89%	5,253	17.69%
No Accom., Mod., or EL Variation	30,196	84.11%	24,436	82.31%

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	193	0.08%	131	0.05%
C: Dictated responses to a scribe	67	0.03%	28	0.01%
F: Used non-interfering assistive device	38	0.02%	22	0.01%
G: Used Braille version of test	9	0.00%	8	0.00%
H: Used large-print version of test	126	0.05%	121	0.05%
J: Tested during more than one day	620	0.25%	444	0.18%
K: Had supervised breaks	2,175	0.86%	1,628	0.67%
L: Most beneficial time of day	1,081	0.43%	693	0.28%
M: Administered at home or in a hospital	31	0.01%	20	0.01%
N: Used a dictionary	2	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	39	0.02%	24	0.01%
Q: Used a calculator	13	0.01%	9	0.00%
R: Used an arithmetic table	13	0.01%	19	0.01%
S: Used math manipulatives	39	0.02%	3	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	35	0.01%	18	0.01%
X: Used an unlisted accommodation	561	0.22%	438	0.18%
Y: Leave blank	94	0.04%	65	0.03%
Z: Examiner read test questions aloud	1,580	0.63%	2,108	0.87%
Accom. or Mod. is in Section 504 plan	125	0.05%	167	0.07%
Accom. or Mod. is in IEP	3,780	1.50%	3,509	1.44%
English Learner Test Variation A	25	0.01%	15	0.01%
English Learner Test Variation B	6	0.00%	3	0.00%
English Learner Test Variation C	12	0.00%	5	0.00%
English Learner Test Variation D	7	0.00%	3	0.00%
Any Accom., Mod., or EL Variation	4,253	1.69%	3,929	1.62%
No Accom., Mod., or EL Variation	247,562	98.31%	239,308	98.38%
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%	4	0.02%
C: Dictated responses to a scribe	2	0.01%	1	0.01%
F: Used non-interfering assistive device	2	0.01%	0	0.00%
G: Used Braille version of test	2	0.01%	0	0.00%
H: Used large-print version of test	3	0.02%	3	0.02%
J: Tested during more than one day	14	0.07%	5	0.03%
K: Had supervised breaks	45	0.24%	39	0.21%
L: Most beneficial time of day	16	0.09%	13	0.07%
M: Administered at home or in a hospital	2	0.01%	0	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	3	0.02%	2	0.01%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	1	0.01%	0	0.00%
S: Used math manipulatives	0	0.00%	1	0.01%

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	0	0.00%	1	0.01%
X: Used an unlisted accommodation	12	0.06%	11	0.06%
Y: Leave blank	0	0.00%	0	0.00%
Z: Examiner read test questions aloud	31	0.17%	49	0.26%
Accom. or Mod. is in Section 504 plan	3	0.02%	5	0.03%
Accom. or Mod. is in IEP	75	0.40%	83	0.44%
English Learner Test Variation A	6	0.03%	3	0.02%
English Learner Test Variation B	0	0.00%	1	0.01%
English Learner Test Variation C	0	0.00%	0	0.00%
English Learner Test Variation D	1	0.01%	1	0.01%
Any Accom., Mod., or EL Variation	89	0.48%	100	0.53%
No Accom., Mod., or EL Variation	18,615	99.52%	18,767	99.47%
English Learner (EL) Students	**Grade 2**	**Pct. of Total**	**Grade 3**	**Pct. of Total**
B: Marked responses in test booklet	81	0.05%	53	0.04%
C: Dictated responses to a scribe	18	0.01%	15	0.01%
F: Used non-interfering assistive device	18	0.01%	10	0.01%
G: Used Braille version of test	6	0.00%	4	0.00%
H: Used large-print version of test	43	0.02%	35	0.02%
J: Tested during more than one day	301	0.17%	187	0.13%
K: Had supervised breaks	1,286	0.74%	834	0.56%
L: Most beneficial time of day	647	0.37%	312	0.21%
M: Administered at home or in a hospital	12	0.01%	9	0.01%
N: Used a dictionary	1	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	17	0.01%	11	0.01%
Q: Used a calculator	2	0.00%	2	0.00%
R: Used an arithmetic table	9	0.01%	7	0.00%
S: Used math manipulatives	32	0.02%	5	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	14	0.01%	12	0.01%
X: Used an unlisted accommodation	292	0.17%	248	0.17%
Y: Leave blank	51	0.03%	32	0.02%
Z: Examiner read test questions aloud	1,076	0.62%	1,344	0.90%
Accom. or Mod. is in Section 504 plan	44	0.03%	38	0.03%
Accom. or Mod. is in IEP	2,260	1.30%	2,010	1.34%
English Learner Test Variation A	583	0.33%	480	0.32%
English Learner Test Variation B	97	0.06%	85	0.06%
English Learner Test Variation C	289	0.17%	243	0.16%
English Learner Test Variation D	222	0.13%	143	0.10%
Any Accom., Mod., or EL Variation	3,445	1.98%	2,894	1.93%
No Accom., Mod., or EL Variation	170,693	98.02%	146,673	98.07%

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	1	0.01%	1	0.00%
C: Dictated responses to a scribe	0	0.00%	2	0.01%
F: Used non-interfering assistive device	0	0.00%	0	0.00%
G: Used Braille version of test	0	0.00%	2	0.01%
H: Used large-print version of test	2	0.02%	4	0.01%
J: Tested during more than one day	1	0.01%	3	0.01%
K: Had supervised breaks	7	0.08%	13	0.05%
L: Most beneficial time of day	3	0.04%	3	0.01%
M: Administered at home or in a hospital	0	0.00%	0	0.00%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	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	1	0.01%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	2	0.02%	5	0.02%
Y: Leave blank	0	0.00%	1	0.00%
Z: Examiner read test questions aloud	8	0.09%	16	0.06%
Accom. or Mod. is in Section 504 plan	1	0.01%	4	0.01%
Accom. or Mod. is in IEP	12	0.14%	28	0.10%
English Learner Test Variation A	1	0.01%	2	0.01%
English Learner Test Variation B	0	0.00%	1	0.00%
English Learner Test Variation C	0	0.00%	0	0.00%
English Learner Test Variation D	1	0.01%	0	0.00%
Any Accom., Mod., or EL Variation	15	0.18%	37	0.13%
No Accom., Mod., or EL Variation	8,530	99.82%	28,376	99.87%

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	463	0.11%	442	0.10%
C: Dictated responses to a scribe	37	0.01%	35	0.01%
F: Used non-interfering assistive device	32	0.01%	44	0.01%
G: Used Braille version of test	16	0.00%	14	0.00%
H: Used large-print version of test	138	0.03%	149	0.03%
J: Tested during more than one day	627	0.14%	661	0.15%
K: Had supervised breaks	2,742	0.62%	2,869	0.66%
L: Most beneficial time of day	1,021	0.23%	1,024	0.24%
M: Administered at home or in a hospital	29	0.01%	43	0.01%
N: Used a dictionary	0	0.00%	2	0.00%
O: Examiner presented using MCE or ASL	25	0.01%	40	0.01%
Q: Used a calculator	27	0.01%	70	0.02%
R: Used an arithmetic table	55	0.01%	34	0.01%
S: Used math manipulatives	19	0.00%	20	0.00%
V: Used interfering assistive device	1	0.00%	1	0.00%
W: Used an unlisted modification	27	0.01%	24	0.01%
X: Used an unlisted accommodation	769	0.17%	771	0.18%
Y: Leave blank	124	0.03%	123	0.03%
Z: Examiner read test questions aloud	3,328	0.75%	3,280	0.76%
Accom. or Mod. is in Section 504 plan	262	0.06%	305	0.07%
Accom. or Mod. is in IEP	5,793	1.31%	5,832	1.34%
English Learner Test Variation A	418	0.09%	290	0.07%
English Learner Test Variation B	97	0.02%	75	0.02%
English Learner Test Variation C	200	0.05%	159	0.04%
English Learner Test Variation D	86	0.02%	81	0.02%
Any Accom., Mod., or EL Variation	6,958	1.58%	6,849	1.58%
No Accom., Mod., or EL Variation	433,867	98.42%	427,563	98.42%
Students Not in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	63	0.02%	70	0.02%
C: Dictated responses to a scribe	13	0.00%	10	0.00%
F: Used non-interfering assistive device	3	0.00%	9	0.00%
G: Used Braille version of test	0	0.00%	3	0.00%
H: Used large-print version of test	32	0.01%	30	0.01%
J: Tested during more than one day	95	0.02%	80	0.02%
K: Had supervised breaks	404	0.10%	357	0.09%
L: Most beneficial time of day	149	0.04%	149	0.04%
M: Administered at home or in a hospital	20	0.00%	28	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	2	0.00%	2	0.00%
Q: Used a calculator	2	0.00%	4	0.00%
R: Used an arithmetic table	8	0.00%	3	0.00%
S: Used math manipulatives	0	0.00%	3	0.00%

Special Services Summary for Mathematics, Grades Four and Five				
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	123	0.03%	121	0.03%
Y: Leave blank	23	0.01%	25	0.01%
Z: Examiner read test questions aloud	385	0.09%	343	0.08%
Accom. or Mod. is in Section 504 plan	250	0.06%	282	0.07%
Accom. or Mod. is in IEP	598	0.15%	530	0.13%
English Learner Test Variation A	391	0.09%	267	0.07%
English Learner Test Variation B	73	0.02%	50	0.01%
English Learner Test Variation C	167	0.04%	134	0.03%
English Learner Test Variation D	84	0.02%	76	0.02%
Any Accom., Mod., or EL Variation	1,491	0.36%	1,260	0.31%
No Accom., Mod., or EL Variation	410,742	99.64%	406,125	99.69%
Students in Special Education	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	399	1.40%	372	1.38%
C: Dictated responses to a scribe	24	0.08%	24	0.09%
F: Used non-interfering assistive device	29	0.10%	35	0.13%
G: Used Braille version of test	16	0.06%	11	0.04%
H: Used large-print version of test	106	0.37%	119	0.44%
J: Tested during more than one day	531	1.86%	579	2.14%
K: Had supervised breaks	2,332	8.16%	2,507	9.28%
L: Most beneficial time of day	870	3.05%	873	3.23%
M: Administered at home or in a hospital	9	0.03%	15	0.06%
N: Used a dictionary	0	0.00%	2	0.01%
O: Examiner presented using MCE or ASL	23	0.08%	38	0.14%
Q: Used a calculator	25	0.09%	66	0.24%
R: Used an arithmetic table	47	0.16%	31	0.11%
S: Used math manipulatives	19	0.07%	17	0.06%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	24	0.08%	21	0.08%
X: Used an unlisted accommodation	644	2.25%	649	2.40%
Y: Leave blank	101	0.35%	97	0.36%
Z: Examiner read test questions aloud	2,940	10.29%	2,933	10.86%
Accom. or Mod. is in Section 504 plan	12	0.04%	23	0.09%
Accom. or Mod. is in IEP	5,182	18.14%	5,290	19.59%
English Learner Test Variation A	27	0.09%	23	0.09%
English Learner Test Variation B	24	0.08%	25	0.09%
English Learner Test Variation C	33	0.12%	25	0.09%
English Learner Test Variation D	2	0.01%	5	0.02%
Any Accom., Mod., or EL Variation	5,454	19.09%	5,577	20.65%
No Accom., Mod., or EL Variation	23,116	80.91%	21,430	79.35%

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	347	0.14%	326	0.13%
C: Dictated responses to a scribe	29	0.01%	31	0.01%
F: Used non-interfering assistive device	16	0.01%	29	0.01%
G: Used Braille version of test	9	0.00%	7	0.00%
H: Used large-print version of test	105	0.04%	109	0.04%
J: Tested during more than one day	430	0.18%	468	0.19%
K: Had supervised breaks	1,714	0.70%	1,808	0.75%
L: Most beneficial time of day	640	0.26%	676	0.28%
M: Administered at home or in a hospital	23	0.01%	34	0.01%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	12	0.00%	19	0.01%
Q: Used a calculator	21	0.01%	57	0.02%
R: Used an arithmetic table	23	0.01%	24	0.01%
S: Used math manipulatives	13	0.01%	18	0.01%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	18	0.01%	12	0.00%
X: Used an unlisted accommodation	500	0.21%	472	0.19%
Y: Leave blank	81	0.03%	77	0.03%
Z: Examiner read test questions aloud	1,952	0.80%	1,810	0.75%
Accom. or Mod. is in Section 504 plan	218	0.09%	259	0.11%
Accom. or Mod. is in IEP	3,556	1.46%	3,510	1.45%
English Learner Test Variation A	6	0.00%	5	0.00%
English Learner Test Variation B	4	0.00%	9	0.00%
English Learner Test Variation C	6	0.00%	12	0.00%
English Learner Test Variation D	0	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	3,984	1.64%	3,962	1.64%
No Accom., Mod., or EL Variation	239,616	98.36%	238,275	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	16	0.05%	15	0.04%
C: Dictated responses to a scribe	0	0.00%	0	0.00%
F: Used non-interfering assistive device	2	0.01%	1	0.00%
G: Used Braille version of test	2	0.01%	3	0.01%
H: Used large-print version of test	4	0.01%	12	0.04%
J: Tested during more than one day	8	0.03%	20	0.06%
K: Had supervised breaks	84	0.27%	85	0.25%
L: Most beneficial time of day	34	0.11%	34	0.10%
M: Administered at home or in a hospital	1	0.00%	2	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	1	0.00%
Q: Used a calculator	1	0.00%	2	0.01%
R: Used an arithmetic table	3	0.01%	1	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	4	0.01%	3	0.01%
X: Used an unlisted accommodation	13	0.04%	34	0.10%
Y: Leave blank	4	0.01%	9	0.03%
Z: Examiner read test questions aloud	93	0.30%	106	0.32%
Accom. or Mod. is in Section 504 plan	4	0.01%	10	0.03%
Accom. or Mod. is in IEP	179	0.59%	200	0.59%
English Learner Test Variation A	3	0.01%	0	0.00%
English Learner Test Variation B	1	0.00%	1	0.00%
English Learner Test Variation C	0	0.00%	0	0.00%
English Learner Test Variation D	1	0.00%	1	0.00%
Any Accom., Mod., or EL Variation	193	0.63%	223	0.66%
No Accom., Mod., or EL Variation	30,379	99.37%	33,421	99.34%
English Learner (EL) Students	**Grade 4**	**Pct. of Total**	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	100	0.08%	81	0.08%
C: Dictated responses to a scribe	6	0.00%	3	0.00%
F: Used non-interfering assistive device	12	0.01%	13	0.01%
G: Used Braille version of test	5	0.00%	3	0.00%
H: Used large-print version of test	28	0.02%	20	0.02%
J: Tested during more than one day	179	0.15%	161	0.16%
K: Had supervised breaks	900	0.73%	933	0.94%
L: Most beneficial time of day	326	0.26%	293	0.30%
M: Administered at home or in a hospital	4	0.00%	6	0.01%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	13	0.01%	20	0.02%
Q: Used a calculator	5	0.00%	11	0.01%
R: Used an arithmetic table	27	0.02%	8	0.01%
S: Used math manipulatives	6	0.00%	2	0.00%
V: Used interfering assistive device	1	0.00%	0	0.00%
W: Used an unlisted modification	5	0.00%	9	0.01%
X: Used an unlisted accommodation	246	0.20%	251	0.25%
Y: Leave blank	35	0.03%	37	0.04%
Z: Examiner read test questions aloud	1,250	1.01%	1,310	1.33%
Accom. or Mod. is in Section 504 plan	35	0.03%	27	0.03%
Accom. or Mod. is in IEP	1,988	1.61%	2,014	2.04%
English Learner Test Variation A	405	0.33%	280	0.28%
English Learner Test Variation B	89	0.07%	65	0.07%
English Learner Test Variation C	191	0.16%	146	0.15%
English Learner Test Variation D	85	0.07%	75	0.08%
Any Accom., Mod., or EL Variation	2,697	2.19%	2,534	2.57%
No Accom., Mod., or EL Variation	120,489	97.81%	96,227	97.43%

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	0	0.00%	20	0.03%
C: Dictated responses to a scribe	2	0.00%	1	0.00%
F: Used non-interfering assistive device	2	0.00%	1	0.00%
G: Used Braille version of test	0	0.00%	1	0.00%
H: Used large-print version of test	1	0.00%	8	0.01%
J: Tested during more than one day	10	0.02%	11	0.02%
K: Had supervised breaks	36	0.08%	41	0.07%
L: Most beneficial time of day	15	0.03%	21	0.04%
M: Administered at home or in a hospital	0	0.00%	1	0.00%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%	0	0.00%
Q: Used a calculator	0	0.00%	0	0.00%
R: Used an arithmetic table	2	0.00%	1	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	0	0.00%	0	0.00%
X: Used an unlisted accommodation	9	0.02%	12	0.02%
Y: Leave blank	4	0.01%	0	0.00%
Z: Examiner read test questions aloud	31	0.07%	51	0.09%
Accom. or Mod. is in Section 504 plan	5	0.01%	9	0.02%
Accom. or Mod. is in IEP	60	0.14%	102	0.17%
English Learner Test Variation A	3	0.01%	5	0.01%
English Learner Test Variation B	3	0.01%	0	0.00%
English Learner Test Variation C	3	0.01%	1	0.00%
English Learner Test Variation D	0	0.00%	4	0.01%
Any Accom., Mod., or EL Variation	71	0.17%	124	0.21%
No Accom., Mod., or EL Variation	42,924	99.83%	59,191	99.79%

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

Special Services Summary for Mathematics, Grades Six and Seven				
All Tested	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	293	0.07%	221	0.05%
C: Dictated responses to a scribe	33	0.01%	28	0.01%
F: Used non-interfering assistive device	49	0.01%	69	0.02%
G: Used Braille version of test	14	0.00%	23	0.01%
H: Used large-print version of test	115	0.03%	122	0.03%
J: Tested during more than one day	500	0.11%	315	0.08%
K: Had supervised breaks	1,956	0.45%	1,408	0.34%
L: Most beneficial time of day	737	0.17%	517	0.13%
M: Administered at home or in a hospital	41	0.01%	74	0.02%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	31	0.01%	16	0.00%
Q: Used a calculator	91	0.02%	138	0.03%
R: Used an arithmetic table	28	0.01%	13	0.00%
S: Used math manipulatives	11	0.00%	6	0.00%
V: Used interfering assistive device	0	0.00%	2	0.00%
W: Used an unlisted modification	19	0.00%	11	0.00%
X: Used an unlisted accommodation	798	0.18%	599	0.15%
Y: Leave blank	146	0.03%	130	0.03%
Z: Examiner read test questions aloud	1,751	0.40%	1,011	0.25%
Accom. or Mod. is in Section 504 plan	197	0.05%	150	0.04%
Accom. or Mod. is in IEP	4,145	0.95%	2,981	0.73%
English Learner Test Variation A	484	0.11%	732	0.18%
English Learner Test Variation B	59	0.01%	40	0.01%
English Learner Test Variation C	313	0.07%	545	0.13%
English Learner Test Variation D	209	0.05%	608	0.15%
Any Accom., Mod., or EL Variation	5,298	1.21%	4,878	1.19%
No Accom., Mod., or EL Variation	432,023	98.79%	404,788	98.81%
Students Not in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	53	0.01%	43	0.01%
C: Dictated responses to a scribe	6	0.00%	2	0.00%
F: Used non-interfering assistive device	7	0.00%	1	0.00%
G: Used Braille version of test	0	0.00%	0	0.00%
H: Used large-print version of test	21	0.01%	21	0.01%
J: Tested during more than one day	57	0.01%	32	0.01%
K: Had supervised breaks	231	0.06%	161	0.04%
L: Most beneficial time of day	83	0.02%	49	0.01%
M: Administered at home or in a hospital	27	0.01%	47	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	2	0.00%	0	0.00%
Q: Used a calculator	5	0.00%	17	0.00%
R: Used an arithmetic table	1	0.00%	1	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%	1	0.00%
W: Used an unlisted modification	1	0.00%	3	0.00%
X: Used an unlisted accommodation	93	0.02%	59	0.02%
Y: Leave blank	19	0.00%	26	0.01%
Z: Examiner read test questions aloud	144	0.03%	62	0.02%
Accom. or Mod. is in Section 504 plan	182	0.04%	143	0.04%
Accom. or Mod. is in IEP	304	0.07%	198	0.05%
English Learner Test Variation A	442	0.11%	704	0.18%
English Learner Test Variation B	53	0.01%	35	0.01%
English Learner Test Variation C	291	0.07%	527	0.14%
English Learner Test Variation D	198	0.05%	536	0.14%
Any Accom., Mod., or EL Variation	1,212	0.29%	1,807	0.47%
No Accom., Mod., or EL Variation	410,412	99.71%	383,687	99.53%
Students in Special Education	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	240	0.93%	178	0.74%
C: Dictated responses to a scribe	27	0.11%	26	0.11%
F: Used non-interfering assistive device	42	0.16%	68	0.28%
G: Used Braille version of test	14	0.05%	23	0.10%
H: Used large-print version of test	93	0.36%	101	0.42%
J: Tested during more than one day	441	1.72%	280	1.16%
K: Had supervised breaks	1,721	6.70%	1,240	5.13%
L: Most beneficial time of day	653	2.54%	465	1.93%
M: Administered at home or in a hospital	14	0.05%	27	0.11%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	29	0.11%	16	0.07%
Q: Used a calculator	86	0.33%	121	0.50%
R: Used an arithmetic table	27	0.11%	12	0.05%
S: Used math manipulatives	11	0.04%	6	0.02%
V: Used interfering assistive device	0	0.00%	1	0.00%
W: Used an unlisted modification	18	0.07%	8	0.03%
X: Used an unlisted accommodation	704	2.74%	540	2.24%
Y: Leave blank	126	0.49%	103	0.43%
Z: Examiner read test questions aloud	1,603	6.24%	944	3.91%
Accom. or Mod. is in Section 504 plan	15	0.06%	7	0.03%
Accom. or Mod. is in IEP	3,829	14.91%	2,774	11.49%
English Learner Test Variation A	42	0.16%	28	0.12%
English Learner Test Variation B	6	0.02%	5	0.02%
English Learner Test Variation C	22	0.09%	18	0.07%
English Learner Test Variation D	11	0.04%	72	0.30%
Any Accom., Mod., or EL Variation	4,074	15.86%	3,062	12.68%
No Accom., Mod., or EL Variation	21,606	84.14%	21,090	87.32%

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	226	0.09%	158	0.07%
C: Dictated responses to a scribe	27	0.01%	15	0.01%
F: Used non-interfering assistive device	24	0.01%	24	0.01%
G: Used Braille version of test	12	0.00%	11	0.00%
H: Used large-print version of test	79	0.03%	78	0.03%
J: Tested during more than one day	354	0.15%	212	0.09%
K: Had supervised breaks	1,306	0.54%	947	0.42%
L: Most beneficial time of day	497	0.20%	341	0.15%
M: Administered at home or in a hospital	34	0.01%	53	0.02%
N: Used a dictionary	0	0.00%	1	0.00%
O: Examiner presented using MCE or ASL	12	0.00%	8	0.00%
Q: Used a calculator	78	0.03%	114	0.05%
R: Used an arithmetic table	22	0.01%	7	0.00%
S: Used math manipulatives	10	0.00%	4	0.00%
V: Used interfering assistive device	0	0.00%	2	0.00%
W: Used an unlisted modification	7	0.00%	10	0.00%
X: Used an unlisted accommodation	496	0.20%	365	0.16%
Y: Leave blank	100	0.04%	85	0.04%
Z: Examiner read test questions aloud	983	0.40%	599	0.27%
Accom. or Mod. is in Section 504 plan	155	0.06%	119	0.05%
Accom. or Mod. is in IEP	2,574	1.05%	1,889	0.84%
English Learner Test Variation A	9	0.00%	10	0.00%
English Learner Test Variation B	4	0.00%	1	0.00%
English Learner Test Variation C	19	0.01%	18	0.01%
English Learner Test Variation D	2	0.00%	10	0.00%
Any Accom., Mod., or EL Variation	2,907	1.19%	2,195	0.98%
No Accom., Mod., or EL Variation	241,098	98.81%	222,753	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	12	0.03%	7	0.03%
C: Dictated responses to a scribe	2	0.01%	3	0.01%
F: Used non-interfering assistive device	0	0.00%	4	0.01%
G: Used Braille version of test	0	0.00%	2	0.01%
H: Used large-print version of test	8	0.02%	5	0.02%
J: Tested during more than one day	15	0.04%	6	0.02%
K: Had supervised breaks	58	0.16%	29	0.10%
L: Most beneficial time of day	19	0.05%	13	0.05%
M: Administered at home or in a hospital	1	0.00%	7	0.03%
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	3	0.01%	1	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 Six and Seven				
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	34	0.09%	13	0.05%
Y: Leave blank	3	0.01%	3	0.01%
Z: Examiner read test questions aloud	51	0.14%	19	0.07%
Accom. or Mod. is in Section 504 plan	7	0.02%	5	0.02%
Accom. or Mod. is in IEP	138	0.38%	70	0.25%
English Learner Test Variation A	0	0.00%	4	0.01%
English Learner Test Variation B	0	0.00%	0	0.00%
English Learner Test Variation C	0	0.00%	3	0.01%
English Learner Test Variation D	10	0.03%	9	0.03%
Any Accom., Mod., or EL Variation	162	0.45%	95	0.34%
No Accom., Mod., or EL Variation	36,189	99.55%	27,892	99.66%
English Learner (EL) Students	**Grade 6**	**Pct. of Total**	**Grade 7**	**Pct. of Total**
B: Marked responses in test booklet	37	0.05%	39	0.05%
C: Dictated responses to a scribe	3	0.00%	5	0.01%
F: Used non-interfering assistive device	22	0.03%	37	0.05%
G: Used Braille version of test	2	0.00%	5	0.01%
H: Used large-print version of test	14	0.02%	18	0.02%
J: Tested during more than one day	115	0.14%	78	0.10%
K: Had supervised breaks	529	0.65%	365	0.48%
L: Most beneficial time of day	189	0.23%	140	0.18%
M: Administered at home or in a hospital	5	0.01%	10	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	18	0.02%	7	0.01%
Q: Used a calculator	9	0.01%	19	0.02%
R: Used an arithmetic table	5	0.01%	5	0.01%
S: Used math manipulatives	1	0.00%	2	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	9	0.01%	0	0.00%
X: Used an unlisted accommodation	233	0.29%	188	0.25%
Y: Leave blank	38	0.05%	36	0.05%
Z: Examiner read test questions aloud	661	0.81%	355	0.47%
Accom. or Mod. is in Section 504 plan	25	0.03%	15	0.02%
Accom. or Mod. is in IEP	1,289	1.58%	882	1.16%
English Learner Test Variation A	473	0.58%	711	0.93%
English Learner Test Variation B	54	0.07%	38	0.05%
English Learner Test Variation C	292	0.36%	518	0.68%
English Learner Test Variation D	194	0.24%	578	0.76%
Any Accom., Mod., or EL Variation	2,056	2.52%	2,395	3.14%
No Accom., Mod., or EL Variation	79,398	97.48%	73,867	96.86%

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	16	0.02%	17	0.02%
C: Dictated responses to a scribe	1	0.00%	5	0.01%
F: Used non-interfering assistive device	3	0.00%	4	0.01%
G: Used Braille version of test	0	0.00%	5	0.01%
H: Used large-print version of test	11	0.01%	20	0.03%
J: Tested during more than one day	14	0.02%	17	0.02%
K: Had supervised breaks	61	0.08%	60	0.08%
L: Most beneficial time of day	30	0.04%	19	0.02%
M: Administered at home or in a hospital	1	0.00%	4	0.01%
N: Used a dictionary	0	0.00%	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%	1	0.00%
Q: Used a calculator	1	0.00%	2	0.00%
R: Used an arithmetic table	1	0.00%	0	0.00%
S: Used math manipulatives	0	0.00%	0	0.00%
V: Used interfering assistive device	0	0.00%	0	0.00%
W: Used an unlisted modification	2	0.00%	1	0.00%
X: Used an unlisted accommodation	33	0.04%	32	0.04%
Y: Leave blank	5	0.01%	6	0.01%
Z: Examiner read test questions aloud	53	0.07%	33	0.04%
Accom. or Mod. is in Section 504 plan	10	0.01%	11	0.01%
Accom. or Mod. is in IEP	135	0.18%	132	0.17%
English Learner Test Variation A	2	0.00%	4	0.01%
English Learner Test Variation B	1	0.00%	0	0.00%
English Learner Test Variation C	2	0.00%	4	0.01%
English Learner Test Variation D	3	0.00%	10	0.01%
Any Accom., Mod., or EL Variation	161	0.21%	177	0.22%
No Accom., Mod., or EL Variation	74,873	99.79%	79,604	99.78%

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	279	79	358	0.16%
C: Dictated responses to a scribe	26	17	43	0.02%
F: Used non-interfering assistive device	56	3	59	0.03%
G: Used Braille version of test	12	5	17	0.01%
H: Used large-print version of test	81	28	109	0.05%
J: Tested during more than one day	467	169	636	0.29%
K: Had supervised breaks	2,291	1,204	3,495	1.57%
L: Most beneficial time of day	832	296	1,128	0.51%
M: Administered at home or in a hospital	64	30	94	0.04%
N: Used a dictionary	1	10	11	0.00%
O: Examiner presented using MCE or ASL	40	19	59	0.03%
Q: Used a calculator	290	815	1,105	0.50%
R: Used an arithmetic table	46	33	79	0.04%
S: Used math manipulatives	18	2	20	0.01%
V: Used interfering assistive device	5	1	6	0.00%
W: Used an unlisted modification	18	15	33	0.01%
X: Used an unlisted accommodation	661	320	981	0.44%
Y: Leave blank	189	97	286	0.13%
Z: Examiner read test questions aloud	2,093	410	2,503	1.13%
Accom. or Mod. is in Section 504 plan	86	17	103	0.05%
Accom. or Mod. is in IEP	4,946	2,468	7,414	3.34%
English Learner Test Variation A	465	200	665	0.30%
English Learner Test Variation B	30	34	64	0.03%
English Learner Test Variation C	323	237	560	0.25%
English Learner Test Variation D	192	202	394	0.18%
Any Accom., Mod., or EL Variation	6,095	3,047	9,142	4.12%
No Accom., Mod., or EL Variation	158,051	54,766	212,817	95.88%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	23	9	32	0.02%
C: Dictated responses to a scribe	4	0	4	0.00%
F: Used non-interfering assistive device	1	0	1	0.00%
G: Used Braille version of test	0	0	0	0.00%
H: Used large-print version of test	7	5	12	0.01%
J: Tested during more than one day	27	7	34	0.02%
K: Had supervised breaks	147	70	217	0.12%
L: Most beneficial time of day	58	8	66	0.04%
M: Administered at home or in a hospital	38	8	46	0.03%
N: Used a dictionary	0	0	0	0.00%
O: Examiner presented using MCE or ASL	1	0	1	0.00%
Q: Used a calculator	13	68	81	0.05%
R: Used an arithmetic table	1	2	3	0.00%
S: Used math manipulatives	0	0	0	0.00%

Special Services Summary for General Mathematics				
V: Used interfering assistive device	1	0	1	0.00%
W: Used an unlisted modification	1	4	5	0.00%
X: Used an unlisted accommodation	35	22	57	0.03%
Y: Leave blank	10	20	30	0.02%
Z: Examiner read test questions aloud	77	18	95	0.05%
Accom. or Mod. is in Section 504 plan	81	16	97	0.05%
Accom. or Mod. is in IEP	213	171	384	0.22%
English Learner Test Variation A	435	170	605	0.34%
English Learner Test Variation B	23	26	49	0.03%
English Learner Test Variation C	306	223	529	0.30%
English Learner Test Variation D	180	167	347	0.20%
Any Accom., Mod., or EL Variation	1,034	561	1,595	0.90%
No Accom., Mod., or EL Variation	133,604	41,584	175,188	99.10%
Students in Special Education	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	255	70	325	0.72%
C: Dictated responses to a scribe	22	17	39	0.09%
F: Used non-interfering assistive device	55	3	58	0.13%
G: Used Braille version of test	12	5	17	0.04%
H: Used large-print version of test	73	23	96	0.21%
J: Tested during more than one day	438	162	600	1.33%
K: Had supervised breaks	2,138	1,133	3,271	7.25%
L: Most beneficial time of day	772	288	1,060	2.35%
M: Administered at home or in a hospital	26	22	48	0.11%
N: Used a dictionary	1	10	11	0.02%
O: Examiner presented using MCE or ASL	38	19	57	0.13%
Q: Used a calculator	275	746	1,021	2.26%
R: Used an arithmetic table	43	31	74	0.16%
S: Used math manipulatives	16	2	18	0.04%
V: Used interfering assistive device	4	1	5	0.01%
W: Used an unlisted modification	17	11	28	0.06%
X: Used an unlisted accommodation	619	298	917	2.03%
Y: Leave blank	179	77	256	0.57%
Z: Examiner read test questions aloud	2,007	392	2,399	5.32%
Accom. or Mod. is in Section 504 plan	5	1	6	0.01%
Accom. or Mod. is in IEP	4,713	2,295	7,008	15.53%
English Learner Test Variation A	30	30	60	0.13%
English Learner Test Variation B	7	8	15	0.03%
English Learner Test Variation C	17	14	31	0.07%
English Learner Test Variation D	12	35	47	0.10%
Any Accom., Mod., or EL Variation	5,041	2,484	7,525	16.68%
No Accom., Mod., or EL Variation	24,428	13,172	37,600	83.32%

Special Services Summary for General Mathematics				
English-Only Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	188	68	256	0.21%
C: Dictated responses to a scribe	9	13	22	0.02%
F: Used non-interfering assistive device	25	2	27	0.02%
G: Used Braille version of test	6	4	10	0.01%
H: Used large-print version of test	53	25	78	0.06%
J: Tested during more than one day	339	122	461	0.37%
K: Had supervised breaks	1,472	801	2,273	1.83%
L: Most beneficial time of day	489	206	695	0.56%
M: Administered at home or in a hospital	51	26	77	0.06%
N: Used a dictionary	1	7	8	0.01%
O: Examiner presented using MCE or ASL	22	1	23	0.02%
Q: Used a calculator	230	552	782	0.63%
R: Used an arithmetic table	19	22	41	0.03%
S: Used math manipulatives	8	1	9	0.01%
V: Used interfering assistive device	4	0	4	0.00%
W: Used an unlisted modification	12	6	18	0.01%
X: Used an unlisted accommodation	414	214	628	0.50%
Y: Leave blank	104	73	177	0.14%
Z: Examiner read test questions aloud	1,126	248	1,374	1.10%
Accom. or Mod. is in Section 504 plan	74	14	88	0.07%
Accom. or Mod. is in IEP	2,960	1,656	4,616	3.71%
English Learner Test Variation A	4	6	10	0.01%
English Learner Test Variation B	1	2	3	0.00%
English Learner Test Variation C	9	5	14	0.01%
English Learner Test Variation D	3	4	7	0.01%
Any Accom., Mod., or EL Variation	3,247	1,771	5,018	4.03%
No Accom., Mod., or EL Variation	86,155	33,192	119,347	95.97%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	6	0	6	0.06%
C: Dictated responses to a scribe	0	0	0	0.00%
F: Used non-interfering assistive device	3	0	3	0.03%
G: Used Braille version of test	1	0	1	0.01%
H: Used large-print version of test	2	0	2	0.02%
J: Tested during more than one day	6	4	10	0.10%
K: Had supervised breaks	37	35	72	0.74%
L: Most beneficial time of day	16	5	21	0.21%
M: Administered at home or in a hospital	1	0	1	0.01%
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	1	17	18	0.18%
R: Used an arithmetic table	1	0	1	0.01%
S: Used math manipulatives	1	0	1	0.01%

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	16	9	25	0.26%
Y: Leave blank	1	3	4	0.04%
Z: Examiner read test questions aloud	30	6	36	0.37%
Accom. or Mod. is in Section 504 plan	1	0	1	0.01%
Accom. or Mod. is in IEP	91	58	149	1.52%
English Learner Test Variation A	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0.00%
English Learner Test Variation C	0	1	1	0.01%
English Learner Test Variation D	7	1	8	0.08%
Any Accom., Mod., or EL Variation	106	63	169	1.73%
No Accom., Mod., or EL Variation	7,109	2,498	9,607	98.27%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	70	11	81	0.14%
C: Dictated responses to a scribe	14	4	18	0.03%
F: Used non-interfering assistive device	23	1	24	0.04%
G: Used Braille version of test	4	1	5	0.01%
H: Used large-print version of test	18	3	21	0.04%
J: Tested during more than one day	110	38	148	0.25%
K: Had supervised breaks	710	330	1,040	1.78%
L: Most beneficial time of day	286	82	368	0.63%
M: Administered at home or in a hospital	11	4	15	0.03%
N: Used a dictionary	0	2	2	0.00%
O: Examiner presented using MCE or ASL	18	18	36	0.06%
Q: Used a calculator	54	236	290	0.50%
R: Used an arithmetic table	20	11	31	0.05%
S: Used math manipulatives	7	1	8	0.01%
V: Used interfering assistive device	1	1	2	0.00%
W: Used an unlisted modification	6	8	14	0.02%
X: Used an unlisted accommodation	206	92	298	0.51%
Y: Leave blank	81	17	98	0.17%
Z: Examiner read test questions aloud	867	140	1,007	1.72%
Accom. or Mod. is in Section 504 plan	10	3	13	0.02%
Accom. or Mod. is in IEP	1,724	698	2,422	4.14%
English Learner Test Variation A	457	194	651	1.11%
English Learner Test Variation B	29	32	61	0.10%
English Learner Test Variation C	314	229	543	0.93%
English Learner Test Variation D	176	197	373	0.64%
Any Accom., Mod., or EL Variation	2,550	1,153	3,703	6.33%
No Accom., Mod., or EL Variation	41,205	13,618	54,823	93.67%

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	13	0	13	0.05%
C: Dictated responses to a scribe	3	0	3	0.01%
F: Used non-interfering assistive device	4	0	4	0.01%
G: Used Braille version of test	1	0	1	0.00%
H: Used large-print version of test	7	0	7	0.02%
J: Tested during more than one day	6	3	9	0.03%
K: Had supervised breaks	46	32	78	0.27%
L: Most beneficial time of day	32	2	34	0.12%
M: Administered at home or in a hospital	1	0	1	0.00%
N: Used a dictionary	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0.00%
Q: Used a calculator	3	10	13	0.05%
R: Used an arithmetic table	4	0	4	0.01%
S: Used math manipulatives	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0.00%
X: Used an unlisted accommodation	16	4	20	0.07%
Y: Leave blank	3	4	7	0.02%
Z: Examiner read test questions aloud	63	16	79	0.28%
Accom. or Mod. is in Section 504 plan	0	0	0	0.00%
Accom. or Mod. is in IEP	136	49	185	0.65%
English Learner Test Variation A	3	0	3	0.01%
English Learner Test Variation B	0	0	0	0.00%
English Learner Test Variation C	0	2	2	0.01%
English Learner Test Variation D	6	0	6	0.02%
Any Accom., Mod., or EL Variation	154	53	207	0.72%
No Accom., Mod., or EL Variation	23,138	5,260	28,398	99.28%

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	3	70	64	51	29	217	0.03%
C: Dictated responses to a scribe	1	7	11	7	9	35	0.00%
F: Used non-interfering assistive device	1	22	5	2	1	31	0.00%
G: Used Braille version of test	1	6	7	10	0	24	0.00%
H: Used large-print version of test	5	69	45	36	18	173	0.02%
J: Tested during more than one day	3	51	171	113	75	413	0.06%
K: Had supervised breaks	4	433	1,101	1,013	606	3,157	0.42%
L: Most beneficial time of day	7	110	194	212	116	639	0.09%
M: Administered at home or in a hospital	1	40	46	44	23	154	0.02%
N: Used a dictionary	0	1	35	15	4	55	0.01%
O: Examiner presented using MCE or ASL	0	4	2	7	6	19	0.00%
Q: Used a calculator	0	45	758	820	518	2,141	0.29%
R: Used an arithmetic table	1	3	16	9	10	39	0.01%
S: Used math manipulatives	0	2	17	24	5	48	0.01%
V: Used interfering assistive device	0	5	0	0	0	5	0.00%
W: Used an unlisted modification	0	1	0	8	0	9	0.00%
X: Used an unlisted accommodation	6	230	240	243	144	863	0.11%
Y: Leave blank	0	55	57	52	38	202	0.03%
Z: Examiner read test questions aloud	3	211	299	249	133	895	0.12%
Accom. or Mod. is in Section 504 plan	4	58	40	43	17	162	0.02%
Accom. or Mod. is in IEP	20	892	2,120	1,975	1,180	6,187	0.82%
English Learner Test Variation A	1	208	480	290	107	1,086	0.14%
English Learner Test Variation B	0	58	102	52	28	240	0.03%
English Learner Test Variation C	3	217	743	526	208	1,697	0.23%
English Learner Test Variation D	8	358	958	659	242	2,225	0.30%
Any Accom., Mod., or EL Variation	36	1,646	3,925	3,210	1,704	10,521	1.40%
No Accom., Mod., or EL Variation	31,451	272,583	265,772	115,152	55,093	740,051	98.60%
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	1	17	12	5	0	35	0.01%
C: Dictated responses to a scribe	0	0	4	2	0	6	0.00%
F: Used non-interfering assistive device	1	1	2	1	0	5	0.00%
G: Used Braille version of test	0	1	1	1	0	3	0.00%
H: Used large-print version of test	2	13	5	3	1	24	0.00%
J: Tested during more than one day	0	5	12	6	2	25	0.00%
K: Had supervised breaks	1	63	106	78	54	302	0.04%
L: Most beneficial time of day	1	16	16	13	5	51	0.01%
M: Administered at home or in a hospital	1	30	33	15	9	88	0.01%
N: Used a dictionary	0	0	12	2	0	14	0.00%
O: Examiner presented using MCE or ASL	0	1	0	0	0	1	0.00%
Q: Used a calculator	0	3	48	43	25	119	0.02%

Special Services Summary for Algebra I							
R: Used an arithmetic table	1	0	1	1	0	3	0.00%
S: Used math manipulatives	0	1	0	2	0	3	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	2	0	2	0.00%
X: Used an unlisted accommodation	0	31	55	28	18	132	0.02%
Y: Leave blank	0	4	11	9	5	29	0.00%
Z: Examiner read test questions aloud	0	13	20	22	10	65	0.01%
Accom. or Mod. is in Section 504 plan	3	57	38	40	17	155	0.02%
Accom. or Mod. is in IEP	2	64	182	124	74	446	0.06%
English Learner Test Variation A	1	197	477	273	95	1,043	0.15%
English Learner Test Variation B	0	58	77	50	23	208	0.03%
English Learner Test Variation C	3	216	733	519	201	1,672	0.24%
English Learner Test Variation D	8	332	938	624	224	2,126	0.30%
Any Accom., Mod., or EL Variation	16	739	1,816	1,182	462	4,215	0.60%
No Accom., Mod., or EL Variation	31,047	264,226	249,001	102,402	47,557	694,233	99.40%
Students in Special Education	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	2	53	52	46	29	182	0.35%
C: Dictated responses to a scribe	1	7	7	5	9	29	0.06%
F: Used non-interfering assistive device	0	21	3	1	1	26	0.05%
G: Used Braille version of test	1	5	6	9	0	21	0.04%
H: Used large-print version of test	3	55	40	33	17	148	0.28%
J: Tested during more than one day	3	46	159	107	73	388	0.74%
K: Had supervised breaks	3	366	989	930	552	2,840	5.45%
L: Most beneficial time of day	6	94	175	197	111	583	1.12%
M: Administered at home or in a hospital	0	10	12	29	14	65	0.12%
N: Used a dictionary	0	1	23	13	4	41	0.08%
O: Examiner presented using MCE or ASL	0	3	2	7	6	18	0.03%
Q: Used a calculator	0	42	710	776	492	2,020	3.88%
R: Used an arithmetic table	0	3	15	8	10	36	0.07%
S: Used math manipulatives	0	1	17	22	5	45	0.09%
V: Used interfering assistive device	0	5	0	0	0	5	0.01%
W: Used an unlisted modification	0	1	0	6	0	7	0.01%
X: Used an unlisted accommodation	6	199	185	215	126	731	1.40%
Y: Leave blank	0	51	46	43	33	173	0.33%
Z: Examiner read test questions aloud	3	197	279	227	122	828	1.59%
Accom. or Mod. is in Section 504 plan	1	1	2	3	0	7	0.01%
Accom. or Mod. is in IEP	18	823	1,931	1,846	1,104	5,722	10.99%
English Learner Test Variation A	0	11	3	17	12	43	0.08%
English Learner Test Variation B	0	0	25	2	5	32	0.06%
English Learner Test Variation C	0	1	10	7	7	25	0.05%
English Learner Test Variation D	0	26	20	35	18	99	0.19%
Any Accom., Mod., or EL Variation	20	902	2,102	2,023	1,240	6,287	12.07%
No Accom., Mod., or EL Variation	404	8,354	16,764	12,745	7,535	45,802	87.93%

Special Services Summary for Algebra I

English-Only Students	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked responses in test booklet	2	50	38	40	22	152	0.04%
C: Dictated responses to a scribe	0	4	6	4	5	19	0.00%
F: Used non-interfering assistive device	1	10	1	1	0	13	0.00%
G: Used Braille version of test	0	4	1	6	0	11	0.00%
H: Used large-print version of test	2	43	31	28	10	114	0.03%
J: Tested during more than one day	2	30	117	92	65	306	0.07%
K: Had supervised breaks	3	275	661	703	407	2,049	0.50%
L: Most beneficial time of day	7	73	138	165	94	477	0.12%
M: Administered at home or in a hospital	0	26	31	33	16	106	0.03%
N: Used a dictionary	0	0	17	6	2	25	0.01%
O: Examiner presented using MCE or ASL	0	3	0	6	3	12	0.00%
Q: Used a calculator	0	40	440	529	361	1,370	0.33%
R: Used an arithmetic table	1	1	11	7	4	24	0.01%
S: Used math manipulatives	0	0	10	8	5	23	0.01%
V: Used interfering assistive device	0	4	0	0	0	4	0.00%
W: Used an unlisted modification	0	1	0	7	0	8	0.00%
X: Used an unlisted accommodation	4	144	168	167	98	581	0.14%
Y: Leave blank	0	25	44	34	29	132	0.03%
Z: Examiner read test questions aloud	1	109	127	135	84	456	0.11%
Accom. or Mod. is in Section 504 plan	4	49	36	37	15	141	0.03%
Accom. or Mod. is in IEP	12	531	1,264	1,311	818	3,936	0.96%
English Learner Test Variation A	0	3	12	0	1	16	0.00%
English Learner Test Variation B	0	1	1	0	0	2	0.00%
English Learner Test Variation C	0	3	12	7	4	26	0.01%
English Learner Test Variation D	0	1	6	3	4	14	0.00%
Any Accom., Mod., or EL Variation	17	650	1,426	1,461	925	4,479	1.09%
No Accom., Mod., or EL Variation	18,602	150,685	143,929	63,401	29,534	406,151	98.91%
Initially Fluent English Proficient (I-FEP) Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	4	3	2	0	9	0.02%
C: Dictated responses to a scribe	0	0	1	0	1	2	0.00%
F: Used non-interfering assistive device	0	1	1	0	0	2	0.00%
G: Used Braille version of test	0	2	0	1	0	3	0.01%
H: Used large-print version of test	0	3	0	2	0	5	0.01%
J: Tested during more than one day	1	3	2	0	0	6	0.01%
K: Had supervised breaks	1	13	36	24	12	86	0.16%
L: Most beneficial time of day	0	1	7	6	2	16	0.03%
M: Administered at home or in a hospital	0	3	1	1	1	6	0.01%
N: Used a dictionary	0	0	1	0	0	1	0.00%
O: Examiner presented using MCE or ASL	0	0	1	0	0	1	0.00%
Q: Used a calculator	0	0	17	27	13	57	0.10%
R: Used an arithmetic table	0	0	1	0	1	2	0.00%
S: Used math manipulatives	0	0	1	1	0	2	0.00%

Special Services Summary for Algebra I							
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	1	7	5	8	4	25	0.05%
Y: Leave blank	0	8	3	1	0	12	0.02%
Z: Examiner read test questions aloud	1	5	10	7	4	27	0.05%
Accom. or Mod. is in Section 504 plan	0	3	0	0	1	4	0.01%
Accom. or Mod. is in IEP	2	35	68	63	27	195	0.36%
English Learner Test Variation A	0	1	1	0	0	2	0.00%
English Learner Test Variation B	0	0	0	0	0	0	0.00%
English Learner Test Variation C	0	2	3	0	0	5	0.01%
English Learner Test Variation D	0	9	2	1	3	15	0.03%
Any Accom., Mod., or EL Variation	2	53	75	68	35	233	0.42%
No Accom., Mod., or EL Variation	4,618	21,056	18,536	7,019	3,379	54,608	99.58%
English Learner (EL) Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	10	13	7	5	35	0.03%
C: Dictated responses to a scribe	0	2	2	1	3	8	0.01%
F: Used non-interfering assistive device	0	10	1	0	1	12	0.01%
G: Used Braille version of test	0	0	1	2	0	3	0.00%
H: Used large-print version of test	0	8	8	4	7	27	0.02%
J: Tested during more than one day	0	17	47	19	9	92	0.07%
K: Had supervised breaks	0	109	343	249	169	870	0.65%
L: Most beneficial time of day	0	24	40	30	17	111	0.08%
M: Administered at home or in a hospital	1	6	7	8	5	27	0.02%
N: Used a dictionary	0	1	15	8	1	25	0.02%
O: Examiner presented using MCE or ASL	0	1	1	1	1	4	0.00%
Q: Used a calculator	0	5	261	226	127	619	0.47%
R: Used an arithmetic table	0	2	4	2	2	10	0.01%
S: Used math manipulatives	0	2	4	15	0	21	0.02%
V: Used interfering assistive device	0	1	0	0	0	1	0.00%
W: Used an unlisted modification	0	0	0	1	0	1	0.00%
X: Used an unlisted accommodation	1	69	57	59	39	225	0.17%
Y: Leave blank	0	20	8	15	9	52	0.04%
Z: Examiner read test questions aloud	1	90	143	96	43	373	0.28%
Accom. or Mod. is in Section 504 plan	0	3	3	3	0	9	0.01%
Accom. or Mod. is in IEP	2	258	668	518	302	1,748	1.32%
English Learner Test Variation A	1	202	464	288	104	1,059	0.80%
English Learner Test Variation B	0	57	99	52	28	236	0.18%
English Learner Test Variation C	3	211	717	516	203	1,650	1.24%
English Learner Test Variation D	8	341	944	653	234	2,180	1.64%
Any Accom., Mod., or EL Variation	13	856	2,280	1,584	703	5,436	4.09%
No Accom., Mod., or EL Variation	724	32,550	51,986	27,786	14,372	127,418	95.91%

Special Services Summary for Algebra I							
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	6	10	2	2	21	0.01%
C: Dictated responses to a scribe	1	1	2	2	0	6	0.00%
F: Used non-interfering assistive device	0	1	2	1	0	4	0.00%
G: Used Braille version of test	1	0	5	0	0	6	0.00%
H: Used large-print version of test	3	14	6	2	1	26	0.02%
J: Tested during more than one day	0	1	4	1	1	7	0.00%
K: Had supervised breaks	0	31	53	30	15	129	0.09%
L: Most beneficial time of day	0	11	9	8	2	30	0.02%
M: Administered at home or in a hospital	0	5	6	2	1	14	0.01%
N: Used a dictionary	0	0	2	1	1	4	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	1	1	0.00%
Q: Used a calculator	0	0	39	33	15	87	0.06%
R: Used an arithmetic table	0	0	0	0	3	3	0.00%
S: Used math manipulatives	0	0	2	0	0	2	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	10	9	8	3	30	0.02%
Y: Leave blank	0	2	2	2	0	6	0.00%
Z: Examiner read test questions aloud	0	6	17	11	2	36	0.02%
Accom. or Mod. is in Section 504 plan	0	3	1	3	1	8	0.01%
Accom. or Mod. is in IEP	4	62	109	73	29	277	0.18%
English Learner Test Variation A	0	1	2	1	0	4	0.00%
English Learner Test Variation B	0	0	2	0	0	2	0.00%
English Learner Test Variation C	0	0	10	2	0	12	0.01%
English Learner Test Variation D	0	7	4	1	0	12	0.01%
Any Accom., Mod., or EL Variation	4	80	129	84	34	331	0.22%
No Accom., Mod., or EL Variation	7,477	67,959	50,806	16,639	7,660	150,541	99.78%

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	5	20	45	32	102	0.02%
C: Dictated responses to a scribe	0	4	7	5	16	0.00%
F: Used non-interfering assistive device	1	1	6	1	9	0.00%
G: Used Braille version of test	0	2	5	3	10	0.00%
H: Used large-print version of test	3	12	36	21	72	0.02%
J: Tested during more than one day	2	7	39	40	88	0.02%
K: Had supervised breaks	4	77	533	368	982	0.24%
L: Most beneficial time of day	2	16	75	71	164	0.04%
M: Administered at home or in a hospital	0	7	22	21	50	0.01%
N: Used a dictionary	0	0	18	20	38	0.01%
O: Examiner presented using MCE or ASL	0	1	15	18	34	0.01%
Q: Used a calculator	1	78	508	408	995	0.24%
R: Used an arithmetic table	0	0	7	25	32	0.01%
S: Used math manipulatives	0	0	7	20	27	0.01%
V: Used interfering assistive device	0	0	6	0	6	0.00%
W: Used an unlisted modification	0	0	4	2	6	0.00%
X: Used an unlisted accommodation	1	18	88	79	186	0.05%
Y: Leave blank	0	4	30	34	68	0.02%
Z: Examiner read test questions aloud	0	15	158	132	305	0.07%
Accom. or Mod. is in Section 504 plan	3	12	21	25	61	0.01%
Accom. or Mod. is in IEP	12	174	1,108	857	2,151	0.52%
English Learner Test Variation A	0	28	140	86	254	0.06%
English Learner Test Variation B	0	3	47	29	79	0.02%
English Learner Test Variation C	3	63	218	201	485	0.12%
English Learner Test Variation D	0	168	378	261	807	0.20%
Any Accom., Mod., or EL Variation	18	436	1,798	1,388	3,640	0.89%
No Accom., Mod., or EL Variation	22,929	134,104	169,317	80,293	406,643	99.11%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	2	8	6	17	0.00%
C: Dictated responses to a scribe	0	2	1	1	4	0.00%
F: Used non-interfering 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	1	0	5	3	9	0.00%
J: Tested during more than one day	0	2	4	4	10	0.00%
K: Had supervised breaks	1	6	49	27	83	0.02%
L: Most beneficial time of day	0	0	15	11	26	0.01%
M: Administered at home or in a hospital	0	5	18	11	34	0.01%
N: Used a dictionary	0	0	4	3	7	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	6	27	23	56	0.01%
R: Used an arithmetic table	0	0	0	2	2	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Geometry						
V: Used interfering assistive device	0	0	5	0	5	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	3	14	7	24	0.01%
Y: Leave blank	0	2	4	1	7	0.00%
Z: Examiner read test questions aloud	0	1	5	5	11	0.00%
Accom. or Mod. is in Section 504 plan	3	9	19	23	54	0.01%
Accom. or Mod. is in IEP	0	7	56	38	101	0.03%
English Learner Test Variation A	0	23	128	78	229	0.06%
English Learner Test Variation B	0	3	36	24	63	0.02%
English Learner Test Variation C	3	61	216	199	479	0.12%
English Learner Test Variation D	0	168	370	242	780	0.20%
Any Accom., Mod., or EL Variation	6	249	658	468	1,381	0.35%
No Accom., Mod., or EL Variation	22,723	131,867	160,648	73,908	389,146	99.65%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	4	18	37	26	85	0.43%
C: Dictated responses to a scribe	0	2	6	4	12	0.06%
F: Used non-interfering assistive device	1	1	6	1	9	0.05%
G: Used Braille version of test	0	2	5	3	10	0.05%
H: Used large-print version of test	2	12	31	18	63	0.32%
J: Tested during more than one day	2	5	34	36	77	0.39%
K: Had supervised breaks	3	71	483	341	898	4.55%
L: Most beneficial time of day	2	16	60	60	138	0.70%
M: Administered at home or in a hospital	0	2	4	10	16	0.08%
N: Used a dictionary	0	0	14	17	31	0.16%
O: Examiner presented using MCE or ASL	0	1	15	18	34	0.17%
Q: Used a calculator	1	72	481	385	939	4.75%
R: Used an arithmetic table	0	0	7	23	30	0.15%
S: Used math manipulatives	0	0	7	20	27	0.14%
V: Used interfering assistive device	0	0	1	0	1	0.01%
W: Used an unlisted modification	0	0	4	2	6	0.03%
X: Used an unlisted accommodation	1	15	74	72	162	0.82%
Y: Leave blank	0	2	26	33	61	0.31%
Z: Examiner read test questions aloud	0	14	153	127	294	1.49%
Accom. or Mod. is in Section 504 plan	0	3	2	2	7	0.04%
Accom. or Mod. is in IEP	12	167	1,051	819	2,049	10.37%
English Learner Test Variation A	0	5	12	8	25	0.13%
English Learner Test Variation B	0	0	11	5	16	0.08%
English Learner Test Variation C	0	2	2	2	6	0.03%
English Learner Test Variation D	0	0	8	19	27	0.14%
Any Accom., Mod., or EL Variation	12	187	1,139	920	2,258	11.43%
No Accom., Mod., or EL Variation	206	2,237	8,667	6,385	17,495	88.57%

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	12	35	27	78	0.03%
C: Dictated responses to a scribe	0	3	2	3	8	0.00%
F: Used non-interfering assistive device	1	0	4	1	6	0.00%
G: Used Braille version of test	0	1	2	2	5	0.00%
H: Used large-print version of test	1	7	21	19	48	0.02%
J: Tested during more than one day	1	5	27	28	61	0.03%
K: Had supervised breaks	0	49	335	207	591	0.26%
L: Most beneficial time of day	1	11	53	49	114	0.05%
M: Administered at home or in a hospital	0	7	14	15	36	0.02%
N: Used a dictionary	0	0	12	11	23	0.01%
O: Examiner presented using MCE or ASL	0	1	5	6	12	0.01%
Q: Used a calculator	1	41	286	253	581	0.26%
R: Used an arithmetic table	0	0	5	15	20	0.01%
S: Used math manipulatives	0	0	3	16	19	0.01%
V: Used interfering assistive device	0	0	1	0	1	0.00%
W: Used an unlisted modification	0	0	4	2	6	0.00%
X: Used an unlisted accommodation	1	10	59	58	128	0.06%
Y: Leave blank	0	4	18	23	45	0.02%
Z: Examiner read test questions aloud	0	11	80	64	155	0.07%
Accom. or Mod. is in Section 504 plan	2	9	19	22	52	0.02%
Accom. or Mod. is in IEP	7	107	642	524	1,280	0.56%
English Learner Test Variation A	0	0	0	1	1	0.00%
English Learner Test Variation B	0	0	1	0	1	0.00%
English Learner Test Variation C	1	0	1	0	2	0.00%
English Learner Test Variation D	0	1	0	0	1	0.00%
Any Accom., Mod., or EL Variation	10	130	722	599	1,461	0.64%
No Accom., Mod., or EL Variation	13,451	77,841	92,308	42,417	226,017	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	3	1	1	5	0.01%
C: Dictated responses to a scribe	0	1	0	1	2	0.01%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	1	1	0	2	0.01%
H: Used large-print version of test	0	1	0	1	2	0.01%
J: Tested during more than one day	1	1	1	1	4	0.01%
K: Had supervised breaks	2	2	15	11	30	0.08%
L: Most beneficial time of day	1	0	2	1	4	0.01%
M: Administered at home or in a hospital	0	0	1	1	2	0.01%
N: Used a dictionary	0	0	1	0	1	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	2	21	15	38	0.10%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Geometry						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	3	0	3	0.01%
Y: Leave blank	0	0	0	2	2	0.01%
Z: Examiner read test questions aloud	0	1	4	2	7	0.02%
Accom. or Mod. is in Section 504 plan	1	2	0	0	3	0.01%
Accom. or Mod. is in IEP	1	6	39	29	75	0.20%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	1	0	1	0.00%
English Learner Test Variation C	0	1	0	0	1	0.00%
English Learner Test Variation D	0	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	2	11	42	33	88	0.24%
No Accom., Mod., or EL Variation	3,497	14,931	12,767	5,834	37,029	99.76%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	1	5	3	9	0.02%
C: Dictated responses to a scribe	0	0	3	0	3	0.01%
F: Used non-interfering assistive device	0	0	1	0	1	0.00%
G: Used Braille version of test	0	0	1	1	2	0.00%
H: Used large-print version of test	0	1	6	0	7	0.01%
J: Tested during more than one day	0	0	8	10	18	0.04%
K: Had supervised breaks	0	13	149	135	297	0.59%
L: Most beneficial time of day	0	5	13	16	34	0.07%
M: Administered at home or in a hospital	0	0	2	4	6	0.01%
N: Used a dictionary	0	0	4	8	12	0.02%
O: Examiner presented using MCE or ASL	0	0	9	12	21	0.04%
Q: Used a calculator	0	23	164	115	302	0.60%
R: Used an arithmetic table	0	0	2	9	11	0.02%
S: Used math manipulatives	0	0	4	3	7	0.01%
V: Used interfering assistive device	0	0	2	0	2	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	6	19	16	41	0.08%
Y: Leave blank	0	0	9	9	18	0.04%
Z: Examiner read test questions aloud	0	2	67	63	132	0.26%
Accom. or Mod. is in Section 504 plan	0	1	0	3	4	0.01%
Accom. or Mod. is in IEP	0	36	347	271	654	1.30%
English Learner Test Variation A	0	28	140	85	253	0.50%
English Learner Test Variation B	0	3	44	29	76	0.15%
English Learner Test Variation C	2	61	215	200	478	0.95%
English Learner Test Variation D	0	167	372	255	794	1.58%
Any Accom., Mod., or EL Variation	2	268	931	703	1,904	3.80%
No Accom., Mod., or EL Variation	263	7,841	24,467	15,676	48,247	96.20%

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	1	4	4	1	10	0.01%
C: Dictated responses to a scribe	0	0	2	1	3	0.00%
F: Used non-interfering assistive device	0	1	1	0	2	0.00%
G: Used Braille version of test	0	0	1	0	1	0.00%
H: Used large-print version of test	2	3	9	1	15	0.02%
J: Tested during more than one day	0	1	2	1	4	0.00%
K: Had supervised breaks	2	12	32	14	60	0.06%
L: Most beneficial time of day	0	0	6	4	10	0.01%
M: Administered at home or in a hospital	0	0	4	1	5	0.01%
N: Used a dictionary	0	0	1	1	2	0.00%
O: Examiner presented using MCE or ASL	0	0	1	0	1	0.00%
Q: Used a calculator	0	12	37	25	74	0.08%
R: Used an arithmetic table	0	0	0	1	1	0.00%
S: Used math manipulatives	0	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	3	0	3	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	2	7	5	14	0.01%
Y: Leave blank	0	0	2	0	2	0.00%
Z: Examiner read test questions aloud	0	1	6	3	10	0.01%
Accom. or Mod. is in Section 504 plan	0	0	2	0	2	0.00%
Accom. or Mod. is in IEP	4	24	75	32	135	0.14%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	1	0	1	0.00%
English Learner Test Variation C	0	0	2	1	3	0.00%
English Learner Test Variation D	0	0	3	5	8	0.01%
Any Accom., Mod., or EL Variation	4	25	94	52	175	0.18%
No Accom., Mod., or EL Variation	5,709	33,390	39,537	16,262	94,898	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	1	3	18	37	59	0.02%
C: Dictated responses to a scribe	0	1	5	11	17	0.01%
F: Used non-interfering assistive device	0	1	6	4	11	0.00%
G: Used Braille version of test	0	1	2	6	9	0.00%
H: Used large-print version of test	0	0	15	14	29	0.01%
J: Tested during more than one day	0	10	10	23	43	0.02%
K: Had supervised breaks	0	12	43	209	264	0.10%
L: Most beneficial time of day	0	0	13	28	41	0.02%
M: Administered at home or in a hospital	0	1	8	7	16	0.01%
N: Used a dictionary	0	0	1	16	17	0.01%
O: Examiner presented using MCE or ASL	0	0	2	5	7	0.00%
Q: Used a calculator	1	0	31	178	210	0.08%
R: Used an arithmetic table	0	0	0	1	1	0.00%
S: Used math manipulatives	0	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	1	0	1	0.00%
W: Used an unlisted modification	0	0	0	2	2	0.00%
X: Used an unlisted accommodation	0	5	10	34	49	0.02%
Y: Leave blank	0	0	3	9	12	0.00%
Z: Examiner read test questions aloud	0	1	11	43	55	0.02%
Accom. or Mod. is in Section 504 plan	0	0	13	15	28	0.01%
Accom. or Mod. is in IEP	1	18	101	392	512	0.19%
English Learner Test Variation A	0	0	21	51	72	0.03%
English Learner Test Variation B	0	0	1	18	19	0.01%
English Learner Test Variation C	0	18	75	101	194	0.07%
English Learner Test Variation D	0	22	82	118	222	0.08%
Any Accom., Mod., or EL Variation	1	53	277	663	994	0.37%
No Accom., Mod., or EL Variation	691	24,684	118,194	120,915	264,484	99.63%
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	5	4	9	0.00%
C: Dictated responses to a scribe	0	1	1	1	3	0.00%
F: Used non-interfering assistive device	0	0	3	0	3	0.00%
G: Used Braille version of test	0	0	0	1	1	0.00%
H: Used large-print version of test	0	0	2	1	3	0.00%
J: Tested during more than one day	0	2	1	1	4	0.00%
K: Had supervised breaks	0	2	8	32	42	0.02%
L: Most beneficial time of day	0	0	2	9	11	0.00%
M: Administered at home or in a hospital	0	1	5	5	11	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	0	3	13	16	0.01%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Algebra II						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	1	2	0.00%
Y: Leave blank	0	0	1	0	1	0.00%
Z: Examiner read test questions aloud	0	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 plan	0	0	12	15	27	0.01%
Accom. or Mod. is in IEP	0	3	5	30	38	0.01%
English Learner Test Variation A	0	0	18	46	64	0.02%
English Learner Test Variation B	0	0	1	13	14	0.01%
English Learner Test Variation C	0	18	74	100	192	0.07%
English Learner Test Variation D	0	22	81	116	219	0.08%
Any Accom., Mod., or EL Variation	0	38	168	262	468	0.18%
No Accom., Mod., or EL Variation	680	24,468	116,659	117,540	259,347	99.82%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	3	13	33	50	0.88%
C: Dictated responses to a scribe	0	0	3	10	13	0.23%
F: Used non-interfering assistive device	0	1	3	4	8	0.14%
G: Used Braille version of test	0	1	2	5	8	0.14%
H: Used large-print version of test	0	0	13	13	26	0.46%
J: Tested during more than one day	0	8	9	22	39	0.69%
K: Had supervised breaks	0	10	35	177	222	3.92%
L: Most beneficial time of day	0	0	11	19	30	0.53%
M: Administered at home or in a hospital	0	0	3	2	5	0.09%
N: Used a dictionary	0	0	1	15	16	0.28%
O: Examiner presented using MCE or ASL	0	0	2	5	7	0.12%
Q: Used a calculator	1	0	28	165	194	3.43%
R: Used an arithmetic table	0	0	0	1	1	0.02%
S: Used math manipulatives	0	0	1	0	1	0.02%
V: Used interfering assistive device	0	0	1	0	1	0.02%
W: Used an unlisted modification	0	0	0	2	2	0.04%
X: Used an unlisted accommodation	0	4	10	33	47	0.83%
Y: Leave blank	0	0	2	9	11	0.19%
Z: Examiner read test questions aloud	0	1	10	42	53	0.94%
Accom. or Mod. is in Section 504 plan	0	0	1	0	1	0.02%
Accom. or Mod. is in IEP	1	15	95	362	473	8.36%
English Learner Test Variation A	0	0	3	5	8	0.14%
English Learner Test Variation B	0	0	0	5	5	0.09%
English Learner Test Variation C	0	0	1	1	2	0.04%
English Learner Test Variation D	0	0	1	2	3	0.05%
Any Accom., Mod., or EL Variation	1	15	108	401	525	9.27%
No Accom., Mod., or EL Variation	11	216	1,534	3,375	5,136	90.73%

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	1	2	12	30	45	0.03%
C: Dictated responses to a scribe	0	0	3	8	11	0.01%
F: Used non-interfering assistive device	0	0	3	2	5	0.00%
G: Used Braille version of test	0	0	1	4	5	0.00%
H: Used large-print version of test	0	0	11	11	22	0.01%
J: Tested during more than one day	0	0	6	11	17	0.01%
K: Had supervised breaks	0	1	26	126	153	0.10%
L: Most beneficial time of day	0	0	5	19	24	0.02%
M: Administered at home or in a hospital	0	1	6	4	11	0.01%
N: Used a dictionary	0	0	1	10	11	0.01%
O: Examiner presented using MCE or ASL	0	0	2	4	6	0.00%
Q: Used a calculator	1	0	21	108	130	0.09%
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	2	2	0.00%
X: Used an unlisted accommodation	0	1	6	26	33	0.02%
Y: Leave blank	0	0	3	7	10	0.01%
Z: Examiner read test questions aloud	0	0	9	21	30	0.02%
Accom. or Mod. is in Section 504 plan	0	0	9	15	24	0.02%
Accom. or Mod. is in IEP	1	4	66	248	319	0.21%
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	1	1	0.00%
English Learner Test Variation D	0	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	1	5	87	281	374	0.25%
No Accom., Mod., or EL Variation	392	13,822	69,302	67,294	150,810	99.75%
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	4	7	0.02%
C: Dictated responses to a scribe	0	0	2	1	3	0.01%
F: Used non-interfering assistive device	0	1	0	0	1	0.00%
G: Used Braille version of test	0	1	1	1	3	0.01%
H: Used large-print version of test	0	0	1	2	3	0.01%
J: Tested during more than one day	0	0	0	3	3	0.01%
K: Had supervised breaks	0	0	2	20	22	0.08%
L: Most beneficial time of day	0	0	0	1	1	0.00%
M: Administered at home or in a hospital	0	0	0	1	1	0.00%
N: Used a dictionary	0	0	0	2	2	0.01%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	10	11	0.04%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Algebra II						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	2	0.01%
Accom. or Mod. is in Section 504 plan	0	0	3	0	3	0.01%
Accom. or Mod. is in IEP	0	2	4	25	31	0.11%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	0	1	0.00%
English Learner Test Variation D	0	0	1	0	1	0.00%
Any Accom., Mod., or EL Variation	0	2	10	28	40	0.14%
No Accom., Mod., or EL Variation	154	4,101	13,486	10,395	28,136	99.86%
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	2	3	0.02%
C: Dictated responses to a scribe	0	0	0	1	1	0.01%
F: Used non-interfering assistive device	0	0	2	1	3	0.02%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	1	1	0.01%
J: Tested during more than one day	0	9	4	7	20	0.11%
K: Had supervised breaks	0	10	13	45	68	0.37%
L: Most beneficial time of day	0	0	7	7	14	0.08%
M: Administered at home or in a hospital	0	0	1	0	1	0.01%
N: Used a dictionary	0	0	0	3	3	0.02%
O: Examiner presented using MCE or ASL	0	0	0	1	1	0.01%
Q: Used a calculator	0	0	8	37	45	0.24%
R: Used an arithmetic table	0	0	0	0	0	0.00%
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	4	4	7	15	0.08%
Y: Leave blank	0	0	0	1	1	0.01%
Z: Examiner read test questions aloud	0	1	0	19	20	0.11%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	10	25	82	117	0.64%
English Learner Test Variation A	0	0	17	51	68	0.37%
English Learner Test Variation B	0	0	1	18	19	0.10%
English Learner Test Variation C	0	18	72	99	189	1.03%
English Learner Test Variation D	0	22	74	113	209	1.14%
Any Accom., Mod., or EL Variation	0	44	163	306	513	2.79%
No Accom., Mod., or EL Variation	6	771	5,236	11,858	17,871	97.21%

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	0	3	1	4	0.01%
C: Dictated responses to a scribe	0	1	0	1	2	0.00%
F: Used non-interfering assistive device	0	0	1	1	2	0.00%
G: Used Braille version of test	0	0	0	1	1	0.00%
H: Used large-print version of test	0	0	3	0	3	0.00%
J: Tested during more than one day	0	1	0	1	2	0.00%
K: Had supervised breaks	0	1	2	16	19	0.03%
L: Most beneficial time of day	0	0	1	1	2	0.00%
M: Administered at home or in a hospital	0	0	1	2	3	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	0	1	23	24	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	1	0	1	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	1	1	0.00%
Y: Leave blank	0	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	1	2	3	0.00%
Accom. or Mod. is in Section 504 plan	0	0	1	0	1	0.00%
Accom. or Mod. is in IEP	0	2	6	35	43	0.06%
English Learner Test Variation A	0	0	4	0	4	0.01%
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	7	3	10	0.01%
Any Accom., Mod., or EL Variation	0	2	17	45	64	0.09%
No Accom., Mod., or EL Variation	139	5,975	30,087	31,233	67,434	99.91%

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	1	11	12	0.01%
C: Dictated responses to a scribe	0	3	7	10	0.01%
F: Used non-interfering assistive device	0	0	3	3	0.00%
G: Used Braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	0	1	19	20	0.02%
J: Tested during more than one day	0	5	16	21	0.02%
K: Had supervised breaks	1	8	35	44	0.03%
L: Most beneficial time of day	1	5	18	24	0.02%
M: Administered at home or in a hospital	0	1	5	6	0.00%
N: Used a dictionary	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	0.00%
Q: Used a calculator	0	1	23	24	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	7	8	0.01%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	6	6	0.00%
Accom. or Mod. is in Section 504 plan	0	1	11	12	0.01%
Accom. or Mod. is in IEP	1	10	80	91	0.07%
English Learner Test Variation A	0	0	9	9	0.01%
English Learner Test Variation B	0	0	1	1	0.00%
English Learner Test Variation C	0	4	50	54	0.04%
English Learner Test Variation D	0	4	26	30	0.02%
Any Accom., Mod., or EL Variation	1	22	160	183	0.14%
No Accom., Mod., or EL Variation	688	20,211	109,619	130,518	99.86%
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	2	2	4	0.00%
F: Used non-interfering 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	3	3	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	1	5	6	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	3	3	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	1	1	0.00%

Special Services Summary for Summative High School Mathematics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	3	3	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	1	9	10	0.01%
Accom. or Mod. is in IEP	0	0	8	8	0.01%
English Learner Test Variation A	0	0	7	7	0.01%
English Learner Test Variation B	0	0	1	1	0.00%
English Learner Test Variation C	0	4	50	54	0.04%
English Learner Test Variation D	0	4	26	30	0.02%
Any Accom., Mod., or EL Variation	0	10	81	91	0.07%
No Accom., Mod., or EL Variation	677	20,097	108,756	129,530	99.93%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	1	11	12	1.11%
C: Dictated responses to a scribe	0	1	5	6	0.56%
F: Used non-interfering assistive device	0	0	2	2	0.19%
G: Used Braille version of test	0	0	1	1	0.09%
H: Used large-print version of test	0	1	16	17	1.58%
J: Tested during more than one day	0	5	16	21	1.95%
K: Had supervised breaks	1	8	32	41	3.80%
L: Most beneficial time of day	1	5	16	22	2.04%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	1	1	0.09%
O: Examiner presented using MCE or ASL	0	0	1	1	0.09%
Q: Used a calculator	0	1	20	21	1.95%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	4	5	0.46%
Y: Leave blank	0	0	1	1	0.09%
Z: Examiner read test questions aloud	0	0	6	6	0.56%
Accom. or Mod. is in Section 504 plan	0	0	2	2	0.19%
Accom. or Mod. is in IEP	1	10	72	83	7.70%
English Learner Test Variation A	0	0	2	2	0.19%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	12	79	92	8.53%
No Accom., Mod., or EL Variation	10	114	862	986	91.47%

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	1	9	10	0.01%
C: Dictated responses to a scribe	0	3	6	9	0.01%
F: Used non-interfering assistive device	0	0	3	3	0.00%
G: Used Braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	0	1	16	17	0.02%
J: Tested during more than one day	0	5	16	21	0.03%
K: Had supervised breaks	1	8	29	38	0.05%
L: Most beneficial time of day	1	5	16	22	0.03%
M: Administered at home or in a hospital	0	1	4	5	0.01%
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	0	1	17	18	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	6	6	0.01%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	6	6	0.01%
Accom. or Mod. is in Section 504 plan	0	1	10	11	0.01%
Accom. or Mod. is in IEP	1	10	65	76	0.10%
English Learner Test Variation A	0	0	1	1	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	14	81	96	0.12%
No Accom., Mod., or EL Variation	325	11,301	65,150	76,776	99.88%
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 non-interfering 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	1	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	0	0	2	2	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Summative High School Mathematics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	3	3	0.02%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.01%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	4	4	0.02%
No Accom., Mod., or EL Variation	180	3,601	14,315	18,096	99.98%
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	1	1	0.03%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	1	0.03%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	3	3	0.10%
L: Most beneficial time of day	0	0	1	1	0.03%
M: Administered at home or in a hospital	0	0	1	1	0.03%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	4	4	0.13%
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	1	1	0.03%
Accom. or Mod. is in IEP	0	0	6	6	0.19%
English Learner Test Variation A	0	0	8	8	0.25%
English Learner Test Variation B	0	0	1	1	0.03%
English Learner Test Variation C	0	4	49	53	1.69%
English Learner Test Variation D	0	4	26	30	0.95%
Any Accom., Mod., or EL Variation	0	7	69	76	2.42%
No Accom., Mod., or EL Variation	20	338	2,710	3,068	97.58%

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	0	2	2	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	2	2	0.01%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	3	3	0.01%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
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	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	1	1	2	0.01%
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	6	6	0.02%
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	6	7	0.02%
No Accom., Mod., or EL Variation	163	4,960	27,382	32,505	99.98%

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

Special Services Summary for Integrated Mathematics 1						
All Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	1	3	4	0.04%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	1	1	2	0.02%
G: Used Braille version of test	0	0	1	0	1	0.01%
H: Used large-print version of test	0	2	3	6	11	0.10%
J: Tested during more than one day	1	0	1	1	3	0.03%
K: Had supervised breaks	1	18	68	36	123	1.08%
L: Most beneficial time of day	1	1	8	9	19	0.17%
M: Administered at home or in a hospital	0	1	0	1	2	0.02%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	8	8	0.07%
Q: Used a calculator	0	2	15	50	67	0.59%
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	9	13	22	0.19%
Y: Leave blank	0	0	1	0	1	0.01%
Z: Examiner read test questions aloud	0	0	13	5	18	0.16%
Accom. or Mod. is in Section 504 plan	0	6	1	2	9	0.08%
Accom. or Mod. is in IEP	1	14	88	97	200	1.76%
English Learner Test Variation A	0	1	2	1	4	0.04%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	4	1	5	0.04%
English Learner Test Variation D	0	1	0	3	4	0.04%
Any Accom., Mod., or EL Variation	1	23	98	110	232	2.04%
No Accom., Mod., or EL Variation	38	1,355	4,002	5,730	11,125	97.96%
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 non-interfering 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	0	1	2	0.02%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	7	4	1	12	0.12%
L: Most beneficial time of day	0	0	0	1	1	0.01%
M: Administered at home or in a hospital	0	1	0	0	1	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	1	2	0.02%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 1						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	3	0	3	0.03%
Accom. or Mod. is in Section 504 plan	0	5	1	2	8	0.08%
Accom. or Mod. is in IEP	0	2	4	1	7	0.07%
English Learner Test Variation A	0	1	2	1	4	0.04%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	4	1	5	0.05%
English Learner Test Variation D	0	1	0	3	4	0.04%
Any Accom., Mod., or EL Variation	0	10	10	6	26	0.26%
No Accom., Mod., or EL Variation	36	1,274	3,663	5,136	10,109	99.74%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	1	3	4	0.33%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	1	1	2	0.16%
G: Used Braille version of test	0	0	1	0	1	0.08%
H: Used large-print version of test	0	1	3	5	9	0.74%
J: Tested during more than one day	1	0	1	1	3	0.25%
K: Had supervised breaks	1	11	64	35	111	9.08%
L: Most beneficial time of day	1	1	8	8	18	1.47%
M: Administered at home or in a hospital	0	0	0	1	1	0.08%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	8	8	0.65%
Q: Used a calculator	0	2	14	49	65	5.32%
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	9	13	22	1.80%
Y: Leave blank	0	0	1	0	1	0.08%
Z: Examiner read test questions aloud	0	0	10	5	15	1.23%
Accom. or Mod. is in Section 504 plan	0	1	0	0	1	0.08%
Accom. or Mod. is in IEP	1	12	84	96	193	15.79%
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	1	13	88	104	206	16.86%
No Accom., Mod., or EL Variation	2	81	339	594	1,016	83.14%

Special Services Summary for Integrated Mathematics 1						
English-Only Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	1	2	3	0.04%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	1	1	2	0.03%
G: Used Braille version of test	0	0	1	0	1	0.01%
H: Used large-print version of test	0	2	3	4	9	0.13%
J: Tested during more than one day	1	0	1	0	2	0.03%
K: Had supervised breaks	1	14	41	28	84	1.22%
L: Most beneficial time of day	1	1	8	9	19	0.28%
M: Administered at home or in a hospital	0	0	0	1	1	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	3	3	0.04%
Q: Used a calculator	0	2	11	28	41	0.59%
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	7	11	18	0.26%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	4	3	7	0.10%
Accom. or Mod. is in Section 504 plan	0	6	1	2	9	0.13%
Accom. or Mod. is in IEP	1	10	55	61	127	1.84%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	16	58	70	145	2.10%
No Accom., Mod., or EL Variation	18	861	2,401	3,479	6,759	97.90%
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 non-interfering 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	0.11%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	2	0	1	3	0.33%
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	2	2	0.22%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 1						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	1	1	0.11%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	0	1	0.11%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	2	1	4	7	0.78%
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	2	1	4	7	0.78%
No Accom., Mod., or EL Variation	2	114	303	471	890	99.22%
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 non-interfering 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	23	5	29	1.68%
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	5	5	0.29%
Q: Used a calculator	0	0	0	16	16	0.93%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	2	1	3	0.17%
Y: Leave blank	0	0	1	0	1	0.06%
Z: Examiner read test questions aloud	0	0	7	1	8	0.46%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	1	26	26	53	3.07%
English Learner Test Variation A	0	1	2	1	4	0.23%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	4	1	5	0.29%
English Learner Test Variation D	0	1	0	3	4	0.23%
Any Accom., Mod., or EL Variation	0	3	31	30	64	3.71%
No Accom., Mod., or EL Variation	9	146	600	907	1,662	96.29%

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	1	1	0.06%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	1	1	0.06%
J: Tested during more than one day	0	0	0	1	1	0.06%
K: Had supervised breaks	0	1	4	2	7	0.39%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	1	0	0	1	0.06%
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	4	8	0.44%
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	1	1	2	0.11%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	1	6	6	13	0.72%
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	2	8	6	16	0.89%
No Accom., Mod., or EL Variation	9	228	686	864	1,787	99.11%

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

Special Services Summary for Integrated Mathematics 2						
All Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	1	0	1	0.03%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	1	2	0.05%
J: Tested during more than one day	0	0	1	1	2	0.05%
K: Had supervised breaks	0	0	11	8	19	0.49%
L: Most beneficial time of day	0	0	0	1	1	0.03%
M: Administered at home or in a hospital	0	0	0	1	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	2	1	2	5	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	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	23	24	0.62%
Accom. or Mod. is in Section 504 plan	0	0	2	0	2	0.05%
Accom. or Mod. is in IEP	0	2	12	31	45	1.17%
English Learner Test Variation A	0	0	1	0	1	0.03%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	0	1	0.03%
English Learner Test Variation D	0	0	2	1	3	0.08%
Any Accom., Mod., or EL Variation	0	2	16	33	51	1.33%
No Accom., Mod., or EL Variation	2	359	1,101	2,333	3,795	98.67%
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	0.03%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	0	1	0.03%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	1	0	1	0.03%
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	0.03%
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	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 2						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	2	0	2	0.06%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	1	0	1	0.03%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	0	1	0.03%
English Learner Test Variation D	0	0	2	1	3	0.08%
Any Accom., Mod., or EL Variation	0	0	4	2	6	0.17%
No Accom., Mod., or EL Variation	2	342	1,062	2,200	3,606	99.83%
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 non-interfering 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	0.43%
J: Tested during more than one day	0	0	1	1	2	0.85%
K: Had supervised breaks	0	0	10	8	18	7.69%
L: Most beneficial time of day	0	0	0	1	1	0.43%
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	2	1	2	5	2.14%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	23	24	10.26%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	2	12	31	45	19.23%
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	2	12	31	45	19.23%
No Accom., Mod., or EL Variation	0	17	39	133	189	80.77%

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 non-interfering 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	0.04%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	8	3	11	0.44%
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	0.04%
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	2	1	2	5	0.20%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	10	11	0.44%
Accom. or Mod. is in Section 504 plan	0	0	1	0	1	0.04%
Accom. or Mod. is in IEP	0	2	9	15	26	1.05%
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	2	10	16	28	1.13%
No Accom., Mod., or EL Variation	2	240	659	1,558	2,459	98.87%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 2						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	0	21	81	170	272	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 non-interfering 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	1	2	0.47%
K: Had supervised breaks	0	0	1	3	4	0.94%
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	12	12	2.81%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	13	14	3.28%
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	1	1	2	0.47%
Any Accom., Mod., or EL Variation	0	0	2	14	16	3.75%
No Accom., Mod., or EL Variation	0	30	109	272	411	96.25%

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	1	0	1	0.15%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	0	1	0.15%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	2	2	4	0.61%
L: Most beneficial time of day	0	0	0	1	1	0.15%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	1	1	0.15%
Accom. or Mod. is in Section 504 plan	0	0	1	0	1	0.15%
Accom. or Mod. is in IEP	0	0	2	3	5	0.76%
English Learner Test Variation A	0	0	1	0	1	0.15%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	0	1	0.15%
English Learner Test Variation D	0	0	1	0	1	0.15%
Any Accom., Mod., or EL Variation	0	0	4	3	7	1.07%
No Accom., Mod., or EL Variation	0	64	251	332	647	98.93%

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 non-interfering 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	2	2	0.25%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	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	0.13%
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	0.13%
Any Accom., Mod., or EL Variation	0	0	0	3	3	0.38%
No Accom., Mod., or EL Variation	7	77	323	387	794	99.62%
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 non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 3						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	1	1	0.13%
Any Accom., Mod., or EL Variation	0	0	0	1	1	0.13%
No Accom., Mod., or EL Variation	5	77	315	374	771	99.87%
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 non-interfering 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	2	2	8.00%
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	1	1	4.00%
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	2	2	8.00%
No Accom., Mod., or EL Variation	2	0	8	13	23	92.00%

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 non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	1	1	0.16%
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	1	1	0.16%
No Accom., Mod., or EL Variation	6	68	260	308	642	99.84%
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 non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%

Special Services Summary for Integrated Mathematics 3						
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	0	6	16	20	42	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 non-interfering assistive device	0	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	1	1	4.76%
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	1	1	4.76%
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	4.76%
Any Accom., Mod., or EL Variation	0	0	0	2	2	9.52%
No Accom., Mod., or EL Variation	0	1	5	13	19	90.48%

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 non-interfering 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	41	46	90	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	397	0.09%
C: Dictated responses to a scribe	25	0.01%
F: Used non-interfering assistive device	30	0.01%
G: Used Braille version of test	15	0.00%
H: Used large-print version of test	141	0.03%
J: Tested during more than one day	492	0.11%
K: Had supervised breaks	2,415	0.56%
L: Most beneficial time of day	856	0.20%
M: Administered at home or in a hospital	41	0.01%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	29	0.01%
Q: Used a calculator	17	0.00%
R: Used an arithmetic table	7	0.00%
S: Used math manipulatives	7	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	16	0.00%
X: Used an unlisted accommodation	663	0.15%
Y: Leave blank	115	0.03%
Z: Examiner read test questions aloud	2,603	0.60%
Accom. or Mod. is in Section 504 plan	293	0.07%
Accom. or Mod. is in IEP	4,894	1.13%
English Learner Test Variation A	215	0.05%
English Learner Test Variation B	65	0.02%
English Learner Test Variation C	120	0.03%
English Learner Test Variation D	31	0.01%
Any Accom., Mod., or EL Variation	5,729	1.32%
No Accom., Mod., or EL Variation	427,299	98.68%
Students Not in Special Education	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	72	0.02%
C: Dictated responses to a scribe	6	0.00%
F: Used non-interfering assistive device	7	0.00%
G: Used Braille version of test	3	0.00%
H: Used large-print version of test	30	0.01%
J: Tested during more than one day	68	0.02%
K: Had supervised breaks	320	0.08%
L: Most beneficial time of day	139	0.03%
M: Administered at home or in a hospital	27	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	2	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	2	0.00%
X: Used an unlisted accommodation	114	0.03%
Y: Leave blank	25	0.01%
Z: Examiner read test questions aloud	298	0.07%
Accom. or Mod. is in Section 504 plan	271	0.07%
Accom. or Mod. is in IEP	465	0.11%
English Learner Test Variation A	194	0.05%
English Learner Test Variation B	47	0.01%
English Learner Test Variation C	105	0.03%
English Learner Test Variation D	27	0.01%
Any Accom., Mod., or EL Variation	1,067	0.26%
No Accom., Mod., or EL Variation	406,006	99.74%
Students in Special Education	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	325	1.25%
C: Dictated responses to a scribe	18	0.07%
F: Used non-interfering assistive device	23	0.09%
G: Used Braille version of test	12	0.05%
H: Used large-print version of test	111	0.43%
J: Tested during more than one day	423	1.63%
K: Had supervised breaks	2,090	8.06%
L: Most beneficial time of day	715	2.76%
M: Administered at home or in a hospital	14	0.05%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	27	0.10%
Q: Used a calculator	17	0.07%
R: Used an arithmetic table	7	0.03%
S: Used math manipulatives	7	0.03%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	14	0.05%
X: Used an unlisted accommodation	547	2.11%
Y: Leave blank	90	0.35%
Z: Examiner read test questions aloud	2,301	8.87%
Accom. or Mod. is in Section 504 plan	22	0.08%
Accom. or Mod. is in IEP	4,419	17.04%
English Learner Test Variation A	21	0.08%
English Learner Test Variation B	18	0.07%
English Learner Test Variation C	15	0.06%
English Learner Test Variation D	4	0.02%
Any Accom., Mod., or EL Variation	4,652	17.94%
No Accom., Mod., or EL Variation	21,284	82.06%

Special Services Summary for Science, Grade Five		
English-Only Students	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	298	0.12%
C: Dictated responses to a scribe	22	0.01%
F: Used non-interfering assistive device	22	0.01%
G: Used Braille version of test	7	0.00%
H: Used large-print version of test	99	0.04%
J: Tested during more than one day	375	0.16%
K: Had supervised breaks	1,562	0.65%
L: Most beneficial time of day	591	0.24%
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	11	0.00%
Q: Used a calculator	13	0.01%
R: Used an arithmetic table	4	0.00%
S: Used math manipulatives	6	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	11	0.00%
X: Used an unlisted accommodation	402	0.17%
Y: Leave blank	82	0.03%
Z: Examiner read test questions aloud	1,464	0.61%
Accom. or Mod. is in Section 504 plan	251	0.10%
Accom. or Mod. is in IEP	3,000	1.24%
English Learner Test Variation A	3	0.00%
English Learner Test Variation B	7	0.00%
English Learner Test Variation C	4	0.00%
English Learner Test Variation D	1	0.00%
Any Accom., Mod., or EL Variation	3,406	1.41%
No Accom., Mod., or EL Variation	238,093	98.59%
Initially Fluent English Proficient (I-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	13	0.04%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	2	0.01%
G: Used Braille version of test	4	0.01%
H: Used large-print version of test	11	0.03%
J: Tested during more than one day	10	0.03%
K: Had supervised breaks	69	0.21%
L: Most beneficial time of day	25	0.07%
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	1	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	27	0.08%
Y: Leave blank	9	0.03%
Z: Examiner read test questions aloud	74	0.22%
Accom. or Mod. is in Section 504 plan	8	0.02%
Accom. or Mod. is in IEP	164	0.49%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	1	0.00%
Any Accom., Mod., or EL Variation	184	0.55%
No Accom., Mod., or EL Variation	33,409	99.45%
English Learner (EL) Students	**Grade 5**	**Pct. of Total**
B: Marked responses in test booklet	71	0.07%
C: Dictated responses to a scribe	2	0.00%
F: Used non-interfering assistive device	6	0.01%
G: Used Braille version of test	3	0.00%
H: Used large-print version of test	23	0.02%
J: Tested during more than one day	98	0.10%
K: Had supervised breaks	740	0.75%
L: Most beneficial time of day	223	0.23%
M: Administered at home or in a hospital	7	0.01%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	18	0.02%
Q: Used a calculator	3	0.00%
R: Used an arithmetic table	3	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	5	0.01%
X: Used an unlisted accommodation	219	0.22%
Y: Leave blank	24	0.02%
Z: Examiner read test questions aloud	1,021	1.04%
Accom. or Mod. is in Section 504 plan	26	0.03%
Accom. or Mod. is in IEP	1,636	1.67%
English Learner Test Variation A	210	0.21%
English Learner Test Variation B	58	0.06%
English Learner Test Variation C	116	0.12%
English Learner Test Variation D	25	0.03%
Any Accom., Mod., or EL Variation	2,028	2.07%
No Accom., Mod., or EL Variation	96,168	97.93%

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	15	0.03%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	8	0.01%
J: Tested during more than one day	8	0.01%
K: Had supervised breaks	42	0.07%
L: Most beneficial time of day	17	0.03%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	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%
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	0	0.00%
Z: Examiner read test questions aloud	41	0.07%
Accom. or Mod. is in Section 504 plan	8	0.01%
Accom. or Mod. is in IEP	89	0.15%
English Learner Test Variation A	2	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	4	0.01%
Any Accom., Mod., or EL Variation	106	0.18%
No Accom., Mod., or EL Variation	59,183	99.82%

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	214	0.05%
C: Dictated responses to a scribe	20	0.00%
F: Used non-interfering assistive device	65	0.01%
G: Used Braille version of test	13	0.00%
H: Used large-print version of test	120	0.03%
J: Tested during more than one day	300	0.07%
K: Had supervised breaks	1,314	0.29%
L: Most beneficial time of day	429	0.10%
M: Administered at home or in a hospital	83	0.02%
N: Used a dictionary	3	0.00%
O: Examiner presented using MCE or ASL	21	0.00%
Q: Used a calculator	41	0.01%
R: Used an arithmetic table	4	0.00%
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	5	0.00%
X: Used an unlisted accommodation	529	0.12%
Y: Leave blank	124	0.03%
Z: Examiner read test questions aloud	928	0.21%
Accom. or Mod. is in Section 504 plan	134	0.03%
Accom. or Mod. is in IEP	2,814	0.62%
English Learner Test Variation A	552	0.12%
English Learner Test Variation B	67	0.01%
English Learner Test Variation C	426	0.09%
English Learner Test Variation D	368	0.08%
Any Accom., Mod., or EL Variation	4,150	0.92%
No Accom., Mod., or EL Variation	446,823	99.08%
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	3	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	20	0.00%
J: Tested during more than one day	24	0.01%
K: Had supervised breaks	127	0.03%
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	1	0.00%
Q: Used a calculator	2	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	0	0.00%
X: Used an unlisted accommodation	46	0.01%
Y: Leave blank	11	0.00%
Z: Examiner read test questions aloud	69	0.02%
Accom. or Mod. is in Section 504 plan	128	0.03%
Accom. or Mod. is in IEP	175	0.04%
English Learner Test Variation A	516	0.12%
English Learner Test Variation B	65	0.02%
English Learner Test Variation C	414	0.10%
English Learner Test Variation D	332	0.08%
Any Accom., Mod., or EL Variation	1,294	0.31%
No Accom., Mod., or EL Variation	422,908	99.69%
Students in Special Education	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	175	0.65%
C: Dictated responses to a scribe	17	0.06%
F: Used non-interfering assistive device	63	0.24%
G: Used Braille version of test	12	0.04%
H: Used large-print version of test	99	0.37%
J: Tested during more than one day	276	1.03%
K: Had supervised breaks	1,185	4.43%
L: Most beneficial time of day	385	1.44%
M: Administered at home or in a hospital	23	0.09%
N: Used a dictionary	3	0.01%
O: Examiner presented using MCE or ASL	19	0.07%
Q: Used a calculator	39	0.15%
R: Used an arithmetic table	4	0.01%
S: Used math manipulatives	2	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	5	0.02%
X: Used an unlisted accommodation	480	1.79%
Y: Leave blank	113	0.42%
Z: Examiner read test questions aloud	856	3.20%
Accom. or Mod. is in Section 504 plan	6	0.02%
Accom. or Mod. is in IEP	2,631	9.84%
English Learner Test Variation A	36	0.13%
English Learner Test Variation B	2	0.01%
English Learner Test Variation C	12	0.04%
English Learner Test Variation D	36	0.13%
Any Accom., Mod., or EL Variation	2,848	10.65%
No Accom., Mod., or EL Variation	23,902	89.35%

Special Services Summary for Science, Grade Eight		
English-Only Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	149	0.06%
C: Dictated responses to a scribe	14	0.01%
F: Used non-interfering assistive device	30	0.01%
G: Used Braille version of test	7	0.00%
H: Used large-print version of test	78	0.03%
J: Tested during more than one day	237	0.10%
K: Had supervised breaks	894	0.36%
L: Most beneficial time of day	300	0.12%
M: Administered at home or in a hospital	63	0.03%
N: Used a dictionary	1	0.00%
O: Examiner presented using MCE or ASL	10	0.00%
Q: Used a calculator	33	0.01%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	5	0.00%
X: Used an unlisted accommodation	352	0.14%
Y: Leave blank	81	0.03%
Z: Examiner read test questions aloud	517	0.21%
Accom. or Mod. is in Section 504 plan	111	0.04%
Accom. or Mod. is in IEP	1,785	0.72%
English Learner Test Variation A	5	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	6	0.00%
English Learner Test Variation D	3	0.00%
Any Accom., Mod., or EL Variation	2,047	0.82%
No Accom., Mod., or EL Variation	246,618	99.18%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	8	0.03%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	4	0.01%
G: Used Braille version of test	3	0.01%
H: Used large-print version of test	5	0.02%
J: Tested during more than one day	6	0.02%
K: Had supervised breaks	35	0.11%
L: Most beneficial time of day	6	0.02%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Science, Grade Eight		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	20	0.06%
Y: Leave blank	2	0.01%
Z: Examiner read test questions aloud	25	0.08%
Accom. or Mod. is in Section 504 plan	5	0.02%
Accom. or Mod. is in IEP	84	0.26%
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	1	0.00%
Any Accom., Mod., or EL Variation	100	0.31%
No Accom., Mod., or EL Variation	31,692	99.69%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**
B: Marked responses in test booklet	38	0.05%
C: Dictated responses to a scribe	5	0.01%
F: Used non-interfering assistive device	29	0.04%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	15	0.02%
J: Tested during more than one day	48	0.07%
K: Had supervised breaks	322	0.44%
L: Most beneficial time of day	95	0.13%
M: Administered at home or in a hospital	12	0.02%
N: Used a dictionary	2	0.00%
O: Examiner presented using MCE or ASL	11	0.02%
Q: Used a calculator	8	0.01%
R: Used an arithmetic table	2	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	133	0.18%
Y: Leave blank	37	0.05%
Z: Examiner read test questions aloud	353	0.49%
Accom. or Mod. is in Section 504 plan	12	0.02%
Accom. or Mod. is in IEP	810	1.11%
English Learner Test Variation A	543	0.75%
English Learner Test Variation B	67	0.09%
English Learner Test Variation C	417	0.57%
English Learner Test Variation D	362	0.50%
Any Accom., Mod., or EL Variation	1,842	2.53%
No Accom., Mod., or EL Variation	70,874	97.47%

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	18	0.02%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used Braille version of test	2	0.00%
H: Used large-print version of test	22	0.02%
J: Tested during more than one day	8	0.01%
K: Had supervised breaks	55	0.06%
L: Most beneficial time of day	26	0.03%
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	0	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	20	0.02%
Y: Leave blank	4	0.00%
Z: Examiner read test questions aloud	30	0.03%
Accom. or Mod. is in Section 504 plan	5	0.01%
Accom. or Mod. is in IEP	124	0.13%
English Learner Test Variation A	1	0.00%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	1	0.00%
Any Accom., Mod., or EL Variation	145	0.15%
No Accom., Mod., or EL Variation	96,919	99.85%

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	114	0.02%
C: Dictated responses to a scribe	26	0.01%
F: Used non-interfering assistive device	11	0.00%
G: Used Braille version of test	23	0.00%
H: Used large-print version of test	86	0.02%
J: Tested during more than one day	210	0.04%
K: Had supervised breaks	1,720	0.37%
L: Most beneficial time of day	366	0.08%
M: Administered at home or in a hospital	78	0.02%
N: Used a dictionary	49	0.01%
O: Examiner presented using MCE or ASL	27	0.01%
Q: Used a calculator	68	0.01%
R: Used an arithmetic table	2	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	7	0.00%
X: Used an unlisted accommodation	331	0.07%
Y: Leave blank	124	0.03%
Z: Examiner read test questions aloud	607	0.13%
Accom. or Mod. is in Section 504 plan	79	0.02%
Accom. or Mod. is in IEP	2,482	0.53%
English Learner Test Variation A	465	0.10%
English Learner Test Variation B	91	0.02%
English Learner Test Variation C	782	0.17%
English Learner Test Variation D	889	0.19%
Any Accom., Mod., or EL Variation	4,307	0.92%
No Accom., Mod., or EL Variation	463,626	99.08%
Students Not in Special Education	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	20	0.00%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used Braille version of test	1	0.00%
H: Used large-print version of test	13	0.00%
J: Tested during more than one day	11	0.00%
K: Had supervised breaks	171	0.04%
L: Most beneficial time of day	35	0.01%
M: Administered at home or in a hospital	46	0.01%
N: Used a dictionary	6	0.00%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	9	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Grade Ten Life Science		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	23	0.01%
Y: Leave blank	25	0.01%
Z: Examiner read test questions aloud	40	0.01%
Accom. or Mod. is in Section 504 plan	74	0.02%
Accom. or Mod. is in IEP	179	0.04%
English Learner Test Variation A	412	0.09%
English Learner Test Variation B	76	0.02%
English Learner Test Variation C	772	0.18%
English Learner Test Variation D	855	0.20%
Any Accom., Mod., or EL Variation	1,736	0.40%
No Accom., Mod., or EL Variation	433,390	99.60%
Students in Special Education	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	94	0.29%
C: Dictated responses to a scribe	22	0.07%
F: Used non-interfering assistive device	9	0.03%
G: Used Braille version of test	22	0.07%
H: Used large-print version of test	73	0.22%
J: Tested during more than one day	198	0.60%
K: Had supervised breaks	1,544	4.71%
L: Most beneficial time of day	330	1.01%
M: Administered at home or in a hospital	32	0.10%
N: Used a dictionary	43	0.13%
O: Examiner presented using MCE or ASL	27	0.08%
Q: Used a calculator	59	0.18%
R: Used an arithmetic table	2	0.01%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	6	0.02%
X: Used an unlisted accommodation	308	0.94%
Y: Leave blank	99	0.30%
Z: Examiner read test questions aloud	566	1.73%
Accom. or Mod. is in Section 504 plan	5	0.02%
Accom. or Mod. is in IEP	2,297	7.01%
English Learner Test Variation A	53	0.16%
English Learner Test Variation B	15	0.05%
English Learner Test Variation C	10	0.03%
English Learner Test Variation D	34	0.10%
Any Accom., Mod., or EL Variation	2,565	7.82%
No Accom., Mod., or EL Variation	30,222	92.18%

Special Services Summary for Grade Ten Life Science		
English-Only Students	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	89	0.03%
C: Dictated responses to a scribe	16	0.01%
F: Used non-interfering assistive device	4	0.00%
G: Used Braille version of test	13	0.00%
H: Used large-print version of test	61	0.02%
J: Tested during more than one day	161	0.06%
K: Had supervised breaks	1,185	0.45%
L: Most beneficial time of day	274	0.10%
M: Administered at home or in a hospital	54	0.02%
N: Used a dictionary	31	0.01%
O: Examiner presented using MCE or ASL	12	0.00%
Q: Used a calculator	50	0.02%
R: Used an arithmetic table	2	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	6	0.00%
X: Used an unlisted accommodation	219	0.08%
Y: Leave blank	87	0.03%
Z: Examiner read test questions aloud	314	0.12%
Accom. or Mod. is in Section 504 plan	64	0.02%
Accom. or Mod. is in IEP	1,654	0.63%
English Learner Test Variation A	3	0.00%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	11	0.00%
English Learner Test Variation D	1	0.00%
Any Accom., Mod., or EL Variation	1,867	0.71%
No Accom., Mod., or EL Variation	261,646	99.29%
Initially Fluent English Proficient (I-FEP) Students	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	4	0.01%
C: Dictated responses to a scribe	2	0.01%
F: Used non-interfering assistive device	1	0.00%
G: Used Braille version of test	3	0.01%
H: Used large-print version of test	2	0.01%
J: Tested during more than one day	1	0.00%
K: Had supervised breaks	40	0.10%
L: Most beneficial time of day	8	0.02%
M: Administered at home or in a hospital	3	0.01%
N: Used a dictionary	2	0.01%
O: Examiner presented using MCE or ASL	0	0.00%
Q: Used a calculator	1	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%

Special Services Summary for Grade Ten Life Science		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	12	0.03%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	15	0.04%
Accom. or Mod. is in Section 504 plan	2	0.01%
Accom. or Mod. is in IEP	67	0.17%
English Learner Test Variation A	0	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	1	0.00%
English Learner Test Variation D	2	0.01%
Any Accom., Mod., or EL Variation	79	0.20%
No Accom., Mod., or EL Variation	38,847	99.80%
English Learner (EL) Students	**Grade 10**	**Pct. of Total**
B: Marked responses in test booklet	11	0.02%
C: Dictated responses to a scribe	4	0.01%
F: Used non-interfering assistive device	1	0.00%
G: Used Braille version of test	4	0.01%
H: Used large-print version of test	11	0.02%
J: Tested during more than one day	41	0.06%
K: Had supervised breaks	406	0.59%
L: Most beneficial time of day	66	0.10%
M: Administered at home or in a hospital	10	0.01%
N: Used a dictionary	16	0.02%
O: Examiner presented using MCE or ASL	14	0.02%
Q: Used a calculator	13	0.02%
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	81	0.12%
Y: Leave blank	28	0.04%
Z: Examiner read test questions aloud	247	0.36%
Accom. or Mod. is in Section 504 plan	5	0.01%
Accom. or Mod. is in IEP	634	0.93%
English Learner Test Variation A	455	0.66%
English Learner Test Variation B	86	0.13%
English Learner Test Variation C	764	1.12%
English Learner Test Variation D	872	1.27%
Any Accom., Mod., or EL Variation	2,184	3.19%
No Accom., Mod., or EL Variation	66,260	96.81%

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	10	0.01%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	5	0.01%
G: Used Braille version of test	2	0.00%
H: Used large-print version of test	12	0.01%
J: Tested during more than one day	4	0.00%
K: Had supervised breaks	76	0.08%
L: Most beneficial time of day	14	0.01%
M: Administered at home or in a hospital	9	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented using MCE or ASL	1	0.00%
Q: Used a calculator	3	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	16	0.02%
Y: Leave blank	5	0.01%
Z: Examiner read test questions aloud	29	0.03%
Accom. or Mod. is in Section 504 plan	8	0.01%
Accom. or Mod. is in IEP	113	0.12%
English Learner Test Variation A	6	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	5	0.01%
English Learner Test Variation D	10	0.01%
Any Accom., Mod., or EL Variation	155	0.16%
No Accom., Mod., or EL Variation	96,055	99.84%

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	39	76	22	137	0.03%
C: Dictated responses to a scribe	5	14	6	25	0.00%
F: Used non-interfering assistive device	2	7	1	10	0.00%
G: Used Braille version of test	4	12	3	19	0.00%
H: Used large-print version of test	22	59	23	104	0.02%
J: Tested during more than one day	58	143	58	259	0.05%
K: Had supervised breaks	567	1,296	468	2,331	0.43%
L: Most beneficial time of day	128	219	101	448	0.08%
M: Administered at home or in a hospital	26	40	17	83	0.02%
N: Used a dictionary	7	38	13	58	0.01%
O: Examiner presented using MCE or ASL	4	18	2	24	0.00%
Q: Used a calculator	49	70	35	154	0.03%
R: Used an arithmetic table	0	4	6	10	0.00%
S: Used math manipulatives	1	2	7	10	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	4	3	7	0.00%
X: Used an unlisted accommodation	184	195	80	459	0.08%
Y: Leave blank	25	75	22	122	0.02%
Z: Examiner read test questions aloud	162	426	108	696	0.13%
Accom. or Mod. is in Section 504 plan	13	41	11	65	0.01%
Accom. or Mod. is in IEP	893	1,791	632	3,316	0.61%
English Learner Test Variation A	120	224	80	424	0.08%
English Learner Test Variation B	19	45	28	92	0.02%
English Learner Test Variation C	255	364	168	787	0.14%
English Learner Test Variation D	386	673	211	1,270	0.23%
Any Accom., Mod., or EL Variation	1,514	2,873	1,017	5,404	0.99%
No Accom., Mod., or EL Variation	203,933	239,915	96,714	540,562	99.01%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	4	12	3	19	0.00%
C: Dictated responses to a scribe	1	2	0	3	0.00%
F: Used non-interfering assistive device	1	3	0	4	0.00%
G: Used Braille version of test	1	2	0	3	0.00%
H: Used large-print version of test	1	9	3	13	0.00%
J: Tested during more than one day	2	9	2	13	0.00%
K: Had supervised breaks	60	122	31	213	0.04%
L: Most beneficial time of day	5	31	6	42	0.01%
M: Administered at home or in a hospital	15	23	5	43	0.01%
N: Used a dictionary	3	6	3	12	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	3	8	4	15	0.00%
R: Used an arithmetic table	0	1	1	2	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Biology					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	27	13	12	52	0.01%
Y: Leave blank	5	12	5	22	0.00%
Z: Examiner read test questions aloud	7	24	5	36	0.01%
Accom. or Mod. is in Section 504 plan	11	40	10	61	0.01%
Accom. or Mod. is in IEP	77	118	42	237	0.05%
English Learner Test Variation A	115	172	75	362	0.07%
English Learner Test Variation B	14	32	24	70	0.01%
English Learner Test Variation C	248	348	164	760	0.15%
English Learner Test Variation D	376	633	197	1,206	0.24%
Any Accom., Mod., or EL Variation	644	1,034	363	2,041	0.40%
No Accom., Mod., or EL Variation	195,116	221,642	90,049	506,807	99.60%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	35	64	19	118	0.32%
C: Dictated responses to a scribe	4	11	6	21	0.06%
F: Used non-interfering assistive device	1	4	1	6	0.02%
G: Used Braille version of test	3	10	3	16	0.04%
H: Used large-print version of test	21	50	20	91	0.25%
J: Tested during more than one day	56	134	56	246	0.66%
K: Had supervised breaks	507	1,172	437	2,116	5.70%
L: Most beneficial time of day	123	187	95	405	1.09%
M: Administered at home or in a hospital	11	17	12	40	0.11%
N: Used a dictionary	4	32	9	45	0.12%
O: Examiner presented using MCE or ASL	4	18	2	24	0.06%
Q: Used a calculator	46	62	30	138	0.37%
R: Used an arithmetic table	0	3	5	8	0.02%
S: Used math manipulatives	1	2	7	10	0.03%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	4	3	7	0.02%
X: Used an unlisted accommodation	157	182	68	407	1.10%
Y: Leave blank	20	63	17	100	0.27%
Z: Examiner read test questions aloud	155	401	102	658	1.77%
Accom. or Mod. is in Section 504 plan	2	1	1	4	0.01%
Accom. or Mod. is in IEP	816	1,670	588	3,074	8.28%
English Learner Test Variation A	5	52	5	62	0.17%
English Learner Test Variation B	5	13	4	22	0.06%
English Learner Test Variation C	7	16	4	27	0.07%
English Learner Test Variation D	10	40	14	64	0.17%
Any Accom., Mod., or EL Variation	870	1,836	652	3,358	9.05%
No Accom., Mod., or EL Variation	8,814	18,269	6,665	33,748	90.95%

Special Services Summary for Biology					
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	26	59	19	104	0.03%
C: Dictated responses to a scribe	4	9	4	17	0.01%
F: Used non-interfering assistive device	0	2	1	3	0.00%
G: Used Braille version of test	1	7	3	11	0.00%
H: Used large-print version of test	12	40	20	72	0.02%
J: Tested during more than one day	40	108	41	189	0.06%
K: Had supervised breaks	350	846	294	1,490	0.49%
L: Most beneficial time of day	89	157	67	313	0.10%
M: Administered at home or in a hospital	19	28	11	58	0.02%
N: Used a dictionary	3	22	8	33	0.01%
O: Examiner presented using MCE or ASL	2	7	1	10	0.00%
Q: Used a calculator	34	49	27	110	0.04%
R: Used an arithmetic table	0	4	5	9	0.00%
S: Used math manipulatives	0	1	5	6	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	4	3	7	0.00%
X: Used an unlisted accommodation	115	127	56	298	0.10%
Y: Leave blank	16	50	16	82	0.03%
Z: Examiner read test questions aloud	68	234	54	356	0.12%
Accom. or Mod. is in Section 504 plan	11	35	9	55	0.02%
Accom. or Mod. is in IEP	527	1,149	402	2,078	0.68%
English Learner Test Variation A	8	1	1	10	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	9	1	0	10	0.00%
English Learner Test Variation D	2	2	0	4	0.00%
Any Accom., Mod., or EL Variation	594	1,264	449	2,307	0.76%
No Accom., Mod., or EL Variation	115,695	132,296	54,556	302,547	99.24%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	3	0	6	0.01%
C: Dictated responses to a scribe	0	0	2	2	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	2	2	0	4	0.01%
H: Used large-print version of test	0	1	0	1	0.00%
J: Tested during more than one day	3	1	0	4	0.01%
K: Had supervised breaks	21	31	16	68	0.14%
L: Most beneficial time of day	5	7	3	15	0.03%
M: Administered at home or in a hospital	1	3	2	6	0.01%
N: Used a dictionary	0	2	0	2	0.00%
O: Examiner presented using MCE or ASL	1	1	0	2	0.00%
Q: Used a calculator	0	3	0	3	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Biology					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	4	9	4	17	0.04%
Y: Leave blank	1	2	0	3	0.01%
Z: Examiner read test questions aloud	7	11	4	22	0.05%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	35	52	20	107	0.22%
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	0.00%
English Learner Test Variation D	0	1	1	2	0.00%
Any Accom., Mod., or EL Variation	38	60	25	123	0.25%
No Accom., Mod., or EL Variation	20,706	18,545	9,176	48,427	99.75%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	5	8	0	13	0.02%
C: Dictated responses to a scribe	0	3	0	3	0.00%
F: Used non-interfering assistive device	0	2	0	2	0.00%
G: Used Braille version of test	0	2	0	2	0.00%
H: Used large-print version of test	4	5	2	11	0.01%
J: Tested during more than one day	13	29	14	56	0.07%
K: Had supervised breaks	167	359	142	668	0.88%
L: Most beneficial time of day	31	43	26	100	0.13%
M: Administered at home or in a hospital	3	7	4	14	0.02%
N: Used a dictionary	4	11	3	18	0.02%
O: Examiner presented using MCE or ASL	1	9	0	10	0.01%
Q: Used a calculator	13	15	5	33	0.04%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	1	1	2	4	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	60	54	15	129	0.17%
Y: Leave blank	7	16	5	28	0.04%
Z: Examiner read test questions aloud	80	157	47	284	0.37%
Accom. or Mod. is in Section 504 plan	1	2	2	5	0.01%
Accom. or Mod. is in IEP	282	503	186	971	1.27%
English Learner Test Variation A	112	218	77	407	0.53%
English Learner Test Variation B	19	44	28	91	0.12%
English Learner Test Variation C	244	358	167	769	1.01%
English Learner Test Variation D	383	660	207	1,250	1.64%
Any Accom., Mod., or EL Variation	828	1,434	511	2,773	3.64%
No Accom., Mod., or EL Variation	20,773	38,823	13,830	73,426	96.36%

Special Services Summary for Biology					
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	5	6	3	14	0.01%
C: Dictated responses to a scribe	1	2	0	3	0.00%
F: Used non-interfering assistive device	2	3	0	5	0.00%
G: Used Braille version of test	1	1	0	2	0.00%
H: Used large-print version of test	6	13	1	20	0.02%
J: Tested during more than one day	1	4	2	7	0.01%
K: Had supervised breaks	23	56	14	93	0.08%
L: Most beneficial time of day	2	10	3	15	0.01%
M: Administered at home or in a hospital	2	2	0	4	0.00%
N: Used a dictionary	0	3	1	4	0.00%
O: Examiner presented using MCE or ASL	0	1	0	1	0.00%
Q: Used a calculator	2	3	1	6	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	5	5	4	14	0.01%
Y: Leave blank	1	7	1	9	0.01%
Z: Examiner read test questions aloud	6	23	3	32	0.03%
Accom. or Mod. is in Section 504 plan	1	3	0	4	0.00%
Accom. or Mod. is in IEP	43	82	20	145	0.13%
English Learner Test Variation A	0	5	1	6	0.01%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	0	5	1	6	0.01%
English Learner Test Variation D	1	8	3	12	0.01%
Any Accom., Mod., or EL Variation	45	108	27	180	0.16%
No Accom., Mod., or EL Variation	46,501	49,875	19,004	115,380	99.84%

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	16	28	44	0.02%
C: Dictated responses to a scribe	0	7	8	15	0.01%
F: Used non-interfering assistive device	0	3	3	6	0.00%
G: Used Braille version of test	0	2	4	6	0.00%
H: Used large-print version of test	1	16	21	38	0.01%
J: Tested during more than one day	9	13	13	35	0.01%
K: Had supervised breaks	22	96	176	294	0.11%
L: Most beneficial time of day	6	16	26	48	0.02%
M: Administered at home or in a hospital	0	6	4	10	0.00%
N: Used a dictionary	0	0	14	14	0.01%
O: Examiner presented using MCE or ASL	0	0	21	21	0.01%
Q: Used a calculator	1	7	47	55	0.02%
R: Used an arithmetic table	0	0	9	9	0.00%
S: Used math manipulatives	0	1	9	10	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	2	1	3	0.00%
X: Used an unlisted accommodation	9	16	36	61	0.02%
Y: Leave blank	0	6	11	17	0.01%
Z: Examiner read test questions aloud	2	16	45	63	0.02%
Accom. or Mod. is in Section 504 plan	0	12	7	19	0.01%
Accom. or Mod. is in IEP	24	138	319	481	0.19%
English Learner Test Variation A	0	15	38	53	0.02%
English Learner Test Variation B	0	9	15	24	0.01%
English Learner Test Variation C	1	59	86	146	0.06%
English Learner Test Variation D	2	63	119	184	0.07%
Any Accom., Mod., or EL Variation	27	265	555	847	0.33%
No Accom., Mod., or EL Variation	5,072	119,337	131,577	255,986	99.67%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	5	4	9	0.00%
C: Dictated responses to a scribe	0	6	0	6	0.00%
F: Used non-interfering 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	3	2	5	0.00%
J: Tested during more than one day	2	0	1	3	0.00%
K: Had supervised breaks	3	11	16	30	0.01%
L: Most beneficial time of day	0	1	9	10	0.00%
M: Administered at home or in a hospital	0	5	2	7	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	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Chemistry					
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	2	2	4	8	0.00%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	1	1	2	0.00%
Accom. or Mod. is in Section 504 plan	0	11	5	16	0.01%
Accom. or Mod. is in IEP	3	7	21	31	0.01%
English Learner Test Variation A	0	13	18	31	0.01%
English Learner Test Variation B	0	9	11	20	0.01%
English Learner Test Variation C	1	57	84	142	0.06%
English Learner Test Variation D	2	62	118	182	0.07%
Any Accom., Mod., or EL Variation	6	124	210	340	0.14%
No Accom., Mod., or EL Variation	4,922	117,409	128,053	250,384	99.86%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	11	24	35	0.57%
C: Dictated responses to a scribe	0	1	8	9	0.15%
F: Used non-interfering assistive device	0	3	3	6	0.10%
G: Used Braille version of test	0	2	4	6	0.10%
H: Used large-print version of test	1	13	19	33	0.54%
J: Tested during more than one day	7	13	12	32	0.52%
K: Had supervised breaks	19	85	160	264	4.32%
L: Most beneficial time of day	6	15	17	38	0.62%
M: Administered at home or in a hospital	0	1	2	3	0.05%
N: Used a dictionary	0	0	13	13	0.21%
O: Examiner presented using MCE or ASL	0	0	21	21	0.34%
Q: Used a calculator	1	7	47	55	0.90%
R: Used an arithmetic table	0	0	9	9	0.15%
S: Used math manipulatives	0	1	9	10	0.16%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	1	2	0.03%
X: Used an unlisted accommodation	7	14	32	53	0.87%
Y: Leave blank	0	6	10	16	0.26%
Z: Examiner read test questions aloud	2	15	44	61	1.00%
Accom. or Mod. is in Section 504 plan	0	1	2	3	0.05%
Accom. or Mod. is in IEP	21	131	298	450	7.37%
English Learner Test Variation A	0	2	20	22	0.36%
English Learner Test Variation B	0	0	4	4	0.07%
English Learner Test Variation C	0	2	2	4	0.07%
English Learner Test Variation D	0	1	1	2	0.03%
Any Accom., Mod., or EL Variation	21	141	345	507	8.30%
No Accom., Mod., or EL Variation	150	1,928	3,524	5,602	91.70%

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	12	22	34	0.02%
C: Dictated responses to a scribe	0	4	4	8	0.01%
F: Used non-interfering assistive device	0	2	2	4	0.00%
G: Used Braille version of test	0	1	3	4	0.00%
H: Used large-print version of test	1	11	15	27	0.02%
J: Tested during more than one day	1	6	9	16	0.01%
K: Had supervised breaks	8	56	101	165	0.12%
L: Most beneficial time of day	6	13	21	40	0.03%
M: Administered at home or in a hospital	0	4	3	7	0.00%
N: Used a dictionary	0	0	11	11	0.01%
O: Examiner presented using MCE or ASL	0	0	7	7	0.00%
Q: Used a calculator	0	6	32	38	0.03%
R: Used an arithmetic table	0	0	8	8	0.01%
S: Used math manipulatives	0	0	8	8	0.01%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	1	2	0.00%
X: Used an unlisted accommodation	1	11	27	39	0.03%
Y: Leave blank	0	5	8	13	0.01%
Z: Examiner read test questions aloud	0	9	19	28	0.02%
Accom. or Mod. is in Section 504 plan	0	9	7	16	0.01%
Accom. or Mod. is in IEP	9	88	187	284	0.20%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.00%
English Learner Test Variation D	0	0	2	2	0.00%
Any Accom., Mod., or EL Variation	9	106	209	324	0.23%
No Accom., Mod., or EL Variation	2,713	68,509	71,239	142,461	99.77%
Initially Fluent English Proficient (I-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	2	1	3	0.01%
F: Used non-interfering 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	1	2	0.01%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	2	6	8	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	3	3	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Chemistry					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	1	0.00%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	0	4	9	13	0.05%
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	0.01%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	8	11	19	0.07%
No Accom., Mod., or EL Variation	651	14,239	12,901	27,791	99.93%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	1	1	0.01%
C: Dictated responses to a scribe	0	0	2	2	0.01%
F: Used non-interfering assistive device	0	1	0	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	7	6	4	17	0.09%
K: Had supervised breaks	12	28	56	96	0.52%
L: Most beneficial time of day	0	2	2	4	0.02%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	2	2	0.01%
O: Examiner presented using MCE or ASL	0	0	14	14	0.08%
Q: Used a calculator	1	1	7	9	0.05%
R: Used an arithmetic table	0	0	0	0	0.00%
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	1	0	1	0.01%
X: Used an unlisted accommodation	7	2	8	17	0.09%
Y: Leave blank	0	1	1	2	0.01%
Z: Examiner read test questions aloud	2	7	23	32	0.17%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	13	33	99	145	0.78%
English Learner Test Variation A	0	15	38	53	0.29%
English Learner Test Variation B	0	9	15	24	0.13%
English Learner Test Variation C	1	57	84	142	0.77%
English Learner Test Variation D	2	62	114	178	0.96%
Any Accom., Mod., or EL Variation	16	131	301	448	2.42%
No Accom., Mod., or EL Variation	543	5,973	11,540	18,056	97.58%

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	3	4	7	0.01%
C: Dictated responses to a scribe	0	1	1	2	0.00%
F: Used non-interfering 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	4	3	7	0.01%
J: Tested during more than one day	1	1	0	2	0.00%
K: Had supervised breaks	2	10	12	24	0.04%
L: Most beneficial time of day	0	1	3	4	0.01%
M: Administered at home or in a hospital	0	2	1	3	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	0	0	5	5	0.01%
R: Used an arithmetic table	0	0	1	1	0.00%
S: Used math manipulatives	0	0	1	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	1	2	1	4	0.01%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	3	3	0.00%
Accom. or Mod. is in Section 504 plan	0	2	0	2	0.00%
Accom. or Mod. is in IEP	2	13	23	38	0.06%
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	0.00%
English Learner Test Variation D	0	1	3	4	0.01%
Any Accom., Mod., or EL Variation	2	20	33	55	0.08%
No Accom., Mod., or EL Variation	1,159	30,533	35,802	67,494	99.92%

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	66	18	15	99	0.05%
C: Dictated responses to a scribe	9	2	2	13	0.01%
F: Used non-interfering assistive device	3	0	0	3	0.00%
G: Used Braille version of test	5	2	0	7	0.00%
H: Used large-print version of test	35	8	14	57	0.03%
J: Tested during more than one day	139	32	33	204	0.09%
K: Had supervised breaks	1,129	375	322	1,826	0.84%
L: Most beneficial time of day	184	68	74	326	0.15%
M: Administered at home or in a hospital	39	21	19	79	0.04%
N: Used a dictionary	25	5	6	36	0.02%
O: Examiner presented using MCE or ASL	4	1	2	7	0.00%
Q: Used a calculator	16	24	19	59	0.03%
R: Used an arithmetic table	3	0	0	3	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	14	1	0	15	0.01%
X: Used an unlisted accommodation	176	75	98	349	0.16%
Y: Leave blank	75	19	28	122	0.06%
Z: Examiner read test questions aloud	438	84	86	608	0.28%
Accom. or Mod. is in Section 504 plan	24	5	13	42	0.02%
Accom. or Mod. is in IEP	1,592	479	486	2,557	1.17%
English Learner Test Variation A	163	52	41	256	0.12%
English Learner Test Variation B	27	9	4	40	0.02%
English Learner Test Variation C	321	103	92	516	0.24%
English Learner Test Variation D	360	82	71	513	0.23%
Any Accom., Mod., or EL Variation	2,307	684	665	3,656	1.67%
No Accom., Mod., or EL Variation	143,730	30,889	40,158	214,777	98.33%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	11	1	0	12	0.01%
C: Dictated responses to a scribe	1	0	0	1	0.00%
F: Used non-interfering 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	6	1	1	8	0.00%
J: Tested during more than one day	3	1	3	7	0.00%
K: Had supervised breaks	79	17	24	120	0.06%
L: Most beneficial time of day	11	1	8	20	0.01%
M: Administered at home or in a hospital	18	12	9	39	0.02%
N: Used a dictionary	7	0	2	9	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Earth Science					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	5	0	0	5	0.00%
X: Used an unlisted accommodation	19	5	2	26	0.01%
Y: Leave blank	11	3	1	15	0.01%
Z: Examiner read test questions aloud	23	2	3	28	0.01%
Accom. or Mod. is in Section 504 plan	22	4	12	38	0.02%
Accom. or Mod. is in IEP	119	23	22	164	0.09%
English Learner Test Variation A	155	48	35	238	0.12%
English Learner Test Variation B	12	7	2	21	0.01%
English Learner Test Variation C	308	97	86	491	0.25%
English Learner Test Variation D	346	78	64	488	0.25%
Any Accom., Mod., or EL Variation	732	189	163	1,084	0.56%
No Accom., Mod., or EL Variation	129,989	26,483	35,363	191,835	99.44%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	55	17	15	87	0.34%
C: Dictated responses to a scribe	8	2	2	12	0.05%
F: Used non-interfering assistive device	3	0	0	3	0.01%
G: Used Braille version of test	5	2	0	7	0.03%
H: Used large-print version of test	29	7	13	49	0.19%
J: Tested during more than one day	136	31	30	197	0.77%
K: Had supervised breaks	1,049	357	298	1,704	6.68%
L: Most beneficial time of day	173	67	66	306	1.20%
M: Administered at home or in a hospital	20	9	10	39	0.15%
N: Used a dictionary	18	5	4	27	0.11%
O: Examiner presented using MCE or ASL	4	1	2	7	0.03%
Q: Used a calculator	16	24	19	59	0.23%
R: Used an arithmetic table	3	0	0	3	0.01%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	9	1	0	10	0.04%
X: Used an unlisted accommodation	157	70	96	323	1.27%
Y: Leave blank	64	16	27	107	0.42%
Z: Examiner read test questions aloud	415	82	83	580	2.27%
Accom. or Mod. is in Section 504 plan	2	1	1	4	0.02%
Accom. or Mod. is in IEP	1,471	455	464	2,390	9.37%
English Learner Test Variation A	8	4	6	18	0.07%
English Learner Test Variation B	15	2	2	19	0.07%
English Learner Test Variation C	13	6	6	25	0.10%
English Learner Test Variation D	14	4	7	25	0.10%
Any Accom., Mod., or EL Variation	1,573	494	502	2,569	10.07%
No Accom., Mod., or EL Variation	13,732	4,405	4,793	22,930	89.93%

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	49	12	11	72	0.06%
C: Dictated responses to a scribe	7	2	2	11	0.01%
F: Used non-interfering assistive device	2	0	0	2	0.00%
G: Used Braille version of test	2	2	0	4	0.00%
H: Used large-print version of test	27	6	10	43	0.03%
J: Tested during more than one day	96	26	20	142	0.11%
K: Had supervised breaks	726	241	206	1,173	0.91%
L: Most beneficial time of day	130	48	59	237	0.18%
M: Administered at home or in a hospital	31	12	15	58	0.05%
N: Used a dictionary	15	1	3	19	0.01%
O: Examiner presented using MCE or ASL	2	1	2	5	0.00%
Q: Used a calculator	13	13	14	40	0.03%
R: Used an arithmetic table	3	0	0	3	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	9	1	0	10	0.01%
X: Used an unlisted accommodation	99	49	66	214	0.17%
Y: Leave blank	57	15	25	97	0.08%
Z: Examiner read test questions aloud	232	39	42	313	0.24%
Accom. or Mod. is in Section 504 plan	22	3	12	37	0.03%
Accom. or Mod. is in IEP	1,013	304	321	1,638	1.28%
English Learner Test Variation A	4	0	0	4	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	3	1	0	4	0.00%
English Learner Test Variation D	2	0	0	2	0.00%
Any Accom., Mod., or EL Variation	1,108	333	358	1,799	1.40%
No Accom., Mod., or EL Variation	85,515	18,349	22,710	126,574	98.60%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	2	0	0	2	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering 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	3	0	1	4	0.03%
K: Had supervised breaks	38	8	16	62	0.43%
L: Most beneficial time of day	4	0	1	5	0.03%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	1	0	0	1	0.01%
O: Examiner presented using MCE or ASL	1	0	0	1	0.01%
Q: Used a calculator	0	1	2	3	0.02%
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	3	2	2	7	0.05%
Y: Leave blank	5	0	0	5	0.03%
Z: Examiner read test questions aloud	9	1	1	11	0.08%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	48	10	18	76	0.53%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	1	0	0	1	0.01%
Any Accom., Mod., or EL Variation	51	10	18	79	0.55%
No Accom., Mod., or EL Variation	9,730	1,829	2,745	14,304	99.45%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	11	6	3	20	0.05%
C: Dictated responses to a scribe	1	0	0	1	0.00%
F: Used non-interfering 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	5	2	3	10	0.02%
J: Tested during more than one day	37	5	9	51	0.12%
K: Had supervised breaks	315	103	86	504	1.21%
L: Most beneficial time of day	47	15	10	72	0.17%
M: Administered at home or in a hospital	3	4	4	11	0.03%
N: Used a dictionary	8	4	3	15	0.04%
O: Examiner presented using MCE or ASL	1	0	0	1	0.00%
Q: Used a calculator	3	5	2	10	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	5	0	0	5	0.01%
X: Used an unlisted accommodation	71	19	29	119	0.28%
Y: Leave blank	11	3	3	17	0.04%
Z: Examiner read test questions aloud	174	36	38	248	0.59%
Accom. or Mod. is in Section 504 plan	2	1	1	4	0.01%
Accom. or Mod. is in IEP	473	136	129	738	1.76%
English Learner Test Variation A	158	52	41	251	0.60%
English Learner Test Variation B	25	9	4	38	0.09%
English Learner Test Variation C	314	102	92	508	1.21%
English Learner Test Variation D	356	82	71	509	1.22%
Any Accom., Mod., or EL Variation	1,078	305	271	1,654	3.96%
No Accom., Mod., or EL Variation	25,585	6,509	8,072	40,166	96.04%

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	4	0	1	5	0.01%
C: Dictated responses to a scribe	1	0	0	1	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	3	0	0	3	0.01%
H: Used large-print version of test	2	0	1	3	0.01%
J: Tested during more than one day	3	1	3	7	0.02%
K: Had supervised breaks	47	20	14	81	0.24%
L: Most beneficial time of day	3	4	4	11	0.03%
M: Administered at home or in a hospital	5	4	0	9	0.03%
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	5	1	6	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	3	4	1	8	0.02%
Y: Leave blank	2	1	0	3	0.01%
Z: Examiner read test questions aloud	23	7	5	35	0.10%
Accom. or Mod. is in Section 504 plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	55	26	18	99	0.30%
English Learner Test Variation A	1	0	0	1	0.00%
English Learner Test Variation B	2	0	0	2	0.01%
English Learner Test Variation C	4	0	0	4	0.01%
English Learner Test Variation D	1	0	0	1	0.00%
Any Accom., Mod., or EL Variation	67	32	18	117	0.35%
No Accom., Mod., or EL Variation	22,640	4,129	6,563	33,332	99.65%

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	4	5	11	20	0.03%
C: Dictated responses to a scribe	1	0	3	4	0.01%
F: Used non-interfering 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	4	1	9	14	0.02%
J: Tested during more than one day	27	0	9	36	0.05%
K: Had supervised breaks	40	10	65	115	0.16%
L: Most beneficial time of day	1	7	14	22	0.03%
M: Administered at home or in a hospital	1	0	2	3	0.00%
N: Used a dictionary	0	0	1	1	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	0.00%
Q: Used a calculator	6	5	20	31	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	0	0	0	0	0.00%
X: Used an unlisted accommodation	10	2	4	16	0.02%
Y: Leave blank	2	1	6	9	0.01%
Z: Examiner read test questions aloud	12	3	26	41	0.06%
Accom. or Mod. is in Section 504 plan	6	1	2	9	0.01%
Accom. or Mod. is in IEP	63	19	109	191	0.26%
English Learner Test Variation A	0	2	3	5	0.01%
English Learner Test Variation B	5	1	0	6	0.01%
English Learner Test Variation C	0	10	22	32	0.04%
English Learner Test Variation D	3	8	22	33	0.05%
Any Accom., Mod., or EL Variation	75	39	152	266	0.37%
No Accom., Mod., or EL Variation	13,510	8,613	50,446	72,569	99.63%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	0	0	1	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering 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	1	2	0.00%
J: Tested during more than one day	4	0	0	4	0.01%
K: Had supervised breaks	8	1	10	19	0.03%
L: Most beneficial time of day	0	0	2	2	0.00%
M: Administered at home or in a hospital	1	0	2	3	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	3	3	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Physics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	2	0	0	2	0.00%
Y: Leave blank	0	1	0	1	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	5	1	2	8	0.01%
Accom. or Mod. is in IEP	6	0	9	15	0.02%
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	10	22	32	0.05%
English Learner Test Variation D	3	8	22	33	0.05%
Any Accom., Mod., or EL Variation	15	18	43	76	0.11%
No Accom., Mod., or EL Variation	13,066	8,337	49,494	70,897	99.89%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	3	5	11	19	1.02%
C: Dictated responses to a scribe	1	0	3	4	0.21%
F: Used non-interfering 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	1	8	12	0.64%
J: Tested during more than one day	23	0	9	32	1.72%
K: Had supervised breaks	32	9	55	96	5.16%
L: Most beneficial time of day	1	7	12	20	1.07%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	1	1	0.05%
O: Examiner presented using MCE or ASL	0	0	1	1	0.05%
Q: Used a calculator	6	5	17	28	1.50%
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	2	4	14	0.75%
Y: Leave blank	2	0	6	8	0.43%
Z: Examiner read test questions aloud	12	3	26	41	2.20%
Accom. or Mod. is in Section 504 plan	1	0	0	1	0.05%
Accom. or Mod. is in IEP	57	19	100	176	9.45%
English Learner Test Variation A	0	1	3	4	0.21%
English Learner Test Variation B	5	0	0	5	0.27%
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	60	21	109	190	10.20%
No Accom., Mod., or EL Variation	444	276	952	1,672	89.80%

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 non-interfering 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	1	7	11	0.03%
J: Tested during more than one day	20	0	2	22	0.05%
K: Had supervised breaks	28	5	40	73	0.17%
L: Most beneficial time of day	1	3	11	15	0.04%
M: Administered at home or in a hospital	1	0	1	2	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	1	1	0.00%
Q: Used a calculator	5	5	13	23	0.05%
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	2	1	11	0.03%
Y: Leave blank	1	1	5	7	0.02%
Z: Examiner read test questions aloud	3	3	16	22	0.05%
Accom. or Mod. is in Section 504 plan	6	1	1	8	0.02%
Accom. or Mod. is in IEP	42	13	72	127	0.30%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	1	0	0	1	0.00%
English Learner Test Variation C	0	0	1	1	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	50	16	78	144	0.34%
No Accom., Mod., or EL Variation	7,770	5,194	29,170	42,134	99.66%
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 non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	1	1	0.01%
J: Tested during more than one day	0	0	1	1	0.01%
K: Had supervised breaks	2	1	2	5	0.06%
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	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Physics					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	2	1	4	7	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	1	6	9	0.11%
No Accom., Mod., or EL Variation	1,387	854	5,779	8,020	99.89%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	1	1	0.02%
C: Dictated responses to a scribe	0	0	1	1	0.02%
F: Used non-interfering 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	1	2	0.04%
J: Tested during more than one day	7	0	4	11	0.23%
K: Had supervised breaks	9	4	15	28	0.58%
L: Most beneficial time of day	0	3	1	4	0.08%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	1	1	0.02%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	1	0	4	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	2	0	2	4	0.08%
Y: Leave blank	0	0	1	1	0.02%
Z: Examiner read test questions aloud	9	0	9	18	0.37%
Accom. or Mod. is in Section 504 plan	0	0	1	1	0.02%
Accom. or Mod. is in IEP	17	4	25	46	0.95%
English Learner Test Variation A	0	2	3	5	0.10%
English Learner Test Variation B	4	1	0	5	0.10%
English Learner Test Variation C	0	10	21	31	0.64%
English Learner Test Variation D	3	7	21	31	0.64%
Any Accom., Mod., or EL Variation	21	20	57	98	2.02%
No Accom., Mod., or EL Variation	1,196	734	2,815	4,745	97.98%

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	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering 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	1	0	6	7	0.04%
L: Most beneficial time of day	0	1	1	2	0.01%
M: Administered at home or in a hospital	0	0	1	1	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	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	0	0	1	1	0.01%
Y: Leave blank	1	0	0	1	0.01%
Z: Examiner read test questions aloud	0	0	1	1	0.01%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	2	1	6	9	0.05%
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	1	2	0.01%
Any Accom., Mod., or EL Variation	2	2	9	13	0.07%
No Accom., Mod., or EL Variation	3,148	1,826	12,642	17,616	99.93%

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	4	0	3	7	0.01%
C: Dictated responses to a scribe	5	1	0	6	0.01%
F: Used non-interfering assistive device	3	0	0	3	0.00%
G: Used Braille version of test	1	0	1	2	0.00%
H: Used large-print version of test	7	0	0	7	0.01%
J: Tested during more than one day	26	3	10	39	0.06%
K: Had supervised breaks	149	25	51	225	0.35%
L: Most beneficial time of day	24	7	10	41	0.06%
M: Administered at home or in a hospital	4	3	7	14	0.02%
N: Used a dictionary	18	1	3	22	0.03%
O: Examiner presented using MCE or ASL	15	0	0	15	0.02%
Q: Used a calculator	28	12	5	45	0.07%
R: Used an arithmetic table	4	1	0	5	0.01%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	27	5	5	37	0.06%
Y: Leave blank	7	4	5	16	0.02%
Z: Examiner read test questions aloud	82	17	27	126	0.20%
Accom. or Mod. is in Section 504 plan	3	0	5	8	0.01%
Accom. or Mod. is in IEP	305	52	76	433	0.67%
English Learner Test Variation A	55	19	10	84	0.13%
English Learner Test Variation B	23	0	0	23	0.04%
English Learner Test Variation C	58	41	7	106	0.17%
English Learner Test Variation D	113	27	20	160	0.25%
Any Accom., Mod., or EL Variation	510	144	129	783	1.22%
No Accom., Mod., or EL Variation	49,077	5,647	8,708	63,432	98.78%
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 non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	1	0	0	1	0.00%
K: Had supervised breaks	8	0	3	11	0.02%
L: Most beneficial time of day	1	0	0	1	0.00%
M: Administered at home or in a hospital	2	0	6	8	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	2	0	0	2	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 1					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	3	0	0	3	0.01%
Y: Leave blank	1	0	0	1	0.00%
Z: Examiner read test questions aloud	2	0	4	6	0.01%
Accom. or Mod. is in Section 504 plan	3	0	4	7	0.01%
Accom. or Mod. is in IEP	13	0	3	16	0.03%
English Learner Test Variation A	55	18	10	83	0.15%
English Learner Test Variation B	20	0	0	20	0.04%
English Learner Test Variation C	58	41	7	106	0.19%
English Learner Test Variation D	104	25	19	148	0.26%
Any Accom., Mod., or EL Variation	188	80	44	312	0.55%
No Accom., Mod., or EL Variation	44,490	4,721	7,462	56,673	99.45%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	4	0	3	7	0.10%
C: Dictated responses to a scribe	5	1	0	6	0.08%
F: Used non-interfering assistive device	3	0	0	3	0.04%
G: Used Braille version of test	1	0	1	2	0.03%
H: Used large-print version of test	7	0	0	7	0.10%
J: Tested during more than one day	25	3	10	38	0.53%
K: Had supervised breaks	140	25	48	213	2.95%
L: Most beneficial time of day	23	7	10	40	0.55%
M: Administered at home or in a hospital	2	3	1	6	0.08%
N: Used a dictionary	18	1	3	22	0.30%
O: Examiner presented using MCE or ASL	15	0	0	15	0.21%
Q: Used a calculator	26	12	5	43	0.59%
R: Used an arithmetic table	4	1	0	5	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	24	5	5	34	0.47%
Y: Leave blank	6	4	5	15	0.21%
Z: Examiner read test questions aloud	80	17	23	120	1.66%
Accom. or Mod. is in Section 504 plan	0	0	1	1	0.01%
Accom. or Mod. is in IEP	291	52	73	416	5.76%
English Learner Test Variation A	0	1	0	1	0.01%
English Learner Test Variation B	3	0	0	3	0.04%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	9	2	1	12	0.17%
Any Accom., Mod., or EL Variation	321	64	85	470	6.50%
No Accom., Mod., or EL Variation	4,585	926	1,246	6,757	93.50%

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	3	0	2	5	0.02%
C: Dictated responses to a scribe	3	1	0	4	0.01%
F: Used non-interfering assistive device	2	0	0	2	0.01%
G: Used Braille version of test	0	0	1	1	0.00%
H: Used large-print version of test	4	0	0	4	0.01%
J: Tested during more than one day	15	3	9	27	0.09%
K: Had supervised breaks	74	16	40	130	0.45%
L: Most beneficial time of day	16	6	10	32	0.11%
M: Administered at home or in a hospital	3	3	4	10	0.03%
N: Used a dictionary	8	1	2	11	0.04%
O: Examiner presented using MCE or ASL	5	0	0	5	0.02%
Q: Used a calculator	16	9	4	29	0.10%
R: Used an arithmetic table	4	1	0	5	0.02%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	10	4	2	16	0.05%
Y: Leave blank	4	0	4	8	0.03%
Z: Examiner read test questions aloud	38	7	15	60	0.21%
Accom. or Mod. is in Section 504 plan	2	0	5	7	0.02%
Accom. or Mod. is in IEP	152	29	54	235	0.81%
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	1	0	2	0.01%
English Learner Test Variation D	1	1	0	2	0.01%
Any Accom., Mod., or EL Variation	167	39	65	271	0.93%
No Accom., Mod., or EL Variation	21,366	3,010	4,524	28,900	99.07%
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	0.02%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering 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	1	2	0.04%
K: Had supervised breaks	3	0	0	3	0.06%
L: Most beneficial time of day	1	0	0	1	0.02%
M: Administered at home or in a hospital	0	0	1	1	0.02%
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	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 1					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	1	1	1	3	0.06%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	1	0	0	1	0.02%
Accom. or Mod. is in Section 504 plan	1	0	0	1	0.02%
Accom. or Mod. is in IEP	6	1	1	8	0.16%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	2	2	0.04%
Any Accom., Mod., or EL Variation	8	1	5	14	0.29%
No Accom., Mod., or EL Variation	4,068	265	530	4,863	99.71%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	1	0	0	1	0.01%
C: Dictated responses to a scribe	2	0	0	2	0.01%
F: Used non-interfering assistive device	1	0	0	1	0.01%
G: Used Braille version of test	1	0	0	1	0.01%
H: Used large-print version of test	3	0	0	3	0.02%
J: Tested during more than one day	7	0	0	7	0.05%
K: Had supervised breaks	59	7	11	77	0.54%
L: Most beneficial time of day	4	1	0	5	0.04%
M: Administered at home or in a hospital	1	0	2	3	0.02%
N: Used a dictionary	10	0	1	11	0.08%
O: Examiner presented using MCE or ASL	10	0	0	10	0.07%
Q: Used a calculator	9	3	1	13	0.09%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	15	0	1	16	0.11%
Y: Leave blank	3	4	1	8	0.06%
Z: Examiner read test questions aloud	40	10	12	62	0.44%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	126	20	20	166	1.17%
English Learner Test Variation A	55	18	10	83	0.58%
English Learner Test Variation B	23	0	0	23	0.16%
English Learner Test Variation C	56	40	7	103	0.73%
English Learner Test Variation D	112	26	18	156	1.10%
Any Accom., Mod., or EL Variation	313	101	58	472	3.33%
No Accom., Mod., or EL Variation	10,101	1,479	2,141	13,721	96.67%

Special Services Summary for Integrated/Coordinated Science 1					
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering 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	0.01%
K: Had supervised breaks	9	1	0	10	0.06%
L: Most beneficial time of day	3	0	0	3	0.02%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	2	0	0	2	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	1	1	0.01%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	3	0	0	3	0.02%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	16	1	1	18	0.11%
English Learner Test Variation A	0	1	0	1	0.01%
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	17	2	1	20	0.13%
No Accom., Mod., or EL Variation	13,477	876	1,500	15,853	99.87%

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	1	1	0.02%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	1	1	2	0.04%
J: Tested during more than one day	1	4	1	6	0.11%
K: Had supervised breaks	5	4	5	14	0.26%
L: Most beneficial time of day	0	2	0	2	0.04%
M: Administered at home or in a hospital	0	0	1	1	0.02%
N: Used a dictionary	0	2	2	4	0.07%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	3	2	5	0.09%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	1	0	1	0.02%
Z: Examiner read test questions aloud	0	14	2	16	0.30%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	5	21	10	36	0.67%
English Learner Test Variation A	0	6	3	9	0.17%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	3	0	3	0.06%
English Learner Test Variation D	0	2	0	2	0.04%
Any Accom., Mod., or EL Variation	5	31	13	49	0.91%
No Accom., Mod., or EL Variation	1,811	2,383	1,130	5,324	99.09%
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 non-interfering 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	1	0	2	0.04%
K: Had supervised breaks	5	1	0	6	0.12%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 2					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	1	0	1	0.02%
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	5	3	0	8	0.16%
English Learner Test Variation A	0	6	3	9	0.18%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	3	0	3	0.06%
English Learner Test Variation D	0	2	0	2	0.04%
Any Accom., Mod., or EL Variation	5	12	3	20	0.41%
No Accom., Mod., or EL Variation	1,703	2,167	980	4,850	99.59%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked responses in test booklet	0	0	1	1	0.20%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	1	1	2	0.40%
J: Tested during more than one day	0	3	1	4	0.80%
K: Had supervised breaks	0	3	5	8	1.60%
L: Most beneficial time of day	0	2	0	2	0.40%
M: Administered at home or in a hospital	0	0	1	1	0.20%
N: Used a dictionary	0	2	2	4	0.80%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	3	2	5	1.00%
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	14	2	16	3.19%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	18	10	28	5.59%
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	19	10	29	5.79%
No Accom., Mod., or EL Variation	108	214	150	472	94.21%

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	1	1	0.04%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	1	1	2	0.07%
J: Tested during more than one day	0	4	0	4	0.14%
K: Had supervised breaks	3	3	1	7	0.25%
L: Most beneficial time of day	0	2	0	2	0.07%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	2	0	2	0.07%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	1	2	3	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	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	8	0	8	0.29%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	3	11	3	17	0.62%
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	12	3	18	0.65%
No Accom., Mod., or EL Variation	1,148	988	608	2,744	99.35%
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 non-interfering 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	0.20%
K: Had supervised breaks	2	1	0	3	0.60%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 2					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	2	1	0	3	0.60%
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	1	0	3	0.60%
No Accom., Mod., or EL Variation	208	199	93	500	99.40%
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 non-interfering 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	0.11%
K: Had supervised breaks	0	0	3	3	0.33%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	1	1	0.11%
N: Used a dictionary	0	0	2	2	0.22%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	2	0	2	0.22%
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	1	0	1	0.11%
Z: Examiner read test questions aloud	0	6	2	8	0.88%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	9	6	15	1.64%
English Learner Test Variation A	0	6	3	9	0.98%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	3	0	3	0.33%
English Learner Test Variation D	0	2	0	2	0.22%
Any Accom., Mod., or EL Variation	0	18	9	27	2.95%
No Accom., Mod., or EL Variation	183	469	235	887	97.05%

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 non-interfering 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	269	724	192	1,185	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	1	0	0	1	0.07%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	1	0	0	1	0.07%
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	1	0	0	1	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	1	1	2	0.15%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	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	1	0	1	2	0.15%
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	6	6	0.44%
Any Accom., Mod., or EL Variation	1	1	7	9	0.67%
No Accom., Mod., or EL Variation	15	91	1,234	1,340	99.33%
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 non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 3					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	6	6	0.52%
Any Accom., Mod., or EL Variation	0	0	6	6	0.52%
No Accom., Mod., or EL Variation	11	72	1,075	1,158	99.48%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. Of Total**
B: Marked responses in test booklet	1	0	0	1	0.54%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	1	0	0	1	0.54%
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	1	0	0	1	0.54%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	1	1	2	1.08%
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	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	1	0	1	2	1.08%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	1	1	3	1.62%
No Accom., Mod., or EL Variation	4	19	159	182	98.38%

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	1	0	0	1	0.13%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	1	0	0	1	0.13%
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	1	0	0	1	0.13%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	1	1	2	0.26%
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	1	0	1	2	0.26%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	1	1	3	0.38%
No Accom., Mod., or EL Variation	9	44	727	780	99.62%
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 non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 3					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	0	5	89	94	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 non-interfering 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	6	6	2.63%
Any Accom., Mod., or EL Variation	0	0	6	6	2.63%
No Accom., Mod., or EL Variation	5	30	187	222	97.37%

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 non-interfering 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	1	11	231	243	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 non-interfering 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	210	84	73	367	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 non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

Special Services Summary for Integrated/Coordinated Science 4					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	151	60	55	266	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 non-interfering 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	59	24	18	101	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 non-interfering 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	143	69	60	272	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 non-interfering assistive device	0	0	0	0	0.00%
G: Used Braille version of test	0	0	0	0	0.00%
H: Used large-print version of test	0	0	0	0	0.00%
J: Tested during more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented using MCE or ASL	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%

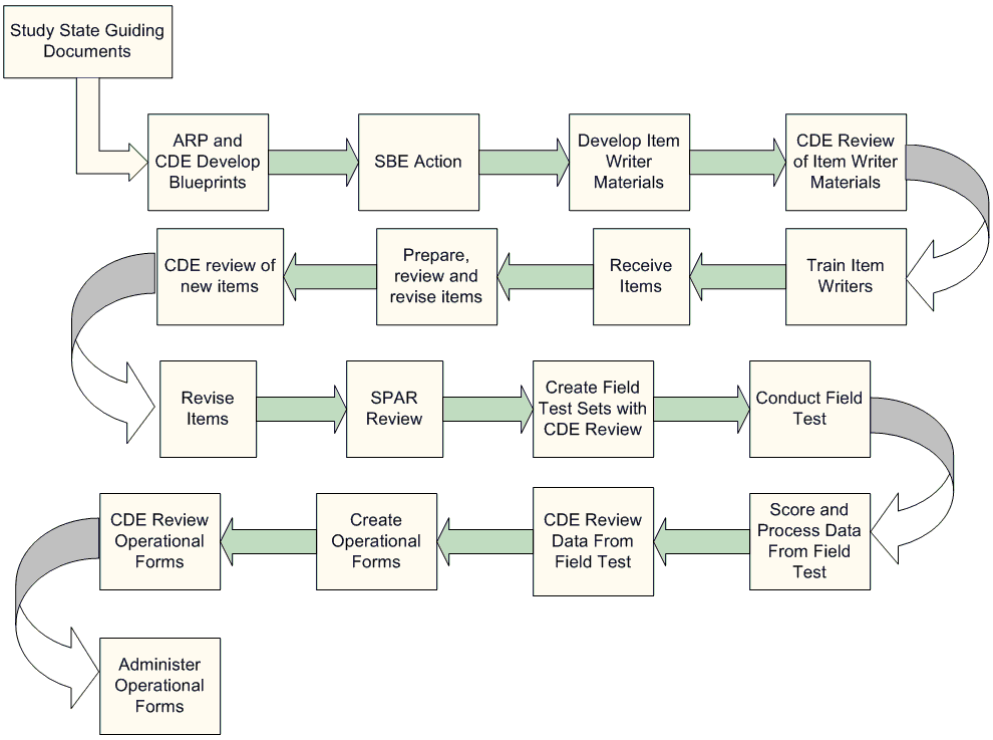
Special Services Summary for Integrated/Coordinated Science 4					
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	4	4	4	12	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 non-interfering 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	46	8	8	62	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 non-interfering 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	0	0	0	0	0.00%

Chapter 3: Item Development

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

Figure 3.1 The ETS Item Development Process for the STAR Program



Rules for Item Development

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

Item Development Specifications

The item specifications describe the characteristics of the items that should be written to measure each content standard. The item specifications help ensure that the items in the CSTs measure the content standards. To achieve this, the item specifications provide detailed information to item writers that are developing items for the CSTs. The specifications include the following:

- A full statement of each academic content standard, as defined by the SBE (CDE, 2009)
- A description of each content strand
- The expected depth of knowledge (DOK) measured by items written for each standard (coded as 1, 2, 3, or 4; items assigned a DOK of 1 are the least cognitively complex, items assigned a DOK of 3 are the most cognitively complex, and the code of 4 only applies to some writing tasks)
- The homogeneity of the construct measured by each standard

- A description of the kinds of item stems appropriate for multiple-choice items used to assess each standard
- A description of the kinds of distractors that are appropriate for multiple-choice items assessing each standard
- A description of appropriate data representations (such as charts, tables, graphs, or other illustrations) for mathematics, science, and history–social science items
- The content limits for the standard (such as one or two variables, maximum place values of numbers) for mathematics, science, and history–social science items
- A description of appropriate reading passages, if applicable, for ELA items
- A description of specific kinds of items to be avoided, if any (for example, items with any negative connotation 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
- Writing passages have an appropriate readability level
- A list of topics to be avoided

Expected Item Ratio

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

In previous years, the item utilization plan assumed that each year, 50 percent of items on an operational form would be refreshed (replaced); these items remained in the item bank for future use. However, beginning in 2010, the item utilization plan was modified to reflect changes in the item development process. The item refresh rate was reduced from 50 percent to 35 percent. This change reduced the overall test development activities for CST without impacting the test form comparability or the future viability of the item pool.

The item utilization plan also declares that 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. The number of items to be field-tested for a given CST reflects the demand for new items and is determined as a percent of the number of operational items. For example, there are 65 operational items on the ELA CST in grade two; the number of items to be field tested is 92% of 65, which is 60 items.

Table 3.1 Field-test Percentages for the CSTs

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

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 test 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 on 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 SPAR panels.

The ETS review process for the CSTs includes the following:

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

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

1. Internal Content Review

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

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

Each item is classified with a code for the standard it is intended to measure. The assessment specialists check all items against these classification codes, both to evaluate the correctness of the classification and to ensure that the task posed by the item is relevant to the outcome it is intended to measure. The reviewers may accept the item and

classification as written, they may suggest revisions, or they may recommend that the item be discarded. These steps occur prior to the CDE's review.

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

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

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

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

Content Expert Reviews

Assessment Review Panels
ETS is responsible for working with ARPs as items are developed for the CSTs. The ARPs are advisory panels to the CDE and ETS and provide guidance on matters related to item development for the CSTs. The ARPs are responsible for reviewing all newly developed items for alignment to the California content standards. The ARPs also review the items for accuracy of content, clarity of phrasing, and quality. ETS provides the ARPs with the opportunity to review the items with the applicable field-test statistics and to make recommendations for the use of items in subsequent test forms. In their examination of test items, the ARPs may raise concerns related to age/grade appropriateness and gender, racial, ethnic, and/or socioeconomic bias.

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

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

- Knowledge and experience with the California content standards in ELA, history–social science, mathematics, or science.

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

- Three or more years of experience as a school administrator, district/county content/ program specialist, or university instructor in a grade-specific area or area related to ELA, history–social science, mathematics, or science;
- Bachelor's or higher degree in a grade-specific or subject area related to ELA, history–social science, mathematics, or science; and
- Knowledge of and experience with the California content standards in ELA, history–social science, mathematics, or science.

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

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

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

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

CST	ELA	Math	Science	HSS	Total
Total	12	21	32	18	83
Occupation (Members may teach multiple levels.)					
Teacher or Program Specialist, Elementary/ Middle School	4	7	11	4	26
Teacher or Program Specialist, High School	1	3	10	9	23
Teacher or Program Specialist, K–12	1	3	0	0	4
University Personnel	1	3	8	2	14
Other District Personnel (e.g., Director of Special Services, etc.)	5	5	3	4	17
Highest Degree Earned					
Bachelor's Degree	4	8	9	8	29
Master's Degree	7	10	11	9	37
Doctorate	1	3	11	1	16

CST	ELA	Math	Science	HSS	Total
Teaching Experience					
Elementary Teaching (multiple subjects)	7	6	12	0	25
Secondary Teaching (single subject)	4	4	12	13	33
Special Education	0	1	0	1	2
Reading Specialist	0	0	0	1	1
English Learner (CLAD, BCLAD)	1	2	1	2	6
Administrative	3	2	5	3	13
Other	1	4	0	2	7

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 next.

Does the item:

- Have one and only one clearly correct answer?
- Measure the content standard?
- Match the test item specifications?
- Align with the construct being measured?
- Test worthwhile concepts or information?

- Reflect good and current teaching practices?
- Have a stem that gives the student a full sense of what the item is asking?
- Avoid unnecessary wordiness?
- Use response options that relate to the stem in the same way?
- Use response options that are plausible and have reasonable misconceptions and errors?
- Avoid having one response option that is markedly different from the others?
- Avoid clues to students, such as absolutes or words repeated in both the stem and options?
- Reflect content that is free of bias against any person or group?

Is the stimulus, if any, for the item:

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

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

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

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

Statewide Pupil Assessment Review Panel

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

Field Testing

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

Stand-alone Field Testing

For each new CST launched, a pool of items is initially constructed by administering the newly developed items in a stand-alone field test. In stand-alone field testing, examinees are recruited to take tests outside of the usual testing circumstances and the test results are typically not used for instructional or accountability purposes (Schmeiser & Welch, 2006).

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

ETS field-tested new writing prompts in 2005 for the first time in three years. A task force was convened to provide an opportunity for representatives from the field and other specialists to recommend possible changes to the writing test that could be incorporated into the field tests. Twenty prompts were field-tested for each of the two grades to determine which of the modifications in format and directions recommended by the Writing Test Task Force were most helpful to students. These new writing prompts with modified formats and directions were field-tested with thousands of California students. Following reviews of field-test results by the CDE, ETS, and the ELA ARP, two grade four and two grade-seven prompts were selected for the subsequent administrations. Because the writing genres eligible for testing were the same as in previous years, the new writing tasks were very similar to those administered previously.

Embedded Field-test Items

Although a stand-alone field test is useful for developing a new test because it can produce a large pool of quality items, embedded field testing is generally preferred because the items being field-tested are scattered throughout the operational test. Variables such as test-taker motivation and test security are the same in embedded field testing as they will be when the field-tested items are later administered operationally. Such field testing involves distributing the items being field-tested within 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 Field-test Items

The operational 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 varies across content area and grade level.

Table 3.3 shows the number of forms administered for each CST in 2010 and the numbers of examinees included in samples used for the field test or “final” item analyses (FIA) of these forms. The field-test samples for the majority of CSTs constitute approximately 80 to 90 percent of the entire population tested.

Table 3.3 Summary of Items and Forms Presented in the 2010 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	397,501	452,078	10	60	38,496–40,661	44,587–45,970
	3	65	384,289	437,450	10	60	37,788–39,099	43,071–44,441
	4	75	381,931	436,696	10	60	34,597–39,549	39,315–44,923
	5	75	376,952	431,294	10	59	26,699–134,664	30,358–153,221
	6	75	378,676	435,708	10	58	34,909–39,015	40,093–44,703
	7	76	380,415	440,521	10	59	35,655–38,897	41,117–44,866
	8	74	388,463	450,321	10	59	27,505–138,666	31,795–160,184
	9	75	400,725	488,206	10	58	37,568–41,436	45,543–50,296
	10	75	399,010	479,925	10	60	27,899–140,556	33,540–168,409
	11	75	377,965	449,140	10	60	35,677–38,876	42,191–46,047
History–Social Science	**Grade 8**	75	403,342	467,683	5	30	28,574–288,423	32,953–332,554
	World History	60	392,607	475,350	5	30	76,787–79,932	92,198–95,891
	Grade 11	60	372,019	442,015	5	30	37,547–220,889	44,366–261,189
Mathematics	**2**	65	398,131	452,806	10	60	38,545–40,762	44,650–46,038
	3	65	386,476	439,938	10	60	37,990–39,353	43,294–44,713
	4	65	384,946	440,352	10	60	34,974–39,788	39,729–45,192
	5	65	379,122	433,919	10	60	26,855–135,453	30,535–154,103
	6	65	379,505	436,749	10	60	35,060–39,087	40,261–44,780
	7	65	352,357	408,894	10	60	32,974–36,027	38,071–41,588
	General Math	65	184,535	219,970	1	6	184,535	219,970
	Algebra I	65	629,556	746,242	5	30	122,791–129,018	144,965–152,255
	Geometry	65	338,112	408,572	5	30	66,323–68,803	79,933–82,957
	Algebra II	65	221,446	264,960	5	30	43,442–45,042	51,880–53,761
	Summ. H.S. Math	65	112,368	130,562	5	30	21,949–22,943	25,454–26,595
	Integrated Math 1	65	10,366	11,260	1	6	10,366	11,260
	Integrated Math 2	65	3,641	3,830	1	6	3,641	3,830
	Integrated Math 3	65	782	795	1	6	782	795
Science	**5**	60	377,775	432,500	14	84	26,751–27,398	30,429–31,173
	8	60	388,344	450,168	14	84	27,511–28,305	31,794–32,706
	Life Science	60	387,047	465,836	14	84	26,931–30,734	32,323–37,182
	Biology	60	455,116	544,737	14	83	31,816–33,364	38,216–39,277
	Chemistry	60	211,601	256,509	14	84	15,030–15,237	18,150–18,458
	Earth Science	60	188,916	217,760	14	84	13,356–13,972	15,289–16,206
	Physics	60	61,958	72,735	14	84	4,367–4,511	5,112–5,291
	Int/Coord Science 1	60	41,121	63,991	1	6	41,121	63,991
	Int/Coord Science 2	60	4,021	5,356	1	6	4,021	5,356
	Int/Coord Science 3	60	705	1,344	1	6	705	1,344
	Int/Coord Science 4	60	308	365	1	6	308	365

* Numbers indicate grade-level tests.

CDE Data Review

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

Item Banking

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

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

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

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

References

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

Patrick, R., and Way, D. (March, 2008). *Field testing and equating designs for state educational assessments*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

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Chapter 4: Test Assembly

The 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 psychometric attributes are used as the basis for assembling the test forms.

Test Length

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

The CSTs for ELA consist of 75 items[1] with the exception of ELA CSTs administered in grades two and three, which consist of 65 items each. The CSTs for mathematics are composed of 65 items; and the science CSTs are composed of 60 items each. The history–social science CST administered in grade eight consists of 75 items, while the CST for U.S. History administered in grade eleven and the end-of-course CST for World History consist of 60 items. For more details on the distribution of items, see Appendix 2.A 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 description of the CST reporting clusters and the standards that compose each reporting cluster is provided in Appendix 2.B in Chapter 2 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 linking items are selected for their strong

[1] Scores for the 2010 CST for ELA (Grade 8) were based on 74 items following removal of one item from scoring due to poor item performance.

match to the content and are reviewed to ensure that they meet specific psychometric criteria.

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

Another consideration is the difficulty of each item. Test developers strive to ensure that there are some easy and some hard items and that there are a number of items in the middle range of difficulty. If items do not meet all content and psychometric criteria, staff reviews the other available items to determine if there are other selections that could improve the match of the test to all of the requirements. If such 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.

Psychometric Criteria

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

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

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

Three types of assembly targets are developed for each CST: the total test target, the linking block target, and (reporting) cluster targets. These targets are provided to test developers before a test construction cycle begins. The test developers and psychometricians work together to design the tests to these targets.

The total test target or primary statistical targets used for assembling CSTs for the 2010 STAR administration were the test information function based on the item response theory (IRT) item parameters and an average point biserial correlation. When using the IRT Rasch model, the target information function makes it possible to choose items to produce a test that has the desired precision of measurement at all ability levels. The target mean and standard deviation of item difficulty (*b*-values) consistent with the information curves were also provided to test development staff to help with the test construction process. The point-biserial correlation 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 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 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. These specifications were developed from the analyses of test forms administered in the years 2001 through 2007. The target values for all CSTs are presented in Table 4.1 on page 203. Because the items included in the CSTs for General Mathematics, Summative

High School Mathematics, Integrated Mathematics, and Integrated/Coordinated Science were drawn from other tests, targets for their *b*-value range and mean point-biserial were not defined.

The linking block target consisted of a proportionally adjusted (for numbers of items) total target. To aid comparisons, the information curves based on the linking blocks were proportionally adjusted to match the full test length and were presented with the information curves for the total test. The graphics for the total test and linking blocks are presented in Figure 4.A.1 through Figure 4.A.4, starting on page 209, for the ELA, history–social science, mathematics, and science tests, respectively. These curves present the target test information curves and the projected information curves for the total test and the linking sets.

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

Figure 4.B.1 through Figure 4.B.29, starting on page 216, present similar information for the cluster scores for the ELA, history–social science, mathematics, and science tests, respectively.

Table 4.1 Target Statistical Specifications for the CSTs

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	N/A	N/A	0.20	0.95	N/A	0.14
	Algebra I	–0.07	0.72	0.20	0.95	0.31 – 0.35	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	N/A	N/A	0.20	0.95	N/A	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
	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
Science	**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 2010 CSTs for General Mathematics, Summative High School Mathematics, Integrated Mathematics, and Integrated/Coordinated Science were assembled using the items from other operational CSTs which have different testing populations and *b*-values on different scales. Therefore, statistical targets for these tests include minimum and maximum *p*-values and minimum point biserial values only.

Projected Psychometric Properties of the Assembled Tests

Prior to the 2010 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 207 presents these summary values by content area and grade. Since General Mathematics, Summative High School Mathematics, 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 Figure 4.A.1 on page 207 were based on item *p*-values and point-biserial correlations that, for some of the items, were based on

external field-testing using samples from students that were not fully representative of the state. Chapter 8 presents item *p*-values, point-biserial correlations, and test reliability estimates based on the data from the 2010 CST administration.

Table 4.A.2 on page 208 shows the mean observed statistics of the items for each CST based on the item-level statistics available in the item bank for the most recent administration of those items. These values can be compared to the target values in Table 4.1.

The graphs in Figure 4.A.1 through Figure 4.A.4 starting on page 209 show, for each CST, the target test information function and the projected test information function for the total test and the linking set. Since the General Mathematics, Summative High School Mathematics, Integrated Mathematics and Integrated/Coordinated Science tests are built from other test components, such analyses are not applicable for those tests. The information curves for the linking sets were adjusted so they could be directly compared to the information curves for the longer total tests. Figure 4.B.1 through Figure 4.B.29 starting on page 216 present the target and projected information curves for the clusters in each CST.

Rules for Item Sequence and Layout

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

- ELA—Because the ELA test is primarily passage-dependent, items are sequenced with their associated reading passages. Passages are sequenced according to genre and interest level; test developers work to place high-interest pieces (typically narrative selections) near lower-interest pieces (typically functional or technical writing). Stand-alone items are placed throughout the form, where appropriate.
- History–Social Science—The items in the history–social science test are sequenced chronologically.
- Mathematics—The mathematics test is sequenced according to reporting cluster; that is, all items from a single reporting cluster are presented together and then all of the items from the next reporting cluster are presented. Reporting clusters 1 and 2, which both test Number Sense, are combined to incorporate all Number Sense items; they are followed by reporting clusters 3, 4, and 5.
- Science—The science test is sequenced according to reporting cluster; that is, all items from a single reporting cluster are presented together and then all of the items from the next reporting cluster are presented. Items from the Investigation and Experimentation reporting cluster are the exception to this rule: these items assess aspects of practical knowledge in various clusters; they are presented with their associated clusters and then aggregated for reporting purposes as an Investigation and Experimentation cluster.

Reference

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

Appendix 4.A—Technical Characteristics

Table 4.A.1 Summary of 2010 CST Projected Raw Score Statistics

Content Area	CST*	Number of Items	Mean Raw Score	Std. Dev. of Raw Scores	Reliability
English–Language Arts	**2**	65	43.33	13.25	0.94
	3	65	41.93	12.57	0.93
	4	75	49.41	14.94	0.94
	5	75	48.05	14.40	0.93
	6	75	46.56	14.15	0.93
	7**	75	46.70	13.87	0.93
	8	74	46.25	14.51	0.93
	9	75	45.37	14.38	0.93
	10	75	45.88	15.55	0.94
	11	75	44.72	15.25	0.94
History–Social Science	**8**	75	44.22	14.73	0.93
	World History	60	35.22	12.29	0.92
	11	60	35.60	12.35	0.93
Mathematics	**2**	65	49.04	11.54	0.93
	3	65	48.59	11.81	0.94
	4	65	48.51	12.46	0.94
	5	65	41.21	13.12	0.94
	6	65	39.79	13.40	0.93
	7	65	37.23	12.76	0.92
	General Mathematics***	65	N/A	N/A	N/A
	Algebra I	65	31.52	12.38	0.92
	Geometry	65	36.41	12.24	0.92
	Algebra II	65	35.09	11.48	0.90
	Summative H.S. Math***	65	N/A	N/A	N/A
	Integrated Mathematics 1***	65	N/A	N/A	N/A
	Integrated Mathematics 2***	65	N/A	N/A	N/A
	Integrated Mathematics 3***	65	N/A	N/A	N/A
Science	**5**	60	40.09	11.60	0.92
	8	60	38.97	11.54	0.92
	10 Life Science	60	36.35	12.10	0.92
	Biology	60	36.14	11.98	0.92
	Chemistry	60	36.15	11.43	0.91
	Earth Science	60	32.26	11.23	0.90
	Physics	60	35.66	11.40	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 2010 CST Projected Item Statistics

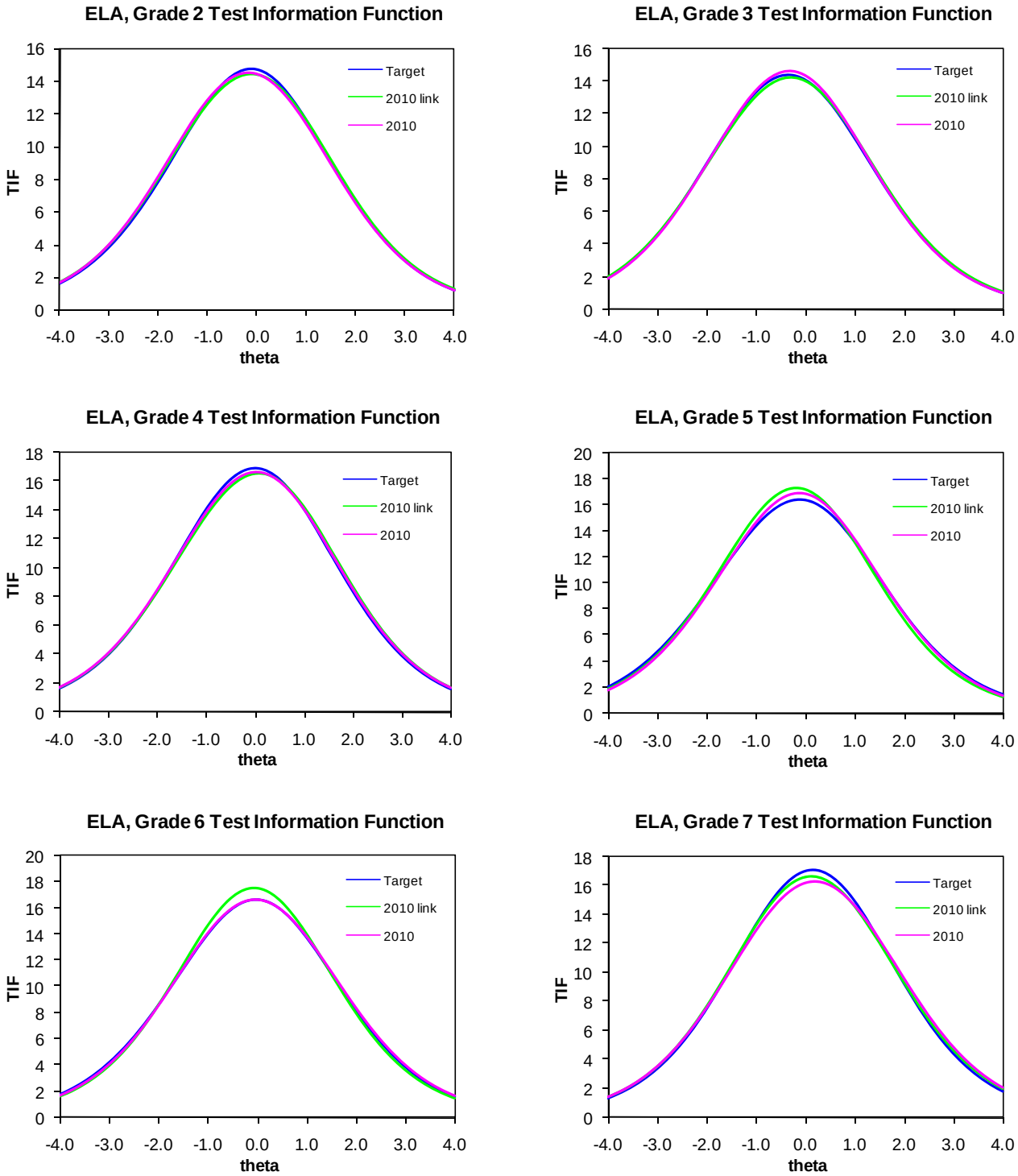
Content Area	CST*	Mean b	SD b	Mean *p*–value	Min *p*–value	Max *p*–value	Mean Point Biserial	Min Point Biserial
English–Language Arts	**2**	–0.18	0.71	0.67	0.37	0.88	0.45	0.23
	3	–0.33	0.69	0.65	0.32	0.88	0.42	0.28
	4	0.00	0.74	0.66	0.39	0.89	0.44	0.28
	5	–0.13	0.69	0.64	0.34	0.88	0.42	0.18
	6	–0.01	0.73	0.62	0.29	0.89	0.41	0.22
	7**	0.20	0.81	0.62	0.27	0.89	0.41	0.20
	8	–0.14	0.62	0.62	0.37	0.87	0.42	0.24
	9	–0.05	0.67	0.60	0.27	0.84	0.41	0.20
	10	–0.26	0.61	0.61	0.33	0.85	0.44	0.21
	11	–0.23	0.58	0.60	0.31	0.83	0.43	0.24
History–Social Science	**8**	–0.12	0.59	0.59	0.37	0.86	0.41	0.22
	World History	–0.19	0.50	0.59	0.30	0.87	0.43	0.29
	11	–0.27	0.61	0.59	0.24	0.87	0.43	0.27
Mathematics	**2**	–0.89	0.92	0.75	0.38	0.90	0.44	0.32
	3	–0.72	0.98	0.75	0.29	0.90	0.45	0.25
	4	–0.59	0.78	0.75	0.35	0.91	0.46	0.33
	5	–0.16	0.93	0.63	0.21	0.90	0.44	0.22
	6	–0.23	0.74	0.61	0.33	0.90	0.44	0.25
	7	–0.01	0.67	0.57	0.30	0.88	0.41	0.21
	General Mathematics***	N/A	N/A	N/A	0.24	0.81	N/A	0.14
	Algebra I	–0.05	0.67	0.48	0.22	0.85	0.39	0.18
	Geometry	–0.76	0.73	0.56	0.25	0.83	0.40	0.23
	Algebra II	–0.43	0.76	0.54	0.25	0.85	0.37	0.21
	Summative H.S. Math***	N/A	N/A	N/A	0.42	0.91	N/A	0.27
	Integrated Mathematics 1***	N/A	N/A	N/A	0.13	0.84	N/A	0.14
	Integrated Mathematics 2***	N/A	N/A	N/A	0.22	0.82	N/A	0.18
	Integrated Mathematics 3***	N/A	N/A	N/A	0.23	0.87	N/A	0.23
Science	**5**	–0.68	0.52	0.67	0.39	0.82	0.42	0.25
	8	–0.37	0.63	0.65	0.35	0.83	0.42	0.24
	10 Life Science	–0.31	0.69	0.61	0.28	0.83	0.43	0.28
	Biology	–0.40	0.56	0.60	0.34	0.81	0.42	0.26
	Chemistry	–0.40	0.49	0.60	0.31	0.84	0.40	0.24
	Earth Science	–0.00	0.45	0.54	0.31	0.72	0.38	0.20
	Physics	–0.19	0.52	0.59	0.33	0.78	0.40	0.20
	Int/Coord Science 1***	N/A	N/A	N/A	0.33	0.82	N/A	0.20
	Int/Coord Science 2***	N/A	N/A	N/A	0.33	0.81	N/A	0.20
	Int/Coord Science 3***	N/A	N/A	N/A	0.31	0.75	N/A	0.26
	Int/Coord Science 4***	N/A	N/A	N/A	0.31	0.84	N/A	0.25

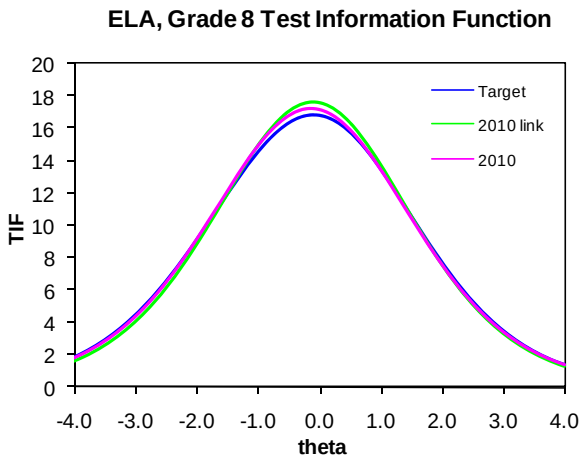
* Numbers indicate grade-level tests.

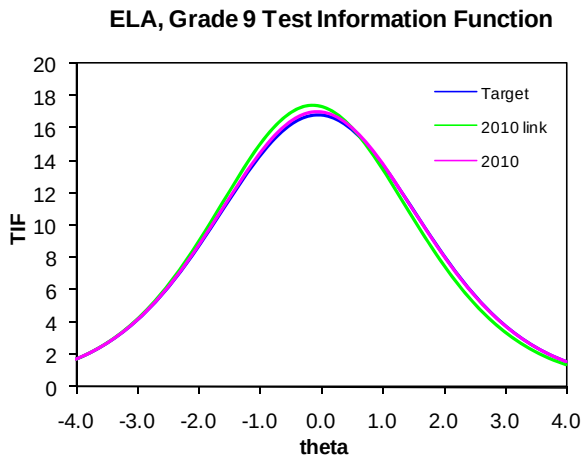
** MC items

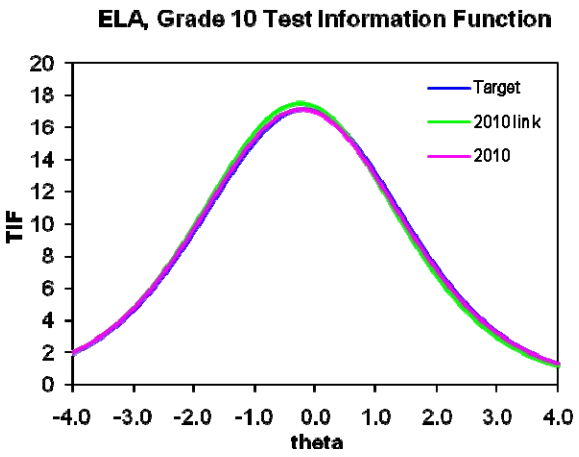
*** These tests were constructed using items from other operational CSTs; therefore, only the minimum and maximum *p*-value and the minimum point biserial value are provided for these tests.

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
2010 link
2010


ELA, Grade 9 Test Information Function
TIF
theta
Target
2010 link
2010


ELA, Grade 10 Test Information Function
TIF
theta
Target
2010 link
2010

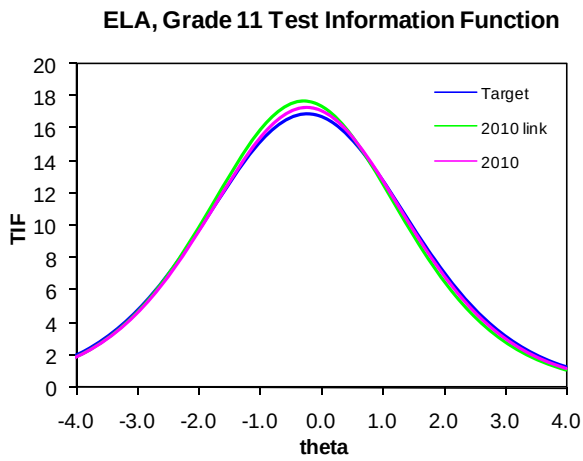
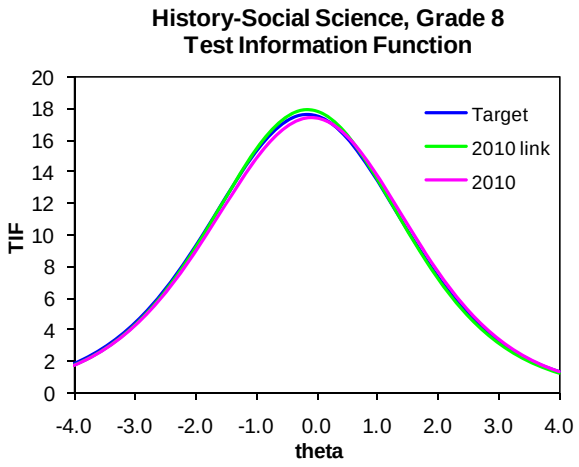
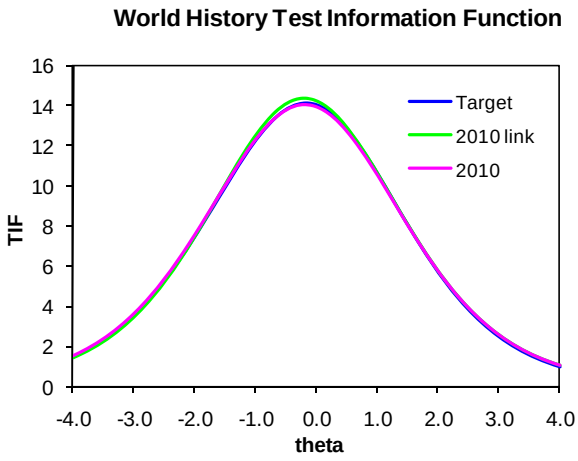

ELA, Grade 11 Test Information Function
TIF
theta
Target
2010 link
2010

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





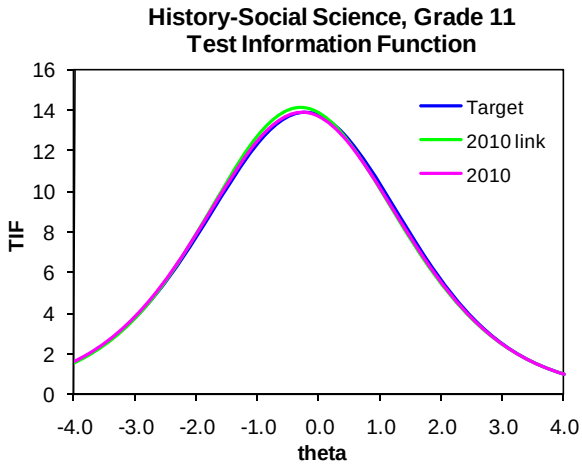
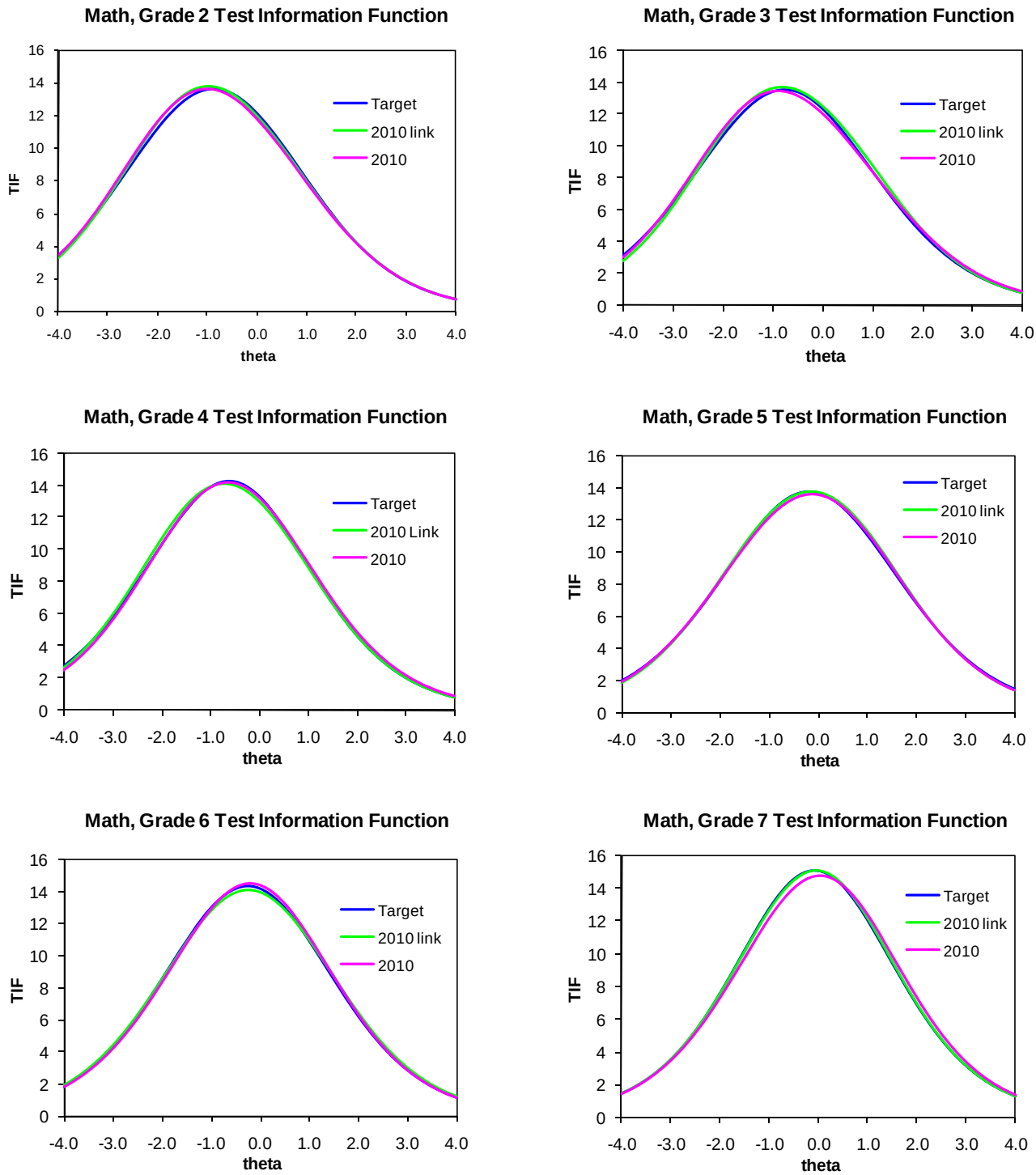
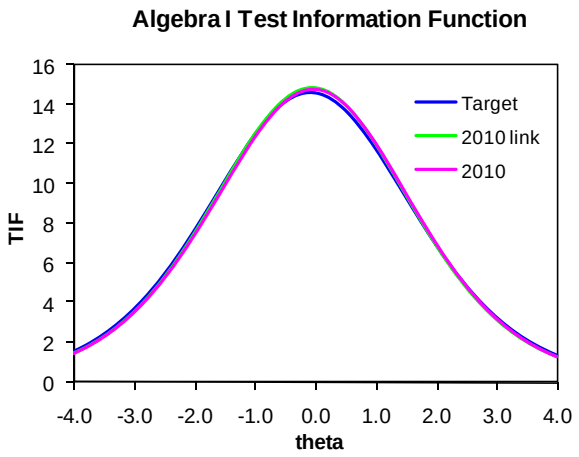


Figure 4.A.3 Plots for Target Information Function and Projected Information for Total Test and Linking Set for Mathematics




Algebra I Test Information Function
TIF
theta
Target
2010 link
2010
16
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-1.0
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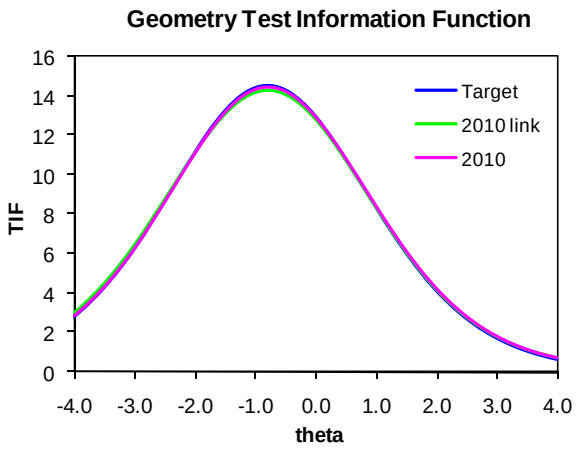
Geometry Test Information Function
TIF
theta
Target
2010 link
2010
16
14
12
10
8
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-1.0
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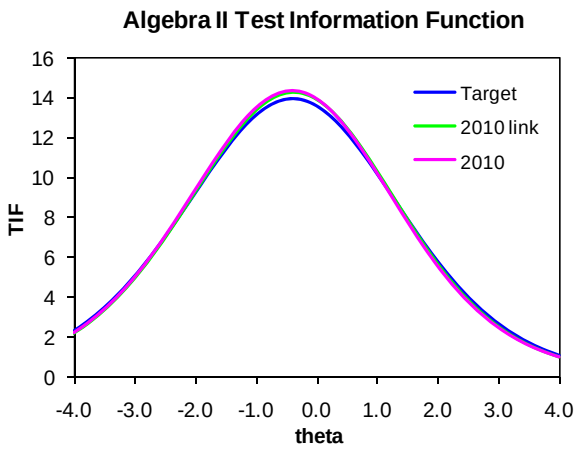
Algebra II Test Information Function
TIF
theta
Target
2010 link
2010
16
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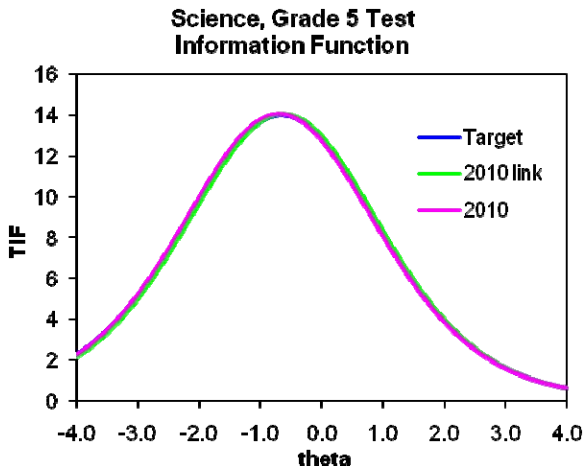
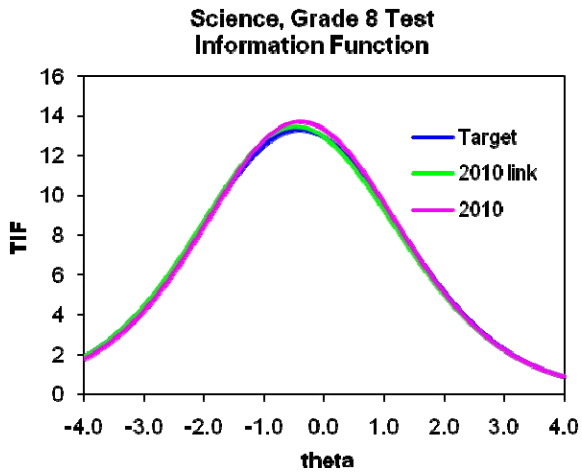
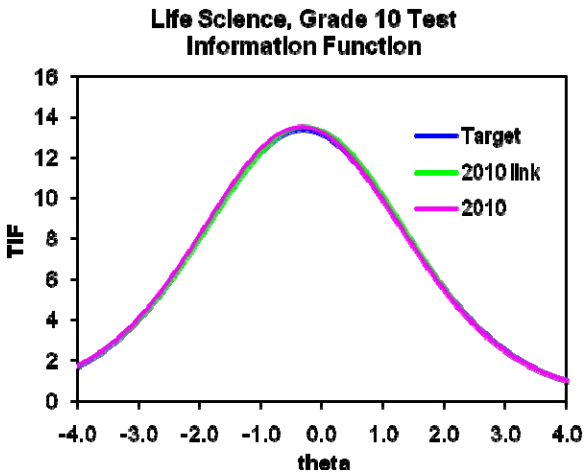
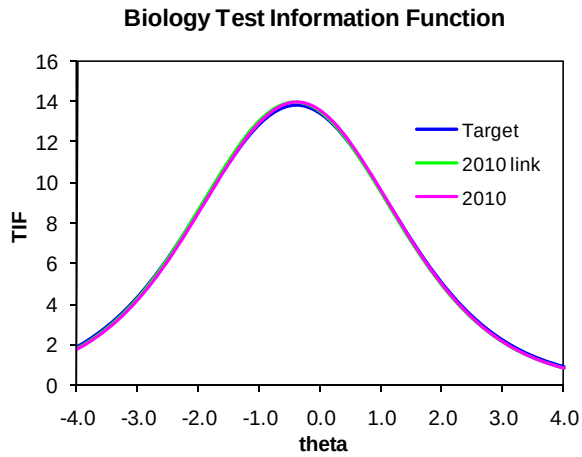
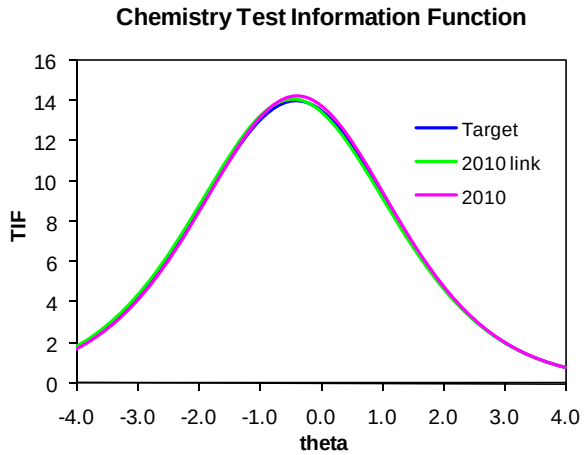
Figure 4.A.4 Plots for Target Information Function and Projected Information for Total Test and Linking Set for Science

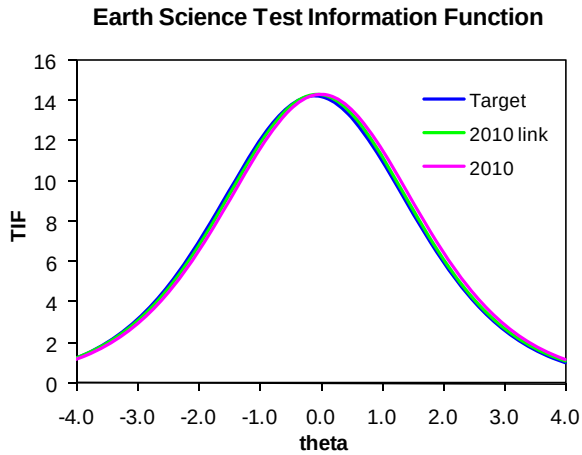


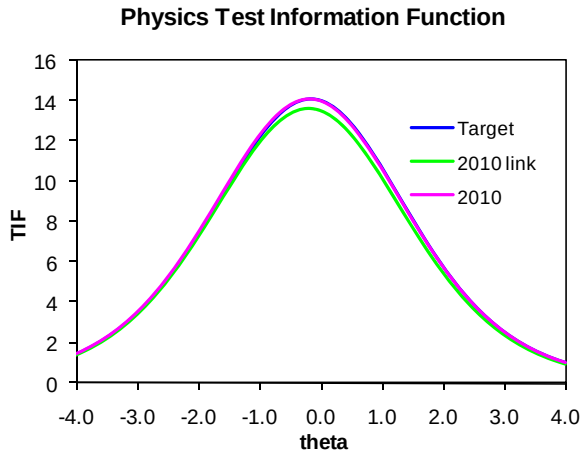











Physics Test Information Function
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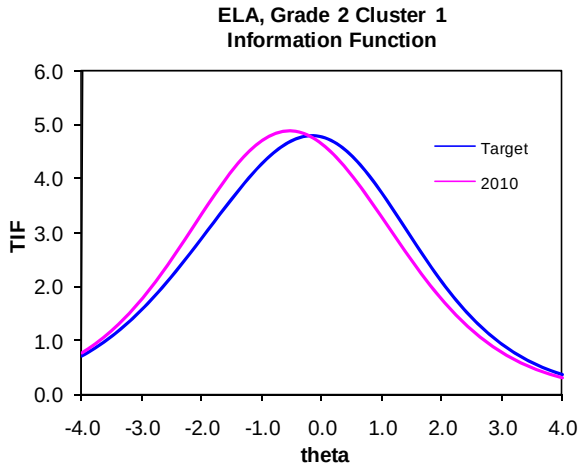
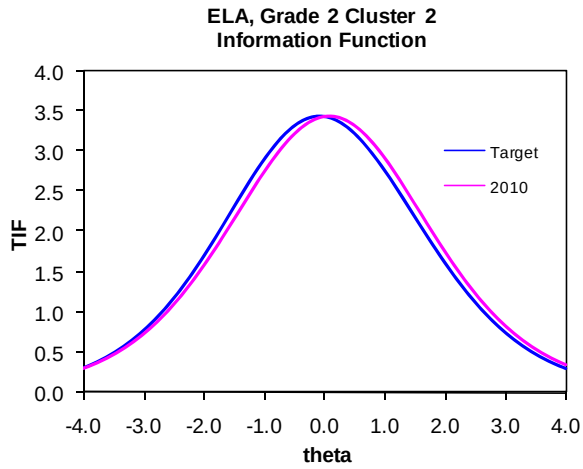
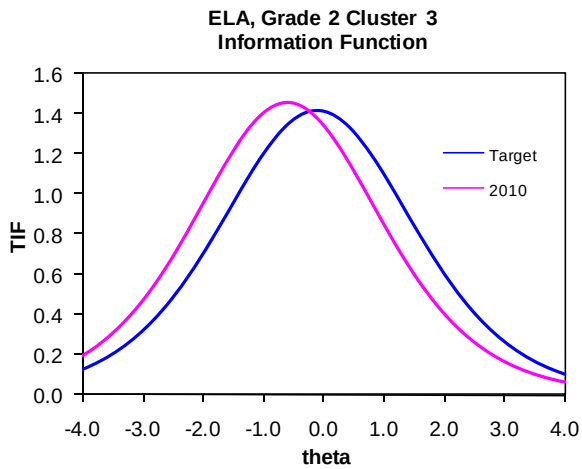
theta
Target
2010 link
2010

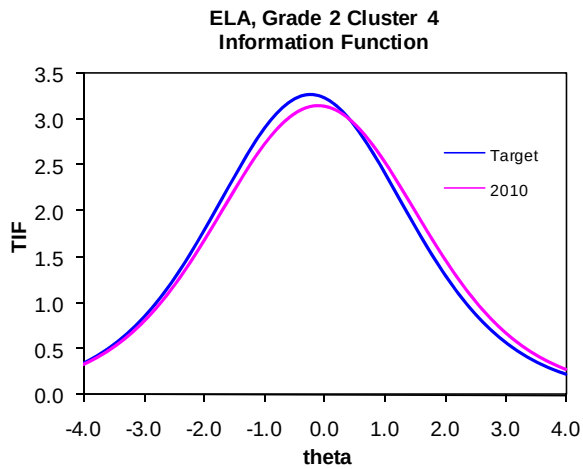
Appendix 4.B—Cluster Targets

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









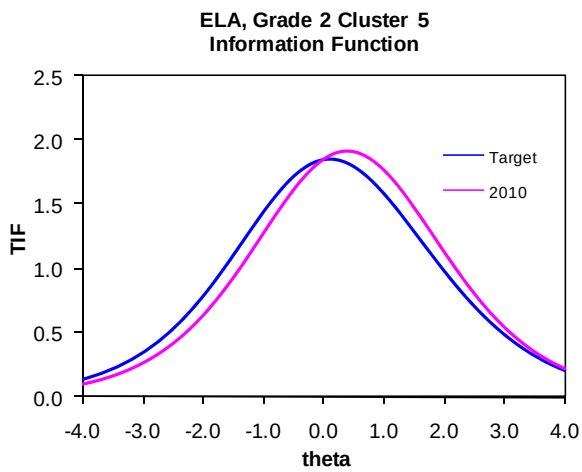


Figure 4.B.2 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Three

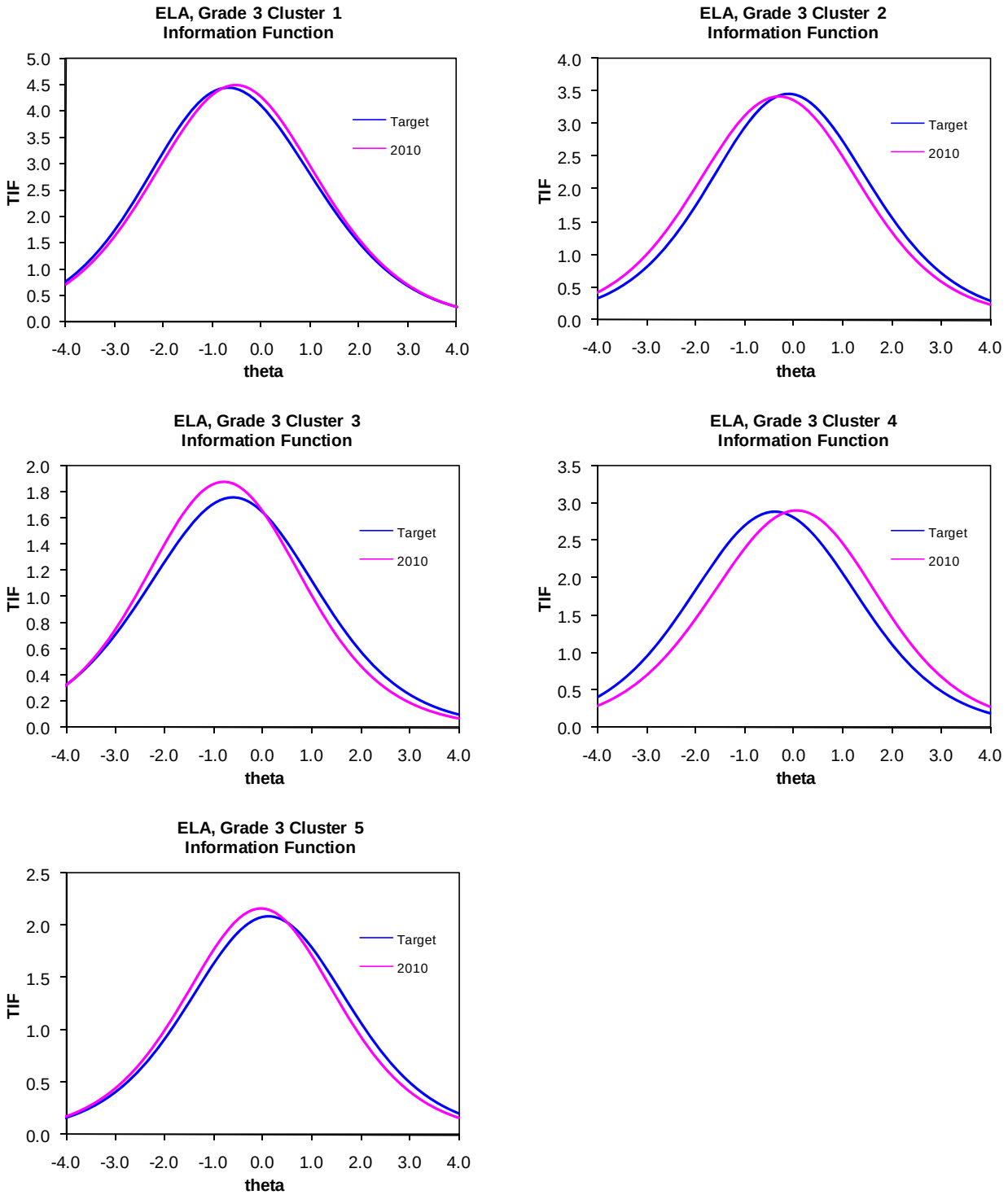


Figure 4.B.3 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Four

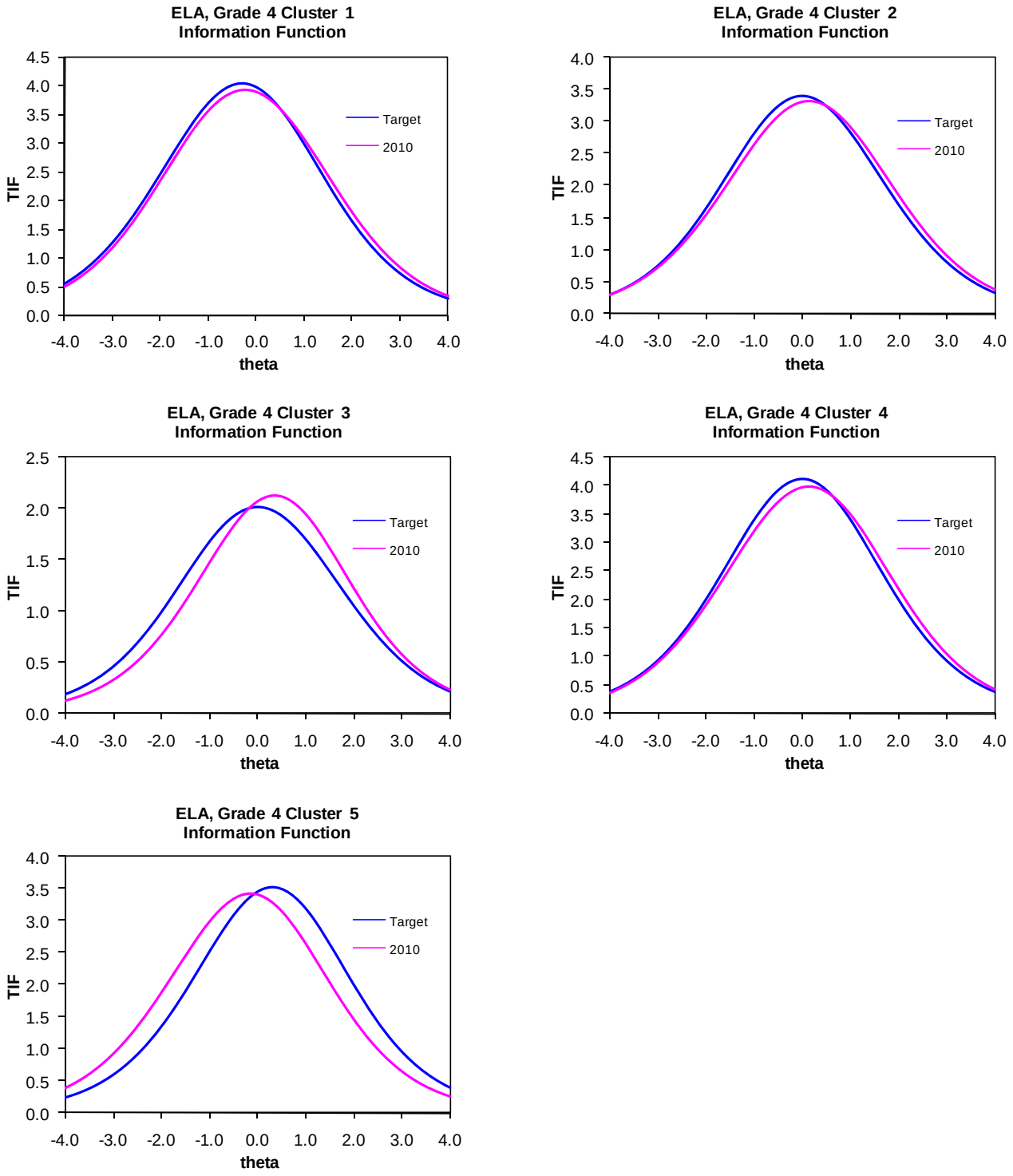


Figure 4.B.4 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Five

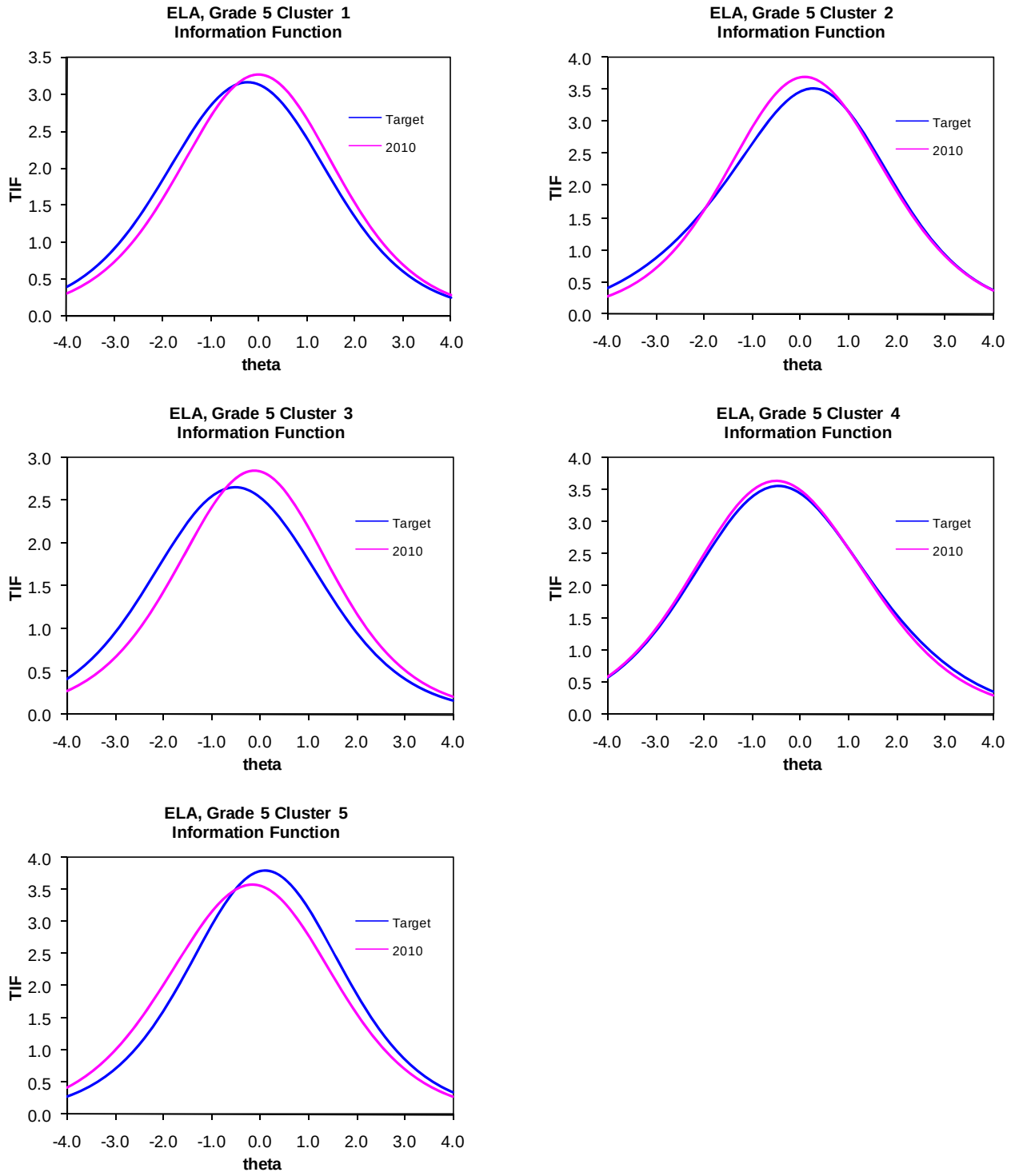
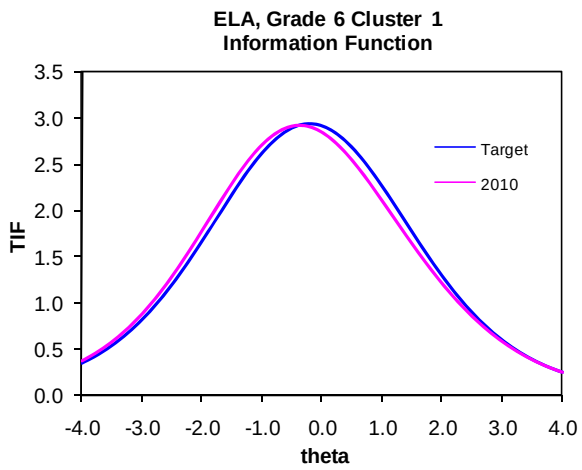
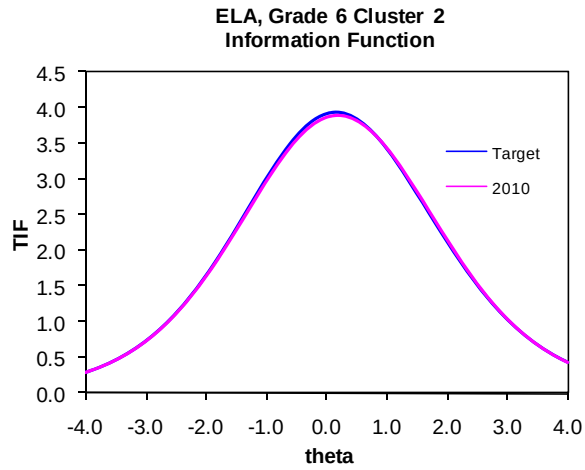
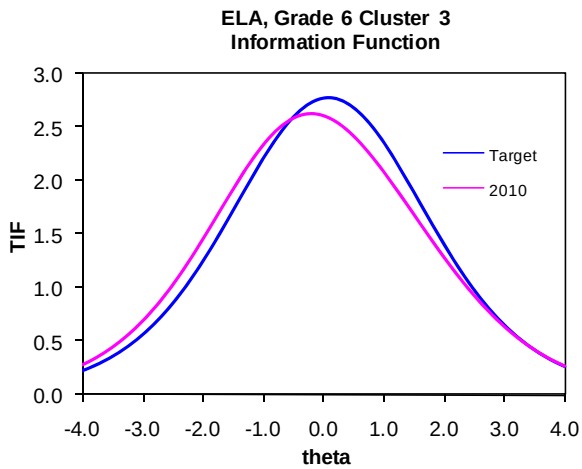
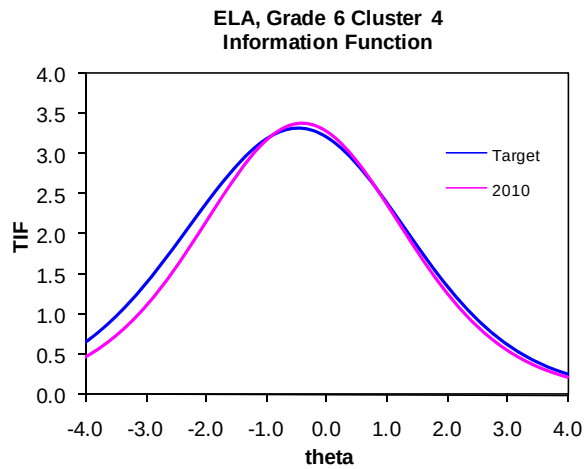


Figure 4.B.5 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Six









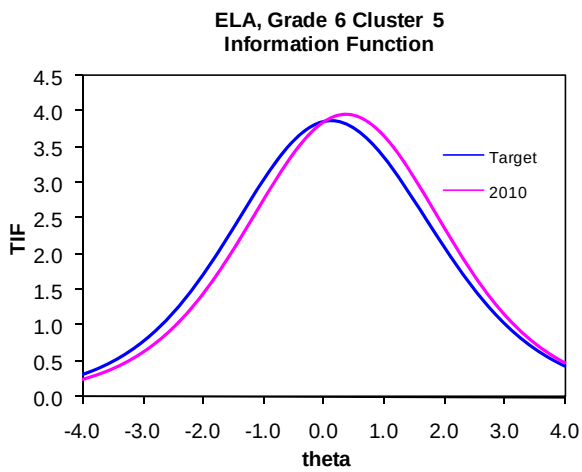
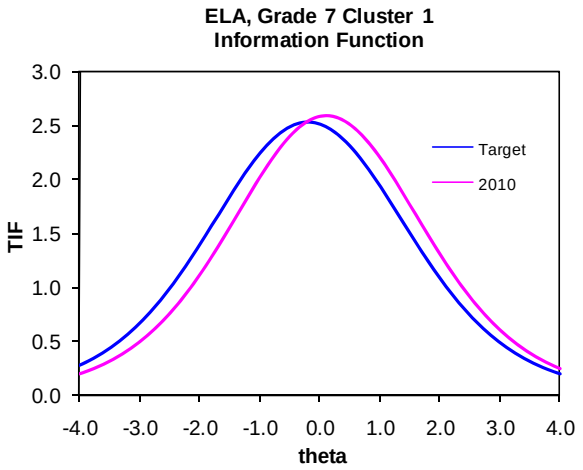
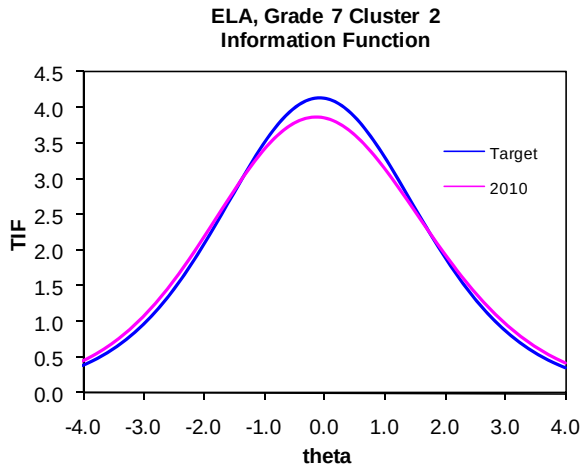
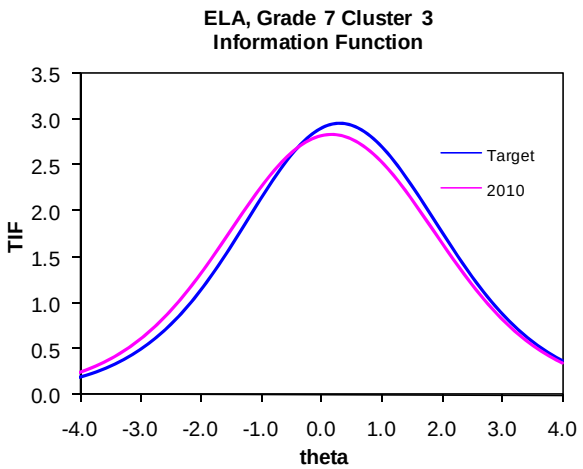
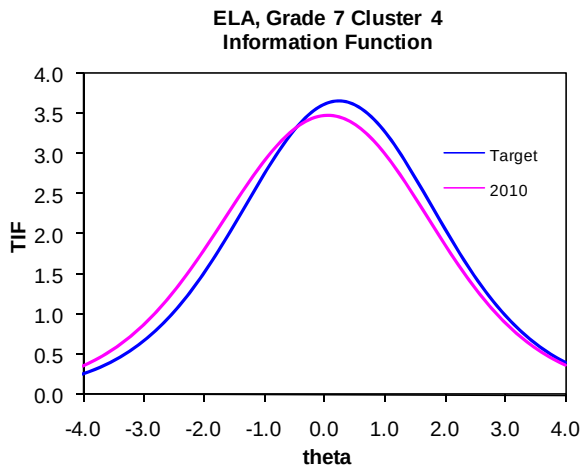


Figure 4.B.6 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Seven (multiple choice only)









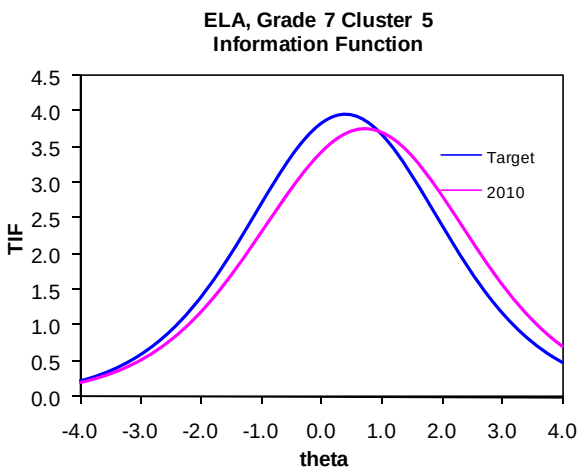


Figure 4.B.7 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Eight

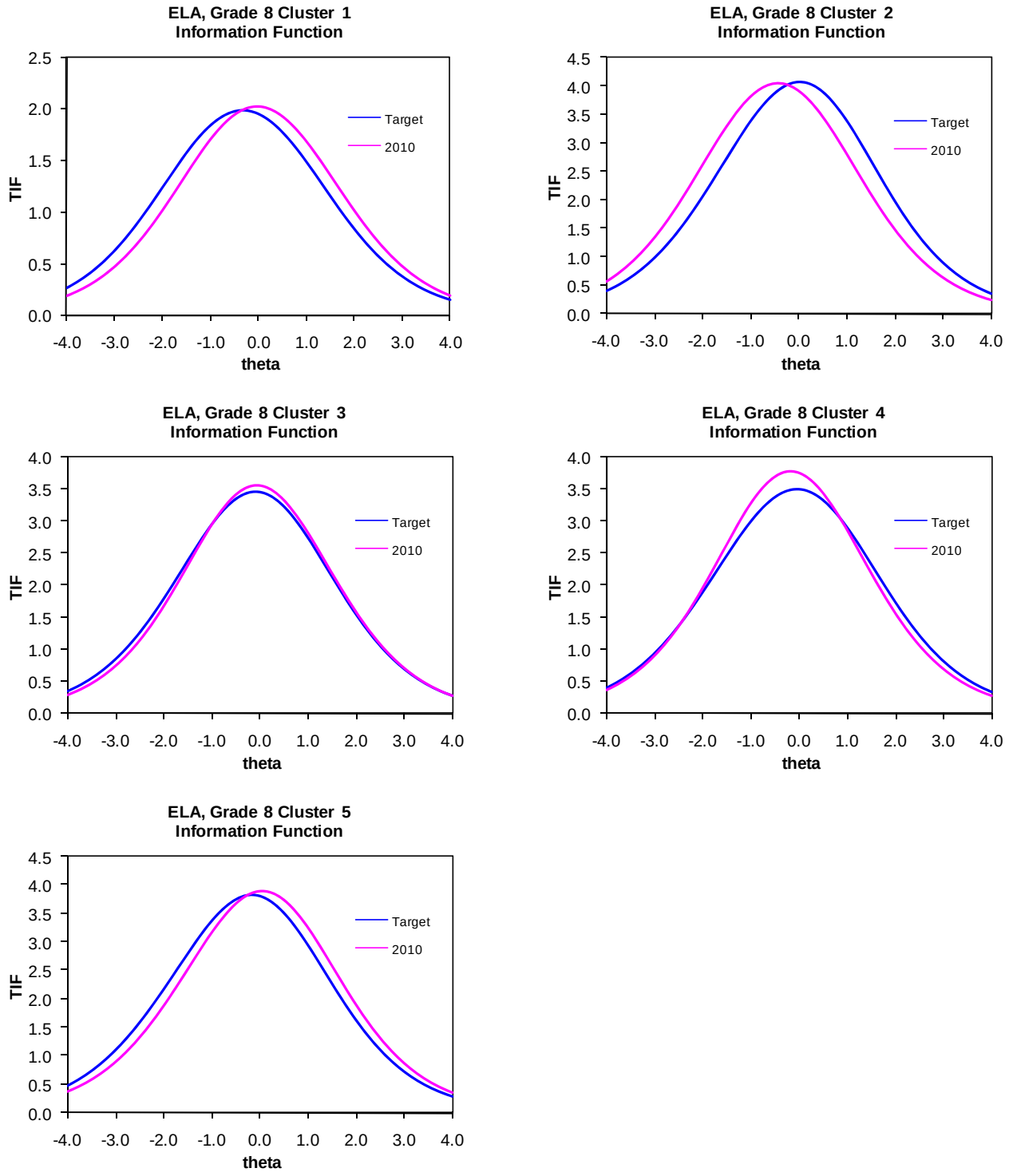


Figure 4.B.8 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Nine

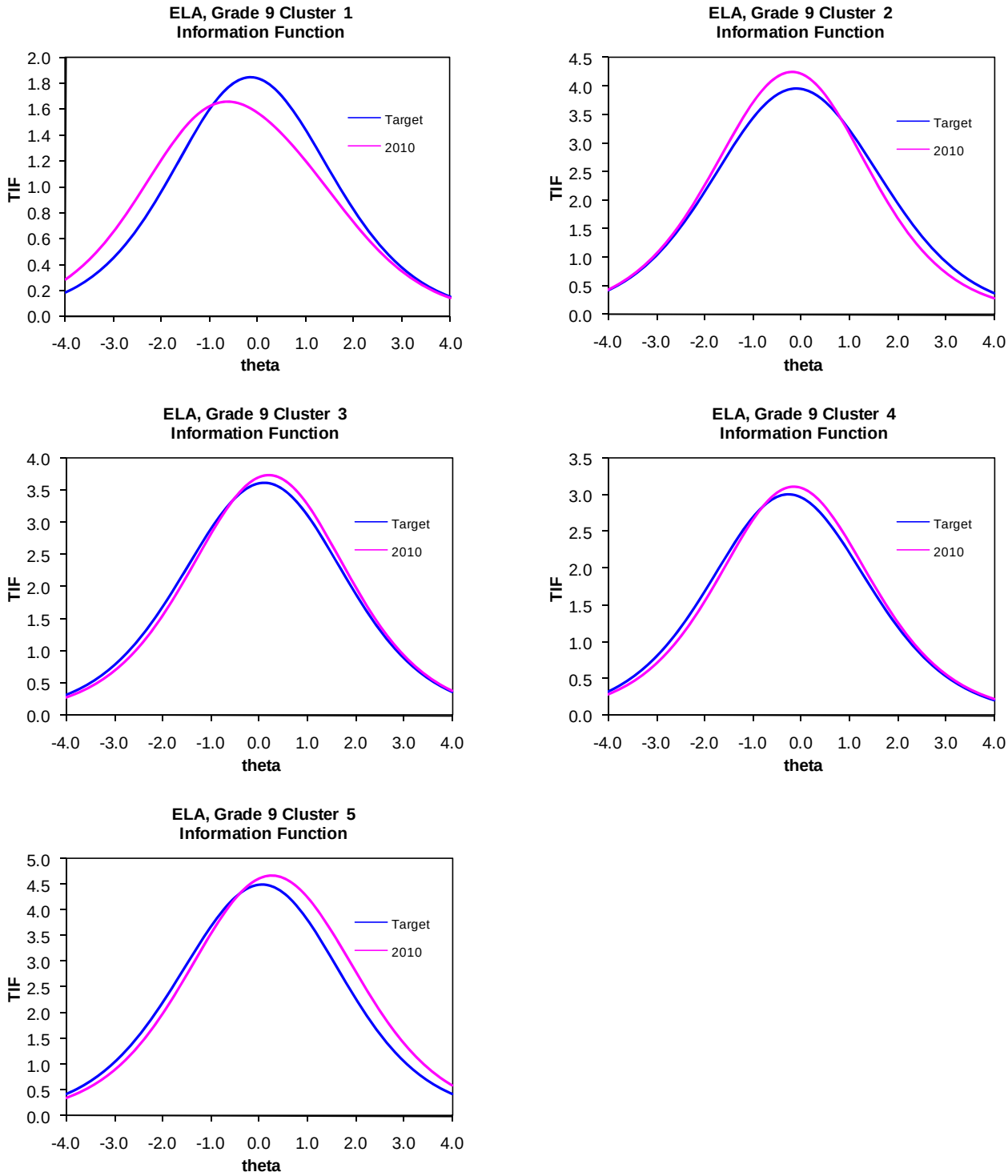


Figure 4.B.9 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Ten

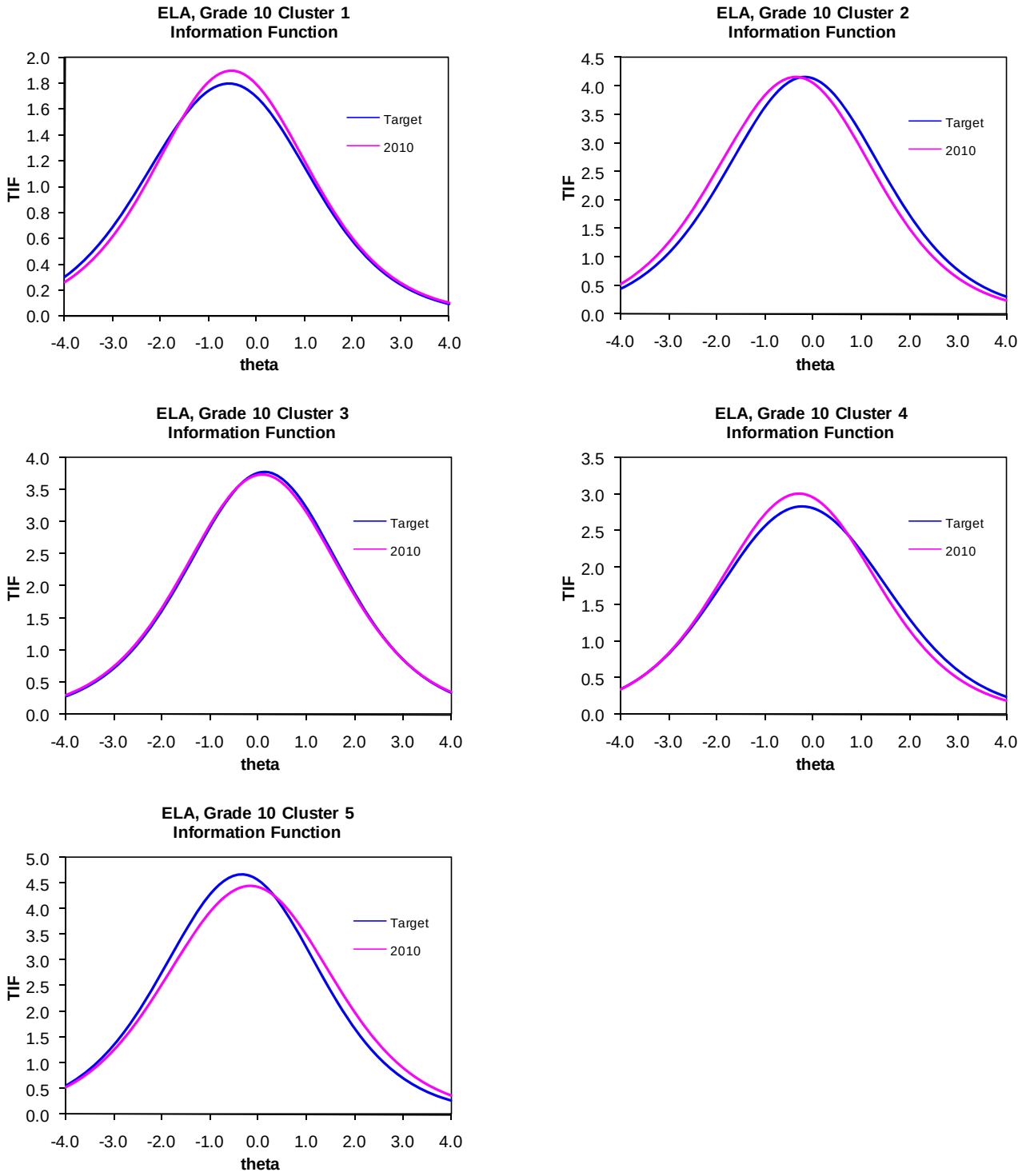


Figure 4.B.10 Plots of Target Information Functions and Projected Information for Clusters for ELA, Grade Eleven

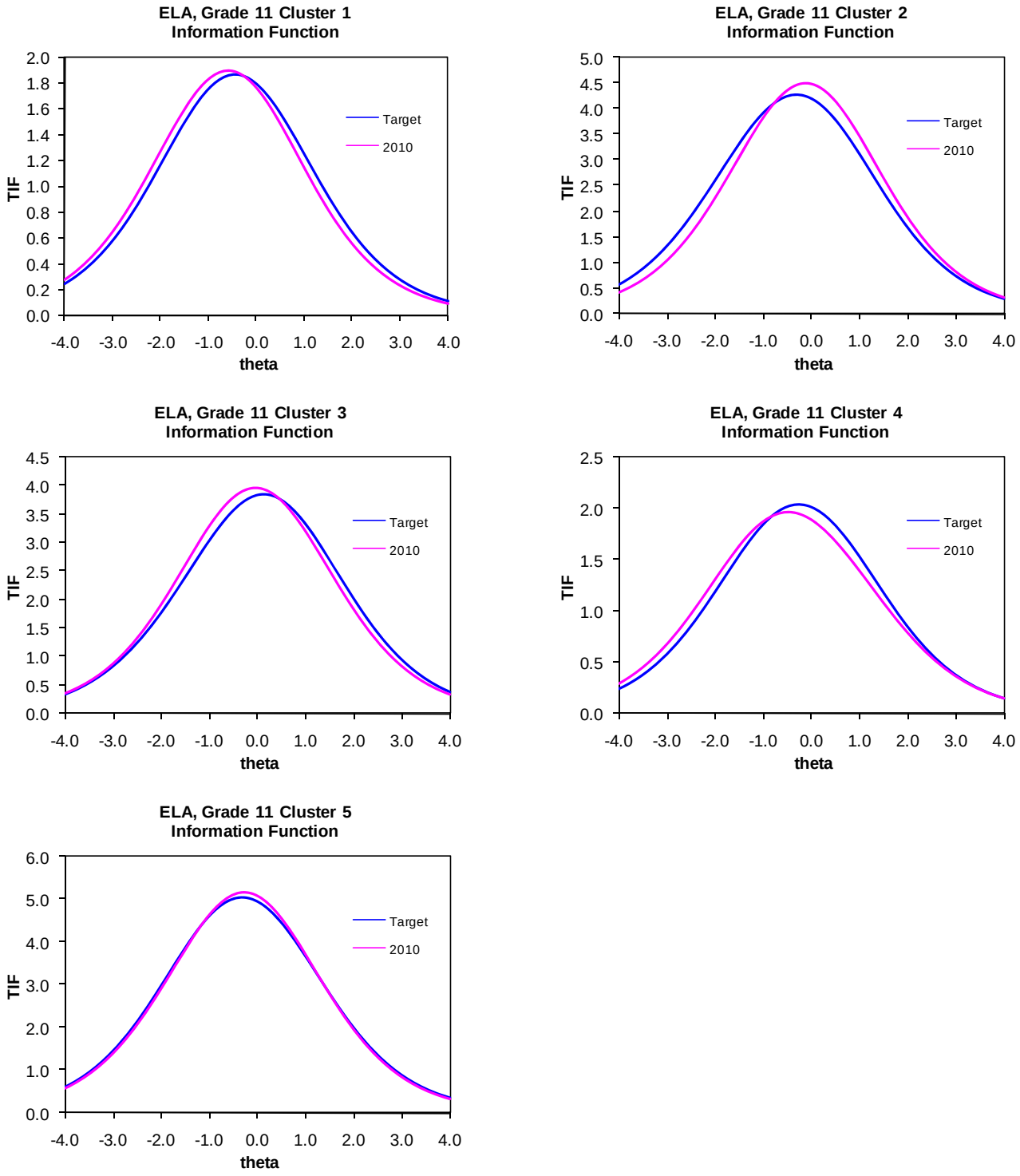


Figure 4.B.11 Plots of Target Information Functions and Projected Information for Clusters for History–Social Science, Grade Eight

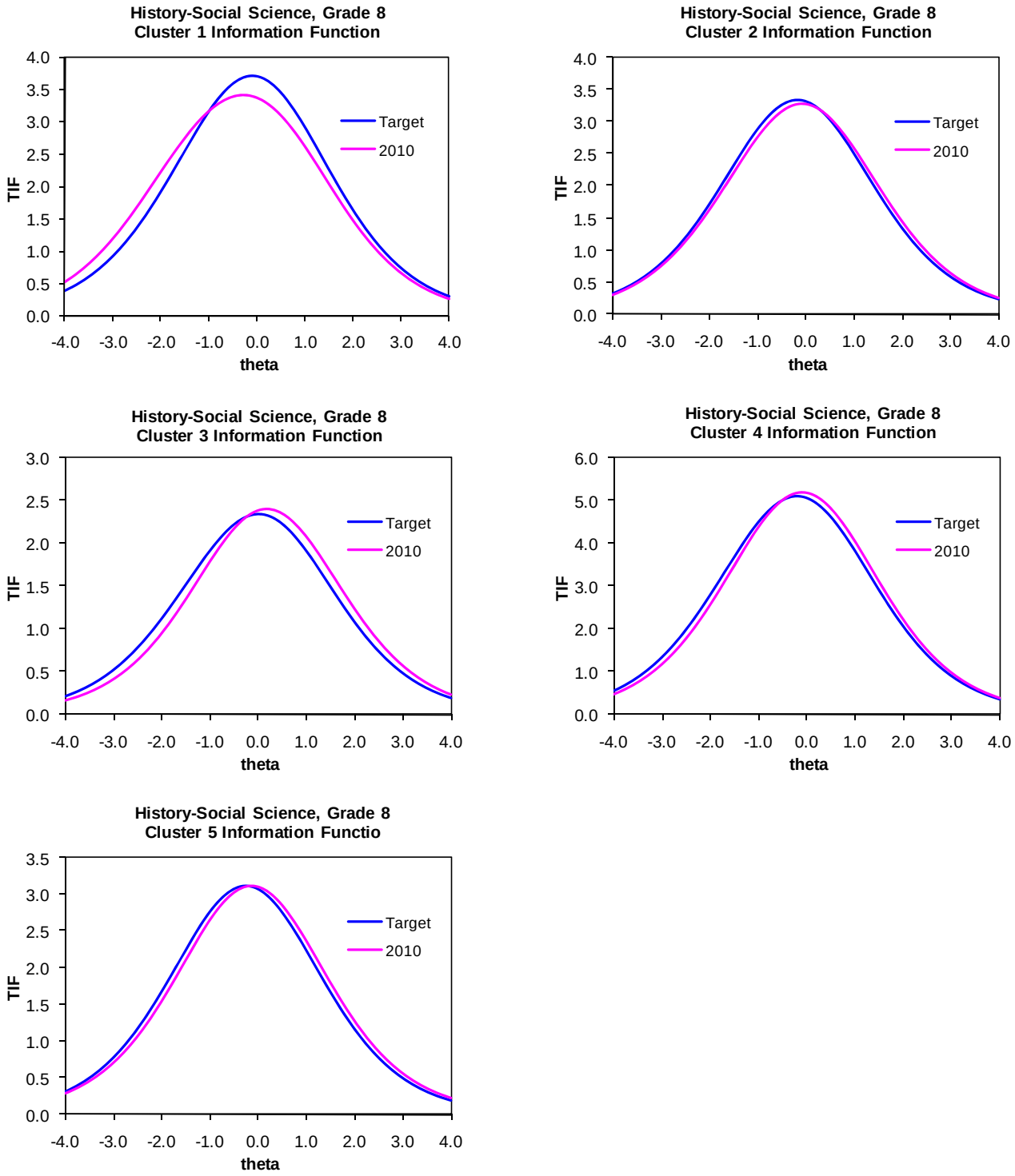


Figure 4.B.12 Plots of Target Information Functions and Projected Information for Clusters for World History

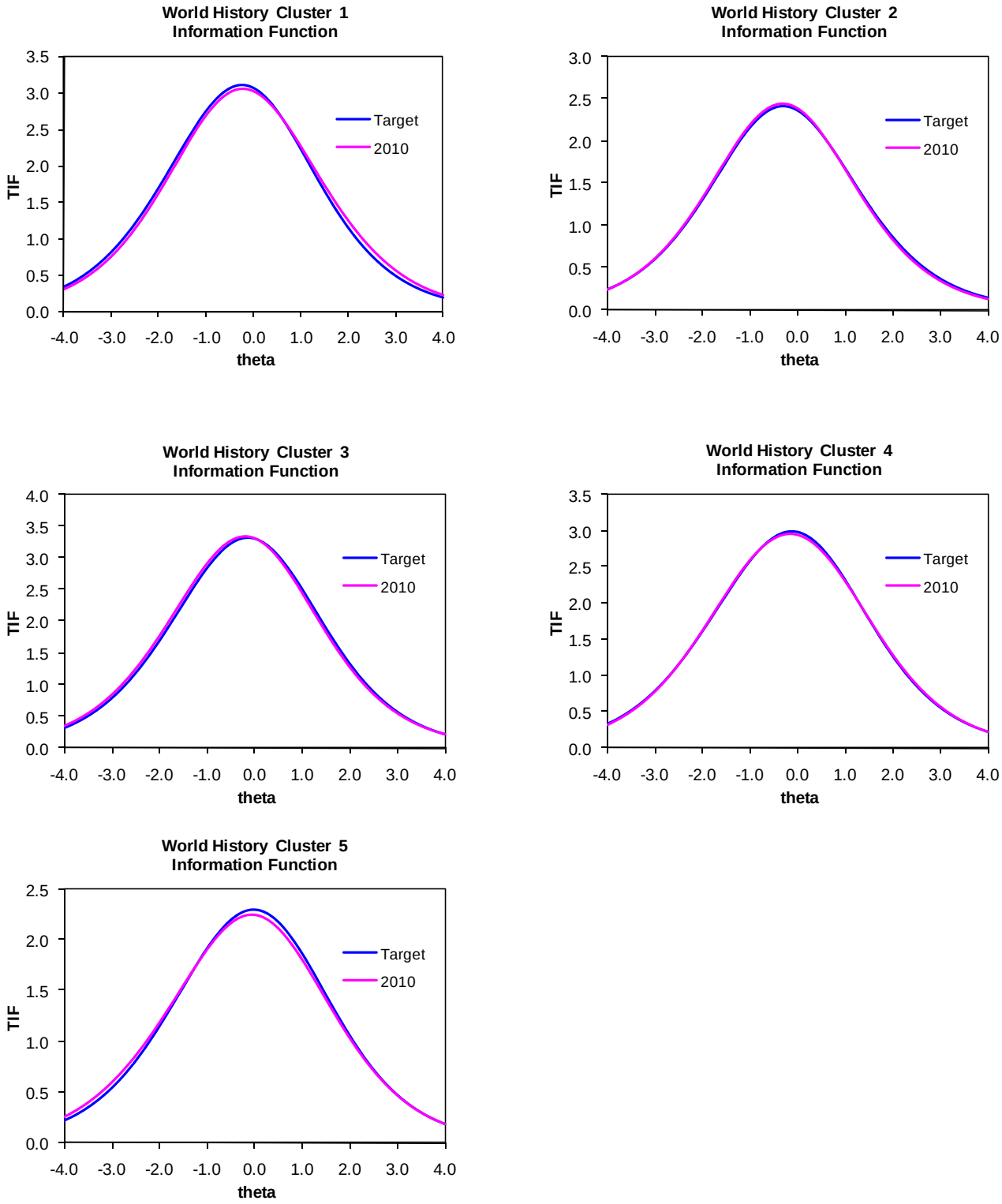


Figure 4.B.13 Plots of Target Information Functions and Projected Information for Clusters for U.S. History, Grade Eleven

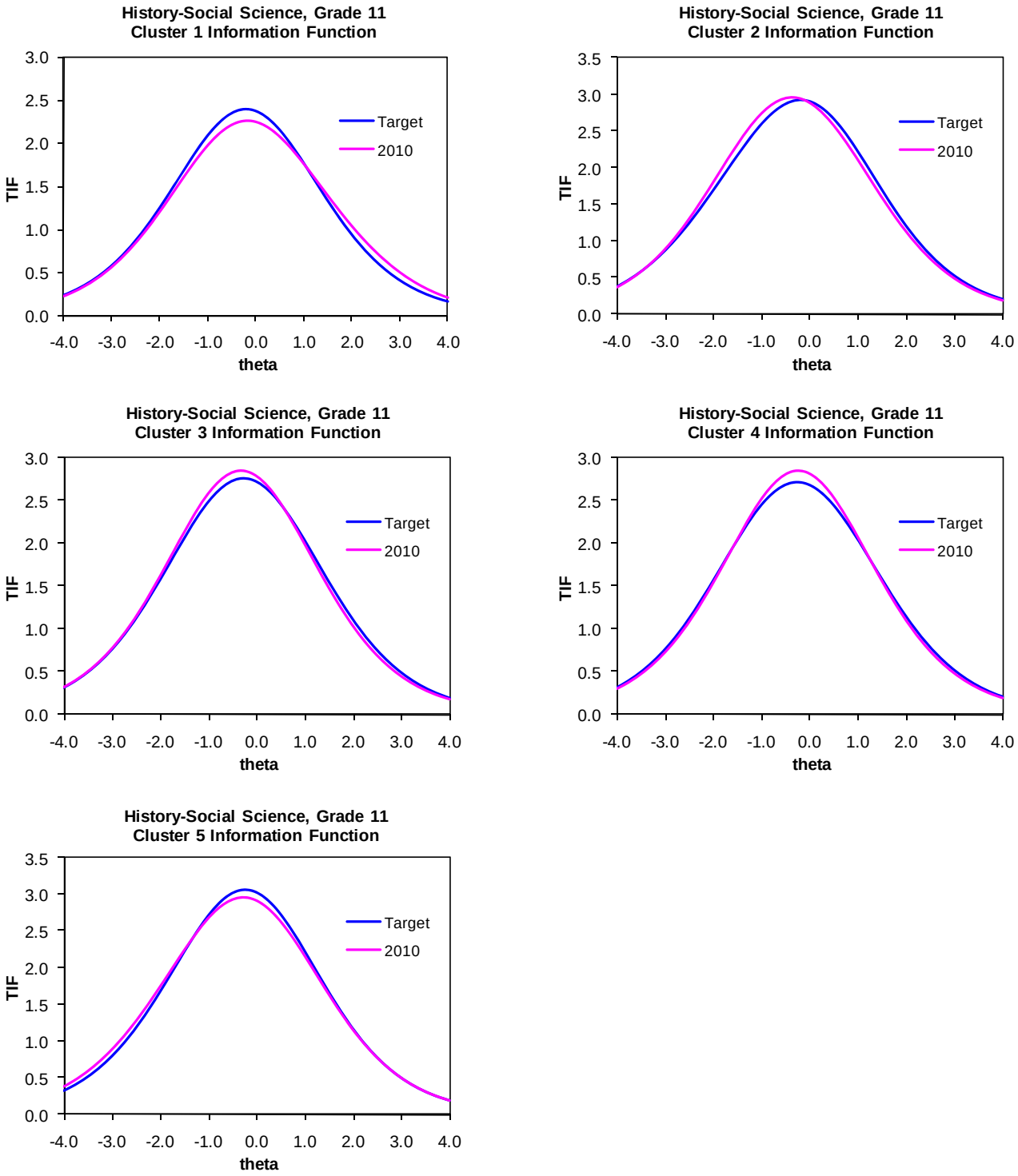


Figure 4.B.14 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Two

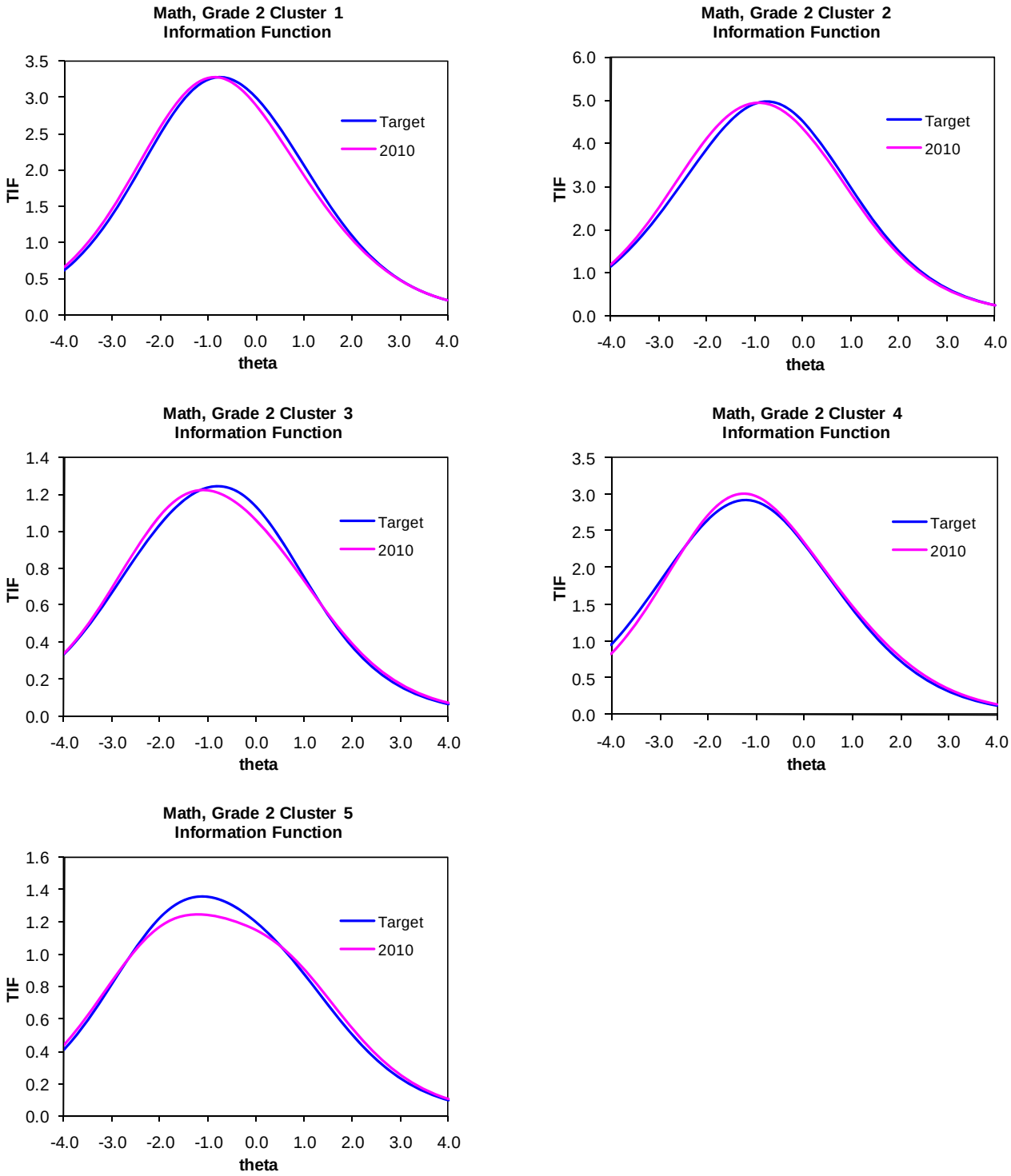


Figure 4.B.15 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Three

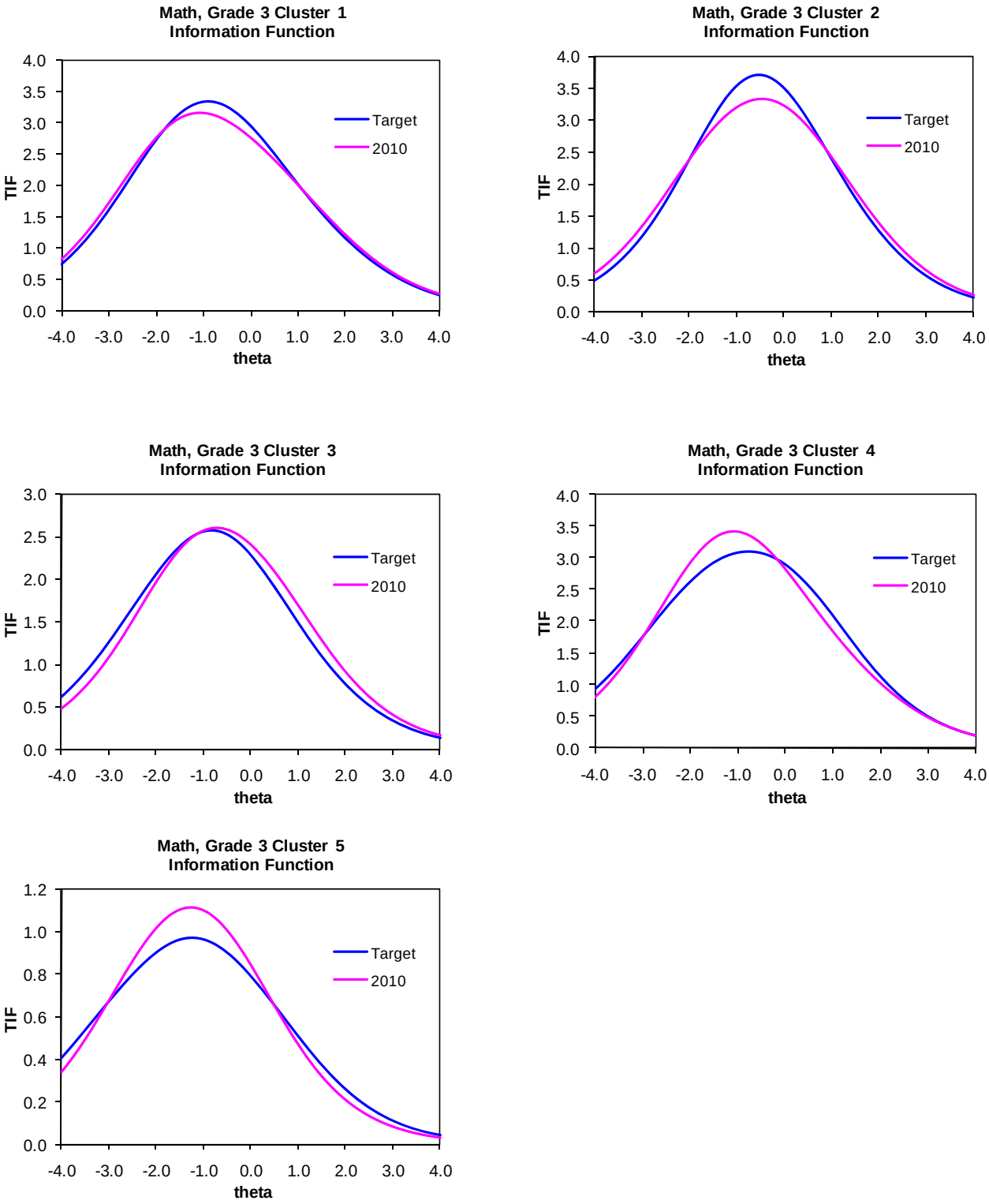


Figure 4.B.16 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Four

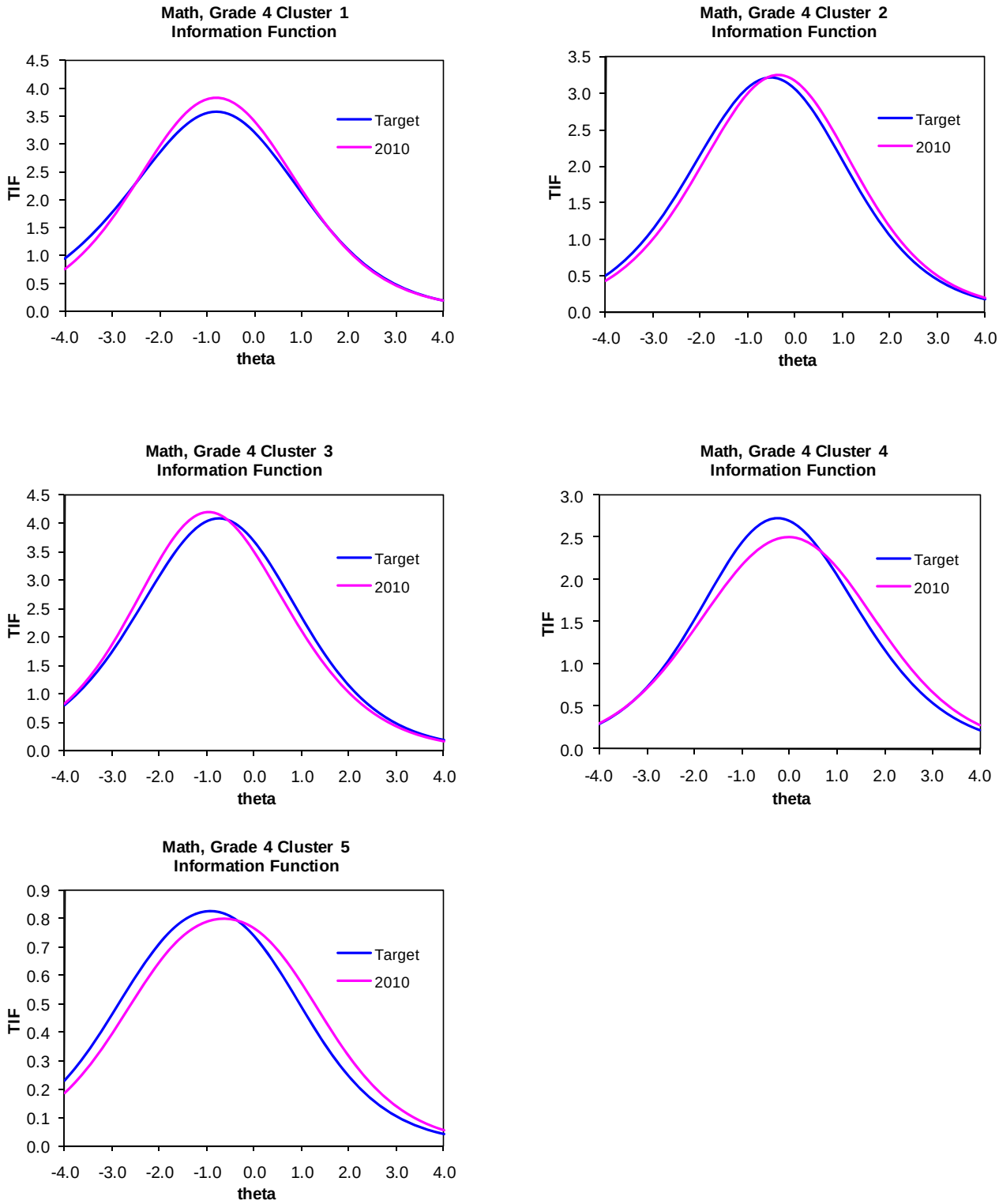


Figure 4.B.17 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Five

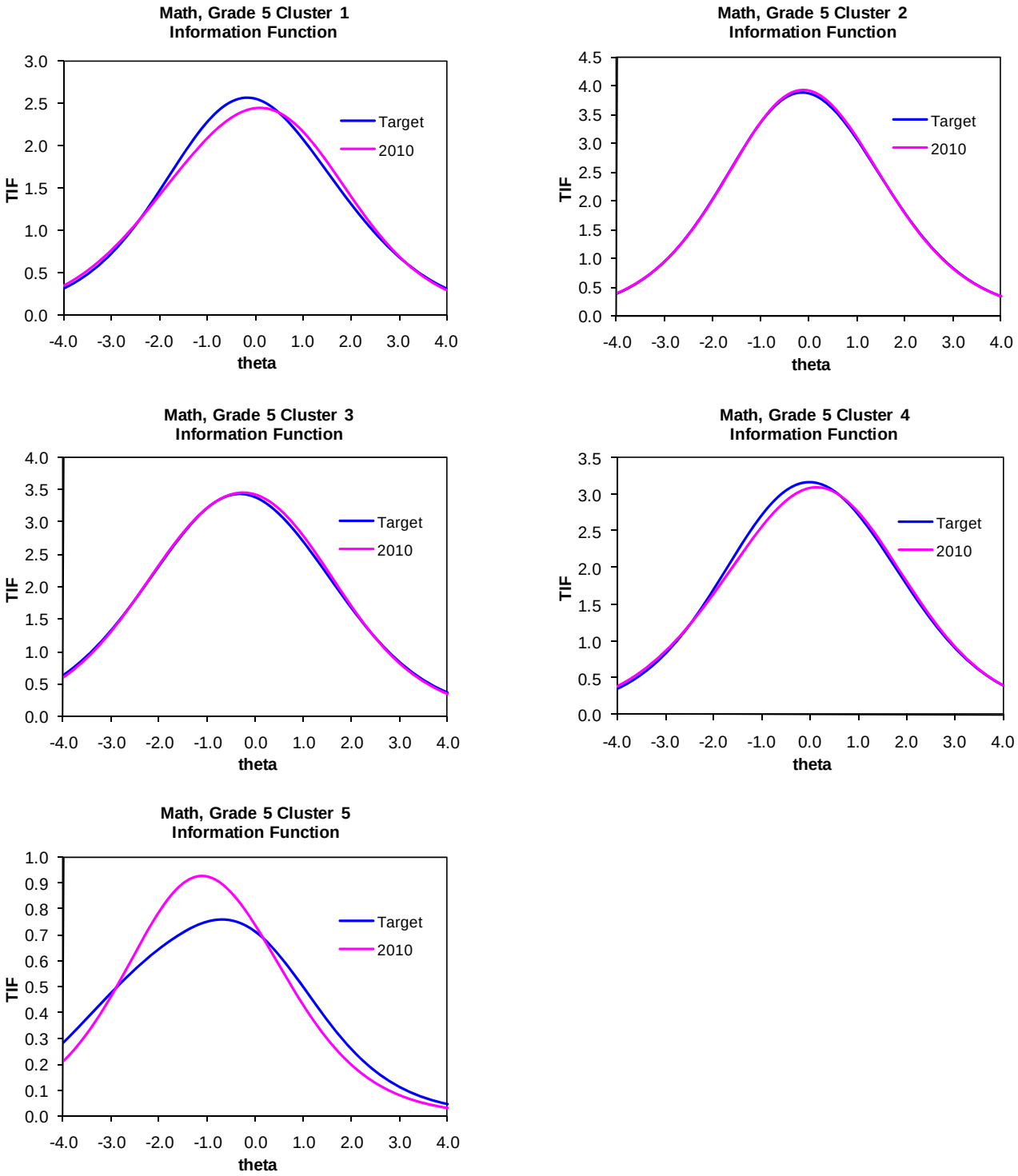
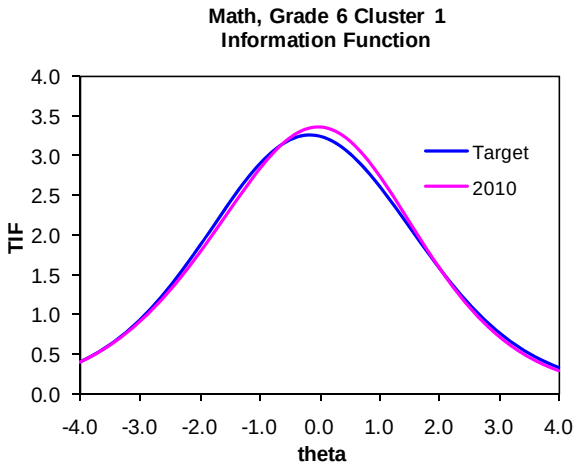
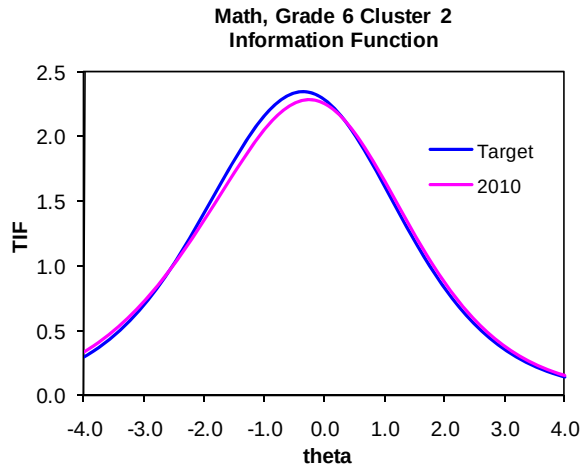
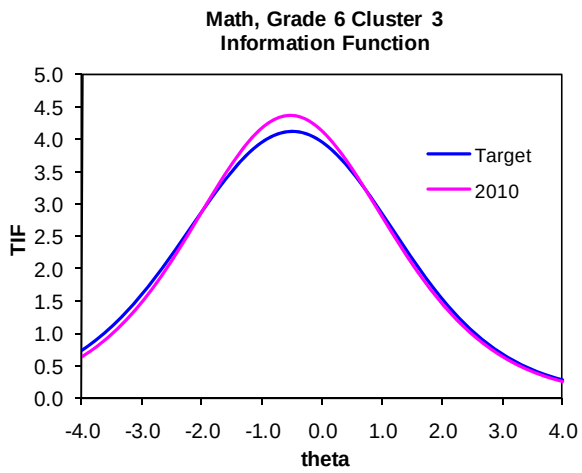
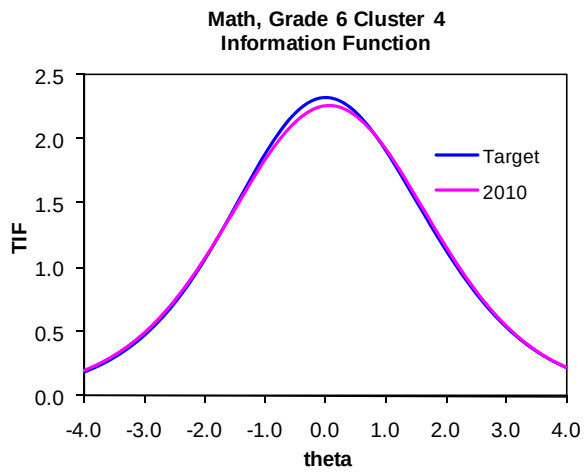


Figure 4.B.18 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Six









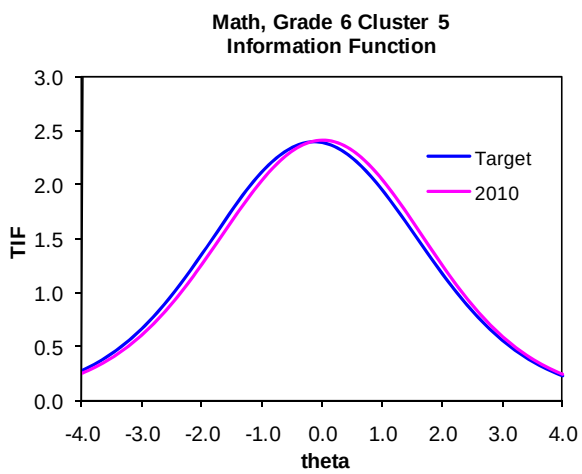


Figure 4.B.19 Plots of Target Information Functions and Projected Information for Clusters for Mathematics, Grade Seven

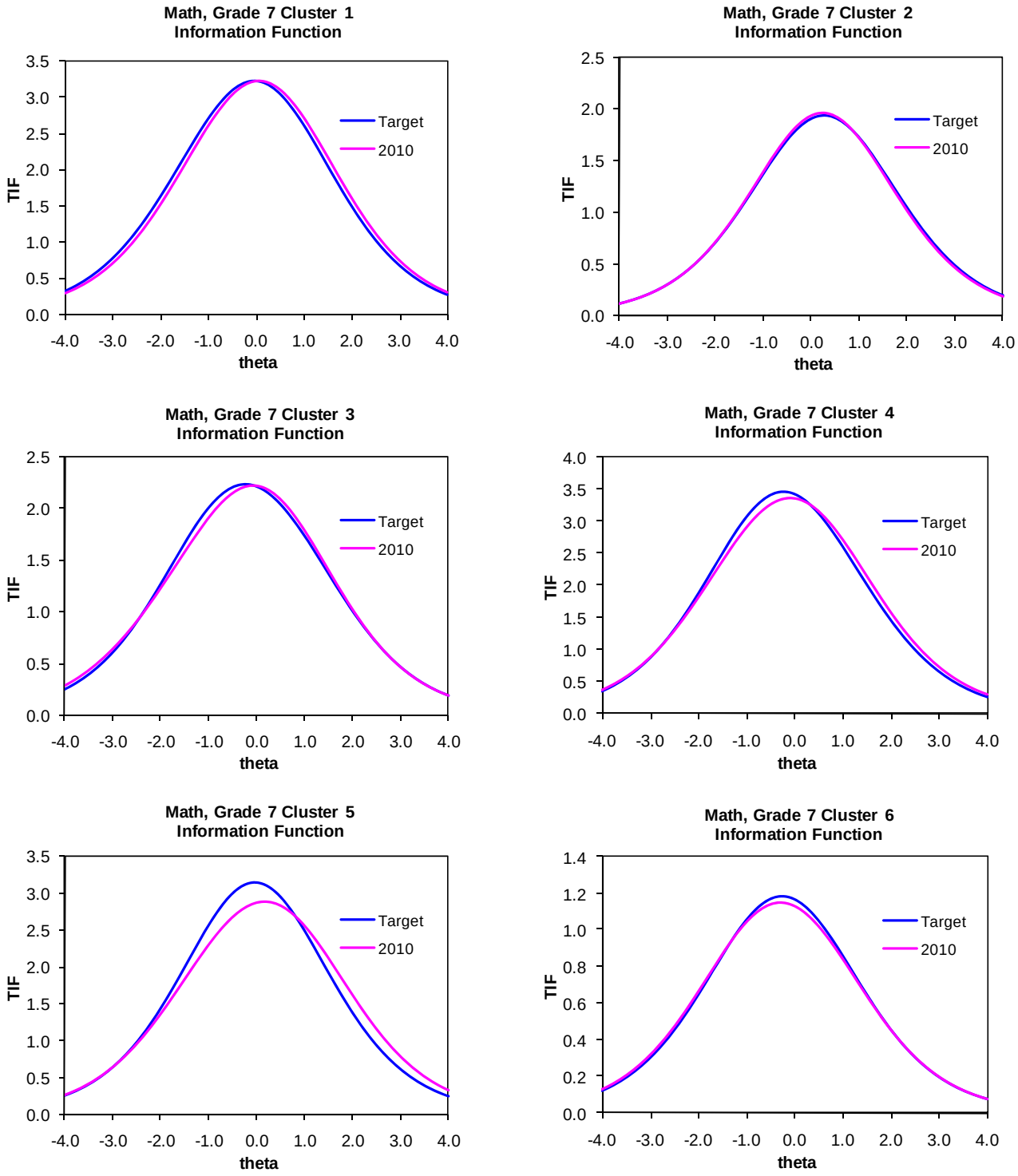


Figure 4.B.20 Plots of Target Information Functions and Projected Information for Clusters for Algebra I

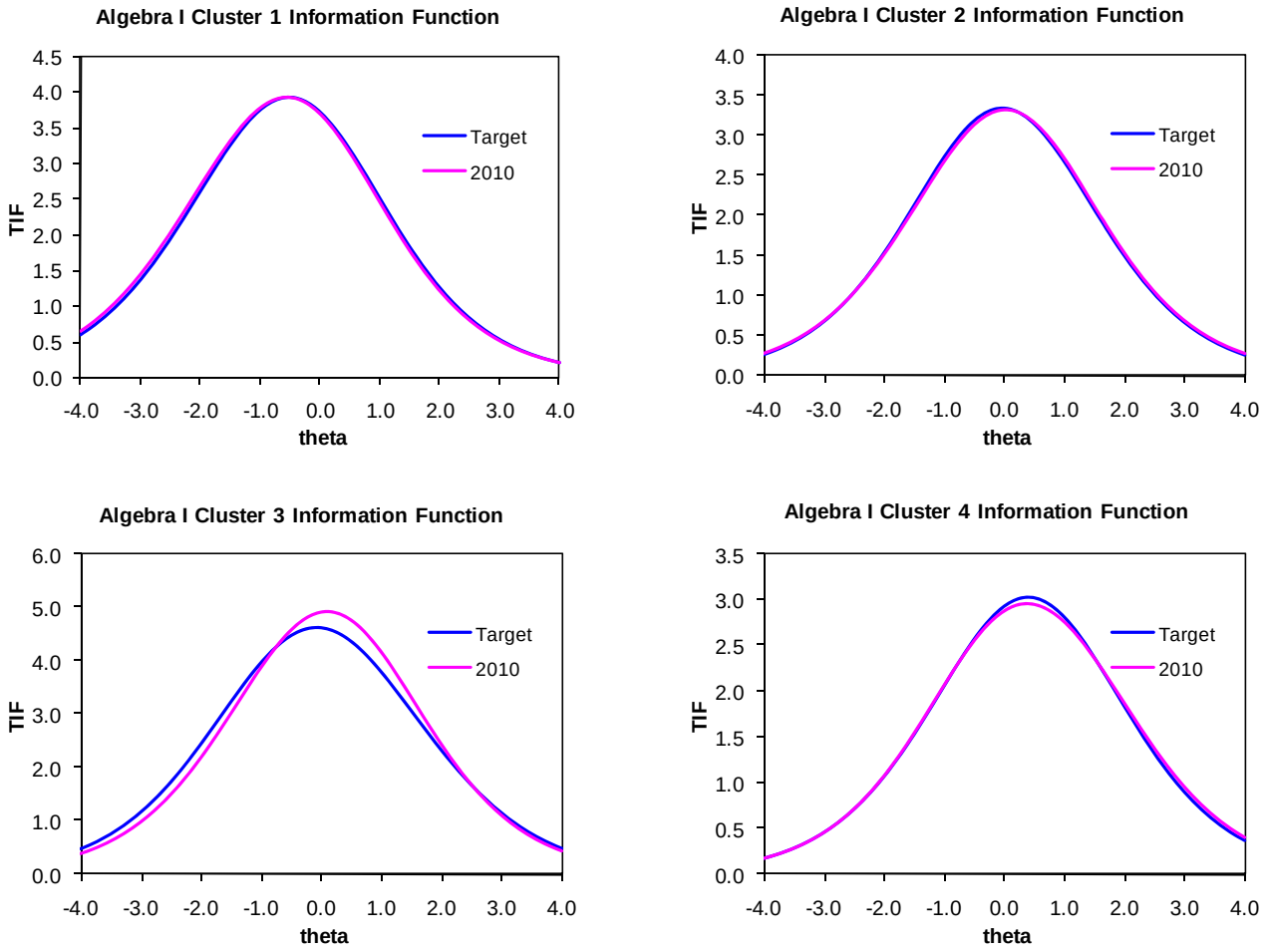


Figure 4.B.21 Plots of Target Information Functions and Projected Information for Clusters for Geometry

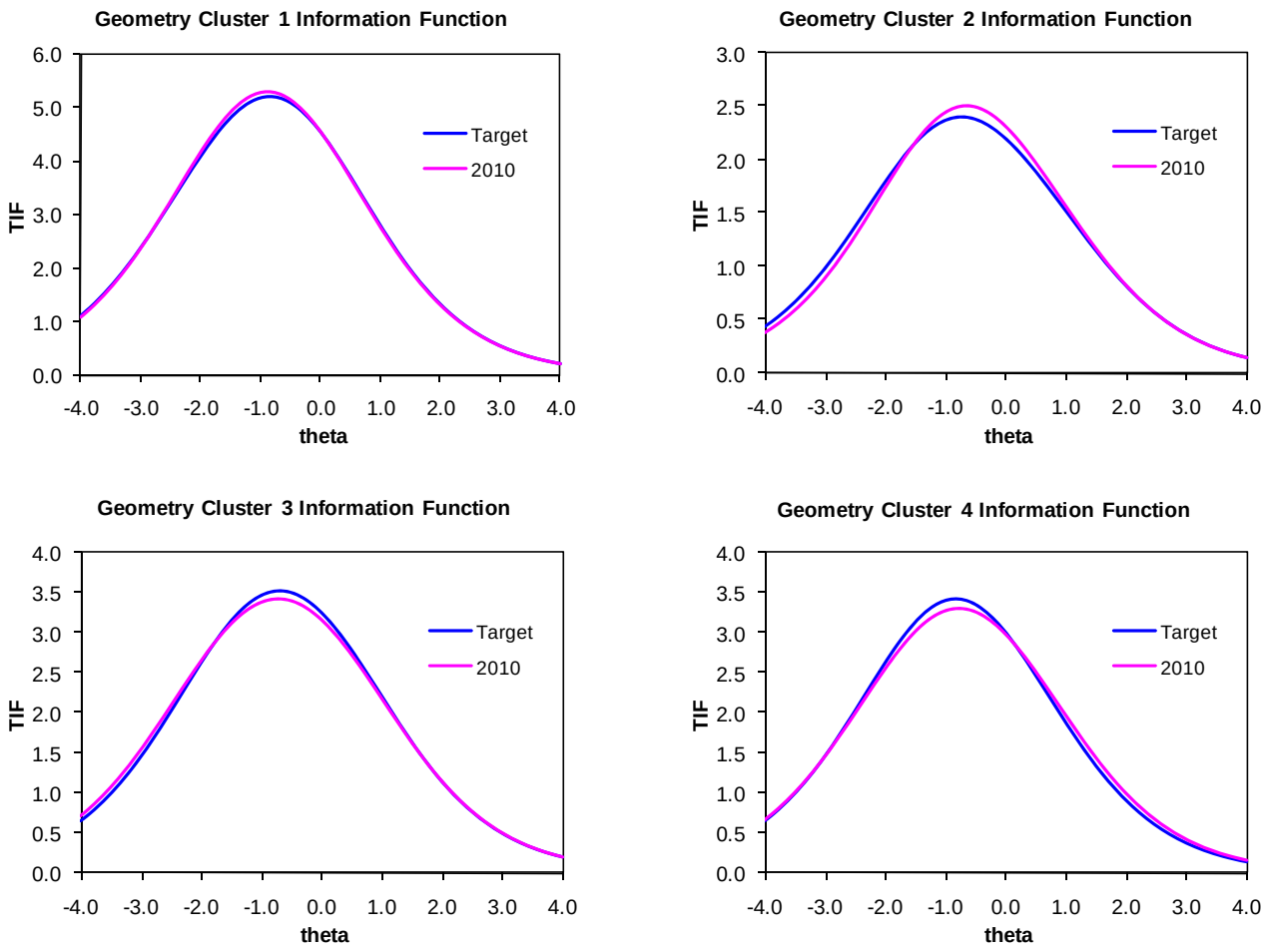


Figure 4.B.22 Plots of Target Information Functions and Projected Information for Clusters for Algebra II

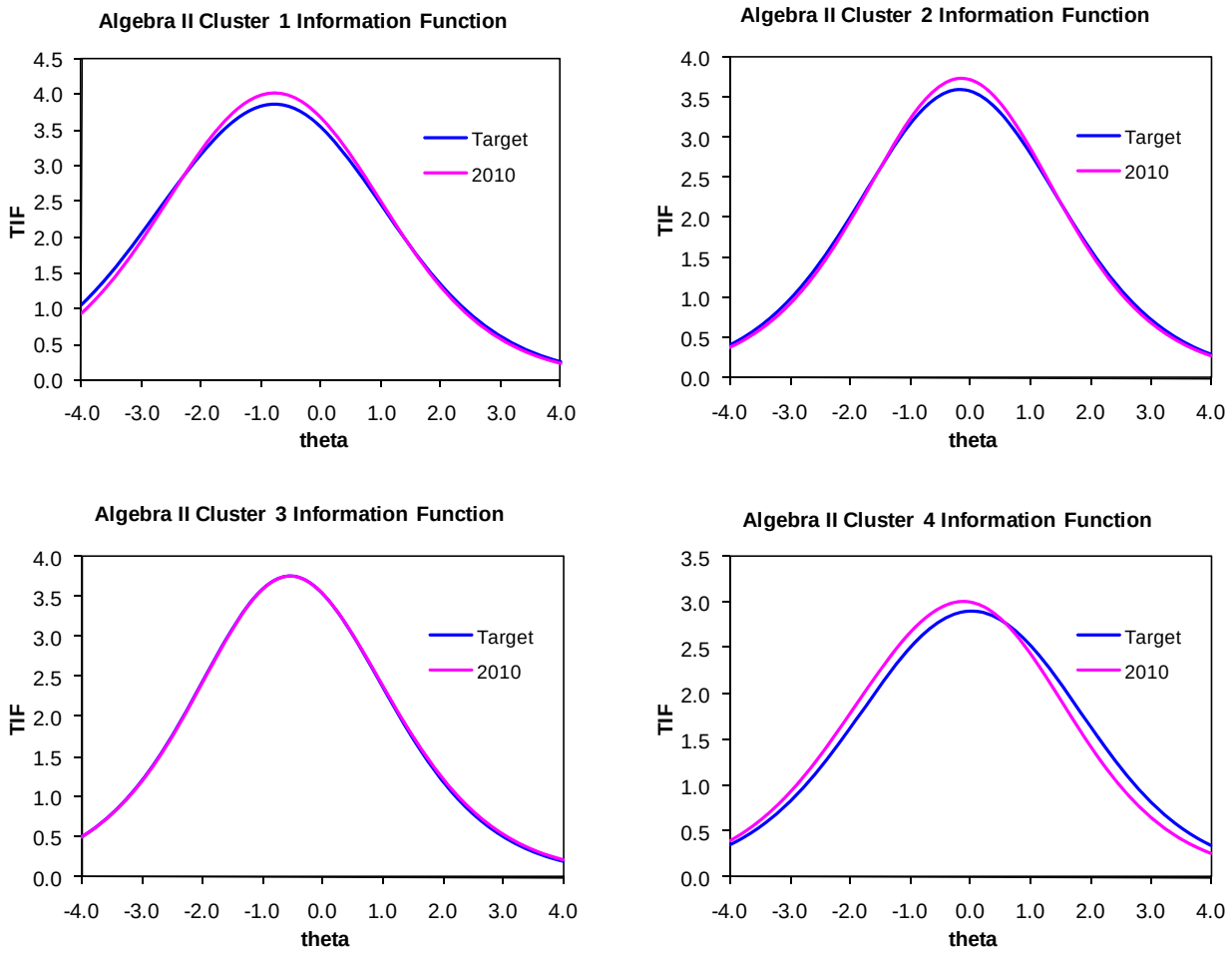


Figure 4.B.23 Plots of Target Information Functions and Projected Information for Clusters for Science, Grade Five

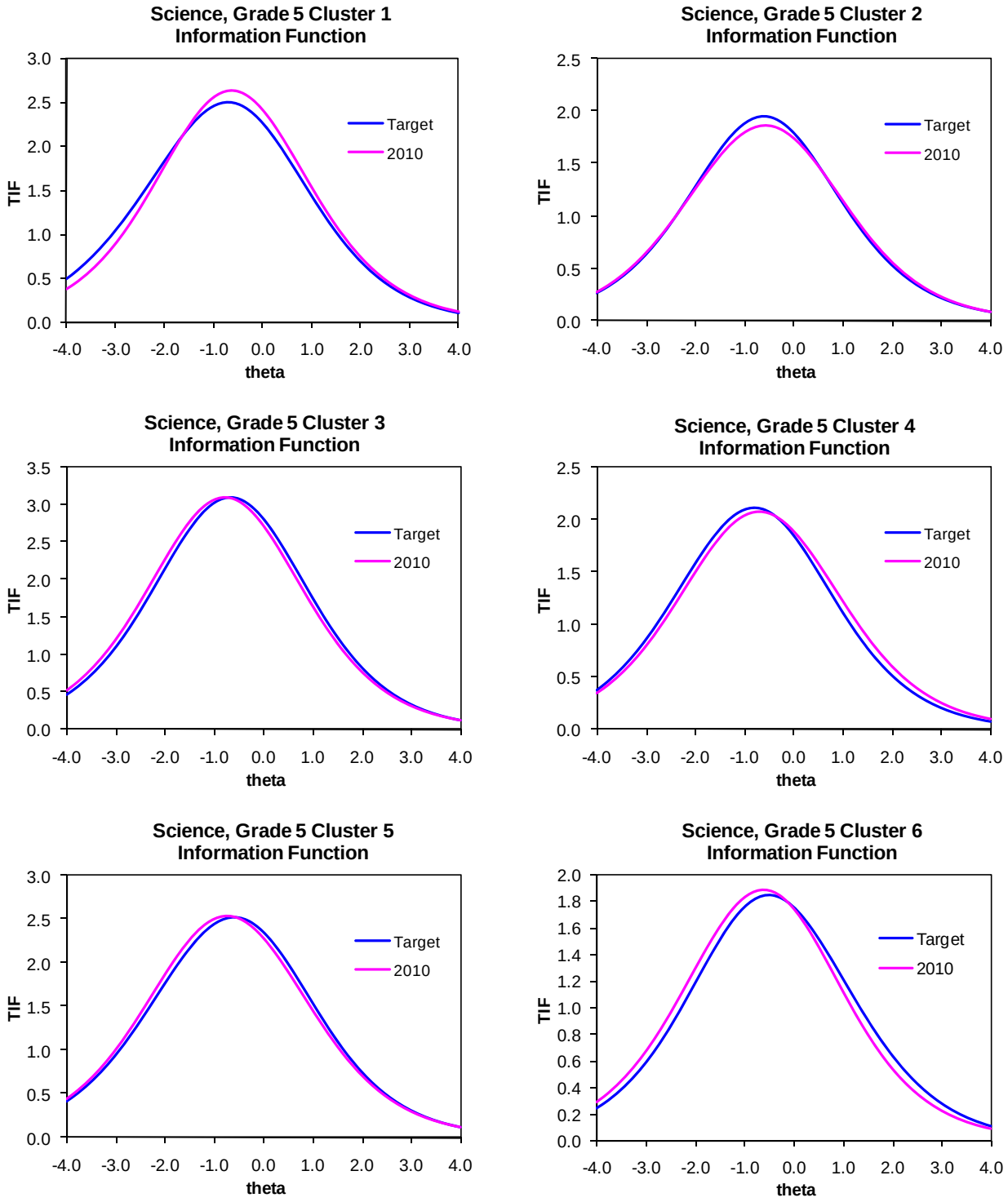


Figure 4.B.24 Plots of Target Information Functions and Projected Information for Clusters for Science, Grade Eight

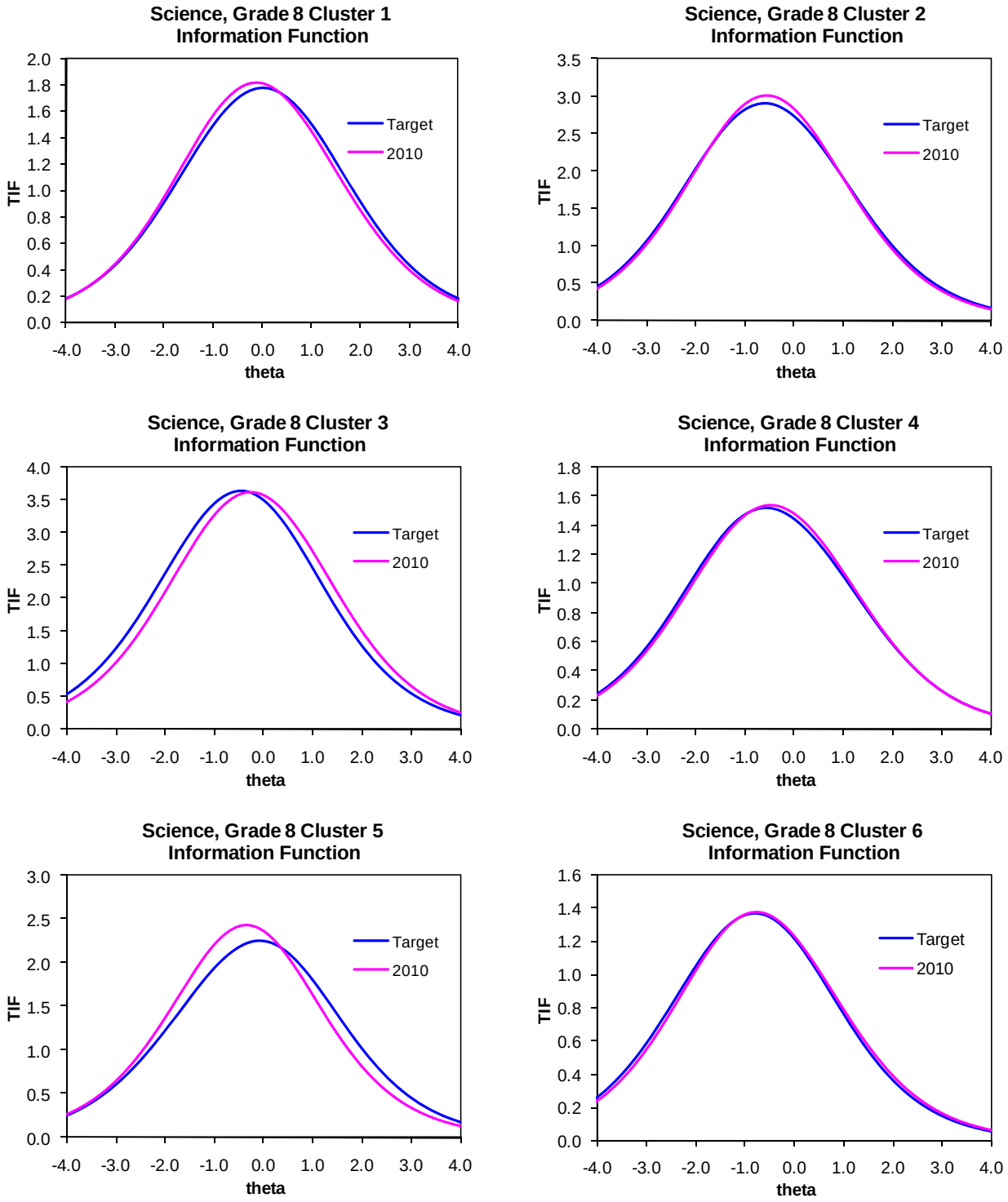


Figure 4.B.25 Plots of Target Information Functions and Projected Information for Clusters for Life Science, Grade Ten

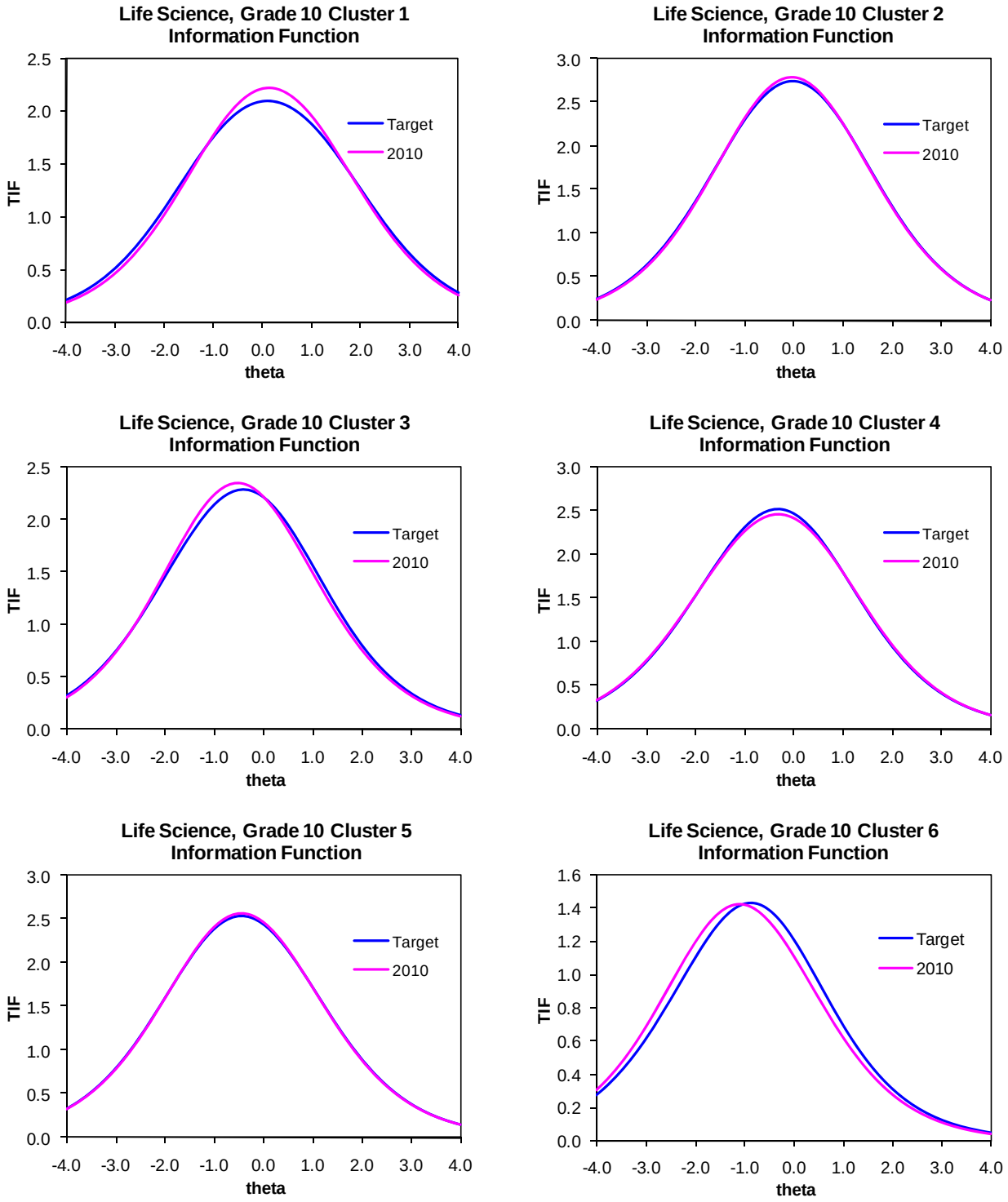
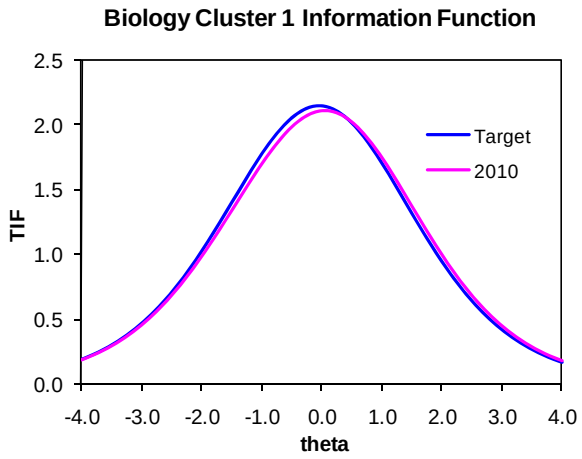
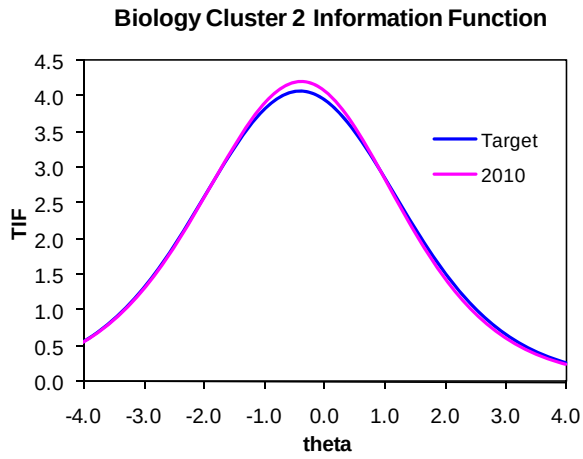
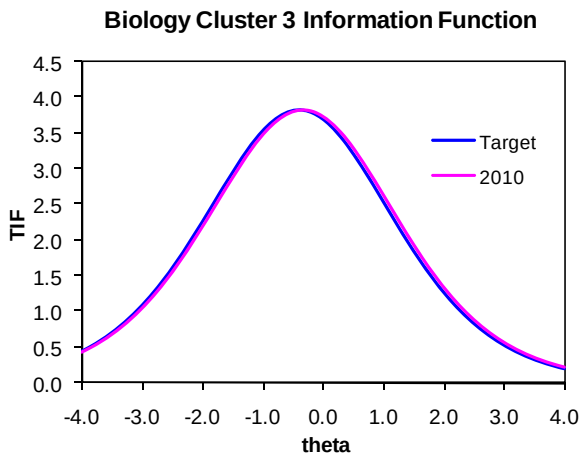
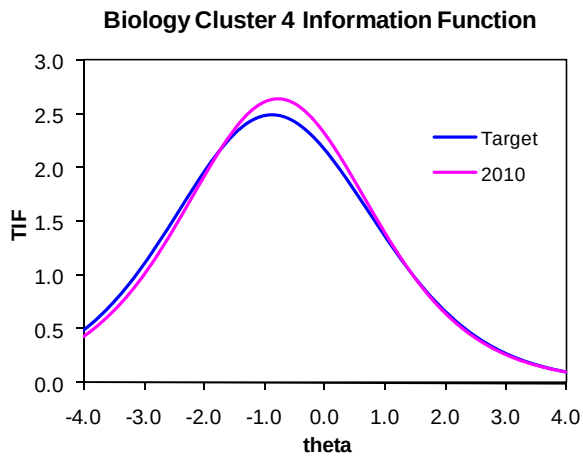


Figure 4.B.26 Plots of Target Information Functions and Projected Information for Clusters for Biology









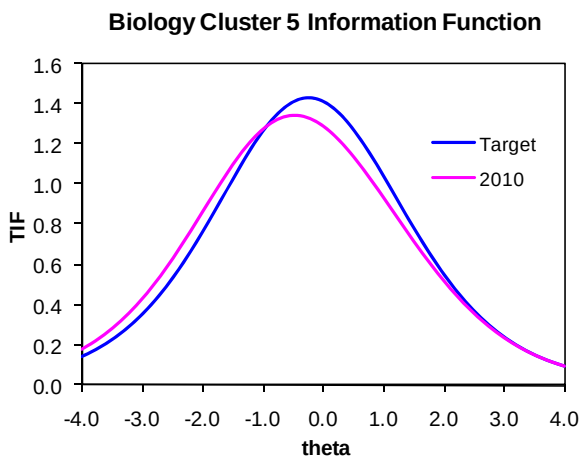


Figure 4.B.27 Plots of Target Information Functions and Projected Information for Clusters for Chemistry

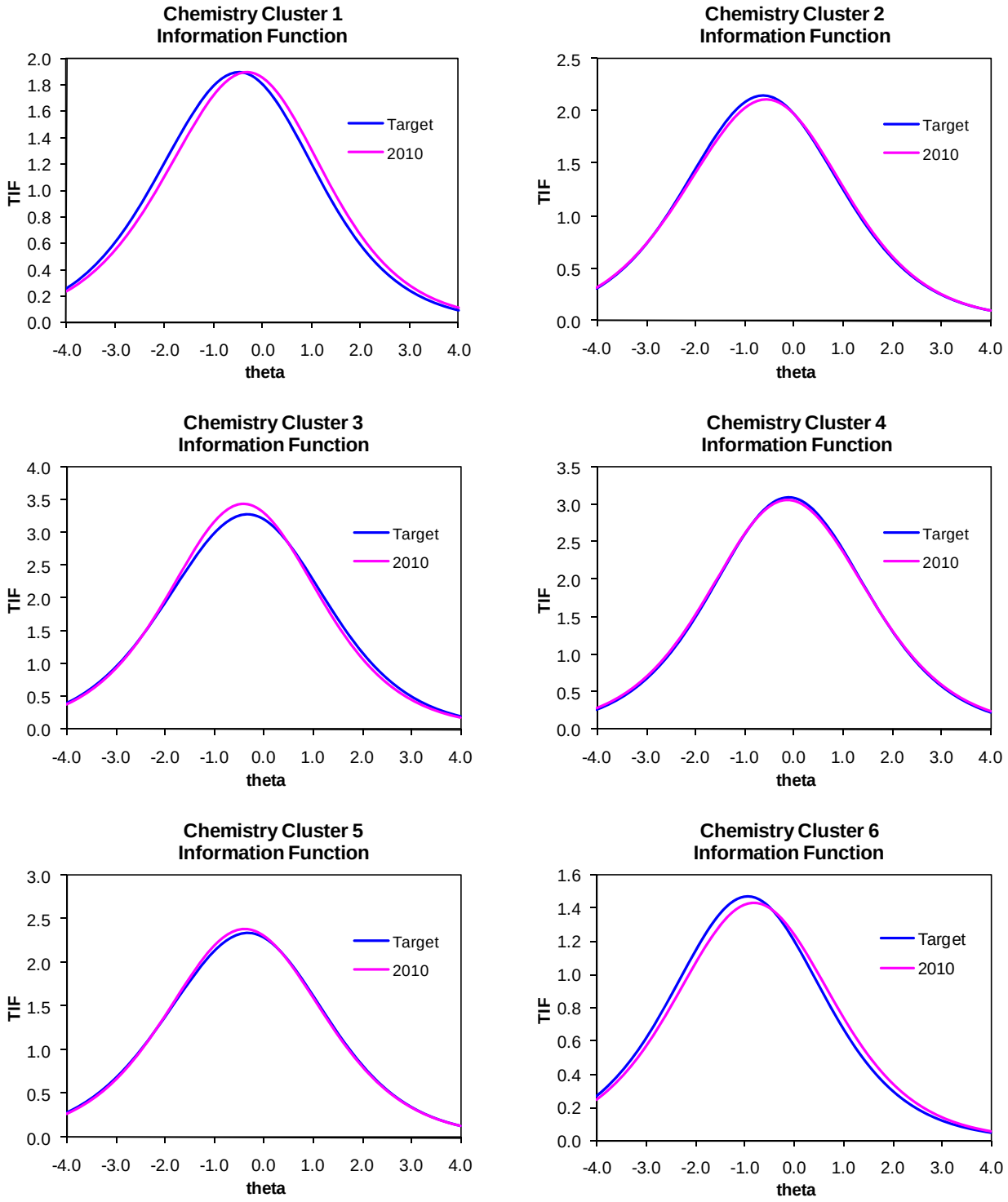


Figure 4.B.28 Plots of Target Information Functions and Projected Information for Clusters for Earth Science

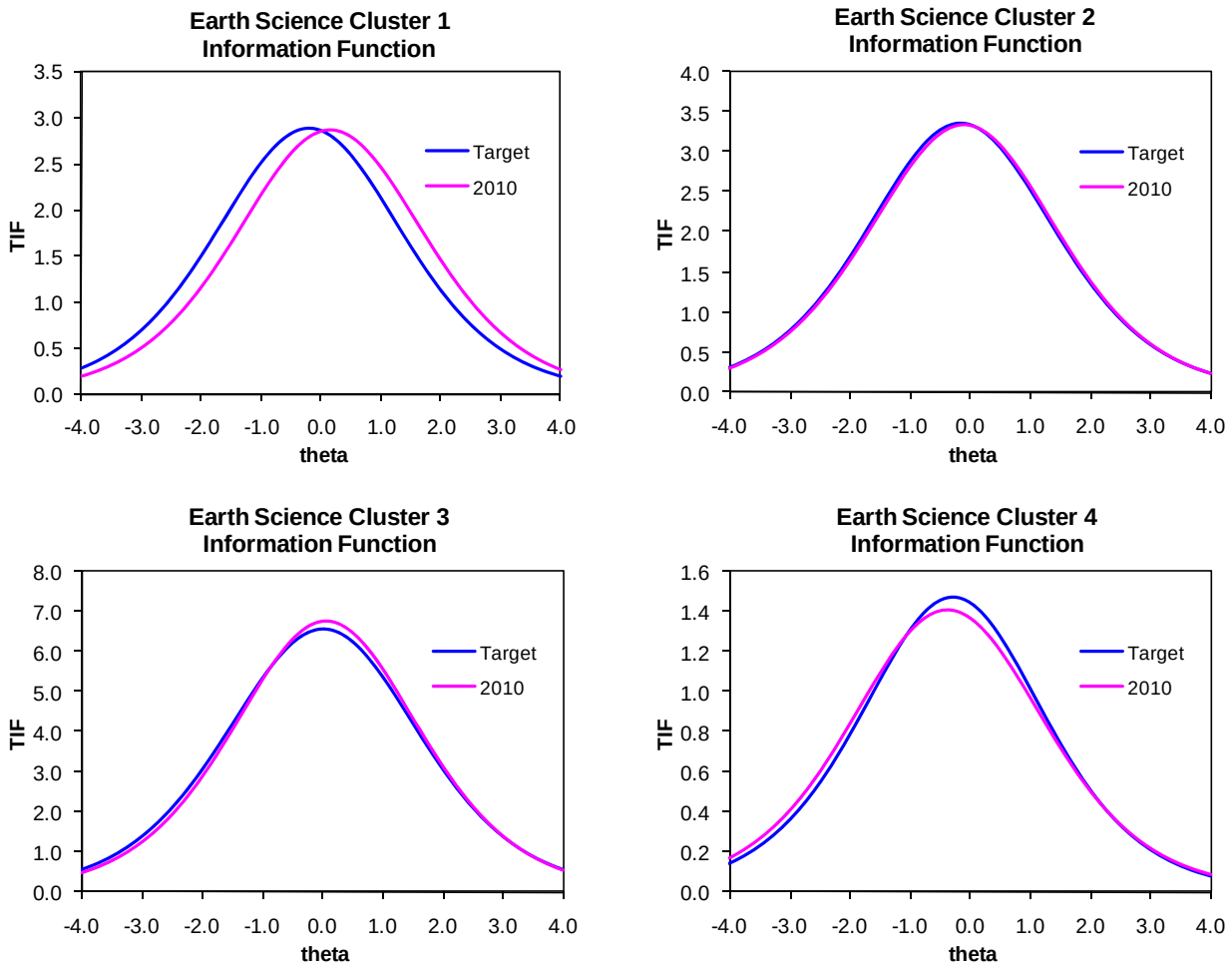
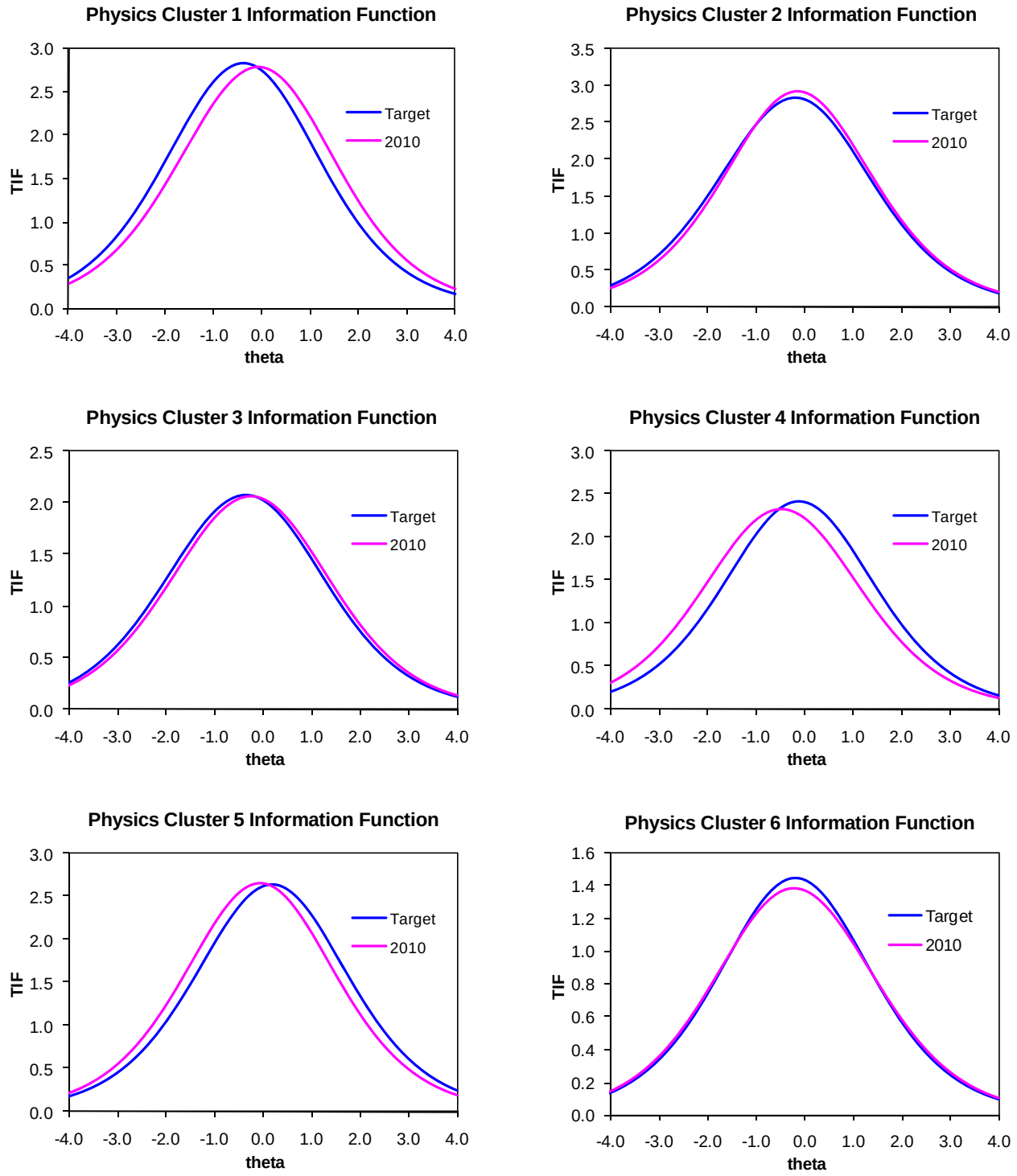


Figure 4.B.29 Plots of Target Information Functions and Projected Information for Clusters for Physics



Chapter 5: Test Administration

Test Security and Confidentiality

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

ETS's Office of Testing Integrity

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

The OTI's mission is to

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

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

Test Development

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

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

Item and Data Review

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

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

Item Banking

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

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

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

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

Transfer of Forms and Items to the CDE

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

Security of Electronic Items Using a Firewall

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

All electronic applications included in the STAR Management System (CDE, 2010a) remain protected by the ETS firewall software at all times. Due to the sensitive nature of the student information processed by the STAR Management System, the firewall plays a significant

role in maintaining an assurance of confidentiality in the users of this information. (It should be noted that the STAR Management System neither stores nor processes tests or student test results.)

Printing and Publishing

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

Test Administration

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

Test Delivery

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

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

immediately; the coordinator will be asked to follow up with a written explanation of the violation or suspected violation.

Processing and Scoring

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

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

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

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

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

Data Management

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

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

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

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

Transfer of Scores via Secure Data Exchange

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

Statistical Analysis

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

Reporting and Posting Results

After statistical analysis has been completed on student data, the files flow in three different directions. Paper reports, some with individual student results and others with summary results, are produced. Encrypted files of summary results are also sent to the CDE by means of SFTP. Any summary results that have fewer than eleven students are not reported. The item-level statistics based on the results are also entered into the item bank.

Student Confidentiality

To meet ESEA and state requirements, school districts must collect demographic data about students. This includes information about students' ethnicity, parent education, disabilities, whether the student qualifies for the National School Lunch Program (NSLP), and so forth (CDE, 2010b). 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 where this demographic information 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 order to protect the confidentiality of ETS and client data. ETS staff access to production databases is limited to personnel with a business need to access the data. User IDs for production systems must be person-specific or for systems use only.

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

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

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

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

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

- Scoring
- Transfer of scores by means of secure data exchange
- Reporting
- Analysis and reporting of erasure marks
- Posting of aggregate data
- Storage

In addition to protecting the confidentiality of testing materials, ETS's Code of Ethics further prohibits ETS employees from financial misuse, conflicts of interest, and unauthorized appropriation of ETS's property and resources. Specific rules are also given to ETS employees and their immediate families who may take a test developed by ETS, such as a STAR examination. The ETS Office of Testing Integrity verifies that these standards are followed throughout ETS. It does this, in part, by conducting periodic onsite security audits of departments, with 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, 2010c). 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[1] (LEA) designates a district STAR coordinator who is responsible for ensuring the proper and consistent administration of the STAR tests. They are also responsible for securing testing materials upon receipt, distributing testing materials to schools, tracking the materials, training and answering questions from district staff and test site coordinators, reporting any testing irregularities or security breaches to the CDE, receiving scorable and nonscorable materials from schools after an administration, and returning the materials to the STAR contractor for processing.

Test Examiner
CSTs are administered by test examiners who may be assisted by test proctors and scribes. A test examiner is an employee of a school district or an employee of a nonpublic, nonsectarian school (NPS) who has been trained to administer the tests and has signed a STAR Test Security Affidavit. Test examiners must follow the directions in the *California Standardized Testing and Reporting Directions for Administration* (*DFA*) (CDE, 2010d) exactly.

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

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

Directions for Administration

STAR *DFA*s are manuals used by test examiners to administer the CSTs to students (CDE, 2010d). They 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, 2010c). 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.

[1] Local education agencies include public school districts, statewide benefit charter schools, state board-authorized charter schools, county of education programs, and charter schools testing independently from their home district.

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 the test administration for school districts, to verify contact information of those school districts, and to update the school district's shipping information. (CDE, 2010e)
- **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, 2010f)
- **Pre-ID—**This module allows school districts to enter or upload student information including demographics and to identify the test(s) the student will take. This information is printed on student test booklets or answer documents or on labels that can be affixed to test booklets or answer documents. Its manual includes the CDE's Pre-ID layout. (CDE, 2010b)
- **Extended Data Corrections—**This module allows school districts to correct the data that were submitted during Pre-ID up to the end of the school district's selected testing window. (CDE, 2010g)

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 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. Versions are assigned by school since 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 test materials and braille test materials.

Test Variations, Accommodations, and Modifications

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

Identification

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

In the event that a student injures a hand or arm prior to the writing test, is willing and able to sit for the examination, but unable to write, the school completes a Section 504 plan for the student. The Section 504 plan identifies which accommodations or modifications the student will use in completion of his or her writing test (CDE, 2010b).

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 grade seven writing and multiple-choice tests (CDE, 2010h).

Testing Irregularities

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

The district STAR coordinator is responsible for immediately notifying the CDE of any irregularities that occur before, during, or after testing. The test examiner is responsible for immediately notifying the district STAR coordinator of any security breaches or testing irregularities that occur in the administration of the test. Once the district STAR coordinator and the CDE have determined that an irregularity has occurred, the CDE instructs the district STAR coordinator on how and when to identify the irregularity on the student test booklet or answer document. The information and procedures to assist in identifying irregularities and notifying the CDE are provided in the *STAR District and Test Site Coordinator Manual* (CDE, 2010c).

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 *DFA*s and the *STAR District and Test Site Coordinator Manual* (CDE, 2010c). 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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California Department of Education. (2010h). *2010 STAR Demographic Data Corrections manual*. Sacramento, CA. http://www.startest.org/pdfs/STAR.data_corrections_manual.2010.pdf. [Note: the preceding Web address is no longer valid.]

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 (1) far below basic, (2) below basic, (3) basic, (4) proficient, and (5) advanced. The state target is to have all students achieve the proficient and advanced levels by 2014. Schools and districts are expected to provide additional assistance to students scoring at and below the basic level.

California employs carefully designed standard setting procedures to decide on the performance standards for each CST. These practices are described in the following sections.

Standard Setting Procedure

The process of standard setting is designed to identify a “cut score” or minimum test score that is required to qualify a student for each performance level. The process generally requires that a panel of subject-matter experts and others with relevant perspectives (for example, teachers, school administrators) be assembled. The panelists for the CST standard setting were selected based on their knowledge of the subject matter assessed, familiarity with students in the respective grade levels, an understanding of large-scale assessments, and an appreciation of the consequences of setting these cut scores. Also, in the interest of equity, representatives from diverse geographic regions, and from different gender and major racial/ethnic subgroups are requested to participate (ETS, 2004, 2006).

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

1. Panelists received training which includes 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. The impact data included the percentage of examinees assessed in a previous test administration of the test that would fall into each level, given the panelists’ judgments of cut scores.
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, usually achieved by panelists taking the actual test, then assessed and discussed the demands of the test items.
4. Panelists began by discussing 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. The final recommended cut scores were based on the median of panelists' judgment scores. For the CSTs, the cut scores recommended by the panelists and the State Superintendent of Public Instruction recommendation were presented for public comment at regional public hearings. Comments and recommendations were then presented to the SBE for approval.

Standard Setting Methodologies

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

Modified Angoff Method

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

Bookmark Method

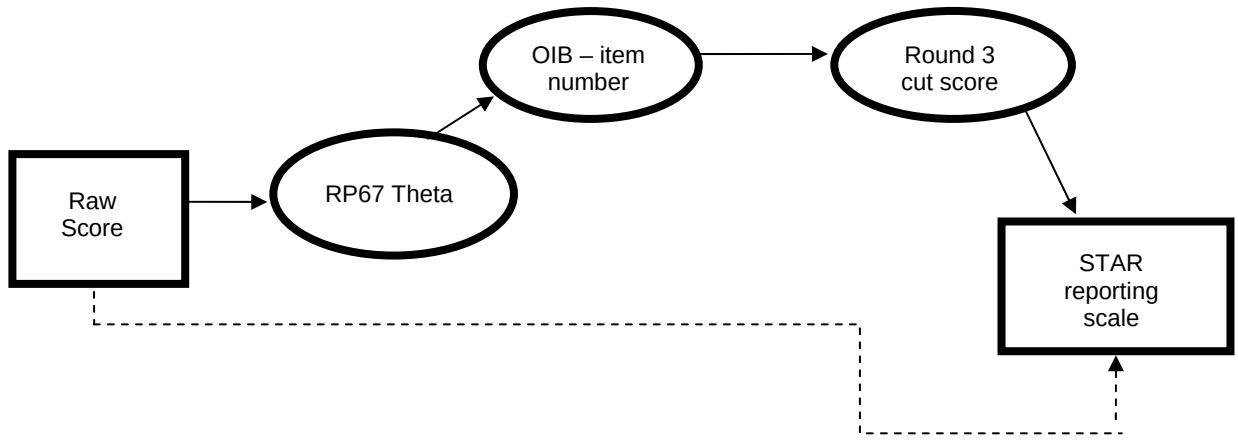
The Bookmark method for setting passing scores was introduced in 1999 and has been used widely across the United States (Lewis, et al., 1999; Mitzel, et al., 2001). The Bookmark method requires panelists to work through a test booklet in which the items have been re-ordered from easiest to hardest based on student performance data.[2] Panelists are asked to place a bookmark in the ordered item booklet (OIB) to demarcate each performance standard. The bookmarks are placed with the assumption that the borderline students will perform successfully at a given performance level with a probability of at least 0.67. Conversely, these students are expected to perform successfully on the items after the bookmark with a probability of less than 0.67 (Huynh, 1998).

[2] An "item map" accompanies the ordered item booklet. The "map" includes information on the content measured by each question, information about each question's difficulty, the correct answer for each question, and where each question was located in the test booklet before the questions were reordered by difficulty.

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

Each item location corresponds to a value of theta, based on a response probability of 0.67, which maps back to a raw score on this test form. The figure 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. The raw cut scores for a given test are mapped to IRT *thetas* ($\hat{\theta}_S$) using the test characteristic function[3] and then transformed to the scale score metric using the following equation:

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

where

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

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

[3] An IRT test characteristic curve is the sum of item characteristic curves (ICC), where an ICC represents the probability of correctly responding to an item conditioned on examinee ability.

The scale score ranges for each performance level are presented in Table 2.2 on page 19. 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 268 in Chapter 7 presents the percentages of examinees meeting each performance level in 2010.

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Chapter 7: Scoring and Reporting

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

Procedures for Maintaining and Retrieving Individual Scores

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

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

Scoring and Reporting Specifications

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

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

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

Scanning and Scoring

Answer documents are scanned and scored by Pearson in 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 last day 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 the ELA in grade seven, the total raw score equals the sum of examinees' scores on the multiple-choice test items. In grade seven, the total ELA raw score equals the sum of examinees' scores on both the multiple-choice items and the writing task.

Subscore

The items of each CST are aggregated into groups of reporting clusters. A subscore is a measure of an examinee's performance on the items in each reporting cluster. These results are reported as the percent of items answered correctly. A description of the CST reporting clusters is provided in Appendix 2.B of Chapter 2, starting on page 25.

Scale Score

Raw scores on each CST are transformed to three-digit scale scores using the equating process described in Chapter 2 on page 16. 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 CST performance for each student 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 level 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 level 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 level and content area.

Writing Score

Examinees' responses to the essay associated with the ELA grade seven test 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 rubric used to assign the non-zero scores to the writing task for grade seven is presented in Appendix 7.A, which starts on page 275.

It is important to note that the writing score is not related to the performance levels used to show overall student performance on the CST for ELA. For example, a writing score of 4 is not related to the advanced performance level, nor does a writing score of 3 relate to the proficient performance level. Students' ELA performance levels are decided in light of their performance on all of the items in the ELA grade seven test; this total may include the writing component.[1]

Score Verification Procedures

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

Scoring Key Verification Process

Scoring keys, provided in the form planners, are produced by ETS and verified thoroughly by performing 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:

- The form planners are checked for accuracy against the Form Planner Specification document and the Score Key and Score Conversion document before the keys are loaded into the score key management system (SKM) at ETS.
- The printed lists of the scoring keys are checked again once the keys have been loaded into the SKM system.
- The sequence of linking items[2] in the form planners are matched with their sequence in the actual test booklets.
- The demarcations of various sections in the actual test book are checked against the list of demarcations provided by ETS test development staff.

[1] Parents/guardians may choose not to let their child attempt the writing task. In these cases, the 75-item multiple-choice score counts as the ELA score in grade seven.

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

- Scoring is verified internally at Pearson. ETS independently generates scores and verifies Pearson's scoring of the data by comparing the two results. Any discrepancies are then resolved.
- The entire scoring system is tested using a test deck that includes typical and extremely atypical response vectors.
- Classical item analyses are run on an early sample of data to provide an additional check of the keys. Although rare, if an item is found to be problematic, a followup process is carried out for it to be excluded from further analyses.

Monitoring and Quality Control of Writing Scoring

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

Since 2006, students' responses to the writing task are read by a single reader; their writing score is based on that reviewer's rating. In addition, 10 percent of students' responses also are read by a second reader to provide data that can be used to assess the accuracy and reliability of the writing scores. The score from the second reader does not count toward the student's writing test score. Presented in the next sections are details on 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.[3] 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.

[3] 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.

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 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 qualify scorers. If a scoring supervisor does not achieve the accuracy required on the Qualification Sets, he or she is not allowed to be a supervisor. In addition, all supervisors received extensive training on how the ePEN™ system works, how to best manage scorers, and how to maintain accuracy as scoring continues.

Scoring directors are responsible for overseeing the scoring and for providing leadership for the scoring supervisors. They also help to manage the scorers, and they are ultimately responsible for maintaining the highest accuracy possible during STAR scoring. Scoring directors represent the best of the scoring supervisors. They typically have two to three years' experience as scoring supervisors and they have 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 percentage of instances in which the first and second readers' scores are identical, adjacent, and nonadjacent; this is a commonly used measure of inter-rater 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 had been scored by the scorers. The scorer and supervisor scores are then compared to check the scorer's consistency and 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 scorers.

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, he or she is immediately retrained or released from the scoring process.

Score Verification Process

ETS psychometricians employ special procedures that adjust for differences in item difficulty of one test form to another. (See Chapter 2, Equating, for details.) As a result of this process, scoring tables are produced. Such tables map the current year's raw score to an appropriate scale score. Pearson utilizes these tables to generate scale scores for each student.

ETS verifies Pearson's scale scores by adhering to procedures such as the following:

- 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 school districts is based on the availability of data for all schools included in those districts, known as "complete districts"
- Reviewing longitudinal data for reasonableness; the results of the analyses are used to look at the tends and trends for the complete districts
- Reviewing longitudinal data for reasonableness using over 90 percent of the entire testing population; the results are used to evaluate the trends for the state as well as few large school districts

The results of the longitudinal analyses are provided to the CDE and jointly discussed. Any anomalies in the results are investigated further and jointly discussed with the CDE. Scores are released after explanations that satisfy both the CDE and ETS are obtained.

Overview of Score Aggregation Procedures

In order to provide meaningful results to the stakeholders, CST scores for a given grade level and content area are aggregated at the school, independently testing charter school, district, county, and state levels. The aggregated scores are generated both for individual scores as well as group scores. The next section presents 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 are presented in Table 7.1 that describe student performance on each CST. 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.

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

				Scale Score		Raw Score		Raw Scr. Pct Poss Range	
Content Area	**CST***	**No. of Items**	**No. of Examinees**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
English–Language Arts	**2**	65	452,078	357	65	44.16	13.32	67.93	20.50
	3	65	437,450	342	63	44.18	12.45	67.96	19.15
	4	75	436,696	370	62	52.20	14.80	69.60	19.73
	5	75	431,294	359	54	50.47	14.01	67.29	18.68
	6	75	435,708	357	54	49.30	13.87	65.73	18.49
	7	75	440,521	356	61	48.85	14.24	65.14	18.99
	8	74	450,321	357	63	48.94	14.35	66.14	19.39
	9	75	488,206	354	60	47.30	14.45	63.06	19.27
	10	75	479,925	341	61	48.50	15.60	64.66	20.80
	11	75	449,140	337	67	46.90	15.44	62.53	20.59
History–Social Science	**8**	75	467,683	348	70	45.95	15.17	61.26	20.23
	World History	60	475,350	337	76	36.80	12.73	61.33	21.22
	11	60	442,015	341	73	36.32	12.57	60.53	20.96
Mathematics	**2**	65	452,806	382	86	49.67	11.78	76.42	18.13
	3	65	439,938	395	92	50.50	11.43	77.69	17.58
	4	65	440,352	390	79	50.82	11.97	78.18	18.42
	5	65	433,919	383	92	44.04	13.05	67.76	20.08
	6	65	436,749	361	75	42.32	13.39	65.11	20.60
	7	65	408,894	352	69	38.68	13.06	59.50	20.10
	General Mathematics	65	219,970	315	56	32.28	12.06	49.67	18.56
	Algebra I	65	746,242	324	72	31.81	12.67	48.94	19.49
	Geometry	65	408,572	317	66	34.73	13.00	53.43	20.00
	Algebra II	65	264,960	324	69	34.98	12.55	53.81	19.31
	Summ. H.S. Mathematics	65	130,562	359	78	46.74	12.15	71.91	18.69
	Integrated Mathematics 1	65	11,260	292	51	26.82	9.15	41.27	14.08
	Integrated Mathematics 2	65	3,830	322	60	29.70	11.23	45.70	17.28
	Integrated Mathematics 3	65	795	327	78	32.30	12.42	49.69	19.11
Science	**5**	60	432,500	362	71	41.67	11.71	69.45	19.52
	8	60	450,168	375	99	40.92	11.71	68.20	19.52
	10 Life Science	60	465,836	348	67	37.82	12.26	63.04	20.44
	Biology	60	544,737	347	58	36.84	12.39	61.40	20.64
	Chemistry	60	256,509	337	55	36.50	12.08	60.84	20.14
	Earth Science	60	217,760	328	49	33.11	11.84	55.18	19.73
	Physics	60	72,735	349	54	36.30	12.05	60.51	20.09
	Int/Coord Science 1	60	63,991	310	40	28.93	10.41	48.21	17.35
	Int/Coord Science 2	60	5,356	311	38	28.01	9.72	46.69	16.20
	Int/Coord Science 3	60	1,344	310	42	26.77	10.27	44.61	17.12
	Int/Coord Science 4	60	365	296	31	25.29	8.07	42.16	13.45
Grade-Specific	**Algebra I – 8**	65	273,857	350	76	36.59	13.00	56.28	20.01
	Geometry – 9	65	134,333	348	65	41.22	12.14	63.41	18.67
	Algebra II – 10	65	118,337	340	66	38.11	11.95	58.63	18.39
	Summ. H.S. Math – 11	65	109,648	352	76	45.61	12.24	70.16	18.83
	World History – 10	60	428,913	339	74	37.15	12.43	61.91	20.72

* Numbers indicate grade-level tests.

The percentages of students in each performance level are presented in Table 7.2, below. The last column on the table presents the overall proportion of examinees that were classified at the proficient level or higher. The statistics for grade-specific, end-of-course testing groups are based on the population of test-takers in a particular grade for which an end-of-course assessment is intended. While such assessments are presented to students at a variety of grade levels, the majority of test-takers belong to that specific grade.

The numbers in the summary tables may not match exactly the results reported on the CDE's Web site because of slight differences in the samples used to compute the statistics. The P1 data file was used for the analyses in this chapter. This file contained more than 99.5 percent of the entire test-taking population and approximately 99.8 percent of the student records used in the August 16, 2010, reporting of STAR results.

Table 7.2 Percentage 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%	13%	26%	30%	24%	53%
	3	9%	16%	32%	26%	18%	43%
	4	5%	9%	23%	27%	36%	63%
	5	5%	9%	27%	32%	26%	59%
	6	5%	11%	29%	31%	25%	55%
	7	7%	11%	27%	32%	23%	55%
	8	8%	11%	27%	25%	29%	54%
	9	8%	13%	25%	30%	24%	55%
	10	12%	14%	29%	23%	22%	45%
	11	15%	15%	27%	22%	21%	43%
History–Social Science	**8**	15%	11%	27%	22%	25%	47%
	World History	23%	10%	25%	22%	20%	41%
	11	18%	13%	23%	25%	20%	45%
Mathematics	**2**	4%	14%	20%	26%	36%	62%
	3	2%	12%	20%	27%	38%	65%
	4	2%	11%	19%	26%	42%	68%
	5	5%	14%	20%	31%	29%	61%
	6	5%	17%	26%	29%	23%	52%
	7	6%	17%	28%	31%	18%	48%
	General Mathematics	17%	26%	30%	22%	5%	27%
	Algebra I	14%	31%	24%	22%	9%	31%
	Geometry	12%	34%	27%	19%	8%	27%
	Algebra II	16%	25%	28%	20%	11%	31%
	Summ. H.S. Math	4%	19%	23%	32%	22%	54%
	Integrated Math 1	17%	46%	24%	11%	2%	13%
	Integrated Math 2	10%	31%	32%	21%	7%	27%
	Integrated Math 3	18%	22%	23%	27%	10%	37%
Science	**5**	8%	12%	24%	31%	25%	56%
	8	11%	11%	19%	21%	38%	59%
	10 Life Science	12%	13%	29%	23%	23%	46%
	Biology	11%	12%	32%	25%	21%	46%
	Chemistry	12%	15%	36%	23%	14%	38%
	Earth Science	16%	15%	36%	24%	9%	33%
	Physics	8%	11%	33%	28%	21%	49%

Content Area	CST*	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/ Advanced
Science (cont.)	**Int/Coord Science 1**	22%	19%	41%	15%	2%	18%
	Int/Coord Science 2	17%	24%	43%	12%	3%	15%
	Int/Coord Science 3	19%	25%	40%	11%	4%	16%
	Int/Coord Science 4	29%	23%	43%	4%	1%	4%
Grade-Specific	**Algebra I – 8**	7%	22%	24%	30%	16%	46%
	Geometry – 9	4%	19%	31%	32%	13%	46%
	Algebra II – 10	9%	19%	31%	27%	13%	40%
	Summ. H. S. Math – 11	5%	21%	24%	31%	19%	50%
	World History – 10	22%	10%	26%	22%	20%	42%

* Numbers indicate grade-level tests.

Table 7.B.1 through Table 7.B.5 in Appendix 7.B, starting on page 278, show the distributions of scale scores for each CST. The results are reported in terms of 15 score intervals, each of which contains 30 scale score points. A frequency count of zero indicates that either there are no obtainable scale scores within that scale score range, or there were no students who obtained a scale score within the scale score range. Table 7.B.6 presents analogous information for the five grade-specific testing groups.

Group Scores

Statistics summarizing student performance by content area and grade level for selected groups of students are provided starting on page 282 in Table 7.C.1 through Table 7.C.38 for the CSTs. When a test is administered at more than one grade level, the results are reported for the test as a whole and also by grade.

In the tables, students are grouped by demographic characteristics, including gender, ethnicity, English proficiency, need for special education services, and economic status. The tables show the numbers of valid cases in each group as well as scale score means and standard deviations for each demographic group. 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 score distribution mean subscores are not reported and are presented as a hyphen.

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 • Pacific Islander

Subgroup	Definition
	– 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 tests. The grades included for the various 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 CSTs for Science

Reports to Be Produced and Scores for Each Report

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

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

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 reports to the child's parents or guardians and forwards a copy to the student's school or test site. Reports such as the STAR Student Report, Student Record Label, and Student Master List that include individual student results are not distributed beyond the student's school. Internet reports are described on the CDE Web site and are accessible to the public online at http://star.cde.ca.gov/.

Score Report Contents

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

In addition, percent correct scores are provided at the cluster level. Also given for each cluster is the average percent correct cluster score obtained by students who achieved the lowest score that qualifies a student to be classified as proficient on the total test, as well as the average percent correct cluster score obtained by students who achieved the lowest score that qualifies a student to be classified as advanced on the total test. These two averages are given as a range of values in the report. The average percent correct was 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.

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 non-accommodated tests. Modifications, however, change what is being tested and, therefore, change scores. If students use modifications, their scores are counted differently from non-modified test scores on summary reports. On the STAR summary reports, the students' 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 358. Beginning in 2008, an additional score report, Ethnicity for Economic Status, is produced for the CSTs. This Subgroup Summary report disaggregates and reports results by selected ethnic groups within an economic status.

Score Report Applications

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

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

Schools may use the CST results to help make decisions about how to best 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 level and content area tested. Their findings are used to help determine:

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

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

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

Criteria for Interpreting Test Scores

A school district may use CST results to help make decisions about student placement, promotion, retention, or other considerations related to student achievement. However, it is important to remember that a single test can provide only limited information. Other relevant information should be considered as well. It is advisable for parents to evaluate their child's strengths and weaknesses in the relevant topics by reviewing classroom work and progress reports in addition to the child's CST results (CDE, 2010a). It is also important to note that a student's score in a content area contains measurement error and could vary somewhat if the student was retested.

Criteria for Interpreting Score Reports

The information presented on various reports must be interpreted with caution when making performance comparisons. When comparing scale score and performance level results for the CSTs, the user is limited to comparisons within the same content area and grade level. 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 *2010 STAR Post-Test Guide* (CDE, 2010b).

References

California Department of Education. (2010a). *2010 STAR CST/CMA, CAPA, and STS printed reports*. http://www.startest.org/pdfs/STAR.reports.2010.pdf.

California Department of Education. (2010b). *2010 STAR post-test guide.* http://www.startest.org/pdfs/STAR.post-test_guide.2010.pdf.

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

Appendix 7.A—ELA for Writing (Grade Seven) Rubric

The scoring rubric that follows was used to assign scores to students' written responses on the writing test for grade seven. This rubric includes two sets of criteria. The criteria under "The Writing" are adapted from the writing strategies and written conventions strands of California's English–language arts content standards. 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 writing conventions. The criteria under "Fictional or autobiographical narrative writing," "Response to literature writing," "Persuasive writing," and "Summary writing," are adapted from the writing applications strand of the state's content standards for these genres. These criteria 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. (The relevancy of facts, details, and/or explanations is determined by the genre.)
- Includes sentence *variety*
- Contains *some errors* in the conventions of the English language (grammar, punctuation, capitalization, and 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 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 (The relevancy of facts, details, and/or explanations is determined by the genre.)
- Includes some sentence *variety*
- Contains *some errors* in the conventions of the English language (grammar, punctuation, capitalization, and 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 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. (The relevancy of facts, details, and/or explanations is determined by the genre.)
- Includes *little* sentence variety
- Contains *many errors* in the conventions of the English language (grammar, punctuation, capitalization, and 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. (The relevancy of facts, details, and/or explanations is determined by the genre.)
- Includes *no* sentence variety
- Contains *serious errors* in the conventions of the English language (grammar, punctuation, capitalization, and spelling). These errors interfere with the reader's understanding of the writing.

Fictional or autobiographical narrative writing:

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

Response to literature writing:

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

Persuasive writing:

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

Summary writing:

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

Appendix 7.B—Scale Score Distributions

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

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
570 – 600	2,129	1,364	1,122	147	157	986	291	291	255	157
540 – 569	0	0	3,138	691	631	8	1,195	0	0	797
510 – 539	5,132	3,504	0	0	1,513	1,484	2,684	724	1,061	1,804
480 – 509	7,874	5,567	13,611	4,907	2,635	5,861	4,595	4,358	2,521	3,041
450 – 479	21,688	7,824	21,214	11,707	15,856	17,162	23,769	17,461	10,440	17,438
420 – 449	40,831	32,560	52,828	42,092	26,994	44,215	46,629	41,812	28,083	26,734
390 – 419	58,483	40,472	79,293	66,338	72,449	65,099	63,207	80,153	63,876	53,431
360 – 389	81,685	71,021	76,706	96,336	98,381	76,701	79,036	88,278	88,260	66,445
330 – 359	83,444	88,543	71,612	81,352	78,239	86,036	75,416	82,696	83,611	70,135
300 – 329	58,847	77,791	54,543	63,514	69,013	63,479	67,544	72,615	78,847	72,744
270 – 299	45,606	54,395	40,578	40,547	43,326	40,227	46,458	56,875	51,677	50,448
240 – 269	39,015	33,274	18,619	20,743	23,279	30,439	31,616	34,188	49,247	47,703
210 – 239	6,946	18,915	3,297	2,800	3,134	7,934	7,263	8,239	20,779	33,148
180 – 209	384	2,063	113	107	86	850	547	447	1,194	4,824
150 – 179	14	157	22	13	15	40	71	69	74	291

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

Scale Score	Grade 8	World History	Grade 11
570 – 600	1,888	3,875	2,265
540 – 569	2,558	0	0
510 – 539	3,670	4,800	3,058
480 – 509	10,514	6,744	11,003
450 – 479	21,950	17,758	16,337
420 – 449	35,917	34,392	31,950
390 – 419	50,386	51,643	49,100
360 – 389	72,452	64,241	62,134
330 – 359	68,172	59,014	68,366
300 – 329	77,432	73,555	59,058
270 – 299	52,952	58,068	57,661
240 – 269	52,290	55,726	40,506
210 – 239	15,059	34,031	32,592
180 – 209	2,343	9,321	7,352
150 – 179	100	2,182	633

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	7,088	16,752	14,698	14,014	3,382	3,143
540 – 569	14,218	21,337	0	10,238	6,238	3,174
510 – 539	18,881	21,791	21,753	22,375	7,978	4,144
480 – 509	21,133	21,038	23,646	23,533	9,088	10,372
450 – 479	43,106	38,395	23,868	34,796	30,298	12,565
420 – 449	40,459	34,161	64,988	34,288	31,486	30,398
390 – 419	54,449	59,712	69,177	54,716	53,364	44,245
360 – 389	71,145	62,927	62,916	50,770	64,305	68,962
330 – 359	53,273	51,242	59,730	56,366	70,518	71,423
300 – 329	47,297	47,367	44,988	51,403	62,535	65,315
270 – 299	37,840	35,166	30,839	37,077	51,820	48,537
240 – 269	21,760	17,302	18,717	31,665	35,837	35,783
210 – 239	15,671	9,194	4,614	10,797	8,975	9,979
180 – 209	5,383	3,021	398	1,704	876	776
150 – 179	1,103	533	20	177	49	78

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	72	6,213	774	1,173	1,257	7	16	6
540 – 569	0	3,297	1,671	1,122	2,449	4	9	1
510 – 539	153	7,994	2,349	1,406	0	12	21	8
480 – 509	726	10,090	2,790	3,772	3,250	15	24	16
450 – 479	2,594	18,998	10,942	4,802	8,216	56	75	18
420 – 449	5,030	32,042	13,939	12,357	13,511	120	105	50
390 – 419	13,307	49,689	21,754	20,218	13,652	283	179	72
360 – 389	23,485	74,663	40,518	25,697	20,741	637	365	86
330 – 359	34,614	91,325	57,447	37,071	18,084	941	672	96
300 – 329	45,983	115,574	68,886	49,872	19,506	2,042	793	123
270 – 299	44,098	151,235	80,200	44,289	13,922	3,003	836	108
240 – 269	36,462	127,035	77,393	39,620	9,410	2,674	598	111
210 – 239	12,289	52,908	26,321	19,411	4,693	1,144	123	76
180 – 209	1,046	4,641	3,399	3,823	1,623	285	14	20
150 – 179	111	538	189	327	248	37	0	4

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

Scale Score	Grade 5 Science	Grade 8 Science	Grade 10 Life Science	Biology	Chemistry	Earth Science	Physics
570 – 600	3,230	18,005	1,400	1,463	738	41	108
540 – 569	6,895	10,426	3,397	0	0	0	0
510 – 539	0	11,612	0	3,601	1,589	164	328
480 – 509	10,022	26,286	12,549	5,426	0	427	498
450 – 479	26,049	29,262	18,477	15,577	5,671	818	1,599
420 – 449	44,680	45,048	34,348	32,657	8,014	5,255	3,769
390 – 419	44,952	59,382	51,857	54,875	27,119	18,123	8,905
360 – 389	81,911	41,130	66,460	107,146	32,888	30,796	14,500
330 – 359	67,829	60,206	86,301	110,403	56,173	45,336	15,633
300 – 329	61,786	48,526	73,457	91,438	57,075	50,484	14,166
270 – 299	45,482	30,299	59,855	73,455	41,958	42,583	8,861
240 – 269	30,457	29,734	40,270	44,746	22,271	20,812	4,004
210 – 239	8,242	19,229	15,591	3,726	2,922	2,856	351
180 – 209	913	14,248	1,697	199	84	53	11
150 – 179	52	6,775	177	25	7	12	2

Scale Score	Integrated Science 1	Integrated Science 2	Integrated Science 3	Integrated Science 4
570 – 600	3	0	1	0
540 – 569	0	0	0	0
510 – 539	15	2	1	0
480 – 509	27	2	2	0
450 – 479	39	12	8	0
420 – 449	322	28	18	0
390 – 419	1,139	119	28	2
360 – 389	5,713	399	89	6
330 – 359	12,755	915	201	40
300 – 329	17,742	1,673	397	125
270 – 299	16,176	1,459	390	107
240 – 269	8,723	715	197	77
210 – 239	1,302	31	11	8
180 – 209	30	1	1	0
150 – 179	5	0	0	0

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

Scale Score	Algebra I – Grade 8	Geometry – Grade 9	Algebra II – Grade 10	High School Math – Grade 11	World History – Grade 10
570 – 600	3,589	296	430	828	3,289
540 – 569	2,019	716	471	1,620	0
510 – 539	5,092	1,121	630	0	4,206
480 – 509	6,526	1,356	1,918	2,232	5,954
450 – 479	12,094	6,048	2,738	5,890	15,897
420 – 449	19,373	8,410	7,410	10,118	31,231
390 – 419	27,840	13,273	12,384	10,595	47,471
360 – 389	36,909	22,571	15,070	17,090	59,634
330 – 359	38,620	25,956	20,084	15,533	54,897
300 – 329	40,796	22,897	23,262	17,562	68,241
270 – 299	42,257	17,521	16,382	12,984	52,869
240 – 269	28,212	10,920	11,840	8,951	48,869
210 – 239	9,734	2,862	4,731	4,465	28,146
180 – 209	717	367	920	1,545	7,262
150 – 179	79	19	67	235	947

Appendix 7.C—Demographic Summaries

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	452,078	357	65	8%	13%	26%	30%	24%	73%	65%	76%	66%	58%
Male	230,513	351	65	10%	14%	27%	28%	22%	72%	63%	74%	63%	56%
Female	221,398	362	64	6%	11%	26%	31%	26%	74%	66%	78%	69%	61%
Gender unknown	167	326	60	16%	25%	25%	24%	11%	63%	54%	66%	54%	49%
American Indian	2,961	339	60	11%	16%	30%	27%	15%	68%	60%	72%	59%	52%
Asian American	36,996	398	68	3%	5%	15%	30%	48%	83%	76%	85%	80%	71%
Pacific Islander	2,463	355	57	7%	10%	29%	34%	20%	74%	64%	77%	67%	56%
Filipino	10,378	385	60	2%	6%	20%	35%	38%	82%	73%	83%	77%	66%
Hispanic	239,733	340	58	10%	16%	31%	28%	14%	69%	59%	71%	61%	52%
African American	28,780	340	60	11%	16%	30%	28%	15%	69%	59%	72%	60%	52%
White	113,153	378	64	4%	7%	20%	33%	35%	78%	73%	83%	72%	66%
Two or More Races	17,614	373	66	5%	9%	22%	32%	32%	77%	71%	81%	70%	63%
English Only	250,716	366	65	6%	10%	24%	32%	29%	76%	68%	80%	69%	61%
Initially Fluent English Prof.	18,691	396	65	2%	4%	16%	32%	45%	83%	77%	87%	79%	71%
English Learner	173,520	337	59	11%	18%	32%	26%	13%	68%	58%	69%	60%	51%
Reclassified Fluent Eng. Prof.	8,541	393	55	1%	3%	16%	39%	41%	84%	76%	87%	80%	70%
English Prof. unknown	610	338	67	13%	20%	26%	24%	17%	66%	59%	69%	58%	52%
No Special Ed Services	417,393	361	63	6%	12%	26%	31%	25%	74%	66%	77%	67%	59%
Special Ed Services	34,656	309	62	28%	23%	24%	16%	9%	56%	49%	57%	48%	43%
Special Ed unknown	29	305	60	21%	38%	21%	14%	7%	53%	49%	57%	47%	41%
Not Econ. Disadvantaged	177,560	384	64	3%	6%	19%	33%	39%	80%	74%	84%	75%	68%
Economically Disadvantaged	273,639	339	58	11%	17%	31%	28%	14%	68%	59%	70%	60%	52%
Unknown Economic Status	879	341	66	14%	17%	25%	25%	19%	67%	60%	70%	59%	54%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,042	360	63	5%	12%	26%	31%	25%	74%	67%	79%	66%	59%
Asian American	23,713	414	65	1%	3%	10%	27%	58%	86%	81%	89%	84%	76%
Pacific Islander	946	368	58	4%	8%	25%	36%	27%	77%	69%	81%	71%	61%
Filipino	6,656	393	60	1%	4%	17%	34%	43%	83%	76%	86%	79%	69%
Hispanic	43,006	362	60	5%	10%	26%	34%	25%	75%	67%	79%	68%	60%
African American	8,133	360	61	7%	11%	26%	32%	24%	75%	66%	78%	67%	59%
White	82,750	388	62	3%	5%	17%	34%	41%	81%	76%	86%	76%	70%
Two or More Races	11,314	389	64	3%	6%	17%	32%	42%	81%	76%	85%	75%	69%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,917	328	56	14%	19%	33%	25%	10%	64%	56%	68%	55%	48%
Asian American	13,213	369	62	5%	9%	24%	33%	29%	77%	68%	78%	72%	61%
Pacific Islander	1,512	347	56	8%	12%	31%	33%	16%	72%	61%	75%	64%	53%
Filipino	3,707	370	59	4%	8%	26%	35%	28%	78%	69%	79%	72%	61%
Hispanic	196,409	335	57	11%	18%	32%	27%	12%	67%	57%	69%	59%	51%
African American	20,577	333	58	13%	18%	32%	26%	12%	67%	56%	69%	57%	50%
White	30,180	350	61	9%	13%	28%	31%	19%	71%	64%	75%	63%	56%
Two or More Races	6,124	345	59	9%	14%	30%	31%	15%	70%	61%	74%	61%	54%
Primary Ethnicity—Unknown Economic Status													
American Indian	2	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	70	383	78	6%	16%	6%	33%	40%	79%	73%	78%	72%	65%
Pacific Islander	5	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	15	369	63	7%	7%	33%	20%	33%	75%	72%	74%	73%	59%
Hispanic	318	322	59	21%	17%	31%	19%	11%	62%	53%	63%	53%	47%
African American	70	320	54	13%	26%	31%	17%	13%	64%	53%	61%	49%	48%
White	223	361	63	9%	11%	22%	32%	27%	74%	68%	81%	66%	61%
Two or More Races	176	338	65	14%	20%	23%	27%	15%	66%	59%	70%	59%	54%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	437,450	342	63	9%	16%	32%	26%	18%	71%	69%	76%	61%	63%
Male	220,471	338	63	10%	17%	32%	25%	16%	70%	67%	74%	59%	61%
Female	216,812	347	63	7%	15%	32%	27%	19%	72%	71%	78%	62%	65%
Gender unknown	167	310	62	28%	16%	32%	16%	9%	59%	60%	65%	49%	54%
American Indian	2,857	330	58	11%	18%	35%	24%	12%	68%	67%	73%	56%	58%
Asian American	36,538	378	66	4%	7%	22%	30%	37%	81%	77%	84%	73%	75%
Pacific Islander	2,357	339	56	7%	16%	37%	26%	14%	71%	68%	76%	60%	62%
Filipino	10,791	366	57	2%	8%	29%	33%	27%	79%	75%	83%	69%	72%
Hispanic	228,537	323	56	12%	21%	36%	21%	9%	65%	64%	71%	55%	57%
African American	27,743	326	57	12%	20%	36%	22%	10%	67%	64%	71%	55%	57%
White	111,522	368	62	4%	9%	26%	32%	29%	78%	77%	84%	68%	72%
Two or More Races	17,105	361	64	5%	11%	28%	30%	26%	76%	74%	81%	66%	70%
English Only	241,454	355	63	6%	12%	30%	29%	23%	75%	73%	80%	64%	67%
Initially Fluent English Prof.	18,816	378	63	3%	7%	24%	32%	34%	80%	78%	86%	71%	75%
English Learner	148,175	311	53	16%	26%	37%	16%	5%	61%	60%	66%	52%	52%
Reclassified Fluent Eng. Prof.	28,404	376	48	0%	3%	27%	41%	29%	81%	79%	88%	73%	76%
English Prof. unknown	601	316	61	20%	20%	31%	19%	9%	62%	62%	68%	52%	54%
No Special Ed Services	410,378	344	62	8%	16%	32%	26%	18%	72%	70%	77%	61%	64%
Special Ed Services	27,034	309	64	24%	23%	28%	16%	9%	60%	58%	63%	50%	51%
Special Ed unknown	38	288	53	37%	24%	32%	3%	5%	54%	53%	58%	40%	42%
Not Econ. Disadvantaged	174,322	371	62	3%	8%	25%	32%	31%	79%	77%	84%	70%	73%
Economically Disadvantaged	262,310	323	56	12%	21%	36%	21%	9%	65%	64%	71%	55%	56%
Unknown Economic Status	818	323	66	18%	18%	30%	21%	13%	65%	64%	70%	53%	57%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,076	348	60	8%	12%	31%	29%	20%	73%	72%	79%	62%	65%
Asian American	23,268	396	64	2%	4%	17%	30%	47%	85%	81%	88%	78%	81%
Pacific Islander	887	358	56	4%	10%	32%	31%	22%	77%	73%	81%	66%	68%
Filipino	6,997	374	56	2%	6%	26%	34%	31%	81%	77%	85%	72%	74%
Hispanic	40,463	348	58	6%	14%	33%	29%	18%	73%	71%	79%	63%	66%
African American	7,992	344	59	7%	14%	34%	28%	16%	73%	69%	77%	62%	63%
White	82,643	378	60	2%	6%	23%	34%	34%	81%	79%	86%	71%	75%
Two or More Races	10,996	378	62	3%	6%	24%	32%	35%	81%	78%	86%	71%	75%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,778	319	54	14%	21%	37%	21%	7%	65%	64%	70%	52%	55%
Asian American	13,221	348	60	7%	13%	32%	29%	19%	74%	70%	77%	65%	66%
Pacific Islander	1,464	328	53	9%	19%	40%	23%	9%	68%	65%	74%	57%	58%
Filipino	3,778	351	54	4%	12%	35%	31%	18%	75%	72%	78%	65%	67%
Hispanic	187,808	318	54	14%	23%	37%	20%	7%	64%	62%	70%	54%	55%
African American	19,682	318	55	14%	22%	36%	20%	7%	65%	62%	69%	53%	54%
White	28,674	339	58	8%	16%	34%	27%	15%	71%	70%	76%	59%	62%
Two or More Races	5,905	332	56	10%	18%	36%	25%	12%	68%	67%	74%	58%	60%
Primary Ethnicity—Unknown Economic Status													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	49	366	79	10%	14%	18%	22%	35%	75%	75%	80%	66%	70%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	16	366	43	0%	6%	31%	38%	25%	80%	80%	90%	68%	69%
Hispanic	266	302	58	26%	21%	33%	15%	5%	58%	56%	63%	48%	50%
African American	69	300	61	26%	26%	25%	16%	7%	57%	55%	58%	48%	51%
White	205	347	63	9%	12%	30%	29%	19%	73%	72%	78%	59%	65%
Two or More Races	204	322	64	19%	21%	29%	20%	12%	64%	64%	69%	52%	56%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	436,696	370	62	5%	9%	23%	27%	36%	73%	67%	68%	73%	66%
Male	219,446	366	63	6%	10%	23%	26%	34%	72%	66%	68%	70%	64%
Female	217,163	374	60	4%	8%	22%	27%	38%	74%	68%	68%	75%	67%
Gender unknown	87	345	59	11%	13%	25%	31%	20%	64%	62%	59%	64%	58%
American Indian	2,860	357	57	7%	11%	26%	28%	28%	70%	64%	64%	68%	61%
Asian American	38,632	406	63	2%	4%	12%	21%	61%	82%	77%	79%	83%	76%
Pacific Islander	2,404	363	55	4%	9%	26%	31%	30%	72%	64%	68%	71%	64%
Filipino	11,080	392	54	1%	4%	16%	28%	51%	81%	74%	75%	80%	73%
Hispanic	224,965	351	55	7%	13%	29%	28%	23%	66%	60%	62%	68%	60%
African American	27,942	351	57	8%	13%	27%	27%	25%	68%	60%	62%	67%	60%
White	113,323	395	59	2%	4%	14%	25%	54%	81%	76%	76%	79%	73%
Two or More Races	15,490	390	62	3%	6%	17%	24%	50%	79%	74%	74%	77%	71%
English Only	241,334	382	61	3%	7%	19%	26%	44%	77%	71%	72%	75%	69%
Initially Fluent English Prof.	30,453	398	59	2%	4%	14%	26%	55%	82%	76%	77%	80%	74%
English Learner	121,463	330	48	11%	19%	37%	24%	10%	58%	52%	54%	62%	54%
Reclassified Fluent Eng. Prof.	42,980	398	45	0%	1%	11%	34%	54%	83%	77%	79%	83%	75%
English Prof. unknown	466	351	61	10%	11%	26%	26%	26%	66%	62%	62%	66%	60%
No Special Ed Services	411,916	372	61	4%	9%	23%	27%	37%	73%	67%	69%	73%	66%
Special Ed Services	24,766	339	64	15%	17%	26%	21%	21%	61%	57%	57%	61%	56%
Special Ed unknown	14	301	48	36%	14%	43%	7%	0%	48%	48%	35%	44%	48%
Not Econ. Disadvantaged	177,966	399	59	2%	4%	14%	24%	56%	82%	77%	77%	80%	74%
Economically Disadvantaged	258,115	350	55	7%	13%	29%	28%	23%	66%	60%	61%	68%	60%
Unknown Economic Status	615	357	65	11%	11%	23%	24%	32%	68%	65%	63%	67%	61%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,123	376	58	4%	6%	21%	27%	42%	77%	71%	71%	73%	68%
Asian American	24,437	423	59	1%	2%	7%	17%	73%	87%	82%	84%	86%	80%
Pacific Islander	926	382	55	2%	6%	18%	31%	43%	78%	71%	73%	76%	70%
Filipino	7,132	400	53	1%	3%	13%	27%	57%	83%	77%	78%	82%	75%
Hispanic	41,236	376	57	3%	7%	21%	29%	39%	76%	70%	71%	75%	68%
African American	8,444	370	58	5%	8%	22%	29%	37%	75%	67%	69%	73%	66%
White	84,548	406	56	1%	3%	11%	24%	61%	84%	80%	79%	82%	76%
Two or More Races	10,120	405	59	1%	3%	12%	22%	61%	84%	79%	79%	81%	76%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,735	345	53	9%	15%	30%	28%	20%	65%	60%	60%	65%	57%
Asian American	14,145	376	59	4%	7%	20%	28%	41%	75%	69%	71%	76%	68%
Pacific Islander	1,475	352	51	5%	11%	31%	31%	22%	69%	60%	64%	68%	60%
Filipino	3,937	376	53	2%	6%	22%	30%	39%	77%	69%	70%	76%	68%
Hispanic	183,531	345	53	8%	14%	31%	28%	19%	64%	58%	60%	66%	59%
African American	19,443	343	55	9%	15%	30%	27%	19%	65%	57%	59%	65%	57%
White	28,608	366	57	5%	9%	24%	30%	33%	73%	67%	67%	71%	65%
Two or More Races	5,241	360	56	6%	11%	25%	29%	30%	71%	64%	65%	70%	63%
Primary Ethnicity—Unknown Economic Status													
American Indian	2	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	50	377	74	10%	8%	18%	18%	46%	71%	70%	71%	74%	67%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	11	358	54	9%	0%	36%	18%	36%	69%	62%	66%	71%	64%
Hispanic	198	338	61	16%	12%	28%	20%	24%	61%	58%	57%	62%	57%
African American	55	333	62	18%	15%	29%	16%	22%	62%	55%	55%	61%	52%
White	167	372	58	4%	9%	19%	34%	35%	75%	72%	67%	71%	66%
Two or More Races	129	367	67	9%	10%	19%	26%	36%	71%	68%	66%	69%	65%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	431,294	359	54	5%	9%	27%	32%	26%	64%	65%	69%	71%	69%
Male	216,949	355	55	7%	11%	27%	31%	24%	63%	64%	66%	67%	66%
Female	214,244	364	52	4%	8%	26%	34%	28%	64%	65%	71%	74%	71%
Gender unknown	101	341	60	14%	15%	30%	21%	21%	57%	57%	62%	65%	60%
American Indian	2,957	347	52	8%	12%	30%	32%	18%	61%	60%	66%	65%	64%
Asian American	35,833	391	56	3%	4%	15%	29%	50%	73%	74%	79%	81%	77%
Pacific Islander	2,438	354	49	4%	11%	30%	34%	21%	62%	62%	67%	71%	67%
Filipino	11,369	379	48	2%	4%	19%	37%	38%	71%	71%	75%	79%	75%
Hispanic	220,107	343	49	8%	13%	33%	32%	15%	57%	59%	62%	67%	64%
African American	28,308	343	50	8%	13%	32%	32%	15%	59%	58%	64%	66%	63%
White	115,046	381	50	2%	5%	18%	34%	41%	73%	72%	78%	75%	75%
Two or More Races	15,236	375	53	3%	6%	20%	34%	37%	71%	70%	76%	74%	74%
English Only	240,759	369	52	4%	7%	23%	34%	32%	68%	68%	74%	72%	72%
Initially Fluent English Prof.	33,550	382	52	2%	4%	19%	35%	40%	72%	72%	76%	77%	76%
English Learner	97,249	317	41	14%	21%	42%	19%	3%	46%	49%	51%	59%	54%
Reclassified Fluent Eng. Prof.	59,290	376	40	0%	2%	22%	46%	30%	69%	71%	74%	79%	76%
English Prof. unknown	446	338	57	13%	15%	28%	27%	16%	56%	57%	61%	63%	60%
No Special Ed Services	407,164	361	53	5%	9%	26%	33%	27%	64%	65%	70%	71%	69%
Special Ed Services	24,113	327	55	18%	18%	30%	22%	13%	52%	53%	57%	58%	56%
Special Ed unknown	17	317	55	24%	29%	24%	18%	6%	56%	50%	49%	51%	50%
Not Econ. Disadvantaged	177,395	384	51	2%	4%	17%	34%	43%	73%	73%	79%	77%	76%
Economically Disadvantaged	253,289	342	49	8%	13%	33%	31%	14%	57%	59%	62%	66%	63%
Unknown Economic Status	610	341	58	12%	15%	29%	26%	19%	58%	57%	62%	63%	62%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,161	363	52	5%	9%	24%	35%	28%	67%	66%	73%	70%	69%
Asian American	22,346	407	52	1%	2%	9%	26%	62%	79%	79%	84%	84%	82%
Pacific Islander	980	370	49	2%	7%	23%	36%	32%	68%	68%	73%	75%	73%
Filipino	7,330	387	46	1%	3%	16%	37%	44%	73%	73%	78%	81%	77%
Hispanic	41,365	364	49	4%	7%	25%	37%	27%	66%	67%	72%	72%	71%
African American	8,730	361	50	4%	8%	25%	36%	26%	66%	64%	71%	71%	69%
White	85,740	389	48	1%	3%	14%	34%	48%	76%	75%	81%	77%	78%
Two or More Races	9,743	389	50	2%	4%	15%	33%	47%	75%	74%	81%	77%	78%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,792	337	49	10%	14%	34%	30%	12%	57%	56%	62%	62%	60%
Asian American	13,433	365	54	5%	7%	24%	34%	30%	64%	66%	70%	76%	70%
Pacific Islander	1,454	343	46	6%	13%	34%	33%	14%	58%	57%	63%	69%	63%
Filipino	4,025	365	48	3%	7%	26%	38%	27%	65%	66%	70%	76%	71%
Hispanic	178,549	338	47	9%	14%	35%	31%	12%	55%	57%	60%	65%	62%
African American	19,529	336	48	10%	15%	35%	30%	11%	56%	55%	61%	63%	61%
White	29,170	356	50	6%	9%	27%	35%	22%	65%	64%	70%	68%	67%
Two or More Races	5,337	352	49	6%	10%	31%	35%	19%	62%	62%	68%	68%	66%
Primary Ethnicity—Unknown Economic Status													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	54	355	77	20%	15%	9%	17%	39%	60%	61%	63%	69%	64%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	14	368	43	7%	0%	21%	50%	21%	66%	68%	69%	81%	72%
Hispanic	193	326	49	15%	17%	36%	25%	7%	52%	51%	57%	59%	57%
African American	49	317	46	16%	22%	33%	24%	4%	50%	47%	52%	54%	57%
White	136	362	56	5%	11%	22%	32%	30%	67%	66%	70%	68%	69%
Two or More Races	156	342	58	12%	14%	30%	22%	21%	58%	58%	63%	63%	62%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	435,708	357	54	5%	11%	29%	31%	25%	71%	62%	68%	73%	58%
Male	219,133	352	55	7%	12%	29%	30%	23%	69%	61%	66%	70%	56%
Female	216,493	362	53	4%	9%	29%	32%	27%	73%	63%	69%	75%	59%
Gender unknown	82	325	48	13%	18%	44%	13%	11%	59%	51%	57%	60%	47%
American Indian	3,027	344	51	7%	14%	32%	31%	16%	66%	59%	64%	68%	53%
Asian American	36,257	391	57	2%	5%	16%	28%	49%	80%	73%	77%	82%	69%
Pacific Islander	2,594	352	50	5%	11%	31%	33%	20%	69%	61%	67%	72%	55%
Filipino	11,923	376	47	2%	5%	22%	36%	35%	78%	70%	74%	80%	64%
Hispanic	221,438	340	49	7%	15%	36%	29%	14%	65%	57%	62%	68%	52%
African American	28,745	338	50	8%	16%	35%	28%	13%	64%	56%	62%	67%	51%
White	116,629	379	51	2%	5%	20%	34%	39%	79%	70%	75%	78%	66%
Two or More Races	15,095	371	54	3%	7%	23%	33%	34%	76%	68%	73%	76%	63%
English Only	243,431	367	53	4%	8%	25%	33%	31%	75%	66%	71%	75%	61%
Initially Fluent English Prof.	36,305	378	53	2%	5%	22%	34%	37%	78%	69%	74%	78%	65%
English Learner	80,487	309	41	15%	28%	41%	13%	3%	51%	46%	49%	58%	40%
Reclassified Fluent Eng. Prof.	75,003	366	42	1%	4%	30%	41%	23%	75%	66%	71%	78%	61%
English Prof. unknown	482	335	57	12%	18%	34%	22%	14%	61%	54%	60%	65%	50%
No Special Ed Services	411,520	359	54	4%	10%	29%	31%	26%	72%	63%	68%	73%	58%
Special Ed Services	24,175	317	54	20%	23%	31%	17%	9%	54%	50%	53%	58%	44%
Special Ed unknown	13	287	45	46%	23%	23%	8%	0%	45%	41%	42%	44%	31%
Not Econ. Disadvantaged	183,270	381	52	2%	5%	19%	33%	41%	79%	71%	76%	79%	66%
Economically Disadvantaged	251,719	339	49	7%	15%	36%	29%	13%	64%	56%	62%	68%	51%
Unknown Economic Status	719	334	56	13%	16%	30%	25%	15%	61%	55%	60%	63%	50%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,205	361	50	4%	10%	25%	36%	25%	73%	65%	70%	73%	59%
Asian American	22,552	407	54	1%	2%	10%	26%	61%	85%	78%	82%	86%	74%
Pacific Islander	1,086	367	49	3%	6%	23%	38%	29%	75%	66%	72%	77%	61%
Filipino	7,642	383	46	1%	3%	18%	36%	41%	80%	72%	76%	81%	66%
Hispanic	43,907	361	49	3%	8%	28%	35%	25%	73%	64%	70%	74%	59%
African American	9,570	355	51	5%	10%	30%	33%	22%	71%	62%	68%	72%	57%
White	87,753	387	49	1%	3%	16%	34%	45%	82%	73%	78%	80%	69%
Two or More Races	9,555	385	52	2%	4%	17%	33%	44%	81%	72%	77%	80%	67%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,812	333	48	9%	17%	36%	28%	10%	62%	55%	61%	65%	49%
Asian American	13,666	364	53	4%	8%	26%	33%	28%	72%	65%	70%	77%	60%
Pacific Islander	1,501	341	48	7%	15%	37%	29%	13%	64%	58%	63%	69%	50%
Filipino	4,262	363	47	3%	7%	28%	37%	25%	73%	65%	70%	77%	59%
Hispanic	177,273	335	47	8%	16%	37%	27%	11%	63%	55%	60%	67%	50%
African American	19,126	330	48	10%	18%	37%	25%	9%	61%	53%	59%	64%	48%
White	28,681	353	50	5%	10%	30%	34%	21%	70%	62%	67%	71%	57%
Two or More Races	5,398	347	49	6%	12%	34%	32%	16%	68%	60%	65%	70%	54%
Primary Ethnicity—Unknown Economic Status													
American Indian	10	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	39	346	77	15%	21%	23%	8%	33%	61%	59%	62%	66%	54%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	19	372	48	0%	5%	26%	37%	32%	74%	67%	75%	80%	62%
Hispanic	258	321	52	16%	22%	32%	21%	9%	56%	50%	55%	60%	45%
African American	49	310	54	29%	14%	35%	12%	10%	54%	49%	46%	53%	43%
White	195	347	53	9%	10%	29%	35%	18%	66%	61%	66%	68%	56%
Two or More Races	142	337	56	13%	16%	29%	25%	17%	64%	56%	61%	64%	52%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	440,521	356	61	7%	11%	27%	32%	23%	67%	69%	65%	68%	57%
Male	221,735	350	62	9%	13%	27%	31%	20%	65%	68%	63%	65%	55%
Female	218,686	363	59	5%	9%	27%	33%	26%	69%	71%	67%	71%	58%
Gender unknown	100	341	64	12%	15%	26%	34%	13%	62%	67%	63%	62%	49%
American Indian	3,040	347	58	9%	12%	29%	32%	18%	64%	67%	64%	64%	53%
Asian American	38,494	394	64	3%	5%	15%	30%	47%	77%	79%	73%	80%	69%
Pacific Islander	2,683	350	56	7%	11%	32%	33%	17%	64%	68%	63%	68%	54%
Filipino	12,105	380	54	2%	5%	20%	39%	34%	74%	77%	69%	77%	65%
Hispanic	221,470	337	54	10%	15%	34%	30%	11%	61%	63%	58%	63%	51%
African American	29,077	335	56	12%	15%	32%	30%	12%	61%	62%	60%	62%	50%
White	118,958	382	57	3%	5%	18%	36%	38%	75%	78%	73%	75%	65%
Two or More Races	14,694	373	60	4%	8%	21%	34%	32%	72%	74%	71%	73%	62%
English Only	243,569	368	60	5%	8%	23%	34%	29%	71%	73%	69%	71%	60%
Initially Fluent English Prof.	32,607	382	59	2%	6%	21%	35%	36%	75%	77%	71%	75%	65%
English Learner	76,386	299	43	22%	28%	37%	11%	1%	47%	49%	44%	52%	39%
Reclassified Fluent Eng. Prof.	87,248	365	47	1%	5%	31%	43%	20%	71%	73%	67%	73%	60%
English Prof. unknown	711	334	63	13%	18%	29%	26%	14%	59%	63%	59%	61%	49%
No Special Ed Services	416,393	359	60	6%	10%	27%	33%	24%	68%	70%	66%	69%	58%
Special Ed Services	24,111	309	57	25%	22%	29%	17%	7%	51%	52%	50%	52%	43%
Special Ed unknown	17	274	41	53%	18%	24%	6%	0%	37%	43%	37%	42%	28%
Not Econ. Disadvantaged	190,120	384	58	3%	5%	18%	35%	39%	75%	78%	73%	76%	65%
Economically Disadvantaged	249,473	336	54	10%	15%	34%	30%	11%	61%	63%	58%	63%	50%
Unknown Economic Status	928	334	65	15%	19%	25%	27%	15%	60%	62%	59%	61%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,299	365	57	5%	9%	23%	36%	27%	70%	73%	69%	70%	59%
Asian American	23,662	413	60	2%	2%	9%	27%	60%	82%	84%	78%	84%	75%
Pacific Islander	1,191	368	55	4%	7%	25%	38%	25%	71%	73%	69%	73%	59%
Filipino	7,982	388	52	1%	3%	17%	39%	39%	77%	79%	72%	79%	67%
Hispanic	46,123	360	55	5%	9%	27%	37%	22%	69%	71%	67%	69%	58%
African American	10,002	354	56	7%	10%	27%	36%	20%	67%	69%	66%	68%	56%
White	90,661	391	54	2%	4%	15%	36%	43%	78%	80%	76%	77%	68%
Two or More Races	9,200	388	58	2%	5%	17%	34%	42%	77%	79%	75%	77%	67%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,735	333	54	12%	15%	33%	29%	11%	59%	63%	60%	60%	49%
Asian American	14,764	365	60	6%	8%	24%	35%	27%	68%	71%	66%	74%	60%
Pacific Islander	1,486	336	52	9%	14%	37%	28%	11%	59%	63%	59%	65%	49%
Filipino	4,109	364	53	4%	8%	27%	39%	23%	69%	72%	65%	73%	59%
Hispanic	175,010	331	52	11%	17%	35%	28%	9%	59%	61%	56%	61%	49%
African American	18,986	326	53	14%	18%	34%	26%	8%	57%	59%	57%	59%	47%
White	28,087	352	56	7%	11%	28%	35%	19%	66%	69%	66%	66%	55%
Two or More Races	5,296	348	55	7%	13%	29%	35%	16%	64%	67%	64%	66%	54%
Primary Ethnicity—Unknown Economic Status													
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	68	353	79	15%	13%	16%	26%	29%	64%	67%	62%	64%	60%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	14	363	44	0%	7%	36%	43%	14%	67%	77%	71%	72%	55%
Hispanic	337	316	59	20%	24%	26%	20%	9%	53%	56%	54%	55%	45%
African American	89	311	60	26%	21%	27%	21%	4%	51%	54%	51%	54%	44%
White	210	355	59	6%	15%	23%	34%	22%	67%	70%	67%	67%	57%
Two or More Races	198	346	66	10%	16%	26%	31%	18%	64%	66%	62%	65%	53%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	450,321	357	63	8%	11%	27%	25%	29%	64%	71%	65%	66%	62%
Male	226,866	350	63	10%	13%	28%	24%	26%	63%	70%	63%	63%	59%
Female	223,339	364	61	5%	10%	27%	26%	32%	65%	73%	67%	69%	65%
Gender unknown	116	323	64	18%	23%	28%	16%	15%	58%	61%	54%	52%	51%
American Indian	3,138	347	60	10%	13%	29%	25%	23%	63%	69%	62%	62%	59%
Asian American	39,531	396	65	3%	5%	15%	23%	54%	74%	81%	76%	77%	73%
Pacific Islander	2,590	350	59	9%	11%	30%	26%	24%	63%	69%	63%	65%	61%
Filipino	12,260	379	55	2%	5%	22%	30%	41%	71%	78%	73%	74%	70%
Hispanic	224,198	337	55	11%	16%	34%	24%	16%	58%	66%	59%	60%	57%
African American	29,619	336	57	12%	16%	32%	23%	17%	58%	65%	58%	59%	56%
White	123,947	382	60	4%	6%	19%	27%	44%	73%	79%	73%	74%	69%
Two or More Races	15,038	371	63	6%	8%	23%	26%	37%	69%	76%	69%	70%	66%
English Only	248,574	368	62	6%	9%	24%	26%	35%	68%	75%	69%	69%	65%
Initially Fluent English Prof.	31,801	382	62	3%	6%	21%	27%	43%	71%	79%	73%	74%	70%
English Learner	72,070	298	41	24%	30%	36%	9%	2%	45%	51%	46%	46%	44%
Reclassified Fluent Eng. Prof.	97,136	365	50	2%	6%	31%	33%	27%	66%	76%	68%	70%	66%
English Prof. unknown	740	329	59	16%	18%	29%	22%	14%	56%	63%	56%	57%	53%
No Special Ed Services	425,011	360	62	6%	11%	27%	26%	30%	65%	73%	66%	67%	63%
Special Ed Services	25,293	305	56	28%	23%	28%	12%	8%	50%	53%	48%	47%	45%
Special Ed unknown	17	288	56	47%	24%	12%	12%	6%	37%	49%	40%	45%	39%
Not Econ. Disadvantaged	197,500	383	61	3%	6%	20%	26%	45%	72%	79%	73%	74%	70%
Economically Disadvantaged	251,873	337	56	11%	16%	33%	24%	16%	58%	66%	59%	60%	56%
Unknown Economic Status	948	325	61	20%	17%	28%	23%	13%	55%	62%	55%	54%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,402	365	60	5%	10%	25%	27%	33%	68%	74%	68%	68%	64%
Asian American	23,810	415	60	2%	2%	10%	20%	67%	80%	85%	81%	82%	79%
Pacific Islander	1,181	368	59	6%	8%	22%	29%	35%	68%	75%	68%	70%	66%
Filipino	8,194	387	53	2%	4%	19%	29%	47%	74%	81%	75%	76%	73%
Hispanic	48,347	359	58	6%	10%	28%	28%	28%	65%	72%	66%	67%	63%
African American	10,668	353	59	7%	12%	28%	27%	25%	64%	71%	64%	65%	62%
White	94,474	391	58	2%	4%	17%	27%	50%	75%	81%	76%	77%	72%
Two or More Races	9,424	387	61	3%	5%	18%	26%	48%	74%	80%	74%	75%	71%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,728	332	55	13%	16%	33%	24%	14%	59%	65%	58%	58%	54%
Asian American	15,667	367	61	5%	9%	24%	27%	35%	66%	74%	69%	70%	66%
Pacific Islander	1,404	335	54	12%	14%	36%	25%	14%	58%	65%	58%	60%	56%
Filipino	4,047	363	55	4%	8%	28%	30%	30%	66%	74%	68%	69%	65%
Hispanic	175,522	332	53	12%	17%	35%	23%	13%	56%	64%	57%	58%	55%
African American	18,861	326	54	15%	18%	34%	21%	12%	55%	62%	55%	56%	53%
White	29,223	353	59	8%	11%	28%	27%	25%	65%	71%	64%	64%	60%
Two or More Races	5,421	345	57	9%	13%	32%	26%	20%	62%	69%	61%	62%	58%
Primary Ethnicity—Unknown Economic Status													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	54	355	61	11%	6%	30%	33%	20%	60%	69%	68%	66%	63%
Pacific Islander	5	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	19	344	39	5%	5%	42%	37%	11%	63%	71%	62%	63%	59%
Hispanic	329	306	53	26%	22%	30%	16%	6%	50%	55%	49%	48%	45%
African American	90	303	62	34%	17%	27%	14%	8%	48%	53%	47%	46%	46%
White	250	343	61	14%	12%	23%	30%	20%	61%	68%	61%	60%	58%
Two or More Races	193	332	60	13%	17%	32%	24%	13%	59%	65%	58%	56%	54%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	488,206	354	60	8%	13%	25%	30%	24%	69%	66%	58%	64%	61%
Male	248,786	348	61	10%	15%	25%	29%	22%	68%	65%	56%	61%	59%
Female	239,300	360	57	5%	11%	25%	32%	26%	71%	67%	60%	68%	64%
Gender unknown	120	309	58	26%	25%	24%	16%	9%	56%	51%	44%	47%	46%
American Indian	3,518	346	58	9%	14%	27%	30%	19%	68%	63%	56%	62%	58%
Asian American	41,286	389	60	3%	6%	15%	30%	47%	76%	78%	69%	74%	72%
Pacific Islander	2,872	346	55	8%	14%	29%	32%	17%	67%	63%	56%	61%	59%
Filipino	13,426	376	50	2%	6%	19%	39%	34%	75%	74%	65%	71%	69%
Hispanic	244,464	336	53	10%	17%	31%	29%	13%	65%	60%	52%	59%	56%
African American	33,374	332	55	13%	19%	29%	27%	13%	63%	59%	51%	56%	55%
White	134,022	378	57	4%	7%	17%	33%	39%	77%	75%	67%	73%	67%
Two or More Races	15,244	360	62	7%	12%	22%	30%	29%	71%	68%	61%	66%	62%
English Only	273,243	364	60	6%	10%	22%	32%	30%	72%	70%	62%	68%	64%
Initially Fluent English Prof.	40,649	375	57	3%	7%	20%	34%	35%	75%	74%	65%	71%	68%
English Learner	76,936	298	40	21%	33%	35%	9%	1%	52%	45%	39%	45%	44%
Reclassified Fluent Eng. Prof.	96,487	361	46	2%	7%	29%	41%	20%	72%	70%	60%	67%	65%
English Prof. unknown	891	322	58	18%	22%	27%	22%	10%	59%	55%	48%	53%	50%
No Special Ed Services	456,329	358	58	6%	12%	25%	32%	25%	71%	67%	59%	66%	62%
Special Ed Services	31,859	298	51	29%	29%	25%	12%	4%	51%	46%	40%	44%	43%
Special Ed unknown	18	268	23	61%	28%	11%	0%	0%	35%	33%	28%	32%	36%
Not Econ. Disadvantaged	227,701	376	58	4%	7%	18%	33%	38%	75%	73%	66%	71%	67%
Economically Disadvantaged	259,471	335	54	11%	18%	31%	29%	12%	64%	60%	51%	58%	56%
Unknown Economic Status	1,034	320	60	21%	22%	24%	23%	11%	57%	54%	47%	52%	50%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,789	362	56	5%	11%	23%	35%	27%	73%	69%	62%	67%	63%
Asian American	24,829	407	55	1%	3%	9%	27%	60%	81%	83%	75%	80%	76%
Pacific Islander	1,430	360	56	5%	11%	23%	35%	25%	71%	68%	61%	66%	63%
Filipino	9,532	382	49	1%	4%	16%	39%	39%	77%	77%	67%	74%	71%
Hispanic	61,608	352	56	7%	12%	26%	33%	21%	69%	66%	58%	64%	61%
African American	13,975	344	57	10%	15%	27%	30%	19%	67%	63%	56%	60%	58%
White	105,225	387	54	2%	5%	15%	33%	45%	79%	77%	70%	75%	70%
Two or More Races	9,313	375	60	5%	8%	18%	32%	38%	75%	73%	66%	71%	66%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,724	329	54	13%	18%	32%	26%	11%	64%	57%	50%	56%	53%
Asian American	16,413	362	57	5%	10%	23%	34%	28%	70%	70%	61%	66%	65%
Pacific Islander	1,436	332	52	11%	16%	34%	29%	10%	64%	58%	51%	56%	56%
Filipino	3,881	359	51	4%	10%	25%	38%	23%	71%	69%	60%	66%	65%
Hispanic	182,420	330	51	11%	19%	33%	28%	10%	63%	58%	50%	57%	55%
African American	19,283	323	52	14%	21%	31%	25%	8%	61%	56%	48%	53%	52%
White	28,568	349	57	9%	13%	26%	32%	20%	69%	65%	57%	63%	59%
Two or More Races	5,746	338	57	11%	17%	29%	28%	15%	65%	61%	53%	58%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	5	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	44	346	71	16%	14%	20%	18%	32%	60%	63%	59%	62%	58%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	13	364	46	8%	0%	23%	46%	23%	69%	73%	63%	67%	67%
Hispanic	436	307	54	25%	27%	25%	17%	6%	53%	49%	42%	48%	47%
African American	116	298	58	31%	28%	22%	11%	8%	52%	47%	40%	44%	43%
White	229	346	59	11%	13%	22%	37%	16%	66%	65%	57%	62%	56%
Two or More Races	185	325	61	19%	20%	24%	25%	11%	59%	56%	49%	53%	52%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	479,925	341	61	12%	14%	29%	23%	22%	72%	67%	60%	66%	62%
Male	245,027	335	62	15%	15%	28%	22%	20%	70%	65%	58%	63%	60%
Female	234,759	348	58	8%	13%	30%	25%	24%	73%	70%	63%	70%	64%
Gender unknown	139	303	53	27%	19%	37%	10%	7%	60%	51%	47%	54%	48%
American Indian	3,348	334	59	14%	16%	30%	22%	18%	70%	64%	58%	63%	60%
Asian American	42,078	378	61	5%	7%	19%	24%	45%	81%	80%	71%	78%	73%
Pacific Islander	2,841	333	55	11%	17%	34%	23%	15%	69%	64%	58%	66%	59%
Filipino	13,139	365	51	3%	7%	26%	31%	32%	80%	77%	67%	76%	70%
Hispanic	233,459	324	54	15%	18%	34%	21%	12%	66%	61%	55%	62%	56%
African American	33,376	318	57	19%	19%	32%	19%	11%	63%	59%	53%	58%	54%
White	136,346	363	60	7%	8%	23%	27%	34%	79%	75%	67%	72%	69%
Two or More Races	15,338	347	63	11%	13%	26%	24%	26%	74%	69%	62%	67%	64%
English Only	270,609	350	61	10%	12%	27%	25%	27%	75%	70%	63%	68%	65%
Initially Fluent English Prof.	39,422	364	59	5%	8%	26%	27%	33%	79%	76%	67%	74%	69%
English Learner	71,926	285	40	31%	33%	29%	5%	1%	49%	45%	42%	48%	42%
Reclassified Fluent Eng. Prof.	97,087	351	48	4%	9%	37%	30%	20%	76%	72%	63%	72%	66%
English Prof. unknown	881	306	56	27%	21%	30%	13%	8%	58%	53%	50%	53%	50%
No Special Ed Services	440,884	347	59	9%	13%	30%	25%	24%	74%	69%	62%	68%	64%
Special Ed Services	39,020	280	47	42%	28%	21%	6%	3%	47%	43%	40%	43%	41%
Special Ed unknown	21	264	36	62%	19%	14%	5%	0%	36%	36%	38%	36%	34%
Not Econ. Disadvantaged	229,194	362	60	7%	9%	24%	27%	34%	79%	74%	67%	72%	69%
Economically Disadvantaged	249,612	323	55	16%	19%	34%	20%	12%	65%	61%	55%	61%	56%
Unknown Economic Status	1,119	307	59	28%	21%	28%	14%	9%	59%	53%	50%	54%	50%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,734	349	60	10%	11%	28%	26%	25%	77%	70%	63%	67%	65%
Asian American	25,255	394	57	2%	4%	13%	24%	57%	86%	85%	76%	82%	78%
Pacific Islander	1,455	343	57	9%	13%	31%	25%	21%	73%	68%	61%	69%	62%
Filipino	9,519	370	50	2%	6%	24%	32%	36%	82%	79%	69%	77%	72%
Hispanic	60,034	338	57	11%	14%	31%	25%	19%	71%	67%	60%	66%	61%
African American	14,232	330	58	15%	15%	32%	22%	16%	68%	63%	57%	63%	59%
White	107,356	371	57	5%	7%	21%	28%	39%	82%	77%	70%	75%	72%
Two or More Races	9,609	361	62	8%	9%	22%	27%	34%	79%	74%	66%	71%	69%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,602	318	54	18%	21%	34%	18%	10%	64%	58%	53%	58%	54%
Asian American	16,784	354	59	8%	11%	27%	26%	28%	74%	72%	64%	72%	66%
Pacific Islander	1,378	322	51	13%	21%	37%	20%	10%	66%	60%	54%	63%	55%
Filipino	3,611	350	53	6%	11%	32%	28%	23%	75%	72%	63%	72%	65%
Hispanic	172,980	319	53	16%	20%	35%	19%	9%	64%	59%	53%	60%	54%
African American	19,008	310	54	23%	21%	32%	17%	7%	60%	55%	50%	55%	51%
White	28,743	333	59	14%	15%	31%	23%	17%	70%	65%	59%	63%	60%
Two or More Races	5,506	324	57	16%	18%	32%	20%	13%	66%	61%	55%	60%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	12	290	67	42%	33%	0%	17%	8%	49%	47%	43%	46%	44%
Asian American	39	337	72	18%	18%	28%	10%	26%	64%	63%	58%	66%	59%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	445	297	52	30%	25%	28%	11%	6%	55%	50%	46%	51%	46%
African American	136	278	50	47%	25%	15%	12%	1%	44%	43%	41%	42%	39%
White	247	332	63	18%	12%	30%	22%	18%	70%	63%	59%	61%	60%
Two or More Races	223	310	56	24%	18%	32%	16%	10%	61%	55%	51%	56%	51%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	449,140	337	67	15%	15%	27%	22%	21%	72%	61%	57%	68%	62%
Male	227,878	328	68	20%	16%	26%	20%	18%	70%	58%	55%	65%	59%
Female	221,138	346	65	10%	14%	28%	24%	23%	75%	63%	59%	71%	66%
Gender unknown	124	292	61	37%	23%	23%	10%	7%	57%	45%	47%	51%	47%
American Indian	2,929	328	64	18%	16%	29%	21%	16%	69%	58%	56%	66%	59%
Asian American	41,840	371	70	7%	9%	20%	24%	40%	80%	72%	65%	77%	73%
Pacific Islander	2,741	324	63	18%	18%	30%	20%	14%	69%	57%	54%	65%	59%
Filipino	13,005	355	58	6%	11%	29%	29%	26%	80%	67%	61%	75%	69%
Hispanic	210,465	318	59	20%	19%	31%	19%	11%	68%	55%	52%	63%	57%
African American	30,668	312	62	24%	19%	28%	18%	10%	64%	53%	51%	60%	55%
White	133,403	360	68	9%	10%	23%	26%	32%	78%	68%	64%	74%	69%
Two or More Races	14,089	342	70	15%	13%	25%	23%	24%	73%	63%	59%	68%	63%
English Only	255,767	346	68	13%	13%	25%	24%	25%	74%	64%	60%	70%	65%
Initially Fluent English Prof.	38,601	359	65	8%	10%	26%	26%	30%	79%	68%	63%	74%	69%
English Learner	60,901	274	42	42%	32%	21%	4%	1%	52%	39%	39%	47%	42%
Reclassified Fluent Eng. Prof.	93,202	344	54	6%	13%	37%	27%	17%	78%	64%	58%	72%	66%
English Prof. unknown	669	306	61	29%	19%	29%	14%	9%	62%	51%	49%	58%	52%
No Special Ed Services	414,627	342	66	12%	14%	28%	23%	22%	74%	63%	59%	69%	64%
Special Ed Services	34,504	271	50	51%	25%	16%	5%	3%	49%	38%	39%	46%	40%
Special Ed unknown	9	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	224,246	357	68	10%	11%	24%	25%	31%	78%	67%	63%	73%	68%
Economically Disadvantaged	223,990	317	60	20%	20%	31%	19%	10%	67%	54%	51%	62%	56%
Unknown Economic Status	904	304	64	31%	19%	26%	15%	10%	61%	50%	49%	57%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,678	341	65	13%	14%	27%	24%	22%	73%	62%	60%	69%	63%
Asian American	24,750	391	66	4%	5%	16%	24%	51%	84%	78%	71%	82%	78%
Pacific Islander	1,474	338	65	13%	15%	29%	23%	20%	73%	61%	58%	69%	63%
Filipino	9,401	361	58	5%	9%	27%	30%	29%	81%	69%	63%	76%	71%
Hispanic	56,343	332	63	15%	15%	29%	23%	16%	72%	59%	56%	67%	61%
African American	13,773	323	64	20%	17%	28%	21%	14%	68%	57%	54%	64%	58%
White	107,644	367	66	7%	8%	22%	27%	36%	80%	71%	66%	76%	71%
Two or More Races	9,183	355	69	11%	11%	23%	25%	30%	77%	67%	63%	72%	67%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,247	311	60	24%	19%	31%	17%	9%	64%	53%	51%	61%	54%
Asian American	17,052	343	65	12%	14%	27%	24%	22%	73%	64%	57%	71%	66%
Pacific Islander	1,260	309	57	23%	22%	31%	17%	7%	64%	51%	49%	61%	54%
Filipino	3,587	340	57	9%	15%	33%	26%	17%	76%	63%	57%	71%	65%
Hispanic	153,748	313	57	21%	21%	32%	18%	8%	67%	53%	50%	61%	55%
African American	16,809	303	59	28%	21%	28%	15%	7%	61%	50%	48%	57%	52%
White	25,567	328	64	18%	16%	27%	22%	16%	69%	58%	56%	65%	59%
Two or More Races	4,720	317	63	23%	18%	28%	19%	12%	66%	54%	52%	62%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	38	322	68	21%	18%	29%	16%	16%	66%	54%	53%	67%	58%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	17	322	64	18%	18%	29%	24%	12%	65%	56%	52%	66%	60%
Hispanic	374	296	57	34%	21%	26%	14%	5%	60%	47%	47%	53%	49%
African American	86	283	56	40%	21%	26%	12%	2%	52%	43%	43%	49%	45%
White	192	323	69	25%	13%	25%	19%	19%	65%	57%	55%	63%	57%
Two or More Races	186	307	66	30%	20%	25%	15%	11%	62%	51%	49%	58%	53%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	467,683	348	70	15%	11%	27%	22%	25%	64%	60%	55%	62%	63%
Male	238,481	350	74	17%	11%	24%	21%	28%	64%	62%	55%	62%	63%
Female	229,063	346	65	13%	12%	30%	23%	22%	64%	59%	55%	62%	63%
Gender unknown	139	296	61	43%	13%	24%	12%	7%	50%	45%	40%	45%	46%
American Indian	3,305	333	64	19%	13%	30%	21%	17%	61%	57%	50%	58%	58%
Asian American	40,030	398	76	5%	5%	16%	22%	52%	76%	75%	68%	75%	77%
Pacific Islander	2,653	342	63	13%	12%	30%	25%	19%	63%	60%	54%	60%	61%
Filipino	12,421	377	64	5%	6%	24%	28%	38%	72%	70%	64%	70%	72%
Hispanic	234,739	327	61	20%	15%	31%	20%	14%	59%	54%	50%	56%	56%
African American	31,633	324	63	24%	14%	29%	19%	14%	58%	53%	49%	54%	56%
White	127,448	373	69	8%	7%	22%	26%	38%	70%	68%	62%	69%	71%
Two or More Races	15,454	362	70	11%	8%	24%	24%	32%	68%	65%	59%	65%	67%
English Only	257,834	358	70	12%	9%	25%	24%	30%	67%	64%	58%	65%	66%
Initially Fluent English Prof.	32,120	378	73	7%	7%	23%	24%	39%	72%	69%	63%	70%	71%
English Learner	79,297	290	47	39%	23%	28%	8%	3%	48%	41%	39%	44%	43%
Reclassified Fluent Eng. Prof.	97,527	359	60	6%	9%	33%	28%	25%	68%	65%	59%	66%	67%
English Prof. unknown	905	308	61	33%	16%	28%	13%	10%	54%	48%	44%	49%	49%
No Special Ed Services	424,626	354	69	12%	11%	27%	23%	27%	66%	62%	57%	64%	65%
Special Ed Services	43,006	291	58	45%	19%	21%	9%	6%	49%	42%	39%	43%	43%
Special Ed unknown	51	267	42	63%	22%	12%	2%	2%	39%	36%	34%	34%	35%
Not Econ. Disadvantaged	201,873	377	71	7%	7%	21%	25%	40%	71%	69%	63%	70%	72%
Economically Disadvantaged	264,678	326	62	21%	15%	31%	19%	14%	59%	54%	49%	55%	56%
Unknown Economic Status	1,132	307	62	36%	16%	25%	13%	11%	54%	48%	43%	48%	49%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,459	351	66	12%	10%	27%	24%	26%	65%	63%	55%	63%	64%
Asian American	23,983	419	72	3%	3%	11%	20%	65%	81%	80%	73%	80%	82%
Pacific Islander	1,201	359	65	9%	9%	26%	27%	29%	67%	65%	58%	66%	66%
Filipino	8,279	386	63	3%	5%	21%	29%	43%	74%	73%	67%	73%	75%
Hispanic	49,940	349	65	12%	11%	29%	25%	24%	65%	61%	56%	63%	64%
African American	11,096	344	65	15%	11%	28%	25%	22%	63%	59%	55%	60%	63%
White	96,335	384	67	5%	5%	20%	27%	44%	73%	71%	65%	73%	75%
Two or More Races	9,580	380	69	7%	6%	21%	26%	41%	73%	70%	63%	71%	73%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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—Economically Disadvantaged													
American Indian	1,837	319	58	24%	15%	31%	19%	11%	57%	53%	47%	53%	53%
Asian American	15,991	367	70	9%	8%	25%	25%	33%	68%	68%	60%	67%	69%
Pacific Islander	1,444	328	58	17%	14%	34%	24%	11%	59%	56%	51%	56%	56%
Filipino	4,121	358	62	8%	9%	29%	27%	27%	67%	65%	59%	65%	66%
Hispanic	184,373	321	59	22%	16%	32%	18%	11%	57%	52%	48%	54%	54%
African American	20,421	313	59	28%	16%	30%	16%	9%	55%	49%	46%	51%	52%
White	30,843	339	64	16%	12%	29%	23%	19%	62%	59%	52%	59%	60%
Two or More Races	5,648	333	61	18%	13%	31%	22%	16%	61%	57%	51%	57%	58%
Primary Ethnicity—Unknown Economic Status													
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	56	344	75	20%	7%	29%	18%	27%	63%	61%	51%	60%	61%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	21	332	56	14%	14%	33%	29%	10%	62%	57%	49%	57%	60%
Hispanic	426	294	53	40%	20%	25%	8%	6%	51%	44%	39%	44%	44%
African American	116	282	56	56%	16%	15%	8%	6%	47%	39%	36%	39%	41%
White	270	324	67	28%	12%	26%	19%	16%	58%	54%	49%	53%	55%
Two or More Races	226	312	61	31%	14%	29%	15%	12%	55%	50%	44%	50%	51%

Table 7.C.12 Demographic Summary for World History

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	475,350	337	76	23%	10%	25%	22%	20%	63%	63%	62%	60%	59%
Grade 9	32,180	340	91	29%	8%	18%	19%	26%	63%	62%	62%	60%	59%
Grade 10	428,913	339	74	22%	10%	26%	22%	20%	64%	64%	62%	60%	59%
Grade 11	14,257	279	67	54%	12%	19%	10%	5%	45%	45%	44%	43%	43%
Male	242,473	343	82	24%	9%	22%	22%	24%	63%	64%	64%	61%	60%
Female	232,753	330	68	23%	12%	29%	21%	15%	63%	62%	59%	58%	57%
Gender unknown	124	290	62	47%	14%	25%	8%	6%	49%	48%	45%	48%	46%
American Indian	3,330	328	73	27%	11%	26%	21%	16%	60%	61%	59%	57%	57%
Asian American	42,250	383	77	9%	5%	19%	27%	40%	74%	75%	75%	72%	71%
Pacific Islander	2,837	325	68	25%	14%	28%	20%	13%	60%	60%	59%	57%	55%
Filipino	13,354	361	67	10%	8%	28%	29%	26%	69%	72%	69%	67%	67%
Hispanic	230,909	316	68	31%	13%	27%	18%	11%	58%	57%	56%	54%	53%
African American	32,685	306	67	37%	12%	26%	16%	9%	56%	55%	52%	51%	50%
White	135,046	363	76	13%	7%	23%	27%	29%	69%	71%	69%	67%	66%
Two or More Races	14,939	342	79	22%	10%	24%	22%	22%	64%	65%	63%	61%	60%
English Only	266,443	346	77	20%	9%	25%	24%	23%	65%	66%	64%	62%	62%
Initially Fluent English Prof.	39,702	362	76	13%	8%	24%	25%	29%	70%	70%	69%	67%	66%
English Learner	70,492	278	53	55%	16%	20%	7%	2%	47%	44%	44%	43%	41%
Reclassified Fluent Eng. Prof.	97,911	344	67	15%	11%	31%	25%	19%	66%	66%	65%	62%	61%
English Prof. unknown	802	293	68	47%	12%	22%	10%	8%	50%	50%	47%	48%	47%
No Special Ed Services	437,265	342	75	20%	10%	26%	23%	21%	65%	65%	63%	61%	60%
Special Ed Services	38,064	280	63	57%	13%	17%	8%	5%	46%	44%	45%	43%	41%
Special Ed unknown	21	276	50	62%	10%	19%	10%	0%	41%	42%	43%	47%	44%
Not Econ. Disadvantaged	228,042	360	77	14%	7%	24%	26%	29%	69%	70%	68%	66%	66%
Economically Disadvantaged	246,228	315	68	31%	13%	27%	18%	11%	58%	57%	56%	54%	53%
Unknown Economic Status	1,080	294	70	48%	10%	21%	13%	8%	50%	49%	48%	47%	48%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,734	346	76	19%	9%	25%	24%	23%	65%	67%	65%	62%	62%
Asian American	25,476	401	73	5%	3%	15%	27%	49%	78%	80%	79%	77%	76%
Pacific Islander	1,452	336	70	20%	12%	28%	22%	17%	63%	64%	62%	60%	59%
Filipino	9,676	367	67	8%	7%	26%	30%	28%	71%	73%	71%	68%	68%
Hispanic	59,195	333	72	23%	11%	27%	22%	17%	62%	62%	60%	59%	58%
African American	13,983	319	70	30%	11%	28%	20%	12%	59%	59%	56%	55%	54%
White	107,105	371	74	10%	6%	23%	28%	33%	71%	73%	72%	70%	69%
Two or More Races	9,421	358	79	16%	8%	23%	25%	29%	68%	70%	67%	66%	65%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,586	308	64	35%	12%	27%	18%	8%	55%	55%	53%	52%	51%
Asian American	16,736	355	73	15%	8%	25%	26%	25%	67%	68%	68%	65%	64%
Pacific Islander	1,377	313	65	30%	15%	28%	18%	8%	57%	57%	56%	53%	51%
Filipino	3,668	345	65	14%	10%	31%	26%	19%	65%	68%	65%	62%	62%
Hispanic	171,286	311	66	33%	14%	27%	17%	9%	57%	55%	54%	52%	51%
African American	18,556	297	63	42%	14%	25%	14%	6%	53%	51%	49%	48%	47%
White	27,712	330	72	25%	11%	27%	22%	16%	61%	62%	60%	58%	58%
Two or More Races	5,307	314	69	33%	13%	26%	17%	11%	57%	56%	55%	53%	53%
Primary Ethnicity—Unknown Economic Status													
American Indian	10	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	38	337	98	24%	21%	16%	16%	24%	60%	58%	60%	58%	61%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	10	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	428	285	63	51%	12%	21%	10%	6%	48%	46%	46%	45%	45%
African American	146	267	58	64%	10%	13%	12%	1%	44%	39%	40%	37%	40%
White	229	317	75	37%	7%	23%	21%	13%	56%	57%	56%	54%	55%
Two or More Races	211	296	69	47%	8%	26%	10%	9%	52%	52%	47%	48%	48%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	442,015	341	73	18%	13%	23%	25%	20%	58%	62%	62%	59%	61%
Male	223,913	345	79	20%	11%	20%	24%	24%	59%	63%	62%	61%	61%
Female	217,991	338	67	17%	15%	27%	26%	16%	57%	62%	62%	57%	61%
Gender unknown	111	301	62	41%	17%	20%	13%	9%	46%	50%	49%	48%	48%
American Indian	2,884	333	70	21%	15%	24%	24%	16%	55%	59%	60%	57%	59%
Asian American	41,415	379	75	8%	7%	18%	29%	38%	69%	73%	71%	69%	70%
Pacific Islander	2,677	329	67	20%	16%	26%	24%	13%	56%	59%	58%	55%	58%
Filipino	12,877	359	64	8%	10%	26%	33%	23%	63%	69%	67%	65%	67%
Hispanic	206,864	322	66	24%	17%	26%	22%	11%	52%	57%	56%	54%	55%
African American	29,880	313	66	30%	17%	25%	20%	9%	50%	54%	54%	50%	54%
White	131,680	365	74	11%	9%	20%	30%	30%	66%	69%	68%	65%	68%
Two or More Races	13,738	347	76	18%	11%	21%	26%	23%	60%	63%	63%	60%	63%
English Only	251,718	350	75	16%	11%	22%	27%	24%	61%	65%	64%	61%	64%
Initially Fluent English Prof.	38,194	363	72	10%	9%	23%	29%	28%	65%	69%	68%	65%	67%
English Learner	59,021	279	49	47%	24%	21%	7%	2%	39%	44%	43%	43%	40%
Reclassified Fluent Eng. Prof.	92,441	348	63	10%	13%	30%	29%	18%	60%	66%	64%	62%	63%
English Prof. unknown	641	304	63	35%	18%	23%	16%	9%	47%	51%	50%	49%	50%
No Special Ed Services	408,343	346	72	16%	13%	24%	26%	21%	60%	64%	63%	61%	62%
Special Ed Services	33,662	281	60	52%	19%	16%	9%	4%	40%	43%	43%	42%	41%
Special Ed unknown	10	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	221,375	362	74	12%	9%	21%	29%	29%	65%	68%	67%	64%	67%
Economically Disadvantaged	219,791	321	66	24%	17%	26%	21%	11%	52%	57%	56%	54%	55%
Unknown Economic Status	849	306	66	35%	17%	21%	19%	8%	48%	50%	51%	49%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,653	346	72	17%	12%	23%	27%	21%	60%	63%	64%	61%	63%
Asian American	24,570	397	72	5%	5%	15%	29%	47%	75%	77%	76%	73%	75%
Pacific Islander	1,450	341	68	16%	13%	25%	29%	17%	59%	62%	62%	59%	62%
Filipino	9,315	365	63	7%	8%	25%	34%	26%	65%	70%	69%	66%	68%
Hispanic	55,451	336	69	19%	13%	25%	26%	16%	57%	61%	60%	58%	60%
African American	13,429	324	69	24%	15%	25%	23%	13%	53%	57%	57%	53%	58%
White	106,509	373	72	9%	8%	19%	31%	34%	68%	71%	70%	67%	70%
Two or More Races	8,998	361	75	13%	9%	20%	29%	28%	64%	67%	67%	64%	67%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Foundations of Amer. Pol. & Social Thought	Industrialization and the U.S. Role as a World Power	United States Between the World Wars	World War II and Foreign Affairs	Post-World War II Domestic Issues
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,227	315	64	27%	18%	26%	21%	8%	50%	54%	55%	52%	54%
Asian American	16,810	353	71	13%	11%	24%	28%	23%	61%	67%	65%	63%	64%
Pacific Islander	1,220	314	63	25%	20%	28%	18%	8%	51%	55%	53%	51%	53%
Filipino	3,545	345	63	11%	14%	29%	29%	17%	58%	65%	63%	61%	63%
Hispanic	151,056	317	64	26%	18%	27%	20%	9%	50%	56%	55%	53%	53%
African American	16,371	304	63	34%	18%	25%	17%	7%	47%	51%	51%	47%	51%
White	24,990	333	71	21%	13%	24%	25%	16%	56%	59%	59%	57%	59%
Two or More Races	4,572	321	70	27%	15%	24%	22%	12%	52%	56%	56%	53%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	35	324	74	26%	14%	17%	26%	17%	55%	53%	59%	55%	56%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	17	329	51	12%	18%	35%	29%	6%	47%	56%	59%	62%	64%
Hispanic	357	299	61	37%	19%	20%	19%	5%	45%	48%	49%	49%	50%
African American	80	285	60	49%	15%	18%	16%	3%	44%	42%	44%	42%	46%
White	181	320	67	24%	17%	24%	23%	12%	53%	55%	58%	51%	56%
Two or More Races	168	307	72	40%	14%	19%	14%	13%	50%	51%	51%	49%	50%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	452,806	382	86	4%	14%	20%	26%	36%	75%	77%	76%	77%	76%
Male	231,119	383	89	5%	14%	19%	25%	37%	75%	77%	76%	78%	75%
Female	221,522	381	83	3%	14%	21%	27%	35%	75%	78%	76%	77%	76%
Gender unknown	165	346	83	8%	22%	25%	23%	21%	65%	68%	70%	72%	68%
American Indian	2,962	362	80	5%	19%	23%	26%	27%	70%	73%	72%	75%	71%
Asian American	37,015	437	86	1%	5%	10%	21%	63%	86%	87%	87%	85%	85%
Pacific Islander	2,460	372	79	4%	14%	23%	29%	29%	74%	76%	75%	75%	74%
Filipino	10,393	409	81	2%	7%	15%	28%	49%	82%	83%	83%	82%	81%
Hispanic	240,178	361	80	5%	18%	24%	27%	26%	71%	73%	72%	74%	72%
African American	28,829	349	82	8%	21%	24%	24%	23%	68%	70%	69%	70%	69%
White	113,337	411	83	2%	7%	14%	26%	50%	81%	83%	82%	83%	81%
Two or More Races	17,632	400	88	3%	10%	16%	26%	45%	78%	81%	80%	81%	79%
English Only	251,133	392	86	4%	11%	18%	26%	41%	77%	79%	78%	79%	78%
Initially Fluent English Prof.	18,679	427	83	1%	5%	12%	24%	57%	84%	86%	85%	84%	85%
English Learner	173,840	360	82	6%	19%	24%	26%	26%	70%	73%	71%	73%	71%
Reclassified Fluent Eng. Prof.	8,539	422	77	0%	4%	13%	28%	54%	84%	86%	85%	84%	85%
English Prof. unknown	615	356	89	8%	21%	22%	21%	27%	68%	71%	71%	72%	69%
No Special Ed Services	417,171	387	84	3%	13%	20%	27%	38%	76%	79%	77%	78%	77%
Special Ed Services	35,602	319	92	22%	26%	19%	17%	17%	58%	60%	62%	64%	59%
Special Ed unknown	33	300	82	24%	33%	15%	15%	12%	52%	53%	56%	65%	54%
Not Econ. Disadvantaged	177,759	416	84	2%	7%	13%	25%	53%	82%	84%	83%	83%	82%
Economically Disadvantaged	274,165	360	80	6%	18%	24%	27%	26%	70%	73%	71%	73%	71%
Unknown Economic Status	882	354	87	9%	20%	21%	23%	26%	68%	70%	71%	72%	69%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,044	389	80	3%	11%	18%	28%	40%	77%	79%	78%	80%	77%
Asian American	23,718	457	81	1%	3%	6%	17%	73%	89%	90%	90%	88%	88%
Pacific Islander	946	388	81	3%	11%	19%	30%	37%	77%	79%	78%	79%	77%
Filipino	6,663	419	80	1%	5%	12%	27%	54%	84%	85%	85%	84%	83%
Hispanic	43,062	387	81	3%	11%	19%	29%	38%	76%	79%	77%	79%	77%
African American	8,145	373	83	5%	15%	20%	26%	33%	74%	76%	75%	75%	74%
White	82,863	423	80	1%	5%	12%	26%	57%	83%	86%	84%	85%	84%
Two or More Races	11,318	420	85	2%	7%	13%	25%	54%	82%	84%	84%	84%	82%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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—Economically Disadvantaged													
American Indian	1,916	348	77	7%	22%	25%	25%	21%	67%	70%	68%	73%	68%
Asian American	13,226	402	84	2%	9%	16%	27%	46%	81%	81%	81%	80%	79%
Pacific Islander	1,509	362	77	5%	16%	25%	29%	25%	72%	74%	73%	73%	72%
Filipino	3,714	392	80	3%	9%	19%	30%	39%	79%	80%	79%	79%	78%
Hispanic	196,793	355	79	6%	19%	25%	27%	23%	69%	72%	70%	73%	71%
African American	20,615	340	79	10%	23%	25%	23%	19%	66%	68%	67%	68%	67%
White	30,251	377	81	4%	13%	21%	28%	33%	74%	77%	75%	78%	74%
Two or More Races	6,141	364	81	6%	16%	22%	28%	27%	71%	74%	72%	75%	72%
Primary Ethnicity—Unknown Economic Status													
American Indian	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	71	416	99	3%	14%	8%	21%	54%	81%	81%	85%	81%	79%
Pacific Islander	5	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	16	369	87	6%	25%	6%	19%	44%	73%	74%	72%	75%	73%
Hispanic	323	325	77	14%	24%	24%	22%	15%	61%	64%	64%	67%	63%
African American	69	315	72	14%	26%	33%	17%	9%	59%	61%	61%	65%	61%
White	223	381	79	4%	13%	14%	29%	39%	75%	78%	78%	78%	77%
Two or More Races	173	359	90	8%	18%	24%	22%	27%	69%	71%	73%	73%	71%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	439,938	395	92	2%	12%	20%	27%	38%	77%	75%	74%	81%	84%
Male	222,488	398	94	3%	12%	19%	26%	40%	78%	75%	75%	81%	84%
Female	217,275	393	90	2%	13%	21%	27%	37%	77%	75%	73%	81%	85%
Gender unknown	175	342	84	10%	24%	23%	26%	16%	68%	63%	62%	69%	73%
American Indian	2,871	374	87	4%	16%	23%	28%	30%	74%	70%	70%	78%	82%
Asian American	36,622	460	93	1%	4%	9%	20%	67%	88%	87%	86%	89%	90%
Pacific Islander	2,356	388	85	2%	12%	22%	29%	34%	77%	75%	72%	80%	83%
Filipino	10,801	428	87	1%	5%	14%	27%	53%	84%	83%	81%	86%	88%
Hispanic	230,119	373	83	3%	16%	24%	29%	28%	73%	71%	69%	78%	82%
African American	27,798	358	84	5%	20%	25%	26%	23%	71%	67%	65%	75%	78%
White	112,176	425	91	1%	7%	14%	26%	52%	83%	80%	81%	86%	88%
Two or More Races	17,195	414	94	2%	9%	16%	26%	48%	81%	78%	79%	84%	86%
English Only	242,743	406	93	2%	10%	18%	26%	43%	80%	77%	77%	83%	86%
Initially Fluent English Prof.	18,854	445	93	1%	5%	12%	23%	60%	85%	85%	84%	88%	90%
English Learner	149,313	362	81	4%	19%	26%	28%	23%	71%	69%	66%	76%	80%
Reclassified Fluent Eng. Prof.	28,393	449	82	0%	2%	9%	26%	63%	87%	87%	86%	89%	91%
English Prof. unknown	635	352	88	7%	24%	23%	24%	22%	69%	65%	65%	71%	77%
No Special Ed Services	410,353	399	91	2%	12%	20%	27%	40%	78%	76%	75%	82%	85%
Special Ed Services	29,538	350	93	10%	23%	23%	22%	23%	68%	64%	64%	71%	76%
Special Ed unknown	47	307	88	30%	19%	23%	19%	9%	55%	51%	52%	64%	66%
Not Econ. Disadvantaged	174,964	432	92	1%	6%	13%	25%	55%	84%	82%	82%	87%	89%
Economically Disadvantaged	264,111	371	84	3%	17%	24%	28%	28%	73%	71%	69%	78%	81%
Unknown Economic Status	863	356	92	8%	21%	23%	25%	23%	70%	66%	65%	72%	77%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,078	398	92	3%	11%	18%	29%	39%	78%	74%	76%	82%	86%
Asian American	23,295	481	87	0%	2%	6%	16%	76%	91%	91%	90%	92%	93%
Pacific Islander	886	411	87	1%	8%	18%	25%	48%	82%	79%	78%	84%	87%
Filipino	7,004	439	86	0%	4%	12%	25%	58%	86%	85%	84%	87%	89%
Hispanic	40,703	400	87	2%	10%	19%	29%	40%	79%	77%	76%	82%	85%
African American	7,978	384	89	3%	14%	21%	28%	34%	76%	73%	72%	79%	82%
White	82,983	438	88	1%	5%	12%	25%	58%	85%	83%	84%	88%	90%
Two or More Races	11,037	437	91	1%	6%	12%	24%	58%	85%	83%	84%	87%	89%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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—Economically Disadvantaged													
American Indian	1,789	360	81	4%	19%	25%	28%	24%	71%	67%	67%	76%	80%
Asian American	13,275	421	91	1%	7%	15%	26%	50%	82%	82%	79%	85%	87%
Pacific Islander	1,464	374	80	2%	15%	25%	32%	27%	75%	72%	69%	78%	81%
Filipino	3,779	408	85	1%	8%	17%	31%	43%	81%	80%	77%	83%	86%
Hispanic	189,138	367	82	3%	17%	25%	29%	25%	72%	70%	68%	77%	81%
African American	19,747	348	80	6%	23%	27%	25%	19%	68%	65%	63%	73%	76%
White	28,975	387	87	3%	13%	21%	29%	35%	77%	72%	73%	81%	84%
Two or More Races	5,944	375	85	4%	15%	23%	29%	30%	74%	71%	70%	79%	81%
Primary Ethnicity—Unknown Economic Status													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	52	433	99	0%	8%	15%	21%	56%	85%	83%	82%	83%	88%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	18	405	100	6%	11%	6%	33%	44%	79%	77%	78%	81%	83%
Hispanic	278	335	83	11%	22%	30%	22%	15%	64%	62%	60%	69%	73%
African American	73	316	77	16%	32%	19%	22%	11%	60%	56%	55%	65%	70%
White	218	381	93	4%	16%	21%	31%	29%	76%	70%	72%	78%	82%
Two or More Races	214	351	86	7%	27%	20%	26%	21%	70%	64%	64%	72%	77%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	440,352	390	79	2%	11%	19%	26%	42%	82%	76%	83%	70%	77%
Male	222,284	389	80	2%	11%	19%	26%	42%	82%	75%	82%	69%	76%
Female	217,980	390	77	1%	10%	20%	27%	42%	81%	77%	83%	70%	79%
Gender unknown	88	349	71	3%	24%	28%	23%	22%	73%	63%	71%	58%	70%
American Indian	2,886	370	74	2%	17%	23%	27%	31%	79%	70%	78%	64%	73%
Asian American	38,807	446	80	0%	3%	8%	18%	72%	91%	89%	92%	82%	87%
Pacific Islander	2,431	381	72	2%	10%	21%	30%	36%	80%	75%	82%	67%	74%
Filipino	11,121	416	74	0%	5%	13%	25%	57%	87%	84%	89%	76%	83%
Hispanic	227,187	372	72	2%	14%	24%	28%	33%	78%	72%	79%	66%	74%
African American	28,093	360	72	3%	18%	25%	26%	27%	75%	68%	76%	61%	71%
White	114,228	410	77	1%	6%	14%	26%	53%	87%	81%	87%	75%	82%
Two or More Races	15,599	403	80	1%	8%	16%	25%	50%	85%	79%	85%	72%	80%
English Only	243,306	396	78	1%	9%	18%	26%	45%	84%	77%	84%	71%	79%
Initially Fluent English Prof.	30,552	423	80	0%	5%	12%	23%	60%	88%	84%	89%	78%	84%
English Learner	123,041	356	67	3%	18%	28%	28%	24%	74%	68%	75%	61%	70%
Reclassified Fluent Eng. Prof.	42,983	431	70	0%	2%	9%	24%	65%	90%	87%	92%	81%	85%
English Prof. unknown	470	357	79	4%	21%	23%	26%	25%	74%	66%	74%	59%	70%
No Special Ed Services	411,932	392	78	1%	10%	19%	26%	43%	82%	77%	83%	70%	78%
Special Ed Services	28,399	352	78	6%	22%	24%	23%	25%	73%	64%	72%	59%	69%
Special Ed unknown	21	318	70	14%	33%	19%	14%	19%	62%	53%	61%	51%	60%
Not Econ. Disadvantaged	179,066	417	78	1%	5%	13%	24%	57%	87%	83%	88%	76%	83%
Economically Disadvantaged	260,660	371	73	2%	15%	24%	27%	32%	78%	71%	79%	65%	73%
Unknown Economic Status	626	362	80	5%	17%	26%	20%	31%	75%	67%	74%	61%	71%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,131	391	77	1%	11%	19%	28%	41%	83%	76%	82%	70%	77%
Asian American	24,519	462	77	0%	1%	5%	14%	80%	93%	91%	94%	85%	90%
Pacific Islander	936	399	70	1%	7%	16%	32%	45%	84%	80%	87%	72%	78%
Filipino	7,159	424	72	0%	3%	10%	24%	62%	89%	86%	90%	78%	84%
Hispanic	41,576	392	74	1%	9%	19%	28%	43%	83%	77%	84%	71%	78%
African American	8,455	380	75	2%	12%	21%	28%	37%	80%	74%	81%	67%	75%
White	85,121	420	75	0%	4%	12%	24%	59%	89%	83%	89%	77%	85%
Two or More Races	10,169	420	79	1%	5%	12%	24%	59%	88%	83%	88%	76%	84%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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—Economically Disadvantaged													
American Indian	1,753	356	69	3%	20%	26%	27%	25%	76%	66%	75%	61%	70%
Asian American	14,237	418	79	1%	5%	13%	23%	58%	87%	84%	89%	76%	82%
Pacific Islander	1,492	370	71	3%	13%	25%	29%	31%	78%	72%	80%	64%	72%
Filipino	3,951	402	74	1%	7%	17%	27%	49%	85%	80%	86%	73%	79%
Hispanic	185,405	368	71	2%	15%	25%	28%	30%	77%	71%	78%	64%	73%
African American	19,582	351	69	4%	21%	26%	26%	23%	73%	65%	74%	59%	69%
White	28,940	379	73	2%	12%	22%	29%	36%	81%	73%	80%	67%	76%
Two or More Races	5,300	372	72	2%	14%	23%	29%	32%	79%	71%	79%	65%	74%
Primary Ethnicity—Unknown Economic Status													
American Indian	2	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	51	434	94	0%	6%	16%	20%	59%	86%	84%	89%	79%	83%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	11	368	74	0%	9%	36%	18%	36%	80%	72%	79%	62%	61%
Hispanic	206	344	69	8%	19%	31%	20%	22%	71%	63%	71%	56%	68%
African American	56	318	73	18%	25%	27%	14%	16%	64%	52%	60%	51%	55%
White	167	372	77	4%	14%	26%	20%	36%	79%	68%	78%	65%	76%
Two or More Races	130	368	78	2%	19%	25%	23%	32%	78%	69%	76%	63%	75%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	433,919	383	92	5%	14%	20%	31%	29%	66%	66%	70%	64%	83%
Male	219,059	383	95	6%	14%	20%	30%	30%	67%	65%	70%	64%	82%
Female	214,757	384	88	4%	13%	21%	33%	29%	65%	68%	71%	63%	84%
Gender unknown	103	343	79	6%	28%	27%	26%	13%	54%	58%	59%	56%	78%
American Indian	2,990	355	84	8%	20%	25%	28%	19%	60%	59%	65%	57%	78%
Asian American	35,993	456	96	1%	4%	9%	25%	61%	81%	82%	83%	77%	92%
Pacific Islander	2,441	373	83	5%	15%	22%	34%	24%	64%	65%	69%	61%	80%
Filipino	11,408	418	89	2%	7%	14%	33%	44%	75%	75%	78%	71%	89%
Hispanic	221,921	362	82	6%	18%	24%	32%	20%	61%	62%	66%	59%	79%
African American	28,416	349	82	9%	20%	24%	29%	17%	58%	58%	63%	57%	75%
White	115,478	406	91	3%	9%	16%	33%	39%	72%	71%	75%	69%	89%
Two or More Races	15,272	397	94	4%	11%	18%	31%	35%	70%	69%	73%	67%	87%
English Only	241,913	390	92	4%	12%	19%	32%	32%	68%	67%	72%	65%	85%
Initially Fluent English Prof.	33,622	420	96	2%	8%	15%	31%	44%	74%	74%	78%	71%	90%
English Learner	98,638	335	73	10%	25%	28%	27%	11%	55%	56%	59%	53%	71%
Reclassified Fluent Eng. Prof.	59,294	418	84	1%	5%	15%	37%	42%	74%	75%	79%	71%	91%
English Prof. unknown	452	344	87	10%	24%	24%	26%	15%	56%	56%	60%	55%	77%
No Special Ed Services	407,074	387	91	4%	13%	20%	32%	30%	67%	67%	71%	64%	84%
Special Ed Services	26,825	334	86	15%	24%	23%	23%	14%	54%	54%	58%	52%	71%
Special Ed unknown	20	297	74	30%	30%	20%	15%	5%	48%	43%	47%	43%	63%
Not Econ. Disadvantaged	178,044	416	93	2%	8%	15%	32%	43%	74%	73%	77%	71%	89%
Economically Disadvantaged	255,250	361	83	7%	18%	24%	31%	20%	61%	62%	66%	59%	79%
Unknown Economic Status	625	345	89	11%	26%	22%	23%	18%	56%	57%	60%	55%	75%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,168	374	88	6%	15%	23%	29%	27%	64%	64%	69%	62%	82%
Asian American	22,422	479	90	1%	2%	6%	21%	71%	86%	86%	87%	82%	95%
Pacific Islander	984	395	86	3%	10%	18%	35%	34%	69%	70%	74%	66%	86%
Filipino	7,352	429	88	1%	5%	12%	32%	49%	77%	77%	80%	73%	91%
Hispanic	41,612	384	85	4%	12%	21%	34%	29%	67%	67%	71%	64%	85%
African American	8,766	373	85	6%	15%	22%	34%	24%	64%	64%	69%	62%	81%
White	85,983	419	89	2%	7%	14%	33%	44%	75%	74%	78%	72%	91%
Two or More Races	9,757	418	93	2%	7%	15%	31%	44%	74%	74%	77%	71%	90%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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—Economically Disadvantaged													
American Indian	1,819	343	78	9%	24%	26%	28%	14%	57%	56%	62%	55%	76%
Asian American	13,515	417	94	2%	8%	15%	31%	44%	74%	75%	77%	70%	87%
Pacific Islander	1,453	358	78	7%	17%	25%	33%	18%	61%	62%	66%	58%	77%
Filipino	4,041	398	88	3%	11%	18%	33%	35%	70%	70%	74%	67%	85%
Hispanic	180,110	357	81	7%	19%	25%	31%	18%	60%	61%	65%	58%	78%
African American	19,598	339	78	11%	23%	26%	27%	13%	55%	56%	61%	54%	73%
White	29,355	369	84	6%	16%	23%	33%	23%	63%	62%	68%	61%	83%
Two or More Races	5,359	361	82	6%	17%	24%	32%	20%	61%	61%	66%	59%	81%
Primary Ethnicity—Unknown Economic Status													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	56	432	104	5%	7%	11%	23%	54%	74%	79%	80%	71%	83%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	15	376	87	7%	7%	20%	40%	27%	58%	64%	71%	68%	90%
Hispanic	199	322	72	12%	34%	28%	18%	9%	50%	52%	55%	49%	72%
African American	52	299	69	27%	29%	17%	25%	2%	44%	46%	49%	46%	65%
White	140	361	88	8%	19%	23%	24%	26%	62%	60%	64%	60%	80%
Two or More Races	156	341	86	11%	27%	21%	28%	13%	55%	56%	60%	54%	75%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	436,749	361	75	5%	17%	26%	29%	23%	63%	70%	69%	60%	61%
Male	220,140	361	76	6%	17%	25%	29%	24%	63%	70%	70%	60%	60%
Female	216,528	360	73	5%	17%	27%	30%	22%	63%	70%	68%	60%	62%
Gender unknown	81	316	64	14%	37%	23%	17%	9%	51%	57%	54%	49%	46%
American Indian	3,020	339	64	7%	22%	29%	28%	13%	57%	64%	64%	55%	55%
Asian American	36,347	424	84	1%	5%	13%	27%	53%	78%	83%	84%	76%	75%
Pacific Islander	2,599	353	68	5%	17%	29%	31%	18%	62%	69%	68%	58%	58%
Filipino	11,932	387	72	2%	9%	21%	34%	34%	71%	77%	77%	69%	68%
Hispanic	222,399	340	65	7%	22%	30%	28%	13%	58%	65%	64%	55%	55%
African American	28,742	329	64	10%	26%	29%	24%	11%	54%	63%	59%	51%	52%
White	116,608	384	73	2%	10%	21%	34%	33%	70%	76%	76%	67%	69%
Two or More Races	15,102	373	77	4%	14%	23%	31%	28%	66%	73%	73%	63%	65%
English Only	243,598	368	75	4%	15%	24%	31%	26%	65%	72%	71%	62%	64%
Initially Fluent English Prof.	36,329	389	80	2%	11%	21%	31%	35%	71%	76%	76%	68%	68%
English Learner	81,340	311	55	13%	34%	31%	17%	5%	49%	56%	54%	46%	45%
Reclassified Fluent Eng. Prof.	75,006	375	68	1%	10%	27%	37%	26%	68%	74%	75%	65%	65%
English Prof. unknown	476	329	70	11%	28%	26%	22%	12%	55%	60%	59%	52%	51%
No Special Ed Services	411,255	363	74	4%	16%	26%	30%	24%	64%	71%	70%	61%	62%
Special Ed Services	25,477	313	67	18%	32%	25%	17%	9%	49%	55%	54%	46%	46%
Special Ed unknown	17	289	62	35%	35%	6%	18%	6%	39%	47%	47%	38%	40%
Not Econ. Disadvantaged	183,323	390	77	2%	10%	20%	33%	36%	71%	77%	77%	68%	69%
Economically Disadvantaged	252,714	339	66	7%	23%	30%	27%	13%	58%	64%	63%	55%	55%
Unknown Economic Status	712	328	70	12%	29%	25%	23%	11%	54%	60%	60%	50%	51%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,203	358	65	4%	15%	27%	35%	18%	62%	70%	70%	60%	62%
Asian American	22,595	445	81	1%	3%	9%	24%	64%	83%	87%	88%	81%	80%
Pacific Islander	1,093	371	71	3%	13%	24%	34%	26%	66%	73%	73%	63%	65%
Filipino	7,639	395	72	1%	8%	19%	34%	38%	73%	79%	79%	71%	70%
Hispanic	43,982	361	69	4%	16%	27%	32%	21%	64%	71%	70%	61%	61%
African American	9,548	349	69	6%	20%	29%	29%	17%	60%	69%	66%	57%	58%
White	87,715	395	72	1%	7%	18%	35%	38%	72%	79%	79%	70%	72%
Two or More Races	9,548	391	77	2%	9%	19%	33%	37%	71%	78%	78%	68%	70%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Ratios, Proportions, Percentages, Neg. Fractions	Operations and Problem Solving with Fractions	Algebra and Functions	Measurement and Geometry	Statistics, Data Analysis, and Probability
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,808	327	61	10%	27%	31%	23%	9%	54%	60%	59%	52%	51%
Asian American	13,713	389	77	2%	10%	21%	33%	35%	71%	77%	77%	69%	67%
Pacific Islander	1,499	340	63	7%	21%	32%	28%	12%	59%	66%	64%	55%	54%
Filipino	4,274	371	71	2%	13%	26%	34%	25%	67%	73%	73%	65%	63%
Hispanic	178,160	335	63	8%	24%	31%	26%	11%	57%	63%	62%	53%	53%
African American	19,147	319	60	12%	30%	30%	21%	7%	51%	60%	56%	48%	49%
White	28,700	352	66	5%	18%	29%	32%	17%	61%	68%	68%	58%	60%
Two or More Races	5,413	342	66	6%	22%	30%	28%	14%	58%	66%	65%	55%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	39	395	109	8%	21%	13%	21%	38%	69%	76%	76%	68%	57%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	19	372	60	0%	16%	16%	47%	21%	68%	77%	74%	63%	66%
Hispanic	257	313	61	18%	32%	23%	21%	7%	50%	54%	55%	46%	48%
African American	47	294	53	28%	32%	21%	17%	2%	45%	52%	47%	39%	40%
White	193	335	62	5%	26%	30%	28%	11%	56%	62%	63%	51%	55%
Two or More Races	141	336	76	10%	29%	26%	21%	14%	55%	63%	61%	54%	53%

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

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	408,894	352	69	6%	17%	28%	31%	18%	58%	57%	62%	61%	57%	65%
Male	205,358	352	71	7%	17%	27%	30%	18%	59%	56%	60%	62%	57%	64%
Female	203,436	352	68	6%	16%	30%	31%	17%	57%	59%	63%	60%	57%	67%
Gender unknown	100	327	61	11%	20%	39%	23%	7%	52%	47%	53%	53%	51%	56%
American Indian	2,918	339	64	8%	20%	31%	28%	12%	55%	53%	58%	58%	53%	60%
Asian American	30,205	407	79	2%	6%	16%	32%	44%	72%	74%	75%	75%	71%	79%
Pacific Islander	2,537	345	65	7%	18%	31%	31%	13%	55%	57%	61%	59%	54%	64%
Filipino	10,740	378	68	2%	9%	25%	37%	27%	65%	67%	70%	68%	64%	75%
Hispanic	213,405	336	62	8%	21%	32%	28%	11%	53%	52%	57%	56%	52%	61%
African American	27,971	325	60	12%	25%	31%	24%	8%	49%	51%	56%	52%	48%	57%
White	107,700	373	68	3%	10%	24%	37%	25%	65%	63%	67%	68%	64%	72%
Two or More Races	13,418	362	69	5%	14%	27%	33%	21%	61%	60%	64%	64%	60%	68%
English Only	224,416	359	69	5%	15%	27%	33%	20%	60%	59%	63%	63%	59%	68%
Initially Fluent English Prof.	27,969	378	74	3%	10%	25%	34%	29%	65%	65%	68%	68%	64%	73%
English Learner	76,101	307	53	16%	33%	32%	16%	4%	44%	43%	49%	47%	43%	50%
Reclassified Fluent Eng. Prof.	79,729	368	63	2%	10%	30%	38%	21%	63%	63%	66%	66%	61%	72%
English Prof. unknown	679	325	66	16%	21%	32%	22%	10%	50%	46%	52%	54%	50%	56%
No Special Ed Services	384,975	355	69	5%	16%	29%	32%	18%	59%	58%	62%	62%	58%	67%
Special Ed Services	23,900	305	60	21%	31%	26%	15%	6%	44%	41%	47%	47%	43%	48%
Special Ed unknown	19	274	42	42%	26%	26%	5%	0%	33%	30%	38%	37%	32%	43%
Not Econ. Disadvantaged	168,300	376	71	3%	10%	24%	36%	27%	65%	65%	68%	68%	64%	73%
Economically Disadvantaged	239,702	335	63	9%	22%	32%	27%	11%	53%	52%	57%	56%	52%	60%
Unknown Economic Status	892	323	66	16%	22%	30%	22%	9%	50%	45%	52%	53%	49%	55%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,221	354	65	5%	15%	30%	33%	17%	60%	58%	62%	62%	58%	66%
Asian American	17,311	426	77	1%	3%	11%	30%	54%	77%	79%	79%	80%	76%	83%
Pacific Islander	1,108	358	66	5%	13%	30%	35%	17%	59%	61%	64%	63%	58%	68%
Filipino	6,960	385	67	1%	7%	23%	38%	31%	67%	69%	72%	70%	66%	77%
Hispanic	43,391	353	64	5%	15%	30%	33%	16%	58%	58%	62%	62%	57%	67%
African American	9,424	341	63	7%	19%	31%	31%	12%	54%	57%	61%	57%	53%	63%
White	80,749	383	67	2%	8%	22%	39%	30%	67%	66%	69%	71%	66%	75%
Two or More Races	8,136	376	69	3%	10%	24%	36%	27%	65%	64%	68%	68%	64%	72%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	1,691	327	60	11%	24%	32%	25%	8%	51%	49%	55%	54%	50%	57%
Asian American	12,838	380	73	3%	10%	22%	35%	30%	66%	68%	69%	69%	64%	73%
Pacific Islander	1,423	334	62	8%	22%	32%	27%	10%	52%	54%	58%	55%	50%	61%
Filipino	3,767	364	66	3%	12%	29%	35%	21%	61%	63%	66%	65%	60%	71%
Hispanic	169,686	332	61	9%	23%	33%	26%	9%	52%	51%	56%	55%	51%	59%
African American	18,457	317	57	14%	28%	32%	21%	6%	47%	48%	53%	49%	46%	53%
White	26,751	345	63	7%	18%	31%	32%	13%	57%	54%	59%	60%	55%	63%
Two or More Races	5,089	340	63	7%	21%	31%	29%	12%	55%	53%	58%	58%	53%	61%
Primary Ethnicity—Unknown Economic Status														
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	56	368	69	5%	11%	29%	27%	29%	64%	64%	65%	65%	63%	63%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	13	356	36	0%	0%	38%	62%	0%	62%	63%	69%	60%	56%	72%
Hispanic	328	307	60	23%	25%	30%	18%	5%	44%	40%	46%	48%	46%	51%
African American	90	298	60	31%	24%	26%	16%	3%	40%	38%	44%	46%	41%	47%
White	200	338	63	8%	21%	32%	29%	11%	56%	48%	55%	59%	54%	57%
Two or More Races	193	331	72	12%	23%	31%	23%	11%	52%	47%	55%	55%	51%	58%

Table 7.C.20 Demographic Summary for General Mathematics

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	219,970	315	56	17%	26%	30%	22%	5%	48%	47%	57%	50%	42%	54%
Grade 8	163,339	320	56	14%	24%	31%	25%	6%	50%	49%	59%	52%	43%	56%
Grade 9	56,631	299	51	23%	31%	28%	15%	2%	42%	41%	52%	46%	38%	49%
Male	120,659	313	58	18%	26%	28%	22%	5%	48%	46%	55%	51%	42%	53%
Female	99,204	316	53	14%	26%	33%	23%	4%	48%	48%	59%	50%	41%	56%
Gender unknown	107	286	46	30%	34%	25%	11%	0%	40%	36%	48%	38%	36%	44%
American Indian	2,206	312	55	17%	26%	31%	20%	5%	47%	46%	56%	50%	42%	53%
Asian American	7,519	344	63	9%	17%	28%	32%	14%	59%	59%	67%	59%	49%	62%
Pacific Islander	1,200	319	55	14%	23%	34%	24%	5%	50%	50%	59%	52%	42%	56%
Filipino	3,302	339	57	8%	18%	31%	33%	10%	57%	57%	67%	58%	47%	62%
Hispanic	124,541	307	52	19%	29%	31%	18%	3%	46%	45%	54%	48%	39%	52%
African American	17,934	298	51	25%	30%	28%	15%	2%	42%	42%	52%	44%	36%	49%
White	56,034	331	58	12%	20%	30%	30%	8%	53%	52%	62%	56%	47%	61%
Two or More Races	7,234	320	59	16%	24%	29%	25%	6%	50%	48%	59%	52%	44%	57%
English Only	123,008	319	57	16%	24%	30%	25%	6%	49%	48%	59%	52%	43%	56%
Initially Fluent English Prof.	9,726	330	57	10%	21%	33%	28%	8%	53%	53%	63%	55%	45%	60%
English Learner	58,018	292	46	25%	35%	27%	11%	1%	41%	39%	48%	43%	35%	45%
Reclassified Fluent Eng. Prof.	28,537	338	51	5%	18%	37%	33%	7%	56%	56%	66%	58%	47%	63%
English Prof. unknown	681	299	55	25%	33%	23%	16%	3%	43%	40%	51%	45%	39%	49%
No Special Ed Services	176,180	324	55	11%	24%	33%	26%	6%	51%	50%	61%	53%	44%	58%
Special Ed Services	43,742	279	45	37%	35%	19%	7%	1%	36%	34%	43%	39%	33%	42%
Special Ed unknown	48	267	48	54%	31%	6%	4%	4%	36%	30%	33%	33%	33%	36%
Not Econ. Disadvantaged	77,387	330	58	11%	20%	30%	30%	8%	53%	52%	63%	55%	47%	60%
Economically Disadvantaged	141,676	306	52	19%	29%	30%	18%	3%	46%	44%	54%	48%	39%	51%
Unknown Economic Status	907	293	56	31%	31%	21%	15%	3%	41%	38%	48%	44%	37%	47%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	861	321	57	15%	22%	33%	24%	6%	50%	49%	60%	53%	45%	57%
Asian American	3,226	361	64	5%	12%	24%	38%	21%	64%	65%	72%	64%	54%	68%
Pacific Islander	473	328	56	10%	22%	35%	27%	7%	52%	54%	63%	55%	45%	58%
Filipino	2,043	347	57	6%	15%	31%	37%	12%	59%	60%	69%	60%	49%	65%
Hispanic	24,825	318	55	15%	25%	32%	24%	5%	49%	48%	59%	51%	42%	56%
African American	5,799	308	54	20%	27%	29%	21%	3%	46%	46%	56%	47%	39%	53%
White	36,495	339	58	9%	17%	30%	34%	10%	56%	55%	65%	58%	50%	64%
Two or More Races	3,665	331	60	12%	21%	29%	30%	9%	53%	52%	63%	55%	47%	61%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	1,336	307	53	19%	29%	30%	18%	4%	46%	44%	54%	48%	41%	51%
Asian American	4,274	331	59	11%	20%	31%	28%	9%	55%	55%	63%	55%	45%	58%
Pacific Islander	720	314	54	17%	25%	33%	22%	4%	49%	48%	57%	50%	40%	54%
Filipino	1,248	328	56	11%	23%	31%	28%	7%	54%	53%	63%	54%	44%	58%
Hispanic	99,348	305	51	19%	30%	31%	17%	3%	45%	44%	53%	47%	38%	51%
African American	12,024	294	50	27%	32%	27%	13%	2%	41%	41%	50%	43%	35%	47%
White	19,323	315	56	17%	26%	30%	22%	5%	48%	46%	56%	51%	43%	55%
Two or More Races	3,403	309	55	20%	27%	29%	20%	4%	46%	44%	55%	49%	41%	53%
Primary Ethnicity—Unknown Economic Status														
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	19	308	56	16%	32%	32%	16%	5%	52%	46%	54%	47%	41%	44%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	11	303	64	27%	18%	36%	9%	9%	40%	45%	52%	50%	39%	48%
Hispanic	368	289	52	32%	34%	19%	13%	2%	40%	37%	47%	42%	35%	45%
African American	111	265	46	55%	27%	14%	2%	2%	32%	30%	38%	32%	28%	37%
White	216	310	59	23%	24%	25%	24%	4%	47%	43%	54%	50%	43%	54%
Two or More Races	166	298	58	25%	36%	20%	16%	4%	42%	39%	50%	45%	38%	50%

Table 7.C.21 Demographic Summary for Algebra I

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	746,242	324	72	14%	31%	24%	22%	9%	60%	49%	47%	39%
Grade 7	31,474	431	81	1%	4%	11%	35%	50%	83%	78%	76%	64%
Grade 8	273,857	350	76	7%	22%	24%	30%	16%	66%	56%	55%	45%
Grade 9	268,090	308	57	16%	36%	26%	19%	3%	56%	44%	42%	35%
Grade 10	116,906	290	48	22%	42%	24%	11%	1%	51%	38%	36%	32%
Grade 11	55,915	282	45	27%	46%	19%	8%	1%	48%	36%	34%	31%
Male	385,213	321	73	16%	32%	23%	20%	9%	59%	48%	45%	39%
Female	360,829	327	71	12%	31%	25%	23%	10%	60%	50%	48%	40%
Gender unknown	200	294	64	25%	42%	18%	13%	3%	50%	40%	37%	34%
American Indian	5,275	311	62	17%	34%	25%	19%	5%	57%	45%	42%	37%
Asian American	51,885	397	94	4%	13%	17%	30%	36%	76%	68%	66%	57%
Pacific Islander	4,602	319	64	12%	33%	28%	21%	7%	59%	47%	46%	37%
Filipino	18,584	353	73	6%	21%	25%	32%	16%	67%	58%	56%	45%
Hispanic	396,959	307	60	17%	37%	24%	17%	4%	55%	44%	42%	35%
African American	53,472	297	58	22%	39%	22%	14%	3%	52%	41%	39%	33%
White	191,735	343	74	9%	24%	25%	29%	13%	66%	54%	52%	44%
Two or More Races	23,730	329	75	13%	29%	23%	24%	11%	61%	50%	48%	41%
English Only	407,984	328	72	13%	29%	24%	24%	10%	61%	50%	47%	40%
Initially Fluent English Prof.	54,672	346	84	9%	26%	24%	24%	17%	65%	54%	52%	44%
English Learner	131,698	287	52	26%	44%	19%	9%	2%	48%	38%	36%	31%
Reclassified Fluent Eng. Prof.	150,536	337	71	8%	27%	27%	26%	11%	64%	53%	51%	42%
English Prof. unknown	1,352	294	64	27%	38%	20%	11%	5%	50%	39%	38%	33%
No Special Ed Services	696,605	327	72	12%	30%	25%	23%	10%	61%	49%	47%	40%
Special Ed Services	49,606	279	52	34%	43%	14%	7%	2%	45%	36%	33%	30%
Special Ed unknown	31	250	34	71%	23%	6%	0%	0%	33%	26%	26%	28%
Not Econ. Disadvantaged	320,474	344	79	9%	25%	24%	27%	15%	65%	54%	52%	44%
Economically Disadvantaged	424,167	309	62	17%	36%	24%	18%	5%	55%	44%	42%	36%
Unknown Economic Status	1,601	294	64	27%	39%	19%	11%	4%	50%	39%	38%	33%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	2,550	322	66	13%	30%	26%	23%	7%	60%	48%	46%	39%
Asian American	29,378	422	93	2%	8%	13%	30%	47%	81%	74%	72%	63%
Pacific Islander	2,173	329	69	10%	29%	27%	24%	9%	62%	50%	49%	40%
Filipino	12,561	359	74	5%	19%	25%	34%	18%	69%	59%	58%	47%
Hispanic	93,778	316	64	14%	33%	26%	21%	6%	58%	46%	44%	38%
African American	21,036	307	62	18%	36%	23%	18%	5%	55%	44%	42%	36%
White	144,647	352	75	7%	21%	25%	31%	16%	68%	57%	54%	46%
Two or More Races	14,351	344	78	10%	25%	23%	27%	15%	65%	54%	52%	44%

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	2,717	300	56	20%	37%	24%	15%	3%	53%	42%	39%	34%
Asian American	22,423	365	83	6%	19%	23%	31%	22%	69%	60%	59%	49%
Pacific Islander	2,421	310	57	14%	36%	28%	18%	4%	56%	44%	43%	35%
Filipino	6,001	339	70	8%	26%	26%	29%	12%	64%	54%	52%	42%
Hispanic	302,532	305	59	18%	38%	24%	17%	4%	54%	43%	41%	35%
African American	32,269	291	54	25%	41%	20%	12%	2%	50%	39%	37%	32%
White	46,742	315	63	15%	33%	26%	21%	6%	58%	46%	44%	37%
Two or More Races	9,062	308	63	18%	36%	23%	18%	5%	55%	44%	42%	36%
Primary Ethnicity—Unknown Economic Status												
American Indian	8	–	–	–	–	–	–	–	–	–	–	–
Asian American	84	395	105	7%	14%	15%	27%	36%	73%	64%	66%	59%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–
Filipino	22	318	43	0%	36%	41%	23%	0%	57%	48%	47%	37%
Hispanic	649	280	49	31%	43%	17%	8%	2%	46%	36%	34%	30%
African American	167	271	43	39%	40%	14%	7%	1%	43%	34%	31%	28%
White	346	306	63	18%	38%	26%	12%	6%	56%	42%	39%	36%
Two or More Races	317	295	63	28%	38%	18%	13%	3%	50%	40%	38%	34%

Table 7.C.22 Demographic Summary for Geometry

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	408,572	317	66	12%	34%	27%	19%	8%	56%	49%	52%	54%
Grade 8	22,938	421	70	0%	3%	12%	37%	49%	84%	79%	79%	83%
Grade 9	134,333	348	65	4%	19%	31%	32%	13%	66%	59%	61%	65%
Grade 10	170,312	297	49	15%	42%	29%	12%	2%	50%	43%	47%	48%
Grade 11	80,989	280	43	23%	49%	22%	6%	1%	44%	37%	41%	41%
Male	201,278	319	69	13%	32%	27%	20%	9%	56%	50%	53%	54%
Female	207,226	315	64	11%	36%	28%	18%	7%	56%	48%	52%	54%
Gender unknown	68	292	66	29%	32%	24%	7%	7%	47%	42%	46%	45%
American Indian	2,479	311	58	11%	37%	29%	17%	5%	55%	47%	51%	52%
Asian American	41,000	373	82	4%	17%	23%	29%	28%	70%	66%	67%	70%
Pacific Islander	2,515	305	56	14%	38%	29%	15%	4%	52%	46%	49%	51%
Filipino	13,062	334	63	5%	27%	32%	26%	10%	61%	55%	58%	61%
Hispanic	191,503	295	52	17%	43%	26%	12%	2%	49%	42%	46%	47%
African American	26,303	286	49	22%	45%	22%	9%	2%	46%	40%	42%	43%
White	119,321	338	65	6%	24%	31%	27%	11%	64%	55%	58%	61%
Two or More Races	12,389	325	69	11%	30%	27%	22%	10%	59%	51%	54%	56%
English Only	226,515	325	66	10%	30%	29%	22%	9%	59%	51%	54%	56%
Initially Fluent English Prof.	37,046	336	76	8%	29%	27%	22%	14%	61%	55%	57%	60%
English Learner	49,684	274	47	30%	49%	14%	5%	2%	40%	37%	40%	40%
Reclassified Fluent Eng. Prof.	94,863	315	62	10%	37%	29%	17%	7%	55%	48%	52%	54%
English Prof. unknown	464	297	59	20%	41%	22%	13%	4%	49%	44%	46%	47%
No Special Ed Services	389,880	319	66	11%	33%	28%	20%	8%	57%	50%	53%	55%
Special Ed Services	18,689	271	50	36%	44%	13%	6%	2%	40%	36%	39%	38%
Special Ed unknown	3	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	205,769	337	70	7%	26%	29%	25%	13%	63%	55%	58%	60%
Economically Disadvantaged	202,196	297	55	17%	42%	25%	13%	3%	49%	43%	47%	48%
Unknown Economic Status	607	296	60	24%	36%	22%	14%	4%	49%	44%	46%	47%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	1,433	321	61	9%	32%	30%	22%	7%	59%	50%	54%	55%
Asian American	24,456	394	82	2%	11%	19%	32%	36%	76%	72%	72%	75%
Pacific Islander	1,318	315	60	11%	34%	30%	18%	7%	56%	49%	52%	54%
Filipino	9,451	339	63	5%	24%	32%	28%	11%	63%	56%	59%	62%
Hispanic	50,563	307	57	13%	37%	29%	17%	4%	53%	46%	50%	51%
African American	11,950	294	53	18%	43%	25%	12%	3%	49%	42%	45%	46%
White	98,278	343	65	5%	22%	31%	29%	13%	65%	57%	60%	63%
Two or More Races	8,320	336	71	8%	26%	28%	26%	13%	63%	54%	58%	60%

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	1,040	296	49	15%	45%	27%	11%	2%	50%	42%	46%	47%
Asian American	16,512	341	72	6%	26%	28%	25%	14%	62%	56%	60%	62%
Pacific Islander	1,191	294	49	17%	42%	28%	11%	2%	49%	42%	46%	47%
Filipino	3,600	321	59	7%	33%	32%	21%	6%	57%	51%	54%	57%
Hispanic	140,706	291	50	18%	45%	25%	11%	2%	47%	41%	45%	46%
African American	14,287	278	45	26%	47%	19%	7%	1%	44%	37%	40%	41%
White	20,912	312	57	11%	35%	31%	18%	5%	56%	47%	51%	53%
Two or More Races	3,948	300	57	16%	40%	26%	14%	4%	51%	44%	47%	49%
Primary Ethnicity—Unknown Economic Status												
American Indian	6	–	–	–	–	–	–	–	–	–	–	–
Asian American	32	366	90	6%	28%	9%	22%	34%	65%	66%	66%	68%
Pacific Islander	6	–	–	–	–	–	–	–	–	–	–	–
Filipino	11	325	73	9%	45%	9%	27%	9%	60%	48%	56%	54%
Hispanic	234	284	49	25%	43%	21%	10%	1%	45%	41%	42%	42%
African American	66	269	47	42%	33%	14%	11%	0%	40%	38%	35%	39%
White	131	309	56	15%	34%	27%	21%	3%	55%	47%	49%	52%
Two or More Races	121	301	62	25%	29%	29%	13%	4%	51%	44%	48%	47%

Table 7.C.23 Demographic Summary for Algebra II

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	264,960	324	69	16%	25%	28%	20%	11%	60%	49%	55%	49%
Grade 8	691	423	88	3%	4%	13%	28%	51%	82%	75%	79%	72%
Grade 9	24,725	393	80	4%	8%	19%	31%	38%	78%	68%	73%	66%
Grade 10	118,337	340	66	9%	19%	31%	27%	13%	65%	54%	60%	54%
Grade 11	121,207	294	52	25%	33%	28%	12%	2%	52%	41%	46%	41%
Male	125,455	327	72	16%	23%	27%	21%	12%	60%	50%	56%	50%
Female	139,477	321	66	16%	26%	29%	20%	9%	60%	48%	54%	47%
Gender unknown	28	281	60	36%	32%	25%	4%	4%	47%	35%	45%	36%
American Indian	1,235	316	60	16%	27%	31%	20%	6%	58%	47%	53%	47%
Asian American	36,799	373	81	6%	13%	23%	28%	29%	74%	63%	68%	60%
Pacific Islander	1,504	311	60	17%	30%	31%	17%	6%	57%	45%	52%	45%
Filipino	10,633	331	64	11%	23%	31%	24%	11%	63%	51%	58%	50%
Hispanic	106,198	302	58	23%	30%	28%	15%	5%	55%	43%	49%	42%
African American	14,857	291	56	31%	30%	24%	11%	3%	50%	40%	46%	39%
White	85,580	335	65	10%	22%	32%	25%	12%	63%	52%	59%	54%
Two or More Races	8,154	326	70	15%	24%	28%	21%	11%	60%	50%	56%	50%
English Only	150,880	327	67	13%	24%	30%	22%	11%	61%	50%	56%	51%
Initially Fluent English Prof.	28,140	342	78	12%	21%	27%	23%	18%	65%	54%	60%	53%
English Learner	18,311	285	64	39%	29%	17%	9%	5%	49%	39%	43%	36%
Reclassified Fluent Eng. Prof.	67,394	319	68	17%	27%	28%	19%	9%	60%	48%	53%	46%
English Prof. unknown	235	300	62	26%	31%	23%	14%	6%	53%	43%	47%	43%
No Special Ed Services	259,515	325	69	15%	25%	29%	20%	11%	60%	50%	55%	49%
Special Ed Services	5,443	284	63	40%	26%	19%	10%	4%	47%	39%	43%	38%
Special Ed unknown	2	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	151,187	338	71	11%	21%	30%	24%	14%	64%	53%	59%	53%
Economically Disadvantaged	113,495	306	62	23%	29%	27%	15%	6%	56%	44%	50%	43%
Unknown Economic Status	278	301	61	24%	31%	26%	13%	5%	53%	43%	48%	45%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	820	322	61	13%	25%	33%	21%	8%	60%	49%	55%	49%
Asian American	23,382	387	81	4%	10%	21%	30%	35%	77%	67%	71%	64%
Pacific Islander	890	319	61	13%	28%	32%	19%	7%	59%	48%	55%	47%
Filipino	7,963	335	64	10%	22%	31%	25%	12%	64%	52%	59%	51%
Hispanic	30,236	312	60	18%	28%	30%	18%	6%	57%	46%	52%	46%
African American	7,358	300	58	25%	30%	27%	14%	4%	53%	43%	49%	42%
White	74,482	337	65	9%	21%	32%	26%	12%	63%	53%	59%	55%
Two or More Races	6,056	334	71	12%	22%	29%	23%	13%	62%	53%	58%	52%

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	415	304	56	21%	32%	27%	17%	3%	55%	44%	49%	43%
Asian American	13,388	348	74	9%	19%	27%	26%	19%	69%	57%	61%	53%
Pacific Islander	611	298	56	24%	32%	28%	13%	4%	53%	42%	47%	41%
Filipino	2,661	321	64	15%	26%	29%	20%	9%	61%	49%	54%	47%
Hispanic	75,865	298	57	25%	31%	27%	13%	4%	54%	42%	48%	41%
African American	7,479	283	53	36%	31%	22%	9%	2%	47%	38%	43%	37%
White	11,034	317	60	15%	27%	32%	19%	7%	58%	47%	53%	48%
Two or More Races	2,042	304	63	24%	28%	27%	15%	5%	55%	44%	49%	43%
Primary Ethnicity—Unknown Economic Status												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	29	364	72	7%	14%	24%	31%	24%	74%	60%	65%	60%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–
Hispanic	97	288	48	28%	34%	28%	9%	1%	49%	39%	44%	41%
African American	20	275	45	40%	35%	20%	5%	0%	44%	35%	38%	40%
White	64	307	63	20%	33%	23%	19%	5%	55%	46%	51%	45%
Two or More Races	56	300	62	27%	30%	25%	11%	7%	52%	44%	46%	45%

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

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	130,562	359	78	4%	19%	23%	32%	22%	77%	73%	70%	60%
Grade 9	689	438	86	1%	3%	9%	29%	58%	90%	87%	86%	75%
Grade 10	20,225	397	75	1%	7%	16%	38%	38%	85%	81%	79%	70%
Grade 11	109,648	352	76	5%	21%	24%	31%	19%	75%	71%	68%	58%
Male	62,398	370	81	4%	15%	21%	33%	27%	79%	75%	72%	64%
Female	68,157	349	74	5%	22%	25%	31%	17%	75%	71%	68%	56%
Gender unknown	7	–	–	–	–	–	–	–	–	–	–	–
American Indian	479	348	72	5%	21%	27%	31%	16%	75%	71%	67%	58%
Asian American	32,040	399	78	1%	9%	16%	35%	39%	85%	81%	79%	68%
Pacific Islander	604	345	75	6%	21%	28%	30%	16%	74%	69%	67%	53%
Filipino	5,703	347	68	4%	21%	28%	34%	14%	75%	71%	68%	54%
Hispanic	35,256	321	65	8%	31%	28%	25%	8%	69%	63%	61%	47%
African American	4,377	310	66	13%	33%	26%	22%	6%	65%	59%	58%	46%
White	47,800	367	73	3%	15%	23%	36%	23%	79%	76%	71%	66%
Two or More Races	4,303	361	76	4%	18%	23%	34%	22%	77%	74%	70%	62%
English Only	76,778	362	76	4%	17%	23%	34%	22%	78%	74%	70%	63%
Initially Fluent English Prof.	18,079	379	83	3%	15%	20%	32%	31%	81%	77%	74%	63%
English Learner	3,138	315	81	17%	31%	20%	21%	12%	65%	59%	59%	40%
Reclassified Fluent Eng. Prof.	32,494	346	77	6%	23%	25%	29%	18%	75%	69%	67%	52%
English Prof. unknown	73	334	70	7%	22%	29%	30%	12%	71%	69%	63%	56%
No Special Ed Services	129,509	359	78	4%	19%	23%	32%	22%	77%	73%	70%	60%
Special Ed Services	1,051	324	90	19%	23%	18%	24%	16%	66%	62%	60%	49%
Special Ed unknown	2	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	88,866	373	78	3%	14%	21%	35%	27%	80%	77%	73%	65%
Economically Disadvantaged	41,614	329	70	8%	28%	27%	27%	11%	71%	65%	63%	49%
Unknown Economic Status	82	340	72	6%	24%	20%	35%	15%	74%	69%	64%	55%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	366	355	72	4%	19%	24%	34%	19%	76%	73%	68%	61%
Asian American	22,649	411	77	1%	6%	13%	34%	46%	87%	84%	82%	72%
Pacific Islander	409	354	77	5%	20%	25%	31%	20%	76%	71%	69%	57%
Filipino	4,380	352	67	3%	19%	28%	35%	15%	76%	72%	69%	56%
Hispanic	11,547	336	68	6%	25%	28%	29%	12%	72%	67%	64%	53%
African American	2,523	320	67	10%	30%	27%	26%	7%	68%	62%	60%	50%
White	43,564	369	73	2%	14%	22%	37%	24%	79%	76%	72%	67%
Two or More Races	3,428	367	76	3%	16%	22%	34%	25%	79%	76%	71%	64%

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	113	325	68	6%	27%	38%	22%	7%	70%	64%	61%	49%
Asian American	9,375	368	73	2%	15%	23%	36%	24%	80%	75%	73%	58%
Pacific Islander	194	328	69	8%	24%	34%	28%	7%	71%	65%	64%	45%
Filipino	1,321	330	65	6%	28%	28%	29%	9%	71%	66%	64%	47%
Hispanic	23,689	314	63	9%	33%	28%	23%	6%	67%	61%	59%	44%
African American	1,853	296	63	18%	37%	24%	18%	3%	61%	55%	54%	41%
White	4,214	342	70	5%	22%	28%	32%	13%	73%	69%	65%	57%
Two or More Races	855	336	72	6%	25%	26%	30%	12%	72%	67%	64%	53%
Primary Ethnicity—Unknown Economic Status												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	16	377	50	0%	6%	19%	44%	31%	85%	78%	78%	63%
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–
Hispanic	20	326	65	5%	25%	35%	25%	10%	72%	64%	63%	51%
African American	1	–	–	–	–	–	–	–	–	–	–	–
White	22	335	65	5%	36%	9%	41%	9%	76%	70%	59%	56%
Two or More Races	20	332	92	10%	30%	15%	30%	15%	66%	68%	60%	54%

Table 7.C.25 Demographic Summary for Integrated Mathematics 1

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	11,260	292	51	17%	46%	24%	11%	2%	59%	42%	38%	36%	32%
Grade 8	39	248	37	51%	41%	5%	3%	0%	30%	29%	28%	25%	31%
Grade 9	1,376	312	72	17%	35%	20%	19%	9%	64%	51%	46%	40%	35%
Grade 10	4,074	290	46	16%	47%	25%	10%	1%	59%	42%	37%	36%	31%
Grade 11	5,771	288	47	17%	49%	23%	10%	1%	58%	41%	37%	35%	31%
Male	6,009	292	52	18%	45%	23%	12%	2%	59%	42%	38%	35%	32%
Female	5,247	292	49	16%	48%	25%	10%	2%	59%	42%	38%	37%	31%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	82	284	44	20%	49%	23%	9%	0%	57%	40%	35%	31%	31%
Asian American	462	311	66	10%	40%	28%	15%	6%	63%	48%	45%	42%	36%
Pacific Islander	89	286	42	22%	43%	26%	9%	0%	60%	40%	35%	32%	31%
Filipino	299	309	59	10%	42%	27%	16%	5%	64%	47%	44%	41%	35%
Hispanic	5,802	285	46	19%	49%	22%	8%	1%	57%	40%	36%	34%	30%
African American	1,039	281	48	22%	50%	19%	8%	1%	54%	39%	35%	34%	30%
White	3,119	302	53	13%	42%	27%	15%	3%	63%	45%	41%	38%	34%
Two or More Races	368	303	62	14%	42%	24%	16%	5%	62%	46%	42%	40%	33%
English Only	6,845	295	53	16%	44%	25%	13%	2%	60%	43%	39%	37%	32%
Initially Fluent English Prof.	893	299	55	14%	46%	25%	12%	3%	62%	45%	40%	37%	33%
English Learner	1,703	269	39	28%	54%	15%	3%	0%	50%	35%	31%	31%	28%
Reclassified Fluent Eng. Prof.	1,793	295	46	13%	47%	27%	12%	1%	61%	44%	39%	36%	31%
English Prof. unknown	26	287	62	27%	42%	8%	23%	0%	51%	41%	38%	38%	34%
No Special Ed Services	10,111	294	51	15%	46%	25%	12%	2%	60%	43%	39%	36%	32%
Special Ed Services	1,149	268	43	32%	50%	14%	4%	1%	49%	35%	31%	31%	28%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	4,974	301	55	14%	42%	26%	15%	3%	62%	45%	41%	39%	33%
Economically Disadvantaged	6,252	284	46	19%	50%	21%	8%	1%	57%	40%	36%	34%	30%
Unknown Economic Status	34	283	52	21%	50%	15%	15%	0%	56%	37%	36%	36%	29%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	41	290	45	17%	39%	39%	5%	0%	60%	42%	38%	34%	31%
Asian American	210	326	73	8%	35%	28%	19%	10%	67%	52%	50%	45%	39%
Pacific Islander	38	283	38	24%	45%	29%	3%	0%	56%	40%	35%	30%	31%
Filipino	194	312	59	10%	41%	28%	18%	4%	66%	48%	45%	41%	35%
Hispanic	1,521	293	50	17%	45%	26%	11%	2%	60%	43%	38%	36%	32%
African American	438	287	51	21%	45%	23%	9%	2%	56%	42%	37%	36%	31%
White	2,306	305	54	12%	40%	27%	17%	3%	64%	46%	42%	39%	35%
Two or More Races	226	312	65	11%	38%	24%	20%	6%	65%	49%	44%	42%	35%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	41	279	43	22%	59%	7%	12%	0%	55%	38%	33%	29%	30%
Asian American	251	299	56	12%	45%	28%	11%	3%	60%	45%	41%	39%	33%
Pacific Islander	51	289	46	22%	41%	24%	14%	0%	62%	41%	36%	33%	30%
Filipino	104	305	59	12%	44%	25%	13%	6%	61%	46%	42%	43%	35%
Hispanic	4,268	282	45	20%	51%	21%	7%	1%	56%	39%	35%	33%	30%
African American	598	277	44	22%	54%	16%	7%	1%	53%	37%	35%	32%	29%
White	807	292	48	15%	45%	28%	11%	1%	60%	41%	38%	35%	33%
Two or More Races	132	287	52	18%	48%	22%	8%	4%	57%	40%	38%	35%	30%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	13	283	50	8%	69%	0%	23%	0%	58%	32%	35%	35%	32%
African American	3	–	–	–	–	–	–	–	–	–	–	–	–
White	6	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	10	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	3,830	322	60	10%	31%	32%	21%	7%	49%	46%	50%	41%	33%
Grade 8	2	–	–	–	–	–	–	–	–	–	–	–	–
Grade 9	355	331	71	12%	28%	24%	22%	14%	54%	48%	50%	43%	37%
Grade 10	1,114	345	74	7%	22%	29%	27%	14%	55%	53%	57%	48%	39%
Grade 11	2,359	309	46	10%	36%	34%	18%	2%	46%	42%	47%	38%	30%
Male	1,996	323	62	10%	31%	30%	22%	7%	50%	46%	51%	42%	35%
Female	1,834	320	58	9%	32%	34%	20%	6%	48%	46%	50%	40%	32%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	37	316	43	8%	30%	43%	19%	0%	51%	44%	46%	36%	33%
Asian American	230	342	84	10%	26%	28%	20%	17%	54%	50%	56%	47%	39%
Pacific Islander	39	323	44	3%	31%	38%	26%	3%	52%	45%	51%	40%	34%
Filipino	117	361	83	9%	17%	27%	23%	24%	59%	57%	60%	54%	40%
Hispanic	1,616	312	52	10%	36%	34%	17%	3%	47%	42%	48%	39%	31%
African American	343	305	60	16%	42%	24%	13%	5%	44%	40%	44%	37%	30%
White	1,296	331	58	7%	26%	32%	27%	7%	52%	50%	53%	43%	35%
Two or More Races	152	325	68	11%	30%	28%	20%	10%	49%	47%	51%	41%	38%
English Only	2,476	326	60	8%	30%	32%	23%	7%	50%	47%	51%	42%	34%
Initially Fluent English Prof.	271	323	67	9%	34%	27%	23%	7%	48%	45%	51%	43%	35%
English Learner	426	292	50	20%	46%	24%	7%	3%	40%	35%	41%	32%	28%
Reclassified Fluent Eng. Prof.	652	326	58	7%	27%	38%	20%	7%	51%	46%	53%	43%	34%
English Prof. unknown	5	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	3,601	323	60	9%	31%	32%	21%	7%	49%	46%	51%	42%	34%
Special Ed Services	229	301	51	16%	41%	28%	11%	3%	44%	39%	42%	34%	33%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	1,893	332	64	8%	26%	32%	25%	9%	52%	49%	53%	44%	36%
Economically Disadvantaged	1,936	312	54	11%	36%	32%	17%	4%	46%	42%	48%	39%	31%
Unknown Economic Status	1	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	18	322	38	6%	28%	50%	17%	0%	56%	44%	47%	34%	38%
Asian American	112	362	89	6%	19%	29%	24%	22%	59%	56%	61%	52%	44%
Pacific Islander	17	327	34	0%	24%	47%	29%	0%	56%	46%	52%	42%	31%
Filipino	88	367	84	9%	14%	26%	25%	26%	60%	59%	62%	55%	42%
Hispanic	424	322	55	9%	29%	33%	25%	4%	50%	46%	51%	41%	33%
African American	148	308	60	16%	38%	25%	18%	4%	45%	41%	44%	40%	32%
White	988	333	60	7%	26%	32%	27%	9%	52%	50%	53%	44%	36%
Two or More Races	98	334	69	6%	30%	32%	21%	11%	51%	50%	53%	43%	39%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	311	48	11%	32%	37%	21%	0%	46%	45%	46%	37%	28%
Asian American	118	324	74	13%	33%	27%	16%	11%	49%	44%	52%	42%	34%
Pacific Islander	22	319	51	5%	36%	32%	23%	5%	50%	44%	51%	38%	36%
Filipino	29	341	80	7%	28%	31%	17%	17%	54%	50%	54%	49%	34%
Hispanic	1,192	309	50	10%	38%	34%	15%	3%	45%	41%	47%	38%	30%
African American	195	302	60	16%	46%	23%	10%	5%	43%	39%	44%	34%	29%
White	308	324	52	9%	27%	32%	29%	4%	50%	48%	51%	42%	32%
Two or More Races	53	309	64	21%	30%	23%	19%	8%	44%	41%	48%	38%	38%
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	1	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	795	327	78	18%	22%	23%	27%	10%	70%	49%	46%	52%	44%
Grade 8	7	–	–	–	–	–	–	–	–	–	–	–	–
Grade 9	77	370	54	0%	13%	18%	56%	13%	86%	57%	54%	69%	56%
Grade 10	323	320	70	18%	23%	30%	22%	7%	70%	47%	43%	51%	41%
Grade 11	388	321	80	22%	24%	19%	25%	11%	65%	49%	45%	49%	42%
Male	387	333	79	16%	20%	25%	27%	12%	73%	50%	47%	54%	45%
Female	408	321	77	19%	24%	22%	26%	9%	66%	48%	44%	50%	43%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	77	380	106	16%	8%	14%	31%	31%	72%	64%	59%	63%	54%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	27	355	90	19%	7%	19%	37%	19%	65%	59%	54%	61%	42%
Hispanic	149	309	78	26%	25%	21%	20%	9%	60%	46%	42%	45%	38%
African American	48	259	42	58%	27%	8%	6%	0%	50%	32%	30%	30%	31%
White	438	331	68	12%	23%	26%	29%	9%	75%	49%	46%	54%	45%
Two or More Races	49	312	62	14%	31%	29%	24%	2%	67%	43%	43%	48%	42%
English Only	642	331	76	15%	23%	25%	27%	11%	73%	50%	46%	53%	45%
Initially Fluent English Prof.	42	302	70	29%	29%	17%	24%	2%	56%	42%	42%	45%	37%
English Learner	20	269	60	45%	35%	10%	5%	5%	39%	36%	38%	33%	28%
Reclassified Fluent Eng. Prof.	90	324	92	28%	14%	18%	28%	12%	60%	51%	47%	48%	42%
English Prof. unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	772	328	77	17%	22%	24%	27%	10%	70%	49%	46%	52%	44%
Special Ed Services	23	289	86	35%	43%	4%	4%	13%	60%	37%	38%	38%	39%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	665	334	77	14%	22%	25%	28%	11%	73%	50%	47%	54%	45%
Economically Disadvantaged	129	290	71	39%	25%	13%	19%	5%	54%	42%	39%	39%	37%
Unknown Economic Status	1	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	66	393	106	12%	8%	15%	29%	36%	74%	67%	61%	66%	56%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	22	373	85	14%	5%	18%	41%	23%	68%	65%	59%	66%	44%
Hispanic	80	320	80	19%	23%	25%	24%	10%	67%	48%	45%	48%	40%
African American	29	266	46	48%	31%	14%	7%	0%	47%	33%	31%	35%	31%
White	421	331	68	11%	24%	27%	29%	9%	75%	49%	46%	55%	45%
Two or More Races	42	323	59	7%	29%	33%	29%	2%	73%	45%	45%	52%	45%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	11	306	75	36%	9%	9%	45%	0%	56%	46%	45%	43%	40%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	69	297	74	33%	28%	16%	16%	7%	51%	44%	40%	42%	37%
African American	19	248	34	74%	21%	0%	5%	0%	54%	30%	28%	23%	30%
White	17	323	77	24%	18%	18%	35%	6%	75%	48%	45%	47%	50%
Two or More Races	6	–	–	–	–	–	–	–	–	–	–	–	–
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	1	–	–	–	–	–	–	–	–	–	–	–	–

Table 7.C.28 Demographic Summary for Science, Grade Five

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	432,500	362	71	8%	12%	24%	31%	25%	69%	68%	71%	69%	70%	69%
Male	217,918	365	74	9%	11%	22%	31%	27%	69%	68%	72%	70%	70%	70%
Female	214,479	360	67	7%	12%	26%	32%	22%	69%	67%	71%	69%	69%	68%
Gender unknown	103	338	73	17%	13%	26%	30%	14%	62%	59%	62%	66%	62%	60%
American Indian	2,969	349	65	11%	13%	26%	33%	17%	66%	64%	68%	67%	66%	65%
Asian American	35,866	406	78	4%	5%	14%	29%	48%	80%	78%	81%	79%	78%	81%
Pacific Islander	2,441	350	63	9%	13%	28%	33%	16%	67%	64%	68%	66%	67%	66%
Filipino	11,380	384	63	3%	6%	19%	38%	34%	77%	74%	78%	75%	76%	78%
Hispanic	221,127	340	61	11%	16%	30%	30%	13%	62%	62%	66%	63%	65%	62%
African American	28,343	337	63	13%	17%	28%	29%	13%	63%	61%	64%	62%	63%	61%
White	115,127	393	69	3%	5%	16%	35%	40%	78%	76%	80%	78%	77%	78%
Two or More Races	15,247	384	73	5%	8%	19%	33%	36%	75%	73%	76%	75%	75%	75%
English Only	241,161	376	70	6%	9%	21%	34%	31%	73%	71%	75%	73%	73%	73%
Initially Fluent English Prof.	33,569	389	71	3%	6%	19%	35%	37%	76%	75%	79%	76%	76%	76%
English Learner	98,057	311	51	19%	25%	34%	18%	4%	53%	53%	56%	54%	57%	52%
Reclassified Fluent Eng. Prof.	59,265	376	58	1%	5%	26%	42%	25%	73%	73%	78%	74%	74%	75%
English Prof. unknown	448	335	69	19%	13%	28%	29%	12%	61%	59%	63%	63%	63%	59%
No Special Ed Services	406,648	364	70	7%	11%	24%	32%	25%	70%	68%	72%	70%	70%	70%
Special Ed Services	25,833	330	72	21%	18%	24%	22%	14%	59%	58%	60%	60%	60%	58%
Special Ed unknown	19	327	73	26%	16%	11%	37%	11%	55%	60%	58%	63%	60%	57%
Not Econ. Disadvantaged	177,574	396	70	3%	5%	16%	35%	41%	78%	76%	80%	78%	78%	79%
Economically Disadvantaged	254,308	339	61	11%	16%	30%	29%	13%	62%	62%	66%	63%	64%	62%
Unknown Economic Status	618	340	72	16%	15%	27%	26%	17%	63%	61%	63%	64%	63%	61%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,161	369	67	7%	8%	22%	37%	26%	72%	70%	74%	72%	71%	71%
Asian American	22,365	428	74	2%	2%	9%	27%	60%	85%	83%	86%	85%	83%	86%
Pacific Islander	980	373	64	4%	8%	22%	39%	27%	73%	71%	75%	73%	73%	74%
Filipino	7,337	394	62	2%	4%	16%	39%	39%	79%	77%	81%	78%	78%	81%
Hispanic	41,473	367	64	5%	9%	24%	37%	25%	71%	70%	74%	71%	72%	71%
African American	8,733	359	65	8%	11%	24%	36%	21%	70%	67%	71%	69%	69%	69%
White	85,786	404	66	2%	4%	13%	35%	46%	81%	79%	82%	81%	80%	82%
Two or More Races	9,739	403	70	3%	4%	14%	33%	46%	80%	78%	81%	80%	79%	81%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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—Economically Disadvantaged														
American Indian	1,804	336	61	13%	17%	29%	31%	11%	62%	60%	64%	63%	63%	60%
Asian American	13,447	369	70	7%	9%	22%	34%	27%	71%	70%	74%	71%	71%	72%
Pacific Islander	1,457	334	56	12%	17%	32%	30%	9%	63%	60%	63%	61%	63%	62%
Filipino	4,028	366	62	5%	9%	25%	37%	24%	72%	69%	73%	70%	72%	73%
Hispanic	179,458	334	58	12%	18%	32%	28%	10%	60%	60%	64%	61%	63%	60%
African American	19,558	327	59	16%	19%	30%	26%	9%	60%	58%	61%	59%	60%	57%
White	29,203	361	64	7%	10%	24%	36%	22%	70%	68%	72%	70%	70%	69%
Two or More Races	5,353	350	63	9%	14%	27%	33%	17%	67%	64%	68%	67%	67%	66%
Primary Ethnicity—Unknown Economic Status														
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	54	364	104	31%	4%	6%	22%	37%	68%	66%	66%	67%	66%	65%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	15	385	53	7%	0%	13%	53%	27%	79%	74%	79%	79%	76%	78%
Hispanic	196	316	55	18%	19%	38%	16%	8%	56%	56%	57%	56%	58%	53%
African American	52	312	56	19%	29%	33%	15%	4%	55%	56%	54%	57%	53%	50%
White	138	370	70	6%	12%	17%	39%	26%	73%	70%	72%	72%	72%	71%
Two or More Races	155	341	72	17%	10%	30%	28%	15%	62%	60%	64%	67%	64%	61%

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

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	450,168	375	99	11%	11%	19%	21%	38%	61%	73%	65%	71%	65%	77%
Male	226,977	380	105	13%	10%	16%	20%	41%	63%	74%	65%	72%	65%	76%
Female	223,070	370	93	10%	12%	21%	23%	35%	59%	72%	64%	69%	66%	78%
Gender unknown	121	316	92	28%	21%	17%	13%	21%	50%	59%	53%	57%	55%	64%
American Indian	3,135	354	93	16%	12%	21%	22%	29%	57%	69%	60%	68%	62%	72%
Asian American	39,535	444	100	3%	4%	10%	16%	66%	76%	84%	78%	80%	78%	89%
Pacific Islander	2,585	362	92	12%	12%	21%	23%	32%	59%	71%	63%	68%	63%	76%
Filipino	12,250	412	89	4%	6%	14%	23%	54%	68%	81%	73%	78%	73%	85%
Hispanic	224,416	346	88	15%	15%	23%	22%	25%	55%	69%	58%	66%	59%	73%
African American	29,528	335	89	20%	15%	22%	20%	22%	52%	65%	57%	63%	59%	69%
White	123,757	412	95	6%	6%	13%	21%	54%	69%	80%	73%	76%	73%	83%
Two or More Races	14,962	391	100	9%	9%	16%	21%	45%	65%	76%	68%	73%	69%	79%
English Only	248,115	389	99	9%	9%	16%	21%	44%	64%	76%	68%	73%	69%	79%
Initially Fluent English Prof.	31,768	413	100	6%	6%	15%	20%	53%	69%	80%	72%	77%	73%	84%
English Learner	72,545	295	73	30%	24%	25%	14%	8%	46%	57%	47%	57%	46%	61%
Reclassified Fluent Eng. Prof.	97,009	389	85	4%	8%	20%	26%	41%	64%	78%	67%	74%	69%	83%
English Prof. unknown	731	325	92	25%	15%	22%	17%	21%	52%	63%	53%	62%	56%	66%
No Special Ed Services	423,623	380	98	10%	10%	18%	22%	40%	62%	74%	66%	71%	66%	78%
Special Ed Services	26,525	301	92	36%	18%	19%	13%	14%	46%	56%	49%	58%	50%	58%
Special Ed unknown	20	256	99	70%	10%	5%	0%	15%	39%	45%	41%	39%	38%	40%
Not Econ. Disadvantaged	197,212	414	97	5%	6%	13%	21%	55%	69%	80%	73%	77%	73%	84%
Economically Disadvantaged	252,025	345	89	16%	15%	22%	22%	25%	55%	68%	58%	66%	59%	72%
Unknown Economic Status	931	318	92	28%	16%	21%	16%	19%	51%	61%	52%	60%	54%	64%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,399	378	93	10%	10%	17%	24%	38%	62%	74%	66%	72%	68%	77%
Asian American	23,808	472	93	2%	2%	6%	13%	77%	82%	87%	83%	84%	82%	92%
Pacific Islander	1,179	389	95	9%	9%	16%	21%	45%	65%	76%	68%	73%	69%	80%
Filipino	8,186	424	87	3%	4%	12%	22%	59%	71%	82%	75%	80%	76%	87%
Hispanic	48,295	373	91	10%	10%	20%	23%	37%	61%	74%	65%	71%	66%	78%
African American	10,645	361	92	13%	11%	21%	23%	32%	57%	70%	63%	69%	65%	74%
White	94,330	426	92	4%	4%	11%	21%	60%	72%	82%	76%	79%	76%	86%
Two or More Races	9,370	415	96	5%	6%	13%	20%	56%	70%	80%	73%	77%	74%	83%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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—Economically Disadvantaged														
American Indian	1,728	334	88	20%	14%	23%	20%	22%	54%	65%	56%	65%	58%	68%
Asian American	15,674	402	96	6%	8%	16%	22%	49%	68%	78%	70%	74%	71%	84%
Pacific Islander	1,401	339	84	15%	14%	25%	23%	21%	54%	67%	58%	65%	57%	72%
Filipino	4,045	389	89	6%	9%	17%	24%	43%	63%	77%	68%	74%	68%	82%
Hispanic	175,798	338	86	17%	16%	24%	22%	22%	54%	67%	56%	65%	57%	71%
African American	18,799	320	84	23%	18%	23%	19%	17%	49%	62%	53%	60%	56%	66%
White	29,182	367	93	12%	11%	19%	24%	34%	60%	72%	63%	69%	65%	75%
Two or More Races	5,398	351	91	15%	14%	22%	22%	28%	56%	69%	60%	67%	62%	72%
Primary Ethnicity—Unknown Economic Status														
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	53	397	103	8%	6%	21%	21%	45%	71%	77%	65%	73%	70%	83%
Pacific Islander	5	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	19	356	67	5%	16%	26%	32%	21%	57%	70%	60%	75%	63%	77%
Hispanic	323	295	80	34%	20%	20%	12%	13%	45%	56%	47%	58%	48%	60%
African American	84	279	88	52%	14%	11%	10%	13%	42%	50%	46%	50%	46%	51%
White	245	335	92	22%	12%	22%	22%	22%	56%	65%	57%	63%	58%	67%
Two or More Races	194	325	92	24%	15%	22%	18%	21%	51%	62%	55%	61%	56%	68%

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

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	465,836	348	67	12%	13%	29%	23%	23%	56%	57%	67%	65%	64%	75%
Male	236,511	349	72	15%	12%	25%	21%	26%	58%	56%	67%	65%	64%	73%
Female	229,201	347	62	10%	13%	32%	24%	21%	55%	58%	67%	64%	65%	77%
Gender unknown	124	309	53	28%	22%	29%	15%	6%	45%	45%	56%	51%	50%	64%
American Indian	3,176	342	66	14%	14%	30%	21%	21%	54%	54%	66%	64%	62%	74%
Asian American	41,591	390	72	4%	6%	20%	25%	45%	70%	69%	78%	76%	76%	83%
Pacific Islander	2,749	333	60	15%	16%	35%	20%	14%	52%	53%	62%	59%	59%	71%
Filipino	12,957	369	59	4%	7%	28%	30%	31%	63%	64%	75%	71%	73%	81%
Hispanic	225,771	328	58	16%	17%	34%	20%	13%	50%	51%	61%	58%	58%	71%
African American	31,811	322	59	21%	17%	32%	18%	11%	48%	50%	59%	56%	55%	67%
White	133,052	373	68	7%	7%	22%	27%	36%	63%	64%	75%	73%	73%	81%
Two or More Races	14,729	354	70	12%	11%	26%	23%	28%	58%	58%	70%	67%	66%	76%
English Only	262,202	358	69	11%	10%	26%	24%	28%	59%	59%	70%	68%	68%	77%
Initially Fluent English Prof.	38,827	369	69	7%	8%	26%	26%	33%	62%	63%	74%	71%	71%	80%
English Learner	67,983	293	44	31%	29%	30%	7%	2%	41%	40%	48%	45%	43%	60%
Reclassified Fluent Eng. Prof.	96,001	353	57	6%	10%	36%	27%	21%	57%	59%	69%	67%	67%	78%
English Prof. unknown	823	311	59	26%	21%	29%	15%	9%	45%	45%	56%	53%	50%	64%
No Special Ed Services	433,614	352	66	10%	12%	29%	24%	25%	57%	58%	68%	66%	66%	76%
Special Ed Services	32,202	294	55	39%	23%	24%	9%	6%	41%	39%	49%	46%	44%	57%
Special Ed unknown	20	270	50	55%	20%	15%	10%	0%	34%	37%	37%	40%	38%	39%
Not Econ. Disadvantaged	224,058	370	69	8%	8%	24%	26%	35%	62%	63%	74%	72%	71%	80%
Economically Disadvantaged	240,763	328	59	17%	17%	34%	20%	13%	50%	51%	61%	58%	58%	71%
Unknown Economic Status	1,015	313	63	28%	18%	29%	14%	10%	46%	45%	56%	54%	52%	64%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	1,676	358	69	11%	10%	26%	24%	29%	59%	59%	71%	68%	68%	77%
Asian American	25,054	407	70	2%	3%	14%	24%	56%	75%	73%	83%	81%	81%	86%
Pacific Islander	1,415	342	62	13%	13%	33%	22%	20%	54%	56%	66%	63%	63%	74%
Filipino	9,403	374	58	3%	5%	26%	31%	34%	65%	65%	76%	73%	74%	82%
Hispanic	58,243	342	62	13%	13%	31%	24%	19%	54%	55%	66%	63%	63%	74%
African American	13,691	333	61	17%	14%	32%	22%	16%	52%	53%	64%	60%	59%	70%
White	105,273	381	66	5%	6%	21%	28%	41%	65%	66%	78%	76%	75%	83%
Two or More Races	9,303	369	70	9%	8%	23%	25%	35%	62%	62%	74%	72%	71%	79%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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—Economically Disadvantaged														
American Indian	1,489	325	59	18%	18%	33%	18%	12%	49%	49%	60%	59%	57%	70%
Asian American	16,501	362	65	7%	10%	28%	26%	29%	63%	62%	71%	68%	69%	79%
Pacific Islander	1,326	322	55	17%	19%	36%	19%	9%	50%	50%	58%	56%	55%	69%
Filipino	3,548	355	58	7%	10%	32%	29%	22%	59%	60%	70%	67%	68%	77%
Hispanic	167,118	323	56	17%	19%	35%	19%	10%	49%	50%	59%	56%	56%	70%
African American	18,000	313	56	24%	20%	32%	16%	8%	46%	47%	56%	53%	52%	65%
White	27,557	342	65	14%	13%	29%	24%	20%	54%	55%	66%	64%	63%	74%
Two or More Races	5,224	330	61	17%	16%	33%	20%	14%	51%	51%	62%	59%	58%	70%
Primary Ethnicity—Unknown Economic Status														
American Indian	11	291	59	45%	9%	27%	18%	0%	37%	39%	54%	45%	43%	55%
Asian American	36	351	87	11%	17%	33%	6%	33%	56%	56%	64%	67%	62%	73%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	6	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	410	301	53	30%	23%	32%	9%	6%	42%	42%	52%	49%	47%	63%
African American	120	285	53	50%	16%	20%	10%	4%	36%	40%	47%	43%	42%	49%
White	222	341	69	20%	10%	23%	27%	20%	54%	52%	66%	65%	63%	71%
Two or More Races	202	315	59	24%	16%	35%	15%	9%	47%	45%	57%	55%	53%	64%

Table 7.C.31 Demographic Summary for Biology

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	544,737	347	58	11%	12%	32%	25%	21%	55%	61%	61%	68%	61%
Grade 9	205,022	359	59	8%	9%	28%	27%	28%	60%	66%	65%	72%	65%
Grade 10	242,256	337	53	13%	14%	36%	24%	14%	51%	58%	57%	65%	57%
Grade 11	97,459	348	63	12%	13%	30%	23%	23%	55%	60%	61%	69%	60%
Male	271,067	347	62	13%	12%	29%	24%	22%	55%	60%	61%	68%	60%
Female	273,549	347	55	8%	12%	35%	26%	19%	55%	62%	61%	68%	61%
Gender unknown	121	306	42	28%	17%	40%	11%	4%	42%	45%	45%	55%	43%
American Indian	3,571	344	55	11%	12%	33%	26%	18%	54%	59%	60%	68%	61%
Asian American	51,848	386	65	4%	5%	21%	27%	44%	69%	73%	73%	80%	72%
Pacific Islander	3,280	336	52	12%	14%	37%	24%	13%	52%	58%	56%	64%	56%
Filipino	16,428	365	51	4%	5%	30%	33%	27%	62%	68%	67%	77%	67%
Hispanic	261,276	328	49	15%	16%	38%	21%	10%	49%	55%	54%	61%	54%
African American	36,780	324	50	18%	17%	36%	20%	9%	49%	53%	51%	60%	50%
White	155,007	369	57	5%	6%	25%	31%	33%	62%	68%	69%	77%	70%
Two or More Races	16,547	353	59	10%	10%	29%	27%	24%	58%	63%	63%	71%	63%
English Only	304,099	356	58	9%	9%	29%	28%	25%	58%	64%	64%	72%	64%
Initially Fluent English Prof.	48,499	366	62	6%	7%	29%	28%	30%	61%	67%	67%	75%	67%
English Learner	75,914	297	37	30%	28%	34%	7%	2%	40%	44%	40%	44%	39%
Reclassified Fluent Eng. Prof.	115,429	349	50	6%	9%	40%	28%	17%	56%	63%	62%	70%	62%
English Prof. unknown	796	315	50	24%	20%	32%	15%	8%	45%	50%	48%	54%	47%
No Special Ed Services	508,032	351	57	9%	11%	32%	26%	22%	57%	62%	62%	70%	62%
Special Ed Services	36,694	299	46	35%	24%	27%	9%	4%	40%	43%	42%	47%	41%
Special Ed unknown	11	284	33	55%	9%	36%	0%	0%	38%	33%	34%	45%	38%
Not Econ. Disadvantaged	268,638	366	60	6%	7%	26%	29%	31%	62%	67%	68%	76%	68%
Economically Disadvantaged	275,071	329	50	15%	16%	37%	21%	11%	49%	55%	53%	61%	54%
Unknown Economic Status	1,028	315	51	24%	19%	32%	16%	8%	45%	49%	48%	56%	49%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,984	355	56	8%	10%	30%	29%	24%	57%	64%	64%	73%	65%
Asian American	31,658	403	64	2%	3%	15%	26%	55%	74%	78%	79%	84%	76%
Pacific Islander	1,722	347	53	9%	10%	35%	27%	19%	55%	62%	61%	68%	61%
Filipino	11,869	370	51	3%	4%	28%	34%	30%	64%	70%	69%	79%	69%
Hispanic	69,015	342	53	11%	12%	35%	26%	16%	53%	60%	59%	67%	59%
African American	16,302	333	52	14%	14%	35%	23%	13%	52%	57%	55%	64%	54%
White	125,319	375	56	4%	5%	23%	32%	36%	64%	70%	72%	79%	72%
Two or More Races	10,769	365	59	7%	7%	26%	29%	31%	61%	66%	67%	75%	68%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,582	329	49	15%	16%	37%	22%	11%	49%	54%	54%	63%	56%
Asian American	20,143	360	58	6%	9%	30%	28%	27%	61%	66%	65%	72%	65%
Pacific Islander	1,553	324	47	16%	17%	38%	21%	8%	49%	54%	51%	59%	51%
Filipino	4,545	352	50	6%	9%	36%	30%	20%	58%	64%	62%	72%	63%
Hispanic	191,837	324	47	16%	17%	39%	19%	8%	47%	54%	52%	59%	52%
African American	20,363	317	47	21%	19%	37%	17%	6%	46%	51%	48%	57%	47%
White	29,482	344	54	11%	11%	33%	27%	18%	54%	60%	60%	68%	61%
Two or More Races	5,566	333	52	15%	14%	35%	23%	13%	51%	56%	55%	63%	56%
Primary Ethnicity—Unknown Economic Status													
American Indian	5	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	47	353	66	15%	6%	36%	21%	21%	59%	62%	62%	68%	62%
Pacific Islander	5	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	14	329	55	14%	14%	36%	14%	21%	53%	52%	55%	60%	63%
Hispanic	424	306	46	27%	21%	33%	13%	4%	42%	47%	44%	52%	44%
African American	115	293	43	42%	19%	28%	10%	2%	40%	39%	40%	45%	42%
White	206	336	53	15%	16%	28%	25%	16%	51%	56%	58%	65%	59%
Two or More Races	212	317	47	20%	21%	37%	16%	7%	46%	50%	49%	57%	48%

Table 7.C.32 Demographic Summary for Chemistry

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	256,509	337	55	12%	15%	36%	23%	14%	61%	66%	61%	55%	61%	65%
Grade 9	5,082	346	65	17%	10%	25%	25%	23%	65%	68%	64%	58%	64%	67%
Grade 10	119,521	347	54	8%	11%	34%	28%	18%	65%	70%	65%	59%	65%	70%
Grade 11	131,906	327	53	15%	18%	38%	19%	10%	58%	63%	57%	51%	56%	61%
Male	120,339	343	59	12%	13%	32%	25%	18%	64%	68%	64%	57%	62%	66%
Female	136,151	331	50	12%	16%	39%	22%	11%	59%	65%	59%	53%	59%	65%
Gender unknown	19	315	44	21%	16%	37%	21%	5%	55%	59%	57%	47%	45%	61%
American Indian	1,088	336	48	8%	16%	41%	24%	12%	61%	67%	61%	55%	60%	67%
Asian American	36,021	370	60	4%	7%	27%	30%	32%	71%	76%	72%	67%	75%	77%
Pacific Islander	1,454	322	50	16%	19%	37%	20%	8%	56%	61%	56%	49%	55%	59%
Filipino	10,011	341	47	6%	13%	40%	28%	13%	63%	69%	63%	57%	63%	69%
Hispanic	107,335	316	45	18%	21%	39%	17%	6%	55%	60%	53%	47%	52%	56%
African American	15,045	310	44	23%	22%	37%	14%	4%	51%	57%	50%	45%	49%	54%
White	78,043	354	52	5%	9%	35%	31%	21%	68%	72%	69%	62%	67%	74%
Two or More Races	7,512	343	56	10%	12%	36%	25%	17%	63%	68%	64%	57%	62%	69%
English Only	142,594	344	54	8%	12%	36%	27%	17%	64%	69%	64%	58%	63%	69%
Initially Fluent English Prof.	27,791	349	59	8%	12%	34%	26%	21%	65%	71%	65%	59%	65%	70%
English Learner	18,454	289	40	41%	27%	24%	6%	2%	43%	48%	41%	36%	43%	40%
Reclassified Fluent Eng. Prof.	67,486	329	50	12%	18%	40%	20%	10%	59%	65%	57%	52%	58%	62%
English Prof. unknown	184	313	50	23%	20%	35%	14%	7%	53%	57%	52%	46%	51%	55%
No Special Ed Services	250,494	338	54	11%	14%	36%	24%	15%	62%	67%	61%	55%	61%	66%
Special Ed Services	6,015	297	50	40%	21%	24%	9%	6%	46%	51%	44%	40%	44%	45%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	142,986	352	56	7%	10%	34%	29%	21%	66%	71%	67%	60%	66%	72%
Economically Disadvantaged	113,303	318	47	18%	20%	38%	17%	7%	55%	61%	53%	48%	53%	57%
Unknown Economic Status	220	319	47	19%	15%	41%	19%	6%	54%	59%	56%	49%	53%	59%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	712	343	49	6%	13%	40%	27%	15%	64%	69%	64%	58%	63%	70%
Asian American	23,252	382	61	2%	5%	22%	31%	39%	74%	79%	76%	71%	78%	81%
Pacific Islander	817	329	52	14%	16%	38%	23%	10%	59%	64%	59%	52%	58%	62%
Filipino	7,446	344	47	5%	11%	40%	29%	15%	64%	71%	64%	59%	65%	70%
Hispanic	29,915	327	48	13%	17%	40%	21%	9%	59%	63%	58%	51%	56%	62%
African American	7,315	316	46	18%	20%	39%	17%	6%	54%	59%	53%	48%	52%	57%
White	67,993	357	52	4%	8%	34%	32%	22%	69%	73%	70%	63%	68%	75%
Two or More Races	5,536	351	56	7%	10%	35%	27%	20%	66%	71%	67%	60%	65%	72%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	375	322	44	14%	21%	41%	18%	6%	55%	63%	55%	50%	53%	62%
Asian American	12,752	348	54	7%	11%	36%	27%	19%	64%	71%	65%	59%	68%	70%
Pacific Islander	633	313	46	19%	24%	36%	15%	5%	52%	58%	52%	45%	51%	55%
Filipino	2,556	331	46	10%	16%	42%	24%	8%	59%	66%	59%	53%	60%	64%
Hispanic	77,339	312	44	20%	22%	38%	15%	4%	53%	59%	51%	45%	51%	54%
African American	7,705	303	42	27%	23%	35%	11%	3%	49%	55%	48%	42%	46%	51%
White	10,003	335	48	9%	14%	41%	25%	11%	61%	66%	61%	54%	60%	66%
Two or More Races	1,940	321	48	17%	19%	37%	18%	8%	56%	62%	55%	49%	54%	59%
Primary Ethnicity—Unknown Economic Status														
American Indian	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	17	355	70	12%	18%	18%	18%	35%	58%	71%	65%	62%	71%	73%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	81	308	37	21%	20%	47%	12%	0%	51%	55%	52%	44%	48%	54%
African American	25	294	39	36%	20%	32%	8%	4%	43%	54%	44%	37%	45%	39%
White	47	333	51	15%	9%	34%	34%	9%	61%	65%	61%	56%	56%	66%
Two or More Races	36	322	43	17%	11%	50%	17%	6%	53%	59%	60%	49%	56%	65%

Table 7.C.33 Demographic Summary for Earth Science

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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	217,760	328	49	16%	15%	36%	24%	9%	52%	57%	54%	63%
Grade 9	145,685	330	48	14%	14%	37%	25%	10%	53%	58%	55%	64%
Grade 10	31,422	321	49	20%	16%	35%	21%	8%	50%	54%	51%	60%
Grade 11	40,653	325	49	18%	16%	34%	23%	9%	50%	55%	53%	61%
Male	117,074	332	52	17%	13%	32%	26%	12%	55%	57%	56%	63%
Female	100,622	323	44	15%	17%	41%	22%	6%	49%	57%	51%	63%
Gender unknown	64	308	51	30%	22%	28%	14%	6%	44%	47%	45%	53%
American Indian	1,878	329	48	15%	15%	36%	25%	9%	53%	57%	55%	64%
Asian American	10,159	343	49	8%	11%	35%	31%	15%	57%	63%	61%	71%
Pacific Islander	1,339	322	44	16%	17%	40%	21%	6%	49%	55%	51%	62%
Filipino	4,239	345	45	6%	9%	37%	34%	13%	59%	64%	61%	72%
Hispanic	115,076	318	44	19%	18%	39%	19%	5%	49%	54%	50%	58%
African American	15,651	308	44	27%	19%	36%	15%	3%	45%	50%	45%	53%
White	62,503	346	50	10%	9%	32%	32%	17%	59%	63%	62%	71%
Two or More Races	6,915	332	51	15%	14%	33%	26%	12%	54%	58%	56%	65%
English Only	127,933	334	50	14%	13%	34%	27%	12%	55%	59%	57%	65%
Initially Fluent English Prof.	14,358	337	47	11%	12%	38%	29%	11%	56%	61%	58%	67%
English Learner	41,663	299	36	29%	26%	36%	8%	1%	41%	46%	41%	47%
Reclassified Fluent Eng. Prof.	33,400	336	42	8%	11%	44%	29%	8%	55%	61%	57%	69%
English Prof. unknown	406	308	49	31%	15%	34%	16%	4%	45%	48%	45%	53%
No Special Ed Services	192,494	332	48	13%	14%	37%	26%	10%	54%	59%	56%	65%
Special Ed Services	25,251	299	43	35%	23%	29%	10%	3%	42%	45%	42%	46%
Special Ed unknown	15	268	25	67%	13%	20%	0%	0%	29%	32%	30%	29%
Not Econ. Disadvantaged	93,332	342	50	11%	11%	33%	31%	15%	57%	62%	60%	69%
Economically Disadvantaged	123,908	317	45	20%	18%	39%	19%	5%	48%	53%	49%	58%
Unknown Economic Status	520	308	48	30%	17%	30%	18%	5%	45%	49%	46%	53%
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	898	339	49	12%	11%	34%	31%	13%	57%	61%	59%	68%
Asian American	4,595	356	50	6%	7%	30%	36%	21%	62%	67%	66%	76%
Pacific Islander	648	329	44	12%	15%	41%	25%	7%	52%	58%	55%	65%
Filipino	2,896	350	44	5%	8%	35%	36%	16%	60%	66%	64%	74%
Hispanic	28,786	328	46	14%	14%	38%	25%	8%	52%	57%	54%	63%
African American	6,246	317	46	21%	16%	38%	20%	5%	48%	53%	49%	58%
White	45,321	352	50	7%	8%	30%	35%	20%	61%	65%	65%	74%
Two or More Races	3,942	343	52	11%	11%	31%	31%	16%	58%	62%	61%	70%

				Percent in Performance Level					Mean Percent Correct in Content Area			
	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—Economically Disadvantaged												
American Indian	975	319	45	17%	19%	38%	20%	6%	49%	53%	51%	60%
Asian American	5,552	333	46	11%	14%	39%	26%	10%	54%	59%	56%	66%
Pacific Islander	688	315	43	20%	19%	40%	17%	4%	47%	53%	48%	58%
Filipino	1,337	334	44	9%	12%	42%	28%	9%	55%	60%	57%	68%
Hispanic	86,072	315	43	20%	19%	39%	18%	4%	48%	53%	48%	57%
African American	9,357	302	41	30%	21%	35%	12%	2%	43%	48%	43%	50%
White	17,049	329	49	16%	14%	36%	25%	10%	53%	57%	55%	63%
Two or More Races	2,878	318	47	21%	18%	35%	20%	7%	49%	52%	50%	58%
Primary Ethnicity—Unknown Economic Status												
American Indian	5	–	–	–	–	–	–	–	–	–	–	–
Asian American	12	312	50	17%	33%	25%	25%	0%	47%	46%	50%	58%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–
Filipino	6	–	–	–	–	–	–	–	–	–	–	–
Hispanic	218	302	46	34%	18%	29%	16%	3%	43%	46%	43%	49%
African American	48	284	40	50%	27%	15%	4%	4%	37%	39%	35%	41%
White	133	323	47	20%	11%	38%	24%	7%	49%	57%	53%	61%
Two or More Races	95	313	52	26%	17%	29%	19%	8%	48%	50%	47%	59%

Table 7.C.34 Demographic Summary for Physics

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	72,735	349	54	8%	11%	33%	28%	21%	59%	60%	63%	66%	57%	59%
Grade 9	13,563	337	52	10%	14%	36%	25%	15%	54%	55%	59%	61%	54%	54%
Grade 10	8,638	343	54	9%	12%	35%	26%	17%	57%	57%	59%	63%	55%	57%
Grade 11	50,534	353	54	6%	10%	31%	30%	23%	60%	62%	64%	67%	58%	61%
Male	38,430	357	58	8%	9%	28%	29%	27%	62%	63%	65%	68%	59%	61%
Female	34,296	341	48	8%	12%	38%	28%	14%	55%	57%	59%	63%	55%	58%
Gender unknown	9	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	360	349	52	7%	10%	33%	29%	20%	59%	60%	62%	65%	58%	59%
Asian American	11,737	375	53	2%	4%	24%	34%	35%	68%	71%	72%	74%	66%	68%
Pacific Islander	491	335	54	11%	15%	39%	21%	14%	52%	54%	57%	61%	52%	54%
Filipino	3,035	351	45	3%	8%	37%	34%	17%	58%	62%	64%	69%	59%	61%
Hispanic	26,096	326	46	13%	17%	40%	22%	8%	49%	50%	54%	57%	51%	50%
African American	4,097	316	45	19%	21%	38%	17%	6%	45%	46%	49%	52%	46%	46%
White	24,314	367	52	3%	6%	27%	34%	30%	67%	68%	70%	73%	61%	67%
Two or More Races	2,605	349	56	8%	11%	31%	27%	23%	59%	60%	63%	66%	56%	60%
English Only	42,211	356	54	6%	9%	30%	31%	25%	62%	63%	66%	69%	59%	63%
Initially Fluent English Prof.	8,019	361	54	4%	7%	31%	32%	26%	63%	65%	67%	69%	61%	64%
English Learner	4,830	297	39	30%	30%	29%	8%	3%	37%	39%	39%	43%	41%	35%
Reclassified Fluent Eng. Prof.	17,620	341	48	7%	12%	40%	27%	14%	55%	57%	60%	63%	56%	57%
English Prof. unknown	55	332	51	13%	22%	25%	31%	9%	54%	54%	55%	56%	51%	53%
No Special Ed Services	70,914	350	54	7%	10%	33%	29%	21%	59%	61%	63%	66%	58%	60%
Special Ed Services	1,821	304	50	33%	24%	25%	11%	7%	40%	41%	44%	46%	42%	39%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	43,096	364	53	4%	7%	28%	32%	29%	65%	67%	69%	71%	61%	66%
Economically Disadvantaged	29,563	327	47	13%	16%	39%	22%	9%	50%	51%	54%	57%	51%	51%
Unknown Economic Status	76	332	57	17%	16%	29%	28%	11%	50%	56%	59%	56%	50%	54%
Primary Ethnicity—Not Economically Disadvantaged														
American Indian	258	359	53	5%	7%	30%	31%	27%	62%	64%	67%	69%	61%	63%
Asian American	7,720	385	53	1%	3%	19%	35%	42%	72%	75%	76%	77%	69%	72%
Pacific Islander	305	347	54	6%	10%	39%	26%	18%	56%	60%	61%	66%	56%	58%
Filipino	2,278	355	45	3%	7%	36%	35%	19%	60%	63%	66%	70%	60%	63%
Hispanic	7,323	339	48	8%	13%	37%	28%	14%	55%	56%	60%	63%	54%	56%
African American	1,978	327	47	13%	17%	38%	22%	9%	49%	51%	54%	57%	50%	51%
White	21,402	370	51	3%	5%	26%	34%	32%	68%	69%	71%	74%	62%	68%
Two or More Races	1,832	361	54	5%	8%	30%	29%	28%	63%	65%	68%	70%	60%	65%

				Percent in Performance Level					Mean Percent Correct in Content Area					
	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	102	324	42	12%	19%	41%	25%	4%	51%	49%	52%	57%	49%	49%
Asian American	4,014	355	48	4%	8%	35%	33%	21%	61%	64%	65%	68%	61%	61%
Pacific Islander	185	317	50	18%	23%	38%	12%	8%	45%	44%	49%	54%	47%	47%
Filipino	757	340	43	6%	11%	42%	30%	12%	52%	58%	60%	64%	56%	56%
Hispanic	18,742	321	44	14%	18%	41%	20%	6%	47%	48%	51%	55%	49%	48%
African American	2,110	306	40	23%	23%	38%	13%	2%	41%	42%	44%	47%	43%	42%
White	2,896	344	49	7%	11%	35%	30%	16%	58%	58%	61%	65%	55%	58%
Two or More Races	757	322	50	17%	20%	34%	20%	9%	48%	49%	51%	55%	48%	48%
Primary Ethnicity—Unknown Economic Status														
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	3	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	31	327	51	16%	19%	29%	29%	6%	48%	56%	54%	53%	48%	55%
African American	9	–	–	–	–	–	–	–	–	–	–	–	–	–
White	16	358	44	0%	0%	56%	31%	13%	63%	63%	74%	68%	55%	68%
Two or More Races	16	337	52	6%	25%	19%	38%	13%	54%	56%	63%	59%	56%	53%

Table 7.C.35 Demographic Summary for Integrated/Coordinated Science 1

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	63,991	310	40	22%	19%	41%	15%	2%	54%	41%	55%	43%	46%
Grade 9	49,436	312	40	20%	19%	43%	16%	3%	54%	43%	57%	44%	47%
Grade 10	5,741	298	38	33%	20%	35%	11%	1%	49%	36%	49%	39%	41%
Grade 11	8,814	304	39	27%	21%	37%	13%	2%	53%	38%	52%	41%	43%
Male	34,092	310	42	24%	18%	38%	17%	3%	54%	42%	55%	44%	46%
Female	29,888	309	37	20%	21%	44%	14%	2%	53%	41%	55%	43%	45%
Gender unknown	11	293	37	36%	27%	27%	9%	0%	49%	32%	51%	33%	39%
American Indian	444	311	40	23%	16%	40%	18%	3%	55%	41%	55%	44%	47%
Asian American	3,591	336	47	10%	12%	38%	29%	10%	65%	52%	66%	53%	57%
Pacific Islander	377	305	36	24%	20%	44%	11%	1%	52%	39%	53%	41%	43%
Filipino	1,544	326	37	9%	13%	49%	24%	4%	61%	48%	64%	49%	53%
Hispanic	40,412	303	36	25%	22%	41%	11%	1%	50%	39%	53%	41%	42%
African American	4,988	298	36	31%	22%	37%	9%	1%	49%	37%	49%	38%	39%
White	11,043	329	41	12%	12%	42%	29%	6%	64%	48%	64%	51%	56%
Two or More Races	1,592	314	40	20%	17%	42%	18%	3%	57%	42%	57%	45%	49%
English Only	29,050	316	41	20%	16%	41%	20%	3%	57%	43%	58%	45%	49%
Initially Fluent English Prof.	4,868	323	42	14%	15%	45%	21%	5%	60%	46%	62%	48%	51%
English Learner	14,119	285	30	40%	29%	28%	3%	0%	40%	33%	43%	34%	33%
Reclassified Fluent Eng. Prof.	15,853	317	35	12%	17%	52%	17%	2%	57%	44%	60%	46%	49%
English Prof. unknown	101	296	37	36%	23%	31%	10%	1%	49%	36%	48%	37%	41%
No Special Ed Services	56,869	313	39	19%	18%	43%	17%	3%	55%	43%	57%	45%	47%
Special Ed Services	7,119	283	33	46%	26%	23%	4%	1%	40%	32%	42%	34%	32%
Special Ed unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	21,947	323	43	16%	14%	42%	24%	5%	61%	46%	61%	48%	52%
Economically Disadvantaged	41,910	303	37	25%	22%	41%	11%	1%	50%	39%	52%	41%	42%
Unknown Economic Status	134	297	40	37%	19%	32%	12%	1%	47%	36%	48%	39%	43%
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	187	322	41	16%	14%	39%	25%	5%	61%	45%	61%	49%	51%
Asian American	1,813	346	49	7%	9%	34%	34%	16%	70%	56%	71%	57%	61%
Pacific Islander	151	309	37	23%	16%	47%	13%	1%	55%	41%	56%	40%	46%
Filipino	1,015	330	37	7%	12%	49%	27%	5%	63%	49%	66%	51%	55%
Hispanic	7,986	310	39	22%	18%	43%	16%	2%	54%	41%	56%	43%	45%
African American	1,854	304	37	27%	19%	40%	13%	1%	52%	39%	52%	40%	42%
White	8,070	334	41	9%	10%	41%	32%	7%	66%	50%	66%	53%	58%
Two or More Races	871	320	42	17%	14%	44%	20%	5%	60%	44%	60%	48%	52%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	256	303	37	28%	18%	41%	13%	1%	50%	38%	52%	41%	44%
Asian American	1,773	324	41	13%	14%	43%	24%	5%	59%	48%	62%	49%	52%
Pacific Islander	225	302	34	25%	24%	42%	9%	0%	51%	37%	51%	42%	41%
Filipino	527	319	36	13%	16%	50%	19%	2%	57%	45%	61%	46%	50%
Hispanic	32,369	301	35	26%	22%	41%	10%	1%	49%	38%	52%	40%	41%
African American	3,109	295	35	33%	24%	35%	7%	0%	47%	36%	48%	37%	38%
White	2,947	315	40	19%	17%	42%	19%	3%	58%	43%	57%	45%	49%
Two or More Races	704	307	37	24%	20%	41%	14%	1%	53%	40%	54%	41%	44%
Primary Ethnicity—Unknown Economic Status													
American Indian	1	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	5	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	57	294	38	40%	19%	28%	12%	0%	43%	39%	46%	38%	40%
African American	25	287	31	40%	24%	32%	4%	0%	43%	31%	38%	41%	40%
White	26	304	45	38%	8%	35%	19%	0%	52%	36%	54%	40%	50%
Two or More Races	17	306	39	29%	18%	35%	18%	0%	56%	35%	57%	40%	47%

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	5,356	311	38	17%	24%	43%	12%	3%	55%	44%	52%	36%	48%
Grade 9	1,815	320	42	13%	20%	44%	17%	6%	58%	47%	58%	39%	53%
Grade 10	2,404	309	36	18%	24%	44%	12%	2%	55%	43%	50%	36%	47%
Grade 11	1,137	300	31	23%	30%	40%	6%	1%	50%	39%	47%	32%	43%
Male	2,897	311	40	19%	22%	43%	13%	4%	54%	43%	54%	37%	48%
Female	2,456	310	36	16%	26%	44%	12%	2%	57%	44%	50%	35%	48%
Gender unknown	3	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	36	310	33	11%	33%	42%	14%	0%	56%	42%	51%	36%	49%
Asian American	332	351	49	6%	11%	30%	29%	23%	69%	66%	69%	51%	67%
Pacific Islander	42	311	38	14%	31%	40%	10%	5%	56%	43%	54%	36%	46%
Filipino	150	318	36	11%	19%	51%	16%	3%	60%	47%	57%	37%	49%
Hispanic	2,974	303	33	20%	28%	43%	8%	1%	52%	39%	48%	33%	44%
African American	495	295	28	23%	34%	39%	3%	0%	50%	36%	42%	30%	43%
White	1,185	324	38	11%	15%	49%	22%	4%	58%	50%	61%	40%	55%
Two or More Races	142	313	38	18%	18%	47%	12%	4%	56%	47%	53%	36%	52%
English Only	2,749	314	38	15%	22%	46%	15%	3%	56%	46%	55%	37%	51%
Initially Fluent English Prof.	503	321	43	12%	21%	44%	15%	8%	60%	48%	56%	39%	55%
English Learner	910	286	26	35%	37%	26%	2%	0%	44%	32%	38%	29%	35%
Reclassified Fluent Eng. Prof.	1,185	317	34	10%	21%	52%	15%	3%	59%	46%	55%	38%	50%
English Prof. unknown	9	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	4,866	314	37	14%	23%	46%	13%	3%	57%	45%	53%	37%	50%
Special Ed Services	488	280	26	47%	34%	18%	1%	0%	39%	31%	36%	28%	33%
Special Ed unknown	2	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	2,307	322	41	12%	17%	46%	18%	6%	59%	50%	58%	40%	54%
Economically Disadvantaged	3,043	302	32	21%	29%	42%	8%	1%	52%	39%	47%	33%	44%
Unknown Economic Status	6	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	23	315	35	13%	26%	43%	17%	0%	61%	48%	54%	36%	46%
Asian American	279	360	46	3%	7%	31%	32%	27%	73%	71%	73%	55%	70%
Pacific Islander	25	322	42	16%	20%	40%	16%	8%	59%	48%	59%	42%	53%
Filipino	109	322	37	9%	15%	54%	17%	5%	62%	49%	59%	39%	49%
Hispanic	589	307	34	17%	26%	47%	9%	1%	53%	42%	50%	34%	47%
African American	206	299	30	21%	27%	46%	6%	0%	51%	37%	45%	31%	46%
White	977	326	39	10%	14%	48%	23%	4%	60%	51%	62%	41%	56%
Two or More Races	99	322	38	12%	15%	51%	16%	6%	59%	51%	57%	40%	56%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	13	301	27	8%	46%	38%	8%	0%	47%	32%	46%	35%	54%
Asian American	53	304	35	25%	34%	26%	13%	2%	50%	41%	48%	35%	49%
Pacific Islander	17	295	24	12%	47%	41%	0%	0%	51%	36%	47%	27%	35%
Filipino	41	308	31	15%	29%	44%	12%	0%	57%	41%	51%	32%	50%
Hispanic	2,383	302	33	21%	28%	42%	8%	1%	52%	39%	47%	33%	44%
African American	289	292	26	25%	39%	35%	1%	0%	48%	35%	40%	29%	42%
White	207	312	32	14%	18%	53%	14%	0%	54%	44%	56%	36%	50%
Two or More Races	40	294	31	30%	28%	40%	3%	0%	47%	38%	44%	30%	42%
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	2	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	1	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	3	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	1,344	310	42	19%	25%	40%	11%	4%	48%	40%	54%	38%	54%
Grade 9	16	289	27	44%	13%	44%	0%	0%	36%	33%	38%	35%	45%
Grade 10	91	297	38	31%	27%	29%	12%	1%	42%	36%	48%	33%	45%
Grade 11	1,237	311	43	18%	25%	41%	11%	5%	48%	40%	55%	38%	55%
Male	760	312	44	19%	24%	39%	12%	6%	48%	40%	56%	39%	54%
Female	584	307	39	20%	26%	41%	10%	3%	47%	38%	51%	36%	54%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	35	338	59	11%	14%	46%	14%	14%	56%	52%	68%	45%	68%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	40	320	42	13%	20%	43%	20%	5%	53%	43%	60%	43%	57%
Hispanic	686	299	34	24%	30%	37%	7%	1%	42%	37%	48%	33%	49%
African American	74	295	31	27%	32%	38%	1%	1%	42%	34%	44%	31%	51%
White	469	325	48	12%	18%	43%	19%	9%	55%	44%	63%	44%	61%
Two or More Races	28	318	47	18%	14%	57%	4%	7%	51%	41%	57%	48%	55%
English Only	778	319	46	15%	21%	42%	15%	7%	52%	42%	59%	42%	59%
Initially Fluent English Prof.	94	312	32	14%	17%	57%	11%	1%	50%	41%	53%	39%	56%
English Learner	228	282	24	41%	41%	16%	2%	0%	34%	31%	37%	28%	37%
Reclassified Fluent Eng.	243	307	34	15%	27%	48%	9%	2%	44%	40%	54%	34%	55%
English Prof. unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	1,163	314	43	16%	24%	42%	13%	5%	49%	41%	56%	39%	56%
Special Ed Services	181	286	32	41%	31%	25%	2%	1%	36%	30%	41%	32%	41%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	741	320	45	14%	20%	43%	15%	7%	53%	42%	59%	42%	59%
Economically Disadvantaged	595	298	35	26%	31%	35%	6%	1%	41%	36%	47%	32%	48%
Unknown Economic Status	8	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	5	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	26	346	64	12%	12%	42%	15%	19%	59%	54%	69%	49%	72%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	34	324	43	12%	18%	41%	24%	6%	55%	44%	63%	44%	58%
Hispanic	207	309	37	16%	25%	45%	11%	3%	48%	39%	53%	39%	56%
African American	39	298	34	26%	33%	38%	0%	3%	45%	34%	44%	33%	49%
White	408	325	47	13%	18%	42%	19%	9%	55%	44%	63%	44%	61%
Two or More Races	19	326	49	11%	11%	63%	5%	11%	52%	45%	60%	51%	60%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	9	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	6	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	475	295	31	28%	33%	34%	5%	0%	40%	36%	45%	31%	46%
African American	34	292	28	29%	32%	35%	3%	0%	37%	33%	45%	30%	53%
White	60	323	52	12%	20%	45%	18%	5%	56%	41%	59%	40%	63%
Two or More Races	7	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	4	–	–	–	–	–	–	–	–	–	–	–	–
African American	1	–	–	–	–	–	–	–	–	–	–	–	–
White	1	–	–	–	–	–	–	–	–	–	–	–	–
Two or More Races	2	–	–	–	–	–	–	–	–	–	–	–	–

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

				Percent in Performance Level					Mean Percent Correct in Content Area				
	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	365	296	31	29%	23%	43%	4%	1%	56%	35%	45%	33%	43%
Grade 9	209	296	28	24%	28%	45%	3%	0%	55%	37%	44%	33%	42%
Grade 10	84	296	33	33%	18%	44%	5%	0%	56%	34%	44%	34%	44%
Grade 11	72	296	37	39%	17%	36%	6%	3%	58%	31%	46%	31%	47%
Male	209	299	32	27%	22%	46%	4%	1%	57%	36%	47%	33%	44%
Female	156	293	30	33%	25%	39%	3%	0%	54%	34%	41%	32%	43%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	5	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	11	291	22	27%	27%	45%	0%	0%	50%	35%	42%	28%	50%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	4	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	139	290	29	35%	28%	33%	2%	1%	51%	34%	41%	31%	41%
African American	22	291	30	36%	27%	36%	0%	0%	57%	32%	39%	34%	36%
White	151	301	32	25%	18%	51%	6%	0%	59%	36%	48%	34%	46%
Two or More Races	31	308	29	13%	26%	55%	6%	0%	64%	43%	49%	34%	47%
English Only	271	300	31	24%	23%	48%	5%	0%	59%	36%	47%	33%	45%
Initially Fluent English Prof.	12	309	46	33%	0%	50%	8%	8%	62%	41%	51%	34%	54%
English Learner	61	276	20	54%	31%	15%	0%	0%	38%	31%	33%	30%	34%
Reclassified Fluent Eng. Prof.	21	299	22	19%	24%	57%	0%	0%	59%	35%	46%	33%	44%
English Prof. unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	265	302	31	22%	22%	49%	5%	1%	59%	36%	48%	34%	46%
Special Ed Services	100	282	26	48%	26%	26%	0%	0%	46%	32%	37%	30%	36%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not Econ. Disadvantaged	211	299	31	25%	23%	47%	4%	0%	58%	36%	46%	34%	44%
Economically Disadvantaged	154	292	31	35%	24%	37%	3%	1%	52%	34%	43%	31%	42%
Unknown Economic Status	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	9	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	42	294	32	31%	26%	38%	2%	2%	56%	35%	45%	30%	39%
African American	16	289	25	38%	31%	31%	0%	0%	57%	31%	38%	33%	33%
White	117	302	32	23%	18%	53%	6%	0%	59%	37%	48%	36%	47%
Two or More Races	20	306	27	10%	35%	50%	5%	0%	62%	43%	47%	34%	48%

				Percent in Performance Level					Mean Percent Correct in Content Area				
	Number Tested	Mean Scale Score	Std. Dev. of Scale Scores	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Biology/Life Sciences	Chemistry	Earth Sciences	Physics	Investigation and Experimentation
Primary Ethnicity—Economically Disadvantaged													
American Indian	2	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	97	288	28	37%	29%	31%	2%	1%	48%	33%	39%	32%	41%
African American	6	–	–	–	–	–	–	–	–	–	–	–	–
White	34	297	34	32%	18%	44%	6%	0%	59%	35%	48%	30%	43%
Two or More Races	11	312	34	18%	9%	64%	9%	0%	67%	43%	54%	35%	45%
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

2010 STAR CST Printed Reports	
Description	**Distribution**
The STAR Student Report	
This report provides parents/guardians and teachers with the student's results, presented in tables and graphs. Data presented include the following for each content area: • Scale score • Performance level (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 to be 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: • Scale score for each content area tested • Performance level for each content area tested • 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 for each content area: • Percent correct for each reporting cluster within each content area tested • Scale score and performance level for each content area tested • Writing score (CST in grade 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.
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.

2010 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 grade 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.
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 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 level: • Number of students enrolled • Number and percent of students tested • Number and percent of valid scores • Number tested with scores	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.

2010 STAR CST Printed Reports	
Description	**Distribution**
• Mean percent correct • Mean scale score • Scale score standard deviation • Number and percent of students scoring at each performance level	
Subgroup Summary	
This set of reports disaggregates and reports results by the following subgroups: • All students • Disability status (Disabilities among CAPA students include specific disabilities.) • 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. CAPA statistics are listed by CAPA level. 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.
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 both parents have 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 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:	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.

2010 STAR CST Printed Reports	
Description	**Distribution**
• 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	

Chapter 8: Analyses

This chapter summarizes the item- and test-level statistics obtained for the CSTs administered during the spring of 2010.

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 presents the classical item analyses including proportion-correct values (*p*-values) and point-biserial for each item in each operational test. The appendix also presents information about the distribution of scores on the writing task administered in grade seven for the overall population and for the various subgroups. In addition, the average and median proportion correct values (*p*-value) and point-biserial correlations (Pt-Bis) for the operational tests are presented in Table 8.1 on page 364.
2. Appendix 8.B 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, inter-rater reliability results for the writing task administered in grade seven are shown.
3. Appendix 8.C presents tables showing the correlation between scores obtained in the different content areas measured by the CSTs, 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.E summarize the results for various subgroups.
4. Appendix 8.D presents the results of IRT analyses including the distribution of items based on their fit to the Rasch model. The appendix also includes summaries of Rasch item difficulty statistics (*b*-values) for the operational and field-test items. In addition, appendix presents the scoring tables obtained as a result of the IRT equating process. Information related to the evaluation of linking items is presented in Table 8.5 on page 387; these linking items were used in the equating process discussed later in this chapter.
5. Appendix 8.F presents the results of the DIF analyses applied to all operational and field-test items for which sufficient student samples were available. In this appendix, items flagged for significant DIF are listed. Also given are the distributions of items across DIF categories.

Samples Used for the Analyses

CST analyses were conducted at different times after test administration and involved varying proportions of the full CST data. The classical item-analyses presented in Appendix 8.A, the reliability statistics included in Appendix 8.B, and the content area correlations

presented in Appendix 8.C were calculated using the P1 data file. This file contained more than 99 percent of the test results of the overall population.

Following the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999, Standard 6.4), the results of the classical item analyses and reliability analyses for the 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.[1]

The IRT results presented in Appendix 8.D and item-level DIF results presented in Appendix 8.E are based on the sample of student data that was used in the final item analyses (FIA) which comprised about 80–90 percent of the full CST data for the majority of tests. Beginning in 2008, the DIF and IRT analyses for the EOC mathematics CSTs were no longer limited to the grade-specific population. Instead, as is the case for other CSTs, all students taking these tests were included in the equating sample and in the FIA sample.

Classical Item Analyses

Multiple-Choice Items

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

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

where,

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

N_i is the total number of examinees that attempted 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 dichotomous and one continuously measured—in this case, the item score (right/wrong) and the total test score. The formula for the Pearson product-moment correlation is:

$$R_{it} = \frac{Cov(i,t)}{\sigma_{xi}\sigma_t} \tag{8.2}$$

where,

Cov(i,t) is the covariance between an item *i* and total score *t,*

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

σ_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 393.

[1] "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.

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	452,078	0.68	0.46	0.67	0.46
	3	65	437,450	0.68	0.43	0.68	0.44
	4	75	436,696	0.70	0.45	0.70	0.46
	5	75	431,294	0.67	0.42	0.69	0.42
	6	75	435,708	0.66	0.41	0.69	0.42
	7	75	440,521	0.65	0.42	0.66	0.43
	8	74	450,321	0.66	0.43	0.67	0.43
	9	75	488,206	0.63	0.42	0.64	0.44
	10	75	479,925	0.65	0.45	0.64	0.47
	11	75	449,140	0.63	0.44	0.62	0.46
History–Social Science	8	75	467,683	0.61	0.43	0.62	0.42
	World History	60	475,350	0.61	0.45	0.61	0.45
	11	60	442,015	0.61	0.44	0.60	0.45
Mathematics	2	65	452,806	0.76	0.45	0.80	0.44
	3	65	439,938	0.78	0.45	0.81	0.45
	4	65	440,352	0.78	0.47	0.80	0.47
	5	65	433,919	0.68	0.45	0.68	0.44
	6	65	436,749	0.65	0.45	0.67	0.45
	7	65	408,894	0.60	0.43	0.60	0.43
	General Mathematics	65	219,970	0.50	0.38	0.49	0.40
	Algebra I	65	746,242	0.49	0.40	0.48	0.42
	Geometry	65	408,572	0.53	0.42	0.55	0.42
	Algebra II	65	264,960	0.54	0.40	0.53	0.41
	Summ. H.S Math	65	130,562	0.72	0.43	0.73	0.44
	Integrated Math 1	65	11,260	0.41	0.30	0.39	0.31
	Integrated Math 2	65	3,830	0.46	0.36	0.45	0.35
	Integrated Math 3	65	795	0.50	0.40	0.52	0.41
Science	5	60	432,500	0.69	0.43	0.71	0.43
	8	60	450,168	0.68	0.44	0.70	0.44
	10 Life Science	60	465,836	0.63	0.44	0.65	0.44
	Biology	60	544,737	0.61	0.44	0.62	0.45
	Chemistry	60	256,509	0.61	0.42	0.60	0.42
	Earth Science	60	217,760	0.55	0.41	0.54	0.42
	Physics	60	72,735	0.61	0.42	0.62	0.43
	Int/Coord Science 1	60	63,991	0.48	0.35	0.47	0.38
	Int/Coord Science 2	60	5,356	0.47	0.33	0.46	0.34
	Int/Coord Science 3	60	1,344	0.45	0.36	0.40	0.37
	Int/Coord Science 4	60	365	0.42	0.28	0.38	0.28
Grade-Specific	Algebra I – 8	65	273,857	0.56	0.42	0.56	0.44
	Geometry – 9	65	134,333	0.63	0.41	0.64	0.41
	Algebra II – 10	65	118,337	0.59	0.39	0.58	0.40
	Summ. H.S. Math – 11	65	109,648	0.70	0.43	0.71	0.43
	World History –10	60	428,913	0.62	0.44	0.62	0.44

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

Writing Tasks

As described earlier, students in grade 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, which appears on page 402. 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.9. 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.10.

Reliability Analyses

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

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

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

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

where,

n is the number of items,

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

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

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

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

where,

α is the reliability estimated using (8.3) above, and

σ_t is the standard deviation of the total raw scores.

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

Table 8.2 gives the reliability for each of the 38 operational CSTs along with the number of items and examinees upon which those analyses were performed. The results for the grade-specific population for the five CSTs—grade eight for Algebra I, grade nine for Geometry, grade ten for Algebra II, grade eleven for Summative High School Mathematics, and grade ten for World History—are also presented in this table.

Table 8.2 Reliabilities and Standard Errors of Measurement for the CSTs

					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	452,078	0.94	357	65	15.82	44.16	13.32	3.26
	3	65	437,450	0.93	342	63	16.72	44.18	12.45	3.30
	4	75	436,696	0.94	370	62	14.47	52.20	14.80	3.48
	5	75	431,294	0.93	359	54	13.75	50.47	14.01	3.59
	6	75	435,708	0.93	357	54	14.14	49.30	13.87	3.61
	7**	75	440,521	0.94	356	61	15.41	48.85	14.24	3.61
	8	74	450,321	0.94	357	63	15.67	48.94	14.35	3.59
	9	75	488,206	0.94	354	60	15.15	47.30	14.45	3.68
	10	75	479,925	0.95	341	61	14.06	48.50	15.60	3.61
	11	75	449,140	0.94	337	67	16.08	46.90	15.44	3.70
History–Social Science	8	75	467,683	0.94	348	70	17.29	45.95	15.17	3.74
	World History	60	475,350	0.93	337	76	19.77	36.80	12.73	3.32
	11	60	442,015	0.93	341	73	19.39	36.32	12.57	3.32
Mathematics	2	65	452,806	0.94	382	86	21.63	49.67	11.78	2.95
	3	65	439,938	0.94	395	92	23.03	50.50	11.43	2.85
	4	65	440,352	0.94	390	79	18.86	50.82	11.97	2.87
	5	65	433,919	0.94	383	92	22.42	44.04	13.05	3.20
	6	65	436,749	0.94	361	75	18.62	42.32	13.39	3.33
	7	65	408,894	0.93	352	69	18.41	38.68	13.06	3.47
	General Math	65	219,970	0.91	315	56	16.79	32.28	12.06	3.64
	Algebra I	65	746,242	0.92	324	72	20.41	31.81	12.67	3.58
	Geometry	65	408,572	0.93	317	66	18.07	34.73	13.00	3.55
	Algebra II	65	264,960	0.92	324	69	19.56	34.98	12.55	3.55
	Summ. H.S. Math	65	130,562	0.93	359	78	20.49	46.74	12.15	3.19
	Integrated Math 1	65	11,260	0.84	292	51	20.22	26.82	9.15	3.63
	Integrated Math 2	65	3,830	0.90	322	60	19.38	29.70	11.23	3.62
	Integrated Math 3	65	795	0.92	327	78	22.43	32.30	12.43	3.58

					Scale Score			Raw Score		
Content Area	**CST***	**No. of Items**	**No. of Examinees**	**Reliab.**	**Mean**	**Std. Dev.**	**SEM**	**Mean**	**Std. Dev.**	**SEM**
Science	5	60	432,500	0.93	362	71	19.15	41.67	11.71	3.18
	8	60	450,168	0.93	375	99	26.79	40.92	11.71	3.17
	10 Life Science	60	465,836	0.93	348	67	17.87	37.82	12.26	3.26
	Biology	60	544,737	0.93	347	58	15.64	36.84	12.39	3.33
	Chemistry	60	256,509	0.92	337	55	15.43	36.50	12.08	3.41
	Earth Science	60	217,760	0.91	328	49	14.29	33.11	11.84	3.48
	Physics	60	72,735	0.92	349	54	15.12	36.30	12.05	3.38
	Int/Coord Science 1	60	63,991	0.88	310	40	13.61	28.93	10.41	3.56
	Int/Coord Science 2	60	5,356	0.87	311	38	13.88	28.01	9.72	3.57
	Int/Coord Science 3	60	1,344	0.88	310	42	14.44	26.77	10.28	3.51
	Int/Coord Science 4	60	365	0.81	296	31	13.54	25.29	8.08	3.55
Grade-Specific	Algebra I – 8	65	273,857	0.93	350	76	20.68	36.59	13.00	3.52
	Geometry – 9	65	134,333	0.92	348	65	18.20	41.22	12.14	3.41
	Algebra II – 10	65	118,337	0.91	340	66	19.43	38.11	11.95	3.51
	Summ. H.S. Math – 11	65	109,648	0.93	352	76	20.24	45.61	12.24	3.25
	World History – 10	60	428,913	0.93	339	74	19.80	37.15	12.43	3.33

* 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.[2] Intercorrelations and reliability estimates for the reporting clusters are presented in Table 8.B.1 through Table 8.B.4 for the 38 CSTs. Results are also reported in Table 8.B.5 for grade-specific samples of four 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 language proficiency. As of 2008, reliability analyses are also presented by primary ethnicity within economic status.

For each subgroup analysis, reliability and SEM information is reported for the total test scores and also for the cluster scores. Table 8.B.6 through Table 8.B.19 present the overall reliabilities. Table 8.B.20 through Table 8.B.44 present the cluster-level reliabilities for the various subgroups. Table 8.B.20 through Table 8.B.25 present the cluster-level reliabilities for the subgroups based on gender and economic status.

The next set of tables, Table 8.B.26 through Table 8.B.29, show the same analyses for the subgroups based on provision of special services and English-language fluency. Table 8.B.30 through Table 8.B.34 present results for the subgroups based on primary ethnicity of the examinees. The last set of tables, Table 8.B.35 through Table 8.B.44, present the cluster-based reliabilities for the subgroups based on primary ethnicity within economic status.

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

Note that the reliabilities are reported only for samples that are comprised of more than 10 examinees. Also, in some cases, score reliabilities were not estimable and are presented in the tables as a hyphen.

Conditional Standard Errors of Measurement

As part of the IRT-based equating procedures, scale score conversion tables and CSEMs are produced. CSEMs for CST scale scores are based on item response theory 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:

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

where,

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

$\mathrm{I}(\theta)$ is the test information function.

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

Standard errors of measurement vary across the scale. When a test has cut scores, it is important to provide CSEMs at the cut scores.

Table 8.3 presents the scale score CSEMs at the lowest score required for a student to be classified in the below basic, basic, proficient, and advanced performance levels for each CST.[3] These CSEMs tend to be similar within families of tests.

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

Table 8.3 Scale Score CSEM at Performance-level Cut Points

Content Area	CST*	Below Basic		Basic		Proficient		Advanced	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
English–Language Arts	2	262	14	300	13	350	14	402	18
	3	259	15	300	14	350	16	402	21
	4	269	13	300	12	350	13	393	15
	5	271	13	300	12	350	13	395	15
	6	268	13	300	13	350	13	394	15
	7**	263	15	300	13	350	15	401	16
	8	266	15	300	14	350	14	395	17
	9	265	15	300	14	350	14	397	17
	10	263	13	300	13	350	14	392	17
	11	259	15	300	14	350	15	396	19

[3] 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 3 for additional details.

Content Area	CST*	Below Basic		Basic		Proficient		Advanced	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
History–Social Science	8	271	16	300	15	350	16	396	19
	World History	275	18	300	18	350	18	400	22
	11	270	17	300	18	350	18	401	22
Mathematics	2	236	18	300	17	350	19	414	25
	3	236	17	300	17	350	18	414	23
	4	245	15	300	14	350	15	401	20
	5	248	20	300	19	350	19	430	23
	6	253	17	300	15	350	16	415	20
	7	257	17	300	16	350	17	414	20
	General Mathematics	257	17	300	16	350	17	414	20
	Algebra I	253	20	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	21	350	20	428	24
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	17
	Physics	276	14	300	14	350	14	393	16

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

** MC only

† 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 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 question: What is the agreement between the classifications based on two non-overlapping, 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	Mis-classification
	Achieves a performance level	Mis-classification	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	Mis-classification
	Achieves a performance level	Mis-classification	Correct classification

The results of these analyses are presented in Table 8.B.45 through Table 8.B.83 in Appendix 8.B. Table 8.B.84 through Table 8.B.88 present the same analyses for the five grade-specific CSTs. For the CST for ELA in grade 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 the various performance-level classifications. The proportion of accurately classified students 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 took the writing prompt for ELA in grade seven was computed using the following composite reliability formula (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 found 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 found 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).

The standard error of measurement (SEM) for writing (that is, the CR portion of the test) can then be found using:

$$\sigma_{e_{CR}} = \sigma_{CR} * \sqrt{1 - reliability_{CR}} \quad (8.6)$$

where,

σ_{CR} is the standard deviation of the writing scores

The reliability of the grade seven ELA multiple choice scores was 0.94. The approximate lower bound reliability for the essay scores was found to be 0.25. The composite reliability for the combined MC and essay scores was 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 inter-rater agreement and generalizability analyses to assess the reliability of the writing scores.

Inter-rater Reliability Analyses

In the context of essay scoring, inter-rater reliability or consistency is defined as the degree of agreement between ratings or scores assigned by two or more readers to a given response. It is an indicator of homogeneity and is most frequently measured using intraclass correlation (ICC) which looks at the exact agreement between raters over and above that expected by chance. The index is defined as,

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

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 inter-rater reliability. Cohen's Kappa was therefore used as a primary indicator of the inter-rater 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 also 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[1] (see Appendix 7.A for the writing scoring rubric). The results of these analyses are presented in Table 8.B.89 in Appendix 8.B.

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, 2001; Crocker & Algina, 1986).

The computer programs GENOVA and its extension, urGENOVA, were used to carry out these analyses (Brennan, 2001; 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 studied (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.91 on page 482.

Validity Evidence

Validity refers to the degree to which each interpretation or use of a test score is supported by evidence that is gathered (AERA, APA, & NCME, 1999; ETS, 2002). It is a central concern underlying the development, administration, and scoring of a test and the uses and interpretations of test scores.

Validation is the process of accumulating evidence to support each proposed score interpretation or use. It does not involve a single study or gathering one particular kind of evidence. Validation involves multiple investigations and various kinds of evidence (AERA, APA, & NCME, 1999; Cronbach, 1971; ETS, 2002; Kane, 2006). The process begins with test design and continues through the entire assessment process including item development and field testing, analyses of item and test data, test scaling, scoring, and score reporting.

This section presents the evidence gathered to support the intended uses and interpretations of scores for the 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.

[1] Zero is a valid score for the writing responses but is not provided by a rater. Instead, a score of zero is 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.

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 CST

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 subject area to be assessed, the tasks to be presented, the administration instructions to be given, and the rules used to score examinee responses. They control as many aspects of the measurement procedure as possible so that the testing conditions will remain the same over test administrations (Cronbach, 1971; Cronbach, Gleser, Nanda, & Rajaratnam, 1972) to minimize construct-irrelevant score variance (Messick, 1989). The content blueprints for the 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.

The Interpretations and Uses of The Scores Generated

Total scores expressed as scale scores, student performance levels, and subscores for each reporting cluster are generated for each grade-level and content-area test. On the basis of a student's total score, an inference is drawn about how much knowledge and skill in the content area the student has. The total score also is used to classify students in terms of their level of knowledge and skill in the content area. These levels are called performance levels and are as follows: advanced, proficient, basic, below basic, and far below basic.

Reporting cluster scores, also called subscores, are used to draw inferences about a student's achievement in each of several specific knowledge or skill areas covered by each test. Reporting cluster results compare an individual student's percent-correct score to the

average percent correct for the state as a whole. The range of scores for students who scored proficient is also provided for each cluster using a percent-correct metric. The reference points for this range are: (1) the average percent correct for students who received the lowest score qualifying for the proficient performance level; and (2) the average percent correct for students who received the lowest score qualifying for the advanced performance level. A detailed description of the uses and applications of CST scores is presented in Chapter 7.

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.

Validity Evidence Collected

Evidence Based on Content

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

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

Description of the state standards—As was noted in Chapter 1, the SBE adopted rigorous content standards in 1997 and 1998 in four major content areas: ELA, history–social science, mathematics, and science. These standards were designed to guide instruction and learning for all students in the state and to bring California students to world-class levels of achievement.

Specifications and blueprints—ETS maintains item development specifications for each CST. The item specifications describe the characteristics of the items that should be written to measure each content standard. A thorough description of the specifications can be found in Chapter 3. Once the items are developed and field-tested, ETS selects all CST test items to conform to the SBE-approved California content standards and test blueprints. Test blueprints for the CSTs were proposed by ETS and reviewed and approved by the Assessment Review Panels (ARPs), which are advisory panels to the CDE and ETS on areas related to item development for the CSTs. Test blueprints were also reviewed and approved by the CDE and presented to the SBE for adoption. There have been no recent changes in the blueprints for the CSTs. The test blueprints for the CSTs can be found on the CDE STAR CST Blueprints Web page at http://www.cde.ca.gov/ta/tg/sr/blueprints.asp.

Item development process—A detailed description of the content and psychometric criteria applicable to the construction of the 2010 CSTs is presented in Chapter 4, starting on page 201.

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

Form construction process—For each test, the content standards, blueprints, and test specifications are used as the basis for choosing items. Additional targets for item difficulty and discrimination that are used for test construction were defined in light of what are desirable statistical characteristics in test items and statistical evaluations of the CST items. Guidelines for test construction were established with the goal of maintaining parallel forms to the greatest extent possible from year to year. Details can be found in Chapter 4, starting on page 201.

Additionally, an external review panel, the Statewide Pupil Assessment Review (SPAR), is responsible for reviewing and approving the achievement tests to be used statewide for the testing of students in California public schools, grades two through eleven. More information about the SPAR is given in Chapter 3, starting on page 196.

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

Correlations Between Scores on the CSTs and Scores on the CAT/6 Survey

Convergent validity evidence was collected in 2004 by examining the relationship between CSTs and their CAT/6 Survey (Terra Nova, 2nd Edition, 2000) counterparts. The CAT/6 Survey is a norm-referenced test that assesses students in reading, language, spelling, mathematics, and science and evaluates student achievement in terms of norms. The CSTs were expected to relate closely to their counterparts in the CAT/6 Survey programs when they measured similar constructs and to correlate less well when they measured different constructs. A full description of the study can be found in the *California Standardized Testing Program Technical Report, Spring 2004 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. 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.

Intercorrelations Between Content Areas

To the degree that students' content area scores correlate as expected, evidence of the validity in regarding those scores as measures of the intended constructs is provided. Table 8.4 gives the correlations between scores on the CST content-area tests and the numbers of students on which these correlations were based. Sample sizes for individual tests are shown on the diagonals of the correlation matrices, and the numbers of students on which the correlations were based are shown on the lower off-diagonals. The correlations are provided in the upper off-diagonals.

Results in the tables appear to be consistent with expectations. In general, students' ELA scores correlated moderately with their mathematics scores. They correlated more highly with their scores on the history–social science and science CSTs.

Table 8.C.1 through Table 8.C.22 in Appendix 8.C provide the content area correlations by gender, ethnicity, English proficiency, economic status, and special service utilization. Similar patterns of correlations between students' ELA, history–social science, mathematics, and science scores were found within the subgroups.

Note that the correlations are reported only for samples that are comprised of more than 10 examinees. Correlations between any two content areas where 10 or fewer examinees took the tests are expressed as hyphens. Correlations between content areas where no examinees took the two tests are expressed as "N/A."

Note: Due to limited column space, test names were not repeated on the column heading of each correlation matrix in Table 8.4 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." referred to "1. English–Language Arts", and "2." referred 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**	**452,078**	0.78					
	2. Mathematics	451,146	**452,806**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**437,450**	0.79					
	2. Mathematics	435,791	**439,938**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**436,696**	0.75					
	2. Mathematics	435,379	**440,352**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**431,294**	0.74	0.81				
	2. Mathematics	429,526	**433,919**	0.73				
	3. Science	430,384	433,172	**454,894**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**435,708**	0.79					
	2. Mathematics	433,401	**436,749**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**440,521**	0.75	0.57				
	2. Mathematics	406,210	**408,894**	N/A				
	3. Algebra I	31,444	N/A	**31,474**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**450,321**	0.81	0.67	0.66	0.54	0.57	0.80
	2. History–Social Science	448,422	**467,683**	0.64	0.64	0.54	0.60	0.81
	3. General Mathematics	149,071	161,999	**163,339**	N/A	N/A	N/A	0.68
	4. Algebra I	272,622	273,232	N/A	**273,857**	N/A	N/A	0.71
	5. Geometry	22,924	22,911	N/A	N/A	**22,938**	N/A	0.64
	6. Algebra II	689	690	N/A	N/A	N/A	**691**	0.65
	7. Science	447,999	465,837	161,862	273,195	22,909	690	**467,774**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**488,206**	0.81	0.65	0.59	0.66	0.59	0.60	0.81	0.79	0.74	0.76
	2. World History	31,623	**32,180**	0.56	0.63	0.72	0.63	0.55	0.84	0.80	0.76	0.78
	3. General Mathematics	51,656	2,928	**56,631**	N/A	N/A	N/A	N/A	0.64	0.70	0.62	0.29
	4. Algebra I	264,952	12,600	N/A	**268,090**	N/A	N/A	N/A	0.64	0.70	0.55	0.66
	5. Geometry	133,958	11,988	N/A	N/A	**134,333**	N/A	N/A	0.70	0.83	0.64	0.75
9	**6. Algebra II**	24,700	3,481	N/A	N/A	N/A	**24,725**	N/A	0.62	0.78	0.55	0.71
	7. Summ. H.S. Mathematics	687	117	N/A	N/A	N/A	0	**689**	0.58	0.66	0.26	0.52
	8. Biology	202,270	18,196	8,510	85,654	89,302	17,659	475	**205,022**	N/A	N/A	N/A
	9. Chemistry	5,046	1,034	69	658	2,435	1,794	60	N/A	**5,082**	N/A	N/A
	10. Earth Science	140,512	3,002	21,098	98,072	20,142	1,513	56	N/A	N/A	**145,685**	N/A
	11. Physics	13,452	967	81	5,121	6,134	1,536	52	N/A	N/A	N/A	**13,563**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**479,925**	0.76	0.54	0.62	0.57	0.56	0.80	0.79	0.70	0.72	0.74
	2. World History	426,618	**428,913**	0.48	0.57	0.51	0.52	0.77	0.76	0.69	0.74	0.73
	3. Algebra I	115,797	104,555	**116,906**	N/A	N/A	N/A	0.53	0.53	0.63	0.50	0.59
	4. Geometry	169,694	159,311	N/A	**170,312**	N/A	N/A	0.64	0.64	0.73	0.59	0.74
	5. Algebra II	118,187	109,157	N/A	N/A	**118,337**	N/A	0.58	0.60	0.70	0.51	0.70
10	**6. Summ. H.S. Mathematics**	20,212	18,060	N/A	N/A	N/A	**20,225**	0.59	0.62	0.69	0.59	0.66
	7. Life Science	463,420	416,888	112,482	167,026	117,488	20,137	**465,836**	0.86	0.77	0.77	0.79
	8. Biology	240,895	229,099	70,075	106,607	41,098	4,525	235,899	**242,256**	N/A	N/A	N/A
	9. Chemistry	119,347	109,095	4,178	33,349	65,640	13,870	118,719	N/A	**119,521**	N/A	N/A
	10. Earth Science	31,152	28,181	14,479	9,497	2,101	130	29,741	N/A	N/A	**31,422**	N/A
	11. Physics	8,602	7,376	673	3,111	3,516	1,061	8,470	N/A	N/A	N/A	**8,638**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**449,140**	0.59	0.80	0.50	0.54	0.48	0.59	0.81	0.69	0.71	0.72
	2. World History	14,045	**14,257**	0.65	0.39	0.42	0.31	0.28	0.61	0.43	0.59	0.46
	3. History–Social Science	439,282	12,514	**442,015**	0.46	0.51	0.44	0.54	0.80	0.68	0.75	0.71
	4. Algebra I	55,153	4,310	53,314	**55,915**	N/A	N/A	N/A	0.51	0.56	0.47	0.58
	5. Geometry	80,473	2,871	79,477	N/A	**80,989**	N/A	N/A	0.57	0.63	0.52	0.66
11	**6. Algebra II**	120,878	1,495	120,140	N/A	N/A	**121,207**	N/A	0.50	0.62	0.42	0.60
	7. Summ. H.S. Mathematics	109,480	514	109,092	N/A	N/A	N/A	**109,648**	0.65	0.74	0.50	0.70
	8. Biology	96,777	3,759	95,741	15,414	20,786	20,837	26,786	**97,459**	N/A	N/A	N/A
	9. Chemistry	131,544	1,454	130,990	3,580	19,902	61,357	37,745	N/A	**131,906**	N/A	N/A
	10. Earth Science	40,257	1,917	39,626	11,778	10,308	5,838	3,347	N/A	N/A	**40,653**	N/A
	11. Physics	50,399	360	50,238	935	4,137	13,568	29,301	N/A	N/A	N/A	**50,534**

Intercorrelations between the reporting clusters are presented in Table 8.B.1 through Table 8.B.4 for the 38 CSTs. Results are also reported in Table 8.B.5 for grade-specific samples of four end-of-course mathematics tests and the World History test.

In general, moderate correlations between cluster scores should be expected since, by design, the clusters measure various aspects of the same construct. The findings given in the tables show that, in general, moderate intercorrelations were obtained. More specifically, in general they ranged between .60 and .75. As also would be expected, the intercorrelations were higher among clusters that assessed more similar skills than they were among clusters that assessed somewhat dissimilar skills. For example, in mathematics, the clusters related to number sense correlated more highly with each other than they did with the cluster assessing statistics, data analysis, and probability.

The CSTs for General Mathematics, Integrated Mathematics and Integrated/Coordinated Science that are composed of items from other CSTs exhibited lower inter-cluster correlations, as expected.

Generalizability Analyses for Writing

Generalizability analyses were performed on students' writing scores for grade 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 370. Details about the results can be found in Table 8.B.91.

A decision study (d-study) was conducted to look at the generalizability-coefficient (g-coefficient) for the writing scores; the g-coefficient was 0.79. 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.

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, Inter-rater 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 grade seven, two raters scored approximately 10 percent of the examinee responses. The data collected were used to evaluate inter-rater reliability and inter-rater agreement.

Inter-rater 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. The results showed

moderate levels of agreement between raters that scored examinees' written responses to the prompts administered in grade seven.[1]

Inter-rater Agreement

As noted previously, approximately 10 percent of the test population's responses to the writing prompts in grade seven were scored by two raters. The percentage of students for whom the raters were in exact agreement was 70 percent. Approximately 99 percent of the tests exhibited exact or adjacent agreement between the two sets of ratings.

Evidence Based on Internal Structure

As suggested by the *Standards,* evidence of validity can also be obtained from studies of the properties of the item scores and the relationship between these scores and scores on components of the test. To the extent that the score properties and relationships found are consistent with the definition of the construct measured by test, support is gained for interpreting these 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 this purpose. Information about the internal consistency of the items on which each subscore is based is also useful to provide.

Classical Statistics

Point-biserial correlations calculated for the items in a test show the degree to which the items discriminate between students with low and high scores on a test. To the degree that the correlations are high, evidence that the items assess the same construct is provided. The mean point-biserials for the items in the CSTs are presented in Table 8.1. This index was greater than or equal to 0.40 for 31 out of 38 CSTs and was between 0.35 and 0.39 for four CSTs.

Also germane to the validity of a score interpretation are the ranges of item difficulty for the items on which a test score will be based. The finding that items have difficulties that span the range of examinee ability provides evidence that examinees at all levels of ability are adequately measured by the items. Information on item *p*-values is given in Table 8.1; the distributions of item *b*-values are given in Table 8.D.45 through Table 8.D.54.

The data indicate that 27 of the CSTs had average *p*-values ranging from 0.50 to 0.70; out of those, 18 CSTs had average *p*-values ranging from 0.50 to 0.65 and a wide range of item *b*-values, indicating a wide range of item difficulty that spanned the ability range. The *p*-values for the end-of-course integrated CSTs tended to be somewhat lower and somewhat less variable in terms of difficulty; efforts have been made in recent years to increase these values.

[1] Research has shown the value of Kappa statistics between 0.41 and 0.60 as exhibiting moderate levels of agreement between the two ratings (National Institute of Water and Atmospheric Research Ltd., n.d.).

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 0.93 to 0.95. Reliability estimates for the EOC CSTs also tended to be high with the exception of the CST for Integrated Mathematics 1 and the Integrated/Coordinated Science tests, which were in the mid- to high-0.80s.

Reporting cluster reliabilities—For each CST, number-correct scores are computed for the reporting clusters. The reliabilities of these scores are presented in Table 8.B.1 through Table 8.B.5 for the 38 CSTs. The reliabilities of reporting clusters invariably are lower than those for the total tests because they are based on very few items. Consistent with the findings of previous years, the cluster reliabilities also are affected by the number of items in each cluster, with cluster scores based on fewer items having somewhat lower reliabilities than cluster scores based on more items. Because the reliabilities of scores at the cluster level are lower, schools supplement the score results with other information when interpreting the results.

Subgroup reliabilities—The reliabilities of the 38 operational CSTs and the five grade-specific CSTs were also examined for various subgroups of the examinee population that differed in their demographic characteristics. The characteristics considered were gender, ethnicity, economic status, provision of special services, language proficiency, 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 369. The results of these analyses are presented in Table 8.B.45 through Table 8.B.88 in Appendix 8.B; these tables start on page 467. When the decisions are collapsed to below-proficient versus proficient and above, which are the critical categories for AYP analyses, the proportion of students that were classified accurately ranged from 0.90 to 0.96 across all CSTs. Similarly, the proportion of students that were classified consistently ranged from 0.86 to 0.95 for students classified into below-proficient versus proficient and advanced.

These levels of accuracy and consistency are high and they are consistent with levels seen in previous years.

Dimensionality

Dimensionality analyses were conducted by a CDE psychometrics team (Gaffney et al., in press; Gaffney & Perryman, 2009). The study investigated the factor structures of the CST at 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" (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

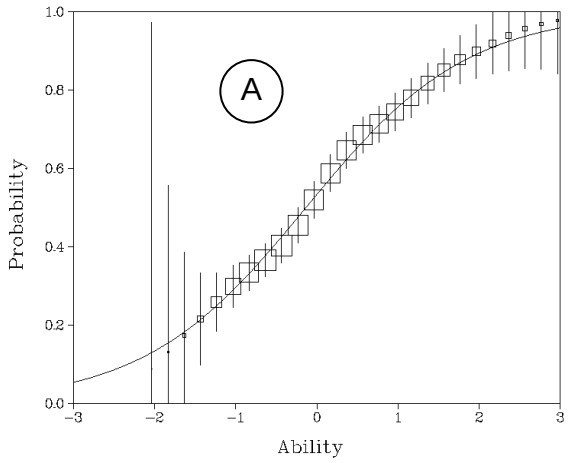
The CSTs are equated to a reference form using a common-item nonequivalent groups design and methods based on IRT. The "base" or "reference" calibrations for the CSTs were established by calibrating samples of data from a specific administration. Doing so established a scale to which subsequent item calibrations could be linked. The 2010 items were placed on the reference scale through a set of linking items that appeared in the 2009 operational forms and were re-administered in 2010.

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 16.

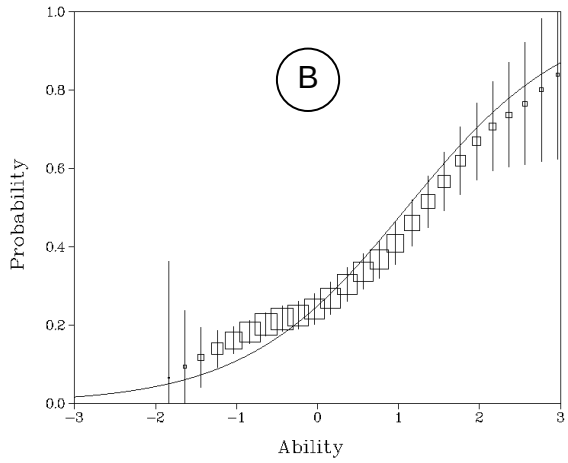
IRT Model-Data Fit Analyses

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 386. 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. These five items represent the various rating categories. The item number in the calibration and ETS identification number for each item ("accession number") are listed next to each item, as well as the corresponding rating categories.

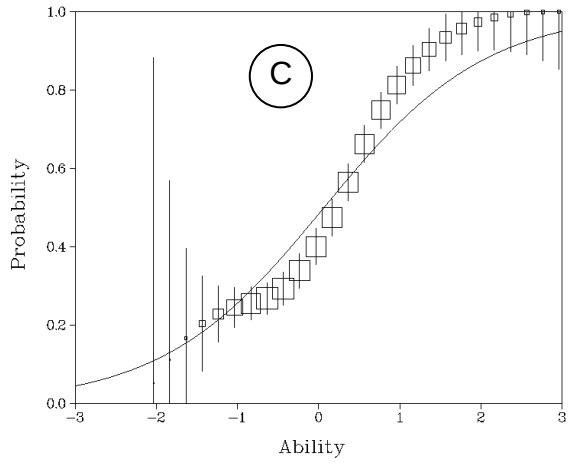
Figure 8.3 Items from the 2005 History–Social Science Grade Ten Field-test Calibration



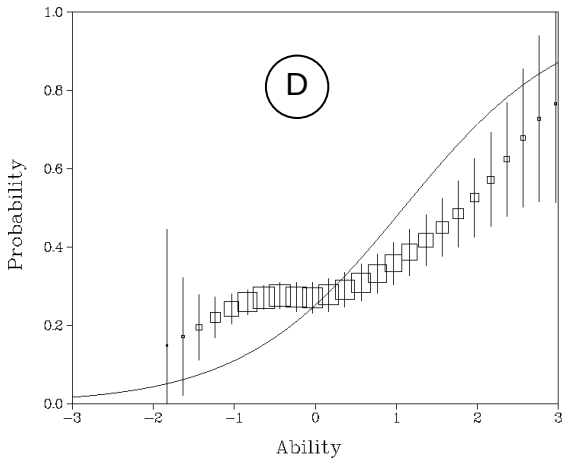
Version 30, Seq 29 (#236) CSV23487 4-Choice P+ = 0.563
a = 0.588 F, b = –0.135, c = 0.000 F, CHI = 5.41, N = 5,912



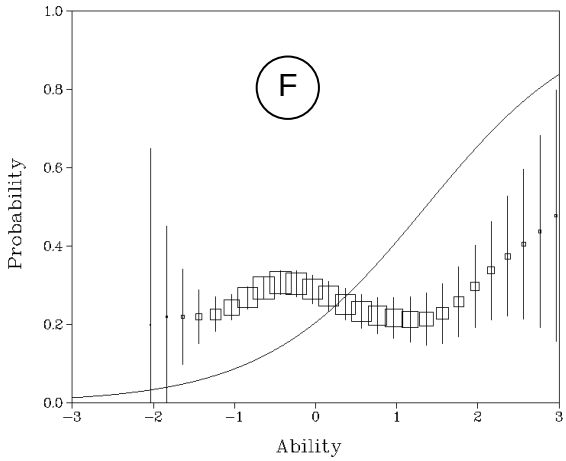
Version 1, Seq 28 (#61) CSV22589 4 Choice P+ = 0.307
a = 0.588 F, b = 1.104, c = 0.000 F, CHI = 66.70, N = 6,348



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 distributions of the operational items across the IRT model-data fit classifications are presented in Table 8.D.1 through Table 8.D.5. The distributions for the field test items are presented in Table 8.D.6 through Table 8.D.10.

Evaluation of Scaling

Calibrations of the 2010 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 17 of Chapter 2.

The linking process is carried out iteratively by inspecting differences between the transformed new and old (reference) estimates for the linking items and removing items for which the item difficulty estimates changed significantly. Items with large weighted root-mean-square differences (WRMSD) between ICCs on the basis of the old and new difficulty estimates are removed from the linking set. Based on established procedures, any linking items for which the WRMSD is greater than 0.125 are eliminated. This criterion has produced reasonable results over time in similar equating work done for other testing programs at ETS.

Table 8.5 presents, for each CST, the number of linking items between the 2010 form (new) and the test form to which it was linked (2009); the numbers of items removed from the linking item sets; the correlation between the final set of new and reference difficulty estimates for the linking items; and the average WRMSD statistic across the final set of linking items.

Table 8.5 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	28	0	0.99	0.02
	3	26	0	0.99	0.01
	4	28	0	0.99	0.02
	5	31	0	0.98	0.02
	6	29	0	0.97	0.03
	7	27	0	0.99	0.02
	8	31	0	0.96	0.03
	9	28	0	0.98	0.02
	10	32	0	0.99	0.02
	11	25	0	0.93	0.04
History–Social Science	8	37	0	0.98	0.02
	World History	30	0	0.98	0.02
	11	30	0	0.99	0.02
Mathematics	2	31	0	0.98	0.03
	3	31	0	0.98	0.02
	4	29	0	0.99	0.01
	5	32	0	0.99	0.02
	6	29	0	0.99	0.02
	7	32	0	0.98	0.02
	General Mathematics	31	0	0.99	0.02
	Algebra I	32	0	0.99	0.02
	Geometry	31	0	0.99	0.02
	Algebra II	32	0	0.99	0.02
	Summative H.S. Mathematics	32	0	0.99	0.02
	Integrated Mathematics 1	32	0	0.99	0.02
	Integrated Mathematics 2	29	0	0.97	0.04
	Integrated Mathematics 3	29	0	0.97	0.05

Content Area	CST*	# of Linking Items	Linking Items Removed	Final Correlation	WRMSD**
	5	28	0	0.97	0.02
	8	28	0	0.98	0.03
	10 Life Science	29	0	0.99	0.02
	Biology	28	0	0.99	0.01
	Chemistry	28	0	0.97	0.03
Science	Earth Sciences	30	0	0.97	0.02
	Physics	28	0	0.99	0.02
	Integrated/Coordinated Science 1 [2]	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 2 [2]	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 3 [2]	N/A	N/A	N/A	N/A
	Integrated/Coordinated Science 4 [2]	N/A	N/A	N/A	N/A

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

** Average over retained items

Summaries of Scaled IRT b-values

Once the IRT b-values are placed on the item bank scale, analyses are performed to assess the overall test difficulty, the difficulty level of reporting clusters, and the distribution of items in a particular range of item difficulty.

Table 8.D.11 through Table 8.D.44 present univariate statistics (mean, standard deviation, minimum, and maximum) for the scaled IRT *b*-values based on the FIA samples. The results for the overall test are presented separately for the operational items and the field test items. For the operational items, the results are also presented for each reporting cluster. No IRT statistics are presented for the CSTs for Integrated/Coordinated Science because these tests are comprised entirely of items that are administered in the content-specific CSTs.

Table 8.D.45 to Table 8.D.54 show the distributions of operational and field-test items across 16 intervals of *b*-values. In these tables the intervals range from “less than –3.5” to “greater than or equal to 3.5” points within each interval.

Post-equating Results

As described on page 16 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 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 2010 forms were taken from one of the 2002, 2003, 2004, or 2006 forms[3] (see Chapter 10 starting on page 600 for specifics on the base years).

[2] Special scaling procedures were utilized to determine the performance levels and scale scores for the CSTs for Integrated/ Coordinated Science. For further details, refer to "Scaling the CSTs for Integrated/Coordinated Science” on page 33 of Chapter 2.

[3] The original intention was to scale all tests back to the 2002 forms. However, for tests that went through significant changes in length, content, or equating sampling criteria between 2002 and 2003, the reference scale is based on the form from 2003 (these tests include all ELA tests, the history–social science test in grade eight, the mathematics tests in grades two through seven, and the tests for Integrated Mathematics 1, 2, and 3). The remaining equatings are based on the tests from 2002. The exceptions to this is the CST for Science (Grade 5) test, which is equated to this test’s first operational

Complete raw-to-scale score conversion tables for the 2010 CSTs are presented in Table 8.D.55 through Table 8.D.78 starting on page 544. The raw scores and corresponding transformed scale scores are listed on those tables. For all the 2010 CSTs, scale scores were truncated at both ends of the scale so that the minimum reported scale score was 150 and the maximum reported scale score was 600. The scale scores defining the various performance-level cut points are presented in Table 2.1, which is in Chapter 2 on page 18.

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 field-test DIF analyses were 100 in the focal group and 400 in the combined focal and reference groups. These sample sizes were based on standard operating procedures with respect to DIF analyses at ETS. The DIF analyses utilized the Mantel-Haenszel (MH) DIF statistic (Mantel & Haenszel, 1959; Holland & Thayer, 1985). This statistic is based on the estimate of constant odds ratio and is described as:

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

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

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

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 l m.

Items analyzed for DIF at ETS are classified into one of three categories: A, B, or C. Category A contains items with negligible DIF. Category B contains items with slight to moderate DIF. Category C contains items with moderate to large values of DIF.

These categories have been used by ETS testing programs for more than 14 years. The definitions of the categories based on evaluations of the item-level MH D-DIF statistics is as follows:

administration in 2004; and the CST for Science (Grade 8) and CST for Life Science (Grade 10) tests, which are equated to these tests' first operational administration in 2006.

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 proficiency[4], and primary disability. The results of the DIF analyses are presented in Appendix 8.E.

Table 8.E.1 lists the operational items exhibiting significant DIF (C-DIF). Table 8.E.2 represents the analogous list for the field-test items. Test developers are instructed to avoid selecting field-test items flagged as having shown DIF that 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 to 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.

[4] Analyses of English learners on the CSTs for ELA are presented for readers’ interest; however, differential performance on an item that is due to the language difficulties of nonnative speakers does not indicate that an item is unfair or biased.

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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	0.91	0.32	0.84	0.30	0.78	0.51	0.56	0.44	0.80	0.47	0.63	0.42	0.66	0.38	0.28	0.30	0.61	0.37	0.69	0.41
2	0.52	0.35	0.68	0.44	0.65	0.43	0.67	0.37	0.67	0.49	0.33	0.43	0.37	0.38	0.60	0.51	0.60	0.39	0.64	0.37
3	0.85	0.39	0.76	0.42	0.69	0.48	0.79	0.38	0.64	0.34	0.73	0.40	0.67	0.36	0.60	0.35	0.62	0.38	0.50	0.22
4	0.51	0.43	0.66	0.54	0.70	0.48	0.48	0.32	0.66	0.37	0.78	0.46	0.75	0.42	0.63	0.36	0.55	0.29	0.52	0.30
5	0.81	0.22	0.65	0.40	0.85	0.41	0.78	0.48	0.82	0.40	0.59	0.52	0.64	0.29	0.77	0.50	0.62	0.43	0.57	0.38
6	0.72	0.42	0.62	0.46	0.61	0.47	0.50	0.41	0.76	0.49	0.51	0.32	0.76	0.35	0.84	0.49	0.67	0.53	0.45	0.32
7	0.55	0.43	0.86	0.41	0.47	0.40	0.70	0.39	0.75	0.42	0.53	0.34	0.71	0.41	0.51	0.40	0.68	0.42	0.62	0.53
8	0.74	0.30	0.75	0.46	0.88	0.49	0.67	0.51	0.57	0.36	0.57	0.43	0.65	0.43	0.59	0.45	0.54	0.48	0.58	0.36
9	0.76	0.52	0.66	0.47	0.66	0.52	0.77	0.38	0.81	0.42	0.39	0.25	0.67	0.37	0.70	0.40	0.58	0.46	0.54	0.40
10	0.81	0.55	0.82	0.34	0.45	0.35	0.80	0.41	0.65	0.47	0.72	0.45	0.65	0.52	0.53	0.32	0.69	0.40	0.62	0.50
11	0.81	0.60	0.67	0.44	0.62	0.38	0.54	0.32	0.68	0.47	0.57	0.36	0.66	0.39	0.85	0.48	0.84	0.47	0.56	0.38
12	0.80	0.54	0.78	0.33	0.74	0.43	0.82	0.36	0.43	0.42	0.79	0.42	0.82	0.40	0.67	0.45	0.77	0.50	0.77	0.42
13	0.75	0.44	0.80	0.36	0.58	0.33	0.77	0.32	0.43	0.27	0.51	0.33	0.67	0.49	0.42	0.38	0.68	0.47	0.60	0.35
14	0.67	0.36	0.58	0.31	0.65	0.53	0.53	0.31	0.76	0.46	0.57	0.41	0.65	0.39	0.49	0.27	0.60	0.51	0.59	0.47
15	0.60	0.47	0.56	0.45	0.79	0.51	0.85	0.51	0.63	0.35	0.78	0.51	0.69	0.48	0.65	0.45	0.53	0.45	0.40	0.31
16	0.61	0.40	0.68	0.54	0.58	0.41	0.76	0.49	0.72	0.44	0.69	0.36	0.76	0.51	0.62	0.49	0.74	0.55	0.65	0.39
17	0.80	0.56	0.32	0.32	0.52	0.51	0.66	0.48	0.70	0.29	0.73	0.49	0.86	0.47	0.73	0.54	0.86	0.52	0.71	0.51
18	0.67	0.49	0.83	0.50	0.81	0.53	0.63	0.47	0.44	0.33	0.64	0.38	0.73	0.36	0.61	0.41	0.71	0.42	0.58	0.46
19	0.56	0.41	0.61	0.44	0.73	0.45	0.62	0.55	0.52	0.37	0.83	0.46	0.83	0.49	0.82	0.49	0.58	0.35	0.55	0.53
20	0.38	0.37	0.78	0.44	0.81	0.43	0.79	0.42	0.49	0.28	0.78	0.43	0.76	0.46	0.70	0.44	0.67	0.43	0.57	0.34
21	0.59	0.46	0.52	0.45	0.70	0.53	0.75	0.52	0.77	0.47	0.66	0.50	0.75	0.57	0.59	0.41	0.73	0.43	0.62	0.51
22	0.64	0.53	0.55	0.34	0.64	0.41	0.59	0.53	0.76	0.47	0.83	0.51	0.79	0.53	0.61	0.51	0.51	0.45	0.78	0.62
23	0.61	0.32	0.59	0.41	0.64	0.46	0.75	0.60	0.69	0.51	0.79	0.55	0.52	0.41	0.52	0.36	0.50	0.33	0.63	0.48
24	0.72	0.41	0.78	0.42	0.49	0.42	0.65	0.39	0.78	0.53	0.77	0.48	0.75	0.46	0.63	0.46	0.64	0.45	0.75	0.53
25	0.82	0.53	0.76	0.48	0.61	0.45	0.36	0.30	0.60	0.45	0.44	0.38	0.49	0.40	0.70	0.53	0.74	0.58	0.57	0.33
26	0.70	0.40	0.87	0.44	0.78	0.47	0.80	0.50	0.72	0.46	0.65	0.48	0.66	0.46	0.73	0.43	0.67	0.52	0.56	0.34
27	0.78	0.58	0.86	0.49	0.79	0.53	0.59	0.43	0.69	0.50	0.71	0.47	0.62	0.46	0.77	0.52	0.80	0.54	0.40	0.18
28	0.65	0.38	0.66	0.59	0.63	0.53	0.71	0.52	0.87	0.44	0.72	0.42	0.42	0.31	0.66	0.46	0.64	0.56	0.73	0.47
29	0.80	0.49	0.84	0.40	0.73	0.42	0.61	0.50	0.76	0.32	0.66	0.50	0.73	0.47	0.65	0.48	0.60	0.41	0.75	0.50
30	0.87	0.52	0.76	0.47	0.74	0.49	0.63	0.50	0.81	0.52	0.80	0.46	0.70	0.51	0.77	0.48	0.74	0.57	0.61	0.48
31	0.52	0.44	0.80	0.40	0.84	0.42	0.57	0.35	0.53	0.39	0.85	0.49	0.71	0.39	0.45	0.41	0.67	0.52	0.50	0.40
32	0.77	0.61	0.88	0.34	0.78	0.45	0.44	0.38	0.48	0.38	0.80	0.54	0.46	0.42	0.42	0.37	0.68	0.56	0.62	0.45
33	0.65	0.49	0.77	0.46	0.80	0.51	0.73	0.47	0.57	0.39	0.69	0.45	0.62	0.49	0.43	0.29	0.45	0.38	0.47	0.51
34	0.81	0.39	0.62	0.37	0.93	0.39	0.69	0.45	0.56	0.38	0.81	0.48	0.49	0.33	0.51	0.49	0.81	0.54	0.70	0.49
35	0.69	0.45	0.56	0.39	0.75	0.44	0.65	0.42	0.72	0.52	0.81	0.27	0.65	0.56	0.68	0.38	0.65	0.48	0.55	0.41
36	0.82	0.49	0.83	0.51	0.60	0.36	0.61	0.40	0.71	0.56	0.63	0.41	0.86	0.27	0.65	0.45	0.51	0.30	0.40	0.38
37	0.67	0.54	0.70	0.48	0.68	0.47	0.59	0.36	0.57	0.44	0.51	0.51	0.89	0.36	0.72	0.51	0.67	0.51	0.66	0.42
38	0.81	0.55	0.67	0.44	0.62	0.28	0.88	0.45	0.51	0.38	0.85	0.42	0.63	0.44	0.61	0.24	0.83	0.50	0.62	0.45
39	0.56	0.45	0.69	0.40	0.49	0.41	0.69	0.37	0.45	0.33	0.85	0.43	0.52	0.43	0.38	0.25	0.75	0.47	0.55	0.51
40	0.85	0.36	0.47	0.32	0.87	0.46	0.72	0.43	0.51	0.26	0.61	0.38	0.78	0.41	0.86	0.51	0.77	0.45	0.65	0.54

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**
41	0.64	0.52	0.69	0.47	0.59	0.34	0.88	0.47	0.86	0.53	0.55	0.20	0.80	0.37	0.67	0.45	0.52	0.36	0.37	0.26
42	0.65	0.49	0.52	0.43	0.76	0.36	0.80	0.46	0.82	0.49	0.42	0.37	0.90	0.33	0.76	0.45	0.32	0.20	0.51	0.35
43	0.82	0.53	0.76	0.49	0.90	0.41	0.74	0.34	0.58	0.40	0.75	0.45	0.70	0.42	0.64	0.42	0.77	0.48	0.66	0.51
44	0.78	0.41	0.49	0.50	0.60	0.33	0.42	0.29	0.69	0.47	0.73	0.37	0.77	0.40	0.83	0.46	0.54	0.41	0.47	0.40
45	0.61	0.42	0.79	0.40	0.47	0.38	0.77	0.37	0.75	0.47	0.67	0.43	0.72	0.38	0.77	0.45	0.71	0.48	0.55	0.46
46	0.50	0.39	0.63	0.43	0.73	0.46	0.71	0.37	0.49	0.31	0.89	0.49	0.78	0.44	0.46	0.30	0.77	0.36	0.72	0.34
47	0.55	0.48	0.59	0.49	0.80	0.52	0.73	0.47	0.42	0.35	0.65	0.49	0.52	0.50	0.76	0.55	0.52	0.42	0.58	0.39
48	0.53	0.45	0.71	0.54	0.66	0.41	0.58	0.41	0.68	0.47	0.35	0.36	0.61	0.49	0.53	0.40	0.76	0.56	0.68	0.53
49	0.77	0.49	0.57	0.35	0.81	0.47	0.68	0.39	0.73	0.39	0.59	0.44	0.78	0.46	0.47	0.32	0.60	0.45	0.69	0.43
50	0.59	0.52	0.84	0.44	0.83	0.48	0.57	0.32	0.69	0.46	0.46	0.44	0.54	0.51	0.60	0.40	0.53	0.38	0.61	0.40
51	0.59	0.53	0.72	0.53	0.53	0.29	0.70	0.33	0.46	0.28	0.48	0.44	0.81	0.47	0.70	0.47	0.62	0.55	0.67	0.42
52	0.47	0.42	0.60	0.47	0.53	0.34	0.90	0.35	0.51	0.34	0.45	0.30	0.60	0.49	0.64	0.48	0.70	0.39	0.52	0.46
53	0.78	0.54	0.58	0.40	0.80	0.52	0.73	0.51	0.75	0.47	0.67	0.47	0.57	0.33	0.73	0.56	0.83	0.47	0.81	0.54
54	0.78	0.49	0.62	0.43	0.88	0.45	0.47	0.32	0.71	0.37	0.62	0.44	0.76	0.32	0.44	0.39	0.64	0.50	0.84	0.51
55	0.78	0.55	0.62	0.36	0.59	0.46	0.84	0.42	0.60	0.44	0.52	0.41	0.37	0.31	0.70	0.50	0.60	0.47	0.65	0.51
56	0.66	0.46	0.77	0.53	0.82	0.52	0.90	0.42	0.67	0.43	0.85	0.47	0.59	0.44	0.46	0.26	0.48	0.34	0.56	0.41
57	0.70	0.51	0.59	0.44	0.77	0.53	0.82	0.43	0.57	0.25	0.76	0.44	0.63	0.49	0.58	0.33	0.35	0.43	0.43	0.34
58	0.60	0.39	0.47	0.37	0.86	0.51	0.77	0.53	0.48	0.38	0.82	0.38	0.51	0.43	0.55	0.39	0.73	0.50	0.66	0.45
59	0.56	0.47	0.51	0.32	0.76	0.51	0.67	0.53	0.41	0.30	0.77	0.35	0.51	0.40	0.70	0.47	0.82	0.51	0.67	0.49
60	0.53	0.45	0.39	0.38	0.87	0.54	0.63	0.38	0.81	0.54	0.70	0.47	0.56	0.44	0.57	0.38	0.72	0.55	0.72	0.55
61	0.66	0.43	0.59	0.48	0.67	0.50	0.59	0.29	0.63	0.53	0.68	0.43	0.46	0.34	0.31	0.28	0.62	0.47	0.52	0.49
62	0.79	0.58	0.84	0.44	0.71	0.51	0.57	0.30	0.30	0.31	0.65	0.47	0.67	0.40	0.57	0.44	0.78	0.51	0.63	0.46
63	0.70	0.56	0.86	0.34	0.66	0.52	0.79	0.45	0.71	0.43	0.51	0.47	0.72	0.55	0.73	0.41	0.51	0.40	0.60	0.46
64	0.41	0.40	0.71	0.50	0.51	0.37	0.48	0.40	0.85	0.50	0.77	0.48	0.69	0.45	0.65	0.38	0.62	0.44	0.71	0.48
65	0.53	0.39	0.69	0.36	0.77	0.58	0.64	0.55	0.36	0.30	0.85	0.48	0.61	0.33	0.58	0.34	0.52	0.49	0.76	0.52
66	.	.	.	.	0.62	0.42	0.75	0.48	0.61	0.50	0.84	0.37	0.48	0.46	0.43	0.28	0.79	0.48	0.73	0.47
67	.	.	.	.	0.73	0.51	0.46	0.22	0.83	0.45	0.48	0.37	0.84	0.44	0.76	0.49	0.79	0.53	0.75	0.46
68	.	.	.	.	0.64	0.37	0.49	0.35	0.86	0.48	0.62	0.44	0.60	0.45	0.44	0.19	0.56	0.40	0.73	0.53
69	.	.	.	.	0.79	0.53	0.73	0.53	0.59	0.46	0.69	0.51	0.76	0.46	0.71	0.52	0.50	0.17	0.81	0.48
70	.	.	.	.	0.67	0.38	0.53	0.37	0.86	0.42	0.49	0.45	0.61	0.33	0.68	0.43	0.52	0.41	0.85	0.49
71	.	.	.	.	0.53	0.45	0.76	0.55	0.81	0.43	0.51	0.32	0.62	0.44	0.76	0.59	0.52	0.41	0.82	0.55
72	.	.	.	.	0.51	0.30	0.64	0.32	0.89	0.40	0.53	0.29	0.65	0.50	0.85	0.47	0.77	0.53	0.79	0.56
73	.	.	.	.	0.70	0.54	0.87	0.47	0.69	0.42	0.54	0.38	0.73	0.50	0.85	0.54	0.80	0.59	0.62	0.47
74	.	.	.	.	0.72	0.53	0.72	0.50	0.76	0.36	0.36	0.32	0.52	0.36	0.82	0.47	0.53	0.45	0.67	0.40
75	.	.	.	.	0.70	0.47	0.44	0.26	0.91	0.38	0.54	0.36	.	.	0.63	0.31	0.62	0.49	0.68	0.51

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	0.76	0.27	0.70	0.37	0.76	0.35
2	0.41	0.25	0.59	0.36	0.72	0.44
3	0.87	0.33	0.60	0.44	0.47	0.45
4	0.46	0.45	0.69	0.28	0.27	0.31
5	0.78	0.43	0.77	0.49	0.48	0.46
6	0.62	0.43	0.64	0.47	0.63	0.47
7	0.53	0.40	0.57	0.38	0.56	0.37
8	0.44	0.39	0.80	0.43	0.56	0.47
9	0.48	0.31	0.71	0.47	0.72	0.56
10	0.79	0.38	0.33	0.32	0.65	0.51
11	0.55	0.43	0.65	0.50	0.83	0.51
12	0.46	0.35	0.53	0.41	0.60	0.46
13	0.72	0.40	0.61	0.49	0.67	0.46
14	0.65	0.39	0.61	0.54	0.73	0.46
15	0.85	0.41	0.62	0.59	0.76	0.48
16	0.88	0.46	0.55	0.47	0.58	0.50
17	0.61	0.45	0.62	0.48	0.46	0.49
18	0.47	0.53	0.66	0.36	0.69	0.52
19	0.62	0.41	0.70	0.49	0.43	0.31
20	0.71	0.52	0.61	0.39	0.70	0.49
21	0.62	0.45	0.59	0.40	0.70	0.59
22	0.38	0.30	0.66	0.34	0.57	0.45
23	0.70	0.38	0.70	0.54	0.41	0.26
24	0.67	0.48	0.74	0.52	0.77	0.56
25	0.53	0.40	0.56	0.45	0.56	0.49
26	0.62	0.42	0.57	0.55	0.70	0.50
27	0.57	0.46	0.68	0.57	0.57	0.43
28	0.61	0.51	0.60	0.52	0.66	0.43
29	0.82	0.42	0.55	0.44	0.68	0.37
30	0.52	0.52	0.62	0.38	0.45	0.34
31	0.59	0.48	0.58	0.49	0.51	0.35
32	0.66	0.44	0.82	0.51	0.61	0.40
33	0.69	0.30	0.56	0.42	0.59	0.43
34	0.35	0.26	0.69	0.51	0.70	0.53
35	0.66	0.52	0.57	0.38	0.60	0.42
36	0.56	0.40	0.56	0.41	0.64	0.32
37	0.52	0.35	0.52	0.40	0.38	0.29
38	0.47	0.38	0.51	0.42	0.66	0.37
39	0.54	0.44	0.48	0.37	0.59	0.44
40	0.49	0.41	0.77	0.52	0.56	0.38
41	0.60	0.37	0.44	0.39	0.78	0.43
42	0.49	0.44	0.79	0.42	0.61	0.41
43	0.52	0.42	0.53	0.36	0.68	0.63
44	0.70	0.41	0.68	0.55	0.47	0.45
45	0.77	0.41	0.61	0.53	0.59	0.51
46	0.63	0.52	0.77	0.55	0.59	0.46
47	0.58	0.38	0.63	0.47	0.70	0.42
48	0.63	0.42	0.45	0.42	0.73	0.52
49	0.52	0.33	0.67	0.43	0.61	0.53
50	0.60	0.49	0.44	0.48	0.57	0.47
51	0.53	0.50	0.66	0.35	0.53	0.45
52	0.58	0.54	0.48	0.35	0.42	0.30
53	0.66	0.46	0.34	0.22	0.52	0.48
54	0.57	0.32	0.55	0.49	0.72	0.53
55	0.51	0.34	0.70	0.61	0.54	0.51
56	0.79	0.52	0.62	0.54	0.59	0.51
57	0.68	0.51	0.52	0.42	0.58	0.39
58	0.49	0.39	0.85	0.51	0.40	0.32
59	0.66	0.36	0.59	0.45	0.66	0.40
60	0.74	0.55	0.58	0.51	0.88	0.48

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	0.63	0.34	.	.	.	.
62	0.63	0.53	.	.	.	.
63	0.73	0.44	.	.	.	.
64	0.58	0.41	.	.	.	.
65	0.70	0.59	.	.	.	.
66	0.73	0.55	.	.	.	.
67	0.66	0.46	.	.	.	.
68	0.42	0.42	.	.	.	.
69	0.71	0.50	.	.	.	.
70	0.65	0.47	.	.	.	.
71	0.55	0.53	.	.	.	.
72	0.64	0.42	.	.	.	.
73	0.58	0.47	.	.	.	.
74	0.64	0.46	.	.	.	.
75	0.64	0.54	.	.	.	.

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	0.70	0.52	0.92	0.41	0.87	0.39	0.74	0.42	0.91	0.25	0.54	0.48	0.71	0.40
2	0.85	0.44	0.90	0.43	0.66	0.39	0.82	0.39	0.90	0.28	0.65	0.44	0.35	0.41
3	0.79	0.59	0.87	0.37	0.92	0.36	0.52	0.63	0.59	0.45	0.37	0.41	0.72	0.45
4	0.83	0.55	0.87	0.39	0.89	0.34	0.67	0.52	0.59	0.40	0.58	0.48	0.49	0.42
5	0.86	0.47	0.62	0.53	0.75	0.47	0.56	0.44	0.56	0.40	0.58	0.31	0.53	0.55
6	0.74	0.54	0.74	0.57	0.83	0.39	0.93	0.30	0.83	0.47	0.76	0.36	0.55	0.51
7	0.87	0.40	0.67	0.50	0.70	0.42	0.74	0.31	0.74	0.50	0.61	0.44	0.67	0.37
8	0.71	0.44	0.95	0.39	0.77	0.51	0.87	0.40	0.75	0.39	0.68	0.47	0.38	0.40
9	0.86	0.52	0.83	0.41	0.79	0.41	0.71	0.47	0.67	0.46	0.50	0.53	0.35	0.39
10	0.62	0.52	0.91	0.44	0.73	0.54	0.50	0.57	0.69	0.43	0.82	0.30	0.62	0.48
11	0.41	0.48	0.89	0.43	0.83	0.40	0.71	0.48	0.66	0.35	0.36	0.34	0.46	0.41
12	0.90	0.39	0.88	0.43	0.89	0.39	0.78	0.42	0.62	0.54	0.55	0.38	0.35	0.43
13	0.90	0.48	0.42	0.48	0.92	0.43	0.57	0.50	0.63	0.43	0.64	0.51	0.48	0.31
14	0.82	0.47	0.92	0.45	0.89	0.46	0.66	0.50	0.43	0.41	0.54	0.48	0.51	0.45
15	0.89	0.36	0.93	0.36	0.80	0.44	0.55	0.59	0.68	0.46	0.54	0.51	0.33	0.19
16	0.74	0.46	0.58	0.52	0.89	0.42	0.46	0.54	0.81	0.46	0.50	0.36	0.39	0.39
17	0.75	0.50	0.90	0.45	0.78	0.52	0.81	0.41	0.55	0.49	0.62	0.47	0.48	0.42
18	0.70	0.53	0.88	0.46	0.68	0.50	0.53	0.41	0.68	0.53	0.68	0.34	0.53	0.43
19	0.90	0.43	0.66	0.53	0.74	0.52	0.58	0.39	0.45	0.42	0.71	0.50	0.56	0.40
20	0.77	0.57	0.61	0.60	0.90	0.40	0.64	0.42	0.71	0.44	0.52	0.47	0.43	0.43
21	0.60	0.52	0.35	0.48	0.81	0.40	0.79	0.43	0.42	0.42	0.46	0.45	0.37	0.39
22	0.90	0.39	0.92	0.42	0.71	0.57	0.65	0.52	0.72	0.43	0.52	0.52	0.46	0.39
23	0.58	0.45	0.58	0.53	0.91	0.39	0.64	0.57	0.73	0.43	0.50	0.41	0.34	0.29
24	0.71	0.41	0.93	0.44	0.76	0.54	0.62	0.52	0.59	0.54	0.73	0.47	0.40	0.40
25	0.76	0.52	0.74	0.54	0.64	0.52	0.65	0.47	0.57	0.47	0.66	0.51	0.43	0.28
26	0.69	0.65	0.87	0.45	0.64	0.49	0.68	0.51	0.62	0.48	0.48	0.48	0.62	0.40
27	0.69	0.43	0.61	0.53	0.76	0.57	0.74	0.30	0.66	0.61	0.62	0.36	0.55	0.52
28	0.87	0.35	0.72	0.56	0.74	0.45	0.42	0.47	0.66	0.49	0.46	0.28	0.79	0.48
29	0.85	0.53	0.78	0.54	0.84	0.41	0.68	0.48	0.74	0.41	0.62	0.41	0.55	0.48
30	0.62	0.54	0.59	0.47	0.70	0.51	0.90	0.40	0.62	0.43	0.66	0.47	0.69	0.45
31	0.80	0.44	0.69	0.41	0.77	0.58	0.49	0.37	0.62	0.40	0.47	0.42	0.56	0.36
32	0.89	0.46	0.71	0.54	0.83	0.54	0.77	0.59	0.59	0.49	0.36	0.35	0.57	0.33
33	0.82	0.44	0.76	0.52	0.84	0.49	0.86	0.35	0.80	0.49	0.60	0.39	0.55	0.42
34	0.65	0.48	0.60	0.55	0.87	0.39	0.81	0.54	0.68	0.55	0.52	0.37	0.54	0.41
35	0.88	0.47	0.75	0.53	0.86	0.51	0.68	0.54	0.68	0.54	0.67	0.53	0.37	0.25
36	0.51	0.42	0.82	0.51	0.81	0.40	0.96	0.26	0.82	0.45	0.68	0.50	0.64	0.40
37	0.81	0.50	0.60	0.52	0.63	0.47	0.76	0.44	0.35	0.48	0.81	0.46	0.49	0.42
38	0.76	0.44	0.83	0.44	0.90	0.52	0.76	0.43	0.73	0.54	0.45	0.38	0.75	0.47
39	0.90	0.44	0.61	0.45	0.59	0.51	0.58	0.41	0.78	0.49	0.74	0.39	0.52	0.34
40	0.63	0.49	0.87	0.46	0.89	0.49	0.37	0.41	0.73	0.49	0.52	0.52	0.50	0.37
41	0.88	0.43	0.59	0.40	0.85	0.53	0.63	0.56	0.88	0.24	0.90	0.40	0.47	0.46

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	0.56	0.42	0.90	0.40	0.80	0.58	0.53	0.53	0.75	0.41	0.81	0.43	0.54	0.45
43	0.76	0.40	0.86	0.47	0.83	0.49	0.83	0.44	0.67	0.40	0.32	0.23	0.24	0.14
44	0.82	0.44	0.69	0.47	0.83	0.58	0.89	0.42	0.75	0.55	0.74	0.53	0.40	0.42
45	0.70	0.49	0.91	0.40	0.86	0.55	0.62	0.38	0.76	0.41	0.82	0.47	0.52	0.42
46	0.89	0.34	0.60	0.54	0.89	0.55	0.55	0.56	0.52	0.41	0.62	0.39	0.34	0.17
47	0.92	0.33	0.58	0.54	0.90	0.51	0.46	0.46	0.60	0.50	0.55	0.40	0.56	0.34
48	0.82	0.38	0.81	0.39	0.80	0.60	0.68	0.51	0.44	0.47	0.33	0.44	0.46	0.37
49	0.77	0.38	0.77	0.53	0.88	0.44	0.58	0.50	0.68	0.53	0.42	0.38	0.32	0.17
50	0.51	0.38	0.81	0.32	0.48	0.50	0.95	0.29	0.45	0.41	0.63	0.52	0.42	0.54
51	0.86	0.38	0.90	0.40	0.64	0.40	0.73	0.53	0.59	0.47	0.74	0.49	0.46	0.28
52	0.75	0.36	0.92	0.22	0.71	0.41	0.61	0.44	0.50	0.34	0.52	0.43	0.46	0.30
53	0.82	0.47	0.94	0.28	0.59	0.44	0.30	0.43	0.71	0.54	0.47	0.34	0.38	0.34
54	0.87	0.33	0.79	0.38	0.74	0.49	0.28	0.34	0.78	0.40	0.39	0.30	0.31	0.27
55	0.49	0.33	0.90	0.38	0.78	0.51	0.79	0.34	0.51	0.35	0.78	0.43	0.45	0.43
56	0.85	0.44	0.89	0.36	0.90	0.46	0.66	0.51	0.63	0.45	0.45	0.37	0.43	0.30
57	0.82	0.34	0.86	0.43	0.51	0.55	0.85	0.29	0.34	0.26	0.48	0.33	0.63	0.39
58	0.73	0.34	0.81	0.40	0.65	0.38	0.67	0.53	0.75	0.45	0.73	0.53	0.34	0.22
59	0.55	0.59	0.84	0.35	0.64	0.44	0.71	0.56	0.47	0.37	0.61	0.39	0.59	0.47
60	0.94	0.43	0.65	0.46	0.82	0.37	0.48	0.46	0.63	0.59	0.82	0.47	0.39	0.31
61	0.54	0.49	0.72	0.46	0.89	0.48	0.79	0.41	0.77	0.50	0.56	0.40	0.74	0.44
62	0.82	0.46	0.93	0.23	0.93	0.39	0.84	0.46	0.46	0.43	0.70	0.47	0.36	0.33
63	0.93	0.47	0.75	0.39	0.65	0.40	0.85	0.43	0.76	0.54	0.71	0.52	0.65	0.35
64	0.63	0.42	0.88	0.39	0.89	0.35	0.75	0.53	0.59	0.44	0.51	0.41	0.62	0.49
65	0.88	0.41	0.93	0.39	0.63	0.43	0.89	0.38	0.79	0.50	0.78	0.49	0.59	0.45

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	0.54	0.39	0.65	0.32	0.78	0.41	0.76	0.55	0.77	0.32	0.75	0.33	0.66	0.33
2	0.71	0.25	0.81	0.35	0.82	0.39	0.55	0.43	0.42	0.20	0.55	0.38	0.54	0.41
3	0.55	0.45	0.59	0.41	0.84	0.32	0.84	0.47	0.42	0.36	0.43	0.33	0.76	0.40
4	0.46	0.42	0.46	0.50	0.36	0.22	0.78	0.39	0.65	0.35	0.55	0.42	0.68	0.44
5	0.57	0.38	0.45	0.37	0.73	0.49	0.66	0.31	0.53	0.33	0.19	0.27	0.83	0.50
6	0.90	0.21	0.49	0.56	0.45	0.49	0.92	0.34	0.51	0.36	0.54	0.28	0.75	0.34
7	0.70	0.45	0.52	0.40	0.37	0.26	0.81	0.42	0.53	0.34	0.61	0.35	0.60	0.46
8	0.48	0.26	0.63	0.49	0.56	0.45	0.81	0.48	0.48	0.40	0.50	0.34	0.69	0.57
9	0.38	0.42	0.31	0.44	0.69	0.51	0.85	0.39	0.54	0.39	0.66	0.37	0.48	0.34
10	0.55	0.45	0.67	0.50	0.36	0.43	0.66	0.42	0.70	0.31	0.32	0.32	0.32	0.12
11	0.57	0.47	0.75	0.44	0.51	0.47	0.67	0.44	0.54	0.41	0.19	0.20	0.33	0.29
12	0.71	0.40	0.57	0.54	0.66	0.40	0.73	0.51	0.87	0.24	0.55	0.41	0.30	0.15
13	0.57	0.45	0.51	0.31	0.54	0.47	0.69	0.52	0.70	0.40	0.52	0.44	0.73	0.41
14	0.54	0.37	0.64	0.35	0.63	0.49	0.91	0.35	0.43	0.32	0.42	0.24	0.42	0.45
15	0.79	0.45	0.59	0.44	0.51	0.52	0.82	0.40	0.77	0.41	0.43	0.48	0.64	0.56
16	0.44	0.47	0.53	0.41	0.79	0.34	0.92	0.37	0.55	0.38	0.45	0.23	0.41	0.48
17	0.66	0.41	0.52	0.43	0.77	0.45	0.81	0.40	0.32	0.23	0.52	0.35	0.43	0.55
18	0.67	0.42	0.44	0.33	0.49	0.39	0.67	0.41	0.31	0.31	0.43	0.43	0.63	0.50
19	0.39	0.51	0.49	0.40	0.59	0.49	0.82	0.50	0.32	0.41	0.47	0.48	0.43	0.48
20	0.42	0.42	0.31	0.46	0.43	0.43	0.67	0.48	0.60	0.34	0.75	0.40	0.62	0.36
21	0.50	0.43	0.61	0.31	0.45	0.41	0.83	0.40	0.45	0.41	0.23	0.34	0.30	0.25
22	0.41	0.36	0.64	0.50	0.62	0.38	0.78	0.29	0.46	0.35	0.35	0.24	0.39	0.38
23	0.41	0.41	0.72	0.45	0.44	0.47	0.63	0.36	0.42	0.39	0.56	0.49	0.32	0.48
24	0.48	0.48	0.50	0.51	0.50	0.45	0.65	0.46	0.37	0.37	0.55	0.45	0.52	0.44
25	0.42	0.47	0.64	0.44	0.34	0.27	0.68	0.45	0.56	0.47	0.43	0.32	0.60	0.32
26	0.46	0.43	0.47	0.32	0.44	0.49	0.70	0.47	0.47	0.46	0.39	0.30	0.37	0.38
27	0.50	0.49	0.31	0.34	0.44	0.34	0.55	0.49	0.39	0.28	0.29	0.36	0.51	0.28
28	0.38	0.52	0.28	0.48	0.45	0.29	0.72	0.44	0.57	0.45	0.47	0.41	0.53	0.36
29	0.58	0.46	0.52	0.41	0.31	0.44	0.81	0.49	0.23	0.22	0.60	0.42	0.38	0.34
30	0.59	0.33	0.56	0.44	0.41	0.37	0.88	0.40	0.35	0.29	0.71	0.46	0.43	0.33
31	0.57	0.40	0.41	0.42	0.54	0.34	0.54	0.39	0.27	0.27	0.51	0.48	0.60	0.48
32	0.72	0.39	0.61	0.50	0.53	0.40	0.59	0.41	0.38	0.31	0.38	0.50	0.46	0.36

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	0.36	0.40	0.47	0.33	0.62	0.44	0.82	0.47	0.30	0.38	0.40	0.41	0.39	0.33
34	0.64	0.47	0.60	0.30	0.65	0.43	0.81	0.50	0.30	0.34	0.48	0.29	0.29	0.35
35	0.45	0.22	0.35	0.31	0.73	0.46	0.73	0.29	0.26	0.30	0.44	0.45	0.31	0.25
36	0.42	0.49	0.67	0.34	0.61	0.37	0.88	0.37	0.31	0.30	0.52	0.31	0.44	0.43
37	0.58	0.52	0.30	0.33	0.69	0.37	0.76	0.51	0.32	0.38	0.48	0.22	0.53	0.54
38	0.45	0.39	0.50	0.54	0.47	0.35	0.86	0.44	0.60	0.43	0.54	0.31	0.65	0.39
39	0.39	0.46	0.38	0.21	0.51	0.50	0.70	0.48	0.26	0.23	0.55	0.48	0.52	0.44
40	0.64	0.50	0.76	0.42	0.63	0.44	0.73	0.49	0.20	0.20	0.34	0.41	0.28	0.13
41	0.49	0.44	0.30	0.37	0.66	0.40	0.75	0.41	0.44	0.37	0.41	0.38	0.42	0.29
42	0.36	0.46	0.55	0.57	0.46	0.29	0.76	0.46	0.38	0.35	0.42	0.28	0.63	0.51
43	0.44	0.44	0.49	0.42	0.62	0.47	0.67	0.41	0.24	0.30	0.62	0.48	0.61	0.53
44	0.31	0.30	0.56	0.40	0.25	0.46	0.54	0.44	0.53	0.45	0.58	0.32	0.45	0.52
45	0.50	0.30	0.75	0.45	0.64	0.42	0.54	0.48	0.47	0.27	0.21	0.21	0.55	0.52
46	0.55	0.48	0.70	0.49	0.40	0.34	0.84	0.48	0.39	0.32	0.62	0.47	0.54	0.51
47	0.51	0.50	0.67	0.50	0.57	0.48	0.67	0.54	0.42	0.21	0.37	0.24	0.53	0.55
48	0.36	0.36	0.55	0.33	0.59	0.38	0.67	0.50	0.24	0.15	0.67	0.42	0.63	0.45
49	0.27	0.33	0.55	0.37	0.49	0.44	0.74	0.45	0.31	0.28	0.41	0.50	0.60	0.46
50	0.44	0.43	0.27	0.28	0.56	0.46	0.80	0.46	0.19	0.05	0.56	0.52	0.24	0.35
51	0.36	0.45	0.70	0.50	0.65	0.35	0.42	0.40	0.35	0.15	0.28	0.26	0.52	0.38
52	0.52	0.56	0.57	0.54	0.57	0.37	0.57	0.30	0.23	0.08	0.35	0.33	0.66	0.46
53	0.56	0.32	0.79	0.46	0.39	0.37	0.78	0.46	0.39	0.25	0.33	0.35	0.37	0.29
54	0.44	0.18	0.66	0.52	0.45	0.39	0.45	0.44	0.30	0.24	0.53	0.37	0.53	0.48
55	0.24	0.35	0.42	0.40	0.63	0.30	0.83	0.42	0.35	0.15	0.58	0.51	0.60	0.47
56	0.24	0.22	0.54	0.43	0.75	0.34	0.71	0.42	0.14	0.13	0.24	0.25	0.43	0.29
57	0.21	0.24	0.44	0.52	0.71	0.51	0.76	0.59	0.22	0.29	0.41	0.44	0.39	0.35
58	0.30	0.43	0.61	0.43	0.33	0.41	0.87	0.36	0.35	0.19	0.36	0.34	0.50	0.43
59	0.43	0.44	0.60	0.42	0.41	0.41	0.69	0.39	0.47	0.14	0.65	0.52	0.38	0.37
60	0.32	0.32	0.37	0.37	0.28	0.37	0.67	0.37	0.39	0.30	0.39	0.28	0.22	0.21
61	0.43	0.29	0.37	0.33	0.49	0.46	0.54	0.40	0.37	0.21	0.37	0.26	0.24	0.16
62	0.50	0.36	0.32	0.40	0.38	0.34	0.66	0.50	0.19	0.14	0.29	0.26	0.58	0.53
63	0.47	0.30	0.54	0.38	0.32	0.39	0.52	0.35	0.34	0.23	0.21	0.13	0.58	0.42
64	0.52	0.51	0.55	0.43	0.71	0.33	0.62	0.44	0.31	0.14	0.61	0.34	0.39	0.41
65	0.46	0.47	0.64	0.41	0.43	0.36	0.66	0.47	0.39	0.34	0.19	0.16	0.63	0.44

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	0.80	0.33	0.77	0.45	0.73	0.33	0.60	0.34	0.60	0.46	0.65	0.38	0.76	0.42
2	0.72	0.39	0.64	0.38	0.63	0.41	0.55	0.31	0.53	0.35	0.64	0.39	0.65	0.56
3	0.67	0.36	0.84	0.40	0.75	0.45	0.46	0.33	0.60	0.40	0.34	0.24	0.56	0.35
4	0.71	0.47	0.76	0.50	0.64	0.36	0.49	0.23	0.57	0.42	0.48	0.30	0.77	0.43
5	0.73	0.34	0.47	0.47	0.65	0.45	0.77	0.56	0.59	0.27	0.71	0.45	0.63	0.51
6	0.79	0.41	0.55	0.33	0.42	0.39	0.67	0.45	0.81	0.40	0.47	0.43	0.45	0.38
7	0.77	0.41	0.83	0.46	0.43	0.36	0.42	0.37	0.70	0.49	0.48	0.34	0.43	0.35
8	0.62	0.40	0.84	0.49	0.67	0.49	0.47	0.41	0.50	0.29	0.66	0.54	0.60	0.42
9	0.57	0.44	0.35	0.34	0.59	0.37	0.55	0.42	0.60	0.42	0.62	0.52	0.74	0.44
10	0.80	0.42	0.55	0.37	0.31	0.37	0.72	0.35	0.69	0.42	0.72	0.35	0.53	0.30
11	0.56	0.47	0.84	0.54	0.70	0.44	0.73	0.36	0.84	0.46	0.42	0.24	0.75	0.45
12	0.66	0.45	0.64	0.44	0.41	0.35	0.68	0.45	0.72	0.38	0.34	0.38	0.47	0.42
13	0.48	0.43	0.71	0.34	0.53	0.40	0.56	0.53	0.54	0.31	0.46	0.32	0.52	0.44
14	0.73	0.43	0.66	0.44	0.81	0.32	0.65	0.55	0.66	0.46	0.47	0.32	0.63	0.53
15	0.64	0.47	0.68	0.38	0.54	0.46	0.34	0.35	0.61	0.44	0.59	0.44	0.53	0.51
16	0.72	0.38	0.69	0.52	0.41	0.27	0.63	0.46	0.72	0.39	0.56	0.43	0.58	0.42
17	0.76	0.53	0.79	0.45	0.47	0.52	0.64	0.41	0.61	0.36	0.48	0.40	0.33	0.31
18	0.58	0.38	0.82	0.36	0.55	0.37	0.48	0.45	0.66	0.42	0.62	0.41	0.60	0.39
19	0.69	0.54	0.82	0.49	0.70	0.44	0.51	0.38	0.62	0.36	0.62	0.38	0.63	0.45
20	0.65	0.51	0.64	0.40	0.65	0.51	0.40	0.26	0.61	0.42	0.72	0.37	0.67	0.48
21	0.66	0.46	0.75	0.44	0.68	0.37	0.61	0.48	0.57	0.42	0.66	0.43	0.65	0.39
22	0.84	0.52	0.84	0.52	0.78	0.46	0.85	0.49	0.58	0.46	0.49	0.35	0.51	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	0.78	0.44	0.80	0.38	0.38	0.36	0.43	0.36	0.61	0.38	0.63	0.45	0.68	0.46
24	0.73	0.43	0.70	0.48	0.58	0.45	0.86	0.42	0.65	0.44	0.56	0.36	0.50	0.44
25	0.76	0.52	0.68	0.47	0.45	0.39	0.61	0.45	0.62	0.40	0.50	0.24	0.64	0.54
26	0.61	0.43	0.52	0.47	0.45	0.39	0.57	0.34	0.59	0.41	0.52	0.40	0.63	0.38
27	0.79	0.39	0.68	0.53	0.64	0.43	0.52	0.46	0.65	0.38	0.66	0.34	0.76	0.39
28	0.62	0.35	0.47	0.43	0.74	0.45	0.71	0.30	0.64	0.44	0.53	0.45	0.63	0.47
29	0.74	0.47	0.64	0.52	0.69	0.55	0.58	0.32	0.47	0.34	0.67	0.48	0.69	0.46
30	0.60	0.40	0.74	0.51	0.75	0.44	0.59	0.47	0.60	0.40	0.68	0.53	0.45	0.45
31	0.78	0.47	0.68	0.40	0.79	0.51	0.63	0.46	0.68	0.58	0.64	0.38	0.62	0.42
32	0.52	0.35	0.75	0.44	0.81	0.54	0.69	0.53	0.60	0.36	0.49	0.45	0.81	0.43
33	0.79	0.52	0.57	0.43	0.83	0.44	0.65	0.53	0.59	0.52	0.53	0.45	0.46	0.47
34	0.70	0.38	0.50	0.38	0.60	0.35	0.62	0.31	0.53	0.45	0.51	0.41	0.72	0.48
35	0.83	0.40	0.54	0.43	0.62	0.45	0.81	0.40	0.56	0.44	0.56	0.42	0.65	0.52
36	0.69	0.47	0.48	0.45	0.75	0.49	0.62	0.52	0.63	0.49	0.55	0.54	0.77	0.43
37	0.63	0.38	0.82	0.42	0.76	0.50	0.49	0.46	0.65	0.39	0.73	0.54	0.50	0.46
38	0.56	0.52	0.55	0.31	0.51	0.36	0.66	0.51	0.42	0.41	0.41	0.24	0.67	0.49
39	0.67	0.53	0.67	0.44	0.72	0.48	0.76	0.53	0.56	0.48	0.47	0.43	0.59	0.43
40	0.79	0.43	0.76	0.44	0.47	0.41	0.67	0.54	0.65	0.35	0.62	0.47	0.50	0.35
41	0.74	0.46	0.73	0.51	0.83	0.42	0.54	0.41	0.49	0.31	0.62	0.47	0.64	0.40
42	0.60	0.44	0.84	0.45	0.66	0.56	0.52	0.36	0.32	0.33	0.46	0.45	0.68	0.46
43	0.71	0.37	0.77	0.53	0.61	0.43	0.47	0.34	0.51	0.36	0.60	0.47	0.47	0.46
44	0.81	0.49	0.48	0.29	0.85	0.48	0.53	0.44	0.60	0.50	0.51	0.36	0.62	0.41
45	0.60	0.33	0.74	0.41	0.56	0.47	0.69	0.58	0.72	0.52	0.52	0.49	0.75	0.48
46	0.78	0.45	0.83	0.43	0.73	0.50	0.54	0.46	0.53	0.48	0.59	0.45	0.53	0.44
47	0.57	0.29	0.65	0.45	0.75	0.42	0.67	0.54	0.67	0.41	0.53	0.54	0.62	0.32
48	0.83	0.45	0.85	0.47	0.57	0.46	0.73	0.53	0.59	0.46	0.52	0.45	0.74	0.44
49	0.62	0.41	0.75	0.50	0.77	0.54	0.73	0.54	0.53	0.38	0.39	0.26	0.65	0.50
50	0.60	0.42	0.70	0.49	0.72	0.53	0.53	0.39	0.59	0.58	0.57	0.49	0.68	0.50
51	0.83	0.37	0.82	0.53	0.44	0.41	0.58	0.31	0.65	0.44	0.72	0.50	0.76	0.50
52	0.73	0.41	0.64	0.52	0.53	0.35	0.62	0.39	0.70	0.50	0.53	0.46	0.62	0.42
53	0.75	0.43	0.70	0.41	0.67	0.59	0.67	0.47	0.71	0.54	0.51	0.31	0.43	0.20
54	0.77	0.52	0.47	0.28	0.71	0.47	0.78	0.54	0.49	0.39	0.47	0.45	0.67	0.38
55	0.69	0.52	0.61	0.37	0.76	0.57	0.75	0.51	0.59	0.47	0.63	0.47	0.63	0.30
56	0.64	0.44	0.57	0.37	0.76	0.44	0.66	0.56	0.69	0.54	0.43	0.30	0.48	0.32
57	0.46	0.38	0.63	0.42	0.59	0.57	0.80	0.57	0.52	0.36	0.56	0.42	0.43	0.30
58	0.63	0.53	0.71	0.42	0.66	0.54	0.61	0.48	0.61	0.46	0.46	0.39	0.60	0.35
59	0.76	0.42	0.75	0.47	0.60	0.46	0.62	0.52	0.68	0.31	0.64	0.34	0.59	0.34
60	0.78	0.51	0.67	0.50	0.47	0.44	0.55	0.50	0.71	0.39	0.38	0.26	0.50	0.34

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	0.64	0.43	0.85	0.38	0.66	0.43	0.74	0.49
2	0.45	0.38	0.45	0.40	0.28	0.26	0.71	0.42
3	0.67	0.45	0.63	0.34	0.60	0.50	0.36	0.14
4	0.59	0.46	0.53	0.40	0.78	0.36	0.66	0.47
5	0.46	0.33	0.69	0.21	0.40	0.26	0.61	0.43
6	0.44	0.38	0.46	0.35	0.72	0.46	0.70	0.43
7	0.43	0.39	0.54	0.38	0.46	0.35	0.18	0.15
8	0.34	0.07	0.51	0.31	0.61	0.45	0.33	0.02
9	0.42	0.23	0.44	0.27	0.36	0.19	0.36	0.16
10	0.42	0.35	0.42	0.42	0.53	0.41	0.42	0.16
11	0.47	0.37	0.37	0.33	0.34	0.23	0.41	0.16
12	0.38	0.26	0.48	0.38	0.63	0.33	0.25	0.17
13	0.41	0.24	0.63	0.39	0.46	0.41	0.59	0.47
14	0.35	0.31	0.64	0.49	0.32	0.42	0.49	0.38
15	0.44	0.20	0.49	0.41	0.39	0.41	0.37	0.33
16	0.73	0.42	0.44	0.25	0.39	0.26	0.43	0.39
17	0.54	0.33	0.38	0.41	0.47	0.41	0.58	0.46

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	0.63	0.43	0.62	0.46	0.37	0.38	0.48	0.50
19	0.55	0.39	0.47	0.39	0.51	0.39	0.57	0.51
20	0.56	0.41	0.57	0.35	0.39	0.26	0.58	0.41
21	0.59	0.40	0.28	0.21	0.39	0.43	0.52	0.37
22	0.43	0.30	0.33	0.28	0.66	0.41	0.50	0.42
23	0.57	0.40	0.37	0.26	0.68	0.42	0.51	0.36
24	0.45	0.36	0.40	0.37	0.53	0.51	0.33	0.22
25	0.49	0.30	0.49	0.39	0.64	0.43	0.38	0.33
26	0.40	0.32	0.40	0.25	0.49	0.42	0.25	0.19
27	0.61	0.45	0.39	0.33	0.49	0.29	0.27	0.28
28	0.46	0.21	0.29	0.26	0.36	0.20	0.36	0.15
29	0.50	0.51	0.27	0.19	0.27	0.29	0.33	0.11
30	0.30	0.22	0.42	0.32	0.49	0.37	0.41	0.32
31	0.38	0.28	0.50	0.29	0.39	0.34	0.58	0.43
32	0.71	0.43	0.54	0.38	0.58	0.44	0.36	0.24
33	0.48	0.40	0.75	0.43	0.39	0.38	0.68	0.41
34	0.60	0.40	0.44	0.13	0.50	0.50	0.51	0.42
35	0.58	0.57	0.60	0.37	0.42	0.31	0.46	0.36
36	0.41	0.35	0.40	0.30	0.39	0.37	0.52	0.37
37	0.41	0.33	0.47	0.29	0.53	0.45	0.34	0.13
38	0.35	0.23	0.54	0.43	0.32	0.15	0.35	0.31
39	0.54	0.54	0.48	0.33	0.38	0.40	0.21	0.21
40	0.47	0.35	0.37	0.40	0.28	0.41	0.53	0.28
41	0.38	0.35	0.41	0.23	0.31	0.27	0.36	0.18
42	0.41	0.30	0.55	0.44	0.42	0.20	0.24	0.14
43	0.53	0.47	0.58	0.39	0.25	0.41	0.44	0.20
44	0.50	0.32	0.59	0.40	0.38	0.31	0.53	0.50
45	0.43	0.40	0.38	0.21	0.40	0.31	0.29	0.11
46	0.58	0.46	0.55	0.36	0.21	0.16	0.32	0.25
47	0.48	0.44	0.60	0.45	0.40	0.34	0.33	0.16
48	0.75	0.46	0.38	0.29	0.35	0.23	0.36	0.21
49	0.53	0.31	0.49	0.50	0.48	0.41	0.35	0.30
50	0.49	0.47	0.47	0.39	0.41	0.43	0.56	0.42
51	0.53	0.49	0.36	0.30	0.42	0.34	0.55	0.42
52	0.63	0.40	0.32	0.26	0.49	0.37	0.38	0.21
53	0.39	0.28	0.36	0.28	0.40	0.37	0.12	0.05
54	0.43	0.43	0.40	0.27	0.53	0.51	0.33	0.08
55	0.29	0.14	0.27	0.29	0.73	0.48	0.49	0.29
56	0.47	0.30	0.47	0.34	0.39	0.24	0.22	–0.02
57	0.51	0.42	0.48	0.33	0.39	0.42	0.28	0.22
58	0.19	0.03	0.41	0.32	0.28	0.22	0.25	0.09
59	0.50	0.39	0.27	0.17	0.33	0.29	0.32	0.24
60	0.29	0.26	0.35	0.25	0.35	0.28	0.32	0.12

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	0.61	0.42	0.72	0.30	0.84	0.37	0.73	0.55	0.71	0.36
2	0.76	0.23	0.88	0.33	0.87	0.36	0.53	0.42	0.60	0.35
3	0.62	0.46	0.70	0.36	0.88	0.29	0.82	0.47	0.61	0.43
4	0.54	0.43	0.59	0.49	0.38	0.21	0.77	0.38	0.70	0.27
5	0.64	0.39	0.54	0.36	0.78	0.48	0.65	0.30	0.77	0.48
6	0.93	0.18	0.63	0.56	0.50	0.48	0.92	0.34	0.65	0.47
7	0.75	0.47	0.62	0.43	0.39	0.25	0.79	0.42	0.57	0.37
8	0.53	0.29	0.75	0.47	0.63	0.43	0.79	0.48	0.81	0.41
9	0.46	0.42	0.41	0.44	0.75	0.48	0.84	0.40	0.71	0.46
10	0.63	0.46	0.78	0.47	0.40	0.43	0.65	0.41	0.33	0.32
11	0.64	0.48	0.85	0.41	0.57	0.47	0.65	0.43	0.66	0.50
12	0.77	0.39	0.72	0.51	0.70	0.38	0.71	0.51	0.53	0.40

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	0.64	0.46	0.58	0.34	0.61	0.45	0.67	0.52	0.62	0.48
14	0.62	0.34	0.72	0.34	0.69	0.47	0.90	0.35	0.61	0.53
15	0.85	0.44	0.69	0.41	0.59	0.53	0.80	0.40	0.63	0.59
16	0.52	0.49	0.64	0.40	0.84	0.30	0.91	0.37	0.55	0.46
17	0.74	0.41	0.63	0.43	0.82	0.43	0.79	0.40	0.62	0.48
18	0.74	0.42	0.52	0.30	0.53	0.40	0.65	0.39	0.67	0.34
19	0.47	0.54	0.59	0.39	0.65	0.49	0.80	0.50	0.71	0.48
20	0.52	0.42	0.41	0.48	0.48	0.43	0.65	0.47	0.62	0.38
21	0.58	0.45	0.68	0.28	0.49	0.41	0.81	0.40	0.59	0.39
22	0.48	0.38	0.76	0.46	0.66	0.36	0.77	0.28	0.66	0.33
23	0.49	0.41	0.83	0.39	0.49	0.46	0.62	0.35	0.70	0.53
24	0.57	0.51	0.64	0.50	0.56	0.44	0.63	0.45	0.75	0.51
25	0.49	0.49	0.75	0.43	0.36	0.28	0.66	0.45	0.57	0.44
26	0.55	0.46	0.54	0.35	0.49	0.50	0.68	0.47	0.57	0.55
27	0.57	0.52	0.39	0.38	0.46	0.36	0.53	0.48	0.69	0.56
28	0.48	0.53	0.38	0.53	0.49	0.29	0.70	0.43	0.61	0.51
29	0.67	0.48	0.62	0.41	0.34	0.46	0.79	0.49	0.56	0.43
30	0.65	0.33	0.68	0.44	0.45	0.35	0.87	0.40	0.63	0.37
31	0.62	0.39	0.50	0.44	0.58	0.32	0.52	0.38	0.58	0.49
32	0.80	0.36	0.75	0.47	0.58	0.41	0.57	0.40	0.83	0.49
33	0.44	0.44	0.55	0.33	0.68	0.43	0.81	0.47	0.57	0.41
34	0.74	0.45	0.67	0.34	0.71	0.42	0.80	0.50	0.70	0.50
35	0.48	0.22	0.41	0.34	0.80	0.42	0.72	0.28	0.57	0.37
36	0.53	0.50	0.74	0.36	0.66	0.36	0.87	0.36	0.57	0.40
37	0.67	0.52	0.37	0.33	0.74	0.34	0.74	0.52	0.53	0.40
38	0.56	0.39	0.64	0.52	0.51	0.33	0.85	0.43	0.52	0.42
39	0.46	0.52	0.42	0.24	0.57	0.48	0.68	0.47	0.48	0.36
40	0.74	0.47	0.85	0.35	0.68	0.43	0.71	0.49	0.78	0.51
41	0.60	0.46	0.37	0.43	0.71	0.38	0.73	0.40	0.45	0.38
42	0.45	0.53	0.70	0.56	0.51	0.27	0.74	0.46	0.80	0.41
43	0.53	0.48	0.60	0.43	0.69	0.45	0.65	0.40	0.53	0.35
44	0.37	0.31	0.66	0.38	0.29	0.46	0.52	0.43	0.69	0.54
45	0.56	0.30	0.85	0.40	0.70	0.41	0.52	0.47	0.62	0.53
46	0.66	0.48	0.82	0.46	0.45	0.32	0.82	0.48	0.78	0.54
47	0.62	0.49	0.79	0.45	0.63	0.47	0.64	0.54	0.63	0.46
48	0.42	0.41	0.63	0.32	0.63	0.36	0.65	0.49	0.45	0.42
49	0.32	0.41	0.64	0.34	0.54	0.43	0.72	0.45	0.68	0.42
50	0.53	0.44	0.32	0.31	0.62	0.43	0.78	0.46	0.44	0.48
51	0.45	0.51	0.80	0.48	0.69	0.34	0.40	0.38	0.67	0.34
52	0.63	0.57	0.71	0.53	0.61	0.35	0.56	0.30	0.49	0.34
53	0.62	0.31	0.89	0.42	0.46	0.34	0.76	0.46	0.35	0.22
54	0.46	0.18	0.79	0.48	0.50	0.38	0.43	0.43	0.55	0.48
55	0.30	0.40	0.53	0.36	0.68	0.27	0.82	0.42	0.71	0.60
56	0.27	0.32	0.64	0.41	0.79	0.30	0.69	0.42	0.62	0.53
57	0.25	0.28	0.57	0.53	0.78	0.48	0.74	0.58	0.52	0.41
58	0.37	0.50	0.72	0.41	0.37	0.44	0.86	0.35	0.86	0.50
59	0.51	0.48	0.70	0.40	0.45	0.40	0.67	0.37	0.59	0.44
60	0.38	0.34	0.45	0.40	0.31	0.38	0.65	0.36	0.58	0.50
61	0.48	0.30	0.44	0.31	0.54	0.47	0.52	0.39	.	.
62	0.57	0.39	0.41	0.42	0.42	0.34	0.64	0.49	.	.
63	0.52	0.32	0.63	0.39	0.35	0.38	0.51	0.35	.	.
64	0.61	0.52	0.66	0.45	0.75	0.30	0.60	0.43	.	.
65	0.55	0.50	0.74	0.38	0.48	0.34	0.64	0.47	.	.

Table 8.A.8 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	0.38	0.15	0.23	0.23	0.01	0.11	0.03	0.15	0.23
2	2.26	0.74	1.52	0.93	0.07	1.12	0.14	0.43	1.83
4	18.28	7.61	10.66	8.44	0.92	6.08	2.83	4.96	13.31
6	59.61	30.33	29.28	32.91	4.50	8.89	13.31	25.71	33.90
8	19.47	11.05	8.42	12.54	2.02	0.95	3.96	12.25	7.22
Total[1]	100.00	49.88	50.12	55.05	7.53	17.15	20.27	43.50	56.50

Score	No Spec. Services	Spec. Services	American Indian	Asian	Pacific Islander	Filipino	Hispanic	African American	White
0	0.33	0.06	0.01	0.03	0.00	0.01	0.18	0.04	0.13
2	1.75	0.51	0.02	0.08	0.01	0.02	1.58	0.25	0.32
4	16.52	1.75	0.15	0.82	0.11	0.28	11.99	1.64	3.45
6	57.18	2.43	0.41	5.10	0.38	1.76	31.41	3.85	16.69
8	19.06	0.41	0.11	3.19	0.12	0.82	6.77	0.83	7.45
Total[1]	94.84	5.16	0.69	9.22	0.63	2.88	51.93	6.61	28.04

[1] The marginal percentage for each subgroup is the percentage of examinees in that subgroup obtaining a valid writing score.

Table 8.A.9 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
424,293	5.91	211,642	6.06	212,626	5.76	233,411	6.06	31,929	6.24	72,729	5.10	85,940	6.07	184,419	6.28	239,516	5.63

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
402,406	5.96	21,881	5.02	2,851	5.70	37,844	6.46	2,567	5.91	11,834	6.33	213,194	5.66	27,145	5.57	115,116	6.21

Table 8.A.10 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	–0.21	0.47	0.67	–0.13	0.68	–0.01	0.81	0.13	–0.73

	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	0.37	–0.18	0.22	–0.09	0.40	0.46	–0.56	–0.15	–0.48	0.03	0.09
	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	0.41	0.09	0.58	0.64	–0.33	0.18	0.24	0.49	0.55	0.06	

Appendix 8.B—Reliability Analyses

Table 8.B.1 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	.	.	.	.	0.83	1.82
2. Reading Comprehension	15	0.76	1.00	.	.	.	0.79	1.61
3. Literary Response and Analysis	6	0.71	0.69	1.00	.	.	0.68	0.90
4. Written and Oral Language Conventions	14	0.78	0.74	0.66	1.00	.	0.81	1.51
5. Writing Strategies	8	0.68	0.69	0.59	0.70	1.00	0.65	1.23
Grade 3		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	20	1.00	.	.	.	.	0.80	1.78
2. Reading Comprehension	15	0.74	1.00	.	.	.	0.75	1.59
3. Literary Response and Analysis	8	0.72	0.72	1.00	.	.	0.68	1.04
4. Written and Oral Language Conventions	13	0.72	0.66	0.63	1.00	.	0.72	1.54
5. Writing Strategies	9	0.71	0.69	0.65	0.68	1.00	0.69	1.28
Grade 4		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	18	1.00	.	.	.	.	0.84	1.61
2. Reading Comprehension	15	0.78	1.00	.	.	.	0.80	1.57
3. Literary Response and Analysis	9	0.71	0.71	1.00	.	.	0.71	1.22
4. Written and Oral Language Conventions	18	0.78	0.72	0.66	1.00	.	0.80	1.66
5. Writing Strategies	15	0.76	0.73	0.67	0.75	1.00	0.74	1.62
Grade 5		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	14	1.00	.	.	.	.	0.74	1.59
2. Reading Comprehension	16	0.73	1.00	.	.	.	0.78	1.67
3. Literary Response and Analysis	12	0.72	0.73	1.00	.	.	0.75	1.41
4. Written and Oral Language Conventions	17	0.64	0.66	0.62	1.00	.	0.75	1.64
5. Writing Strategies	16	0.70	0.73	0.71	0.70	1.00	0.76	1.63
Grade 6		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	13	1.00	.	.	.	.	0.77	1.38
2. Reading Comprehension	17	0.72	1.00	.	.	.	0.74	1.79
3. Literary Response and Analysis	12	0.73	0.70	1.00	.	.	0.72	1.40
4. Written and Oral Language Conventions	16	0.72	0.65	0.66	1.00	.	0.75	1.58
5. Writing Strategies	17	0.73	0.73	0.70	0.68	1.00	0.76	1.82
Grade 7		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	11	1.00	.	.	.	.	0.71	1.38
2. Reading Comprehension	18	0.73	1.00	.	.	.	0.82	1.68
3. Literary Response and Analysis	13	0.68	0.73	1.00	.	.	0.72	1.51
4. Written and Oral Language Conventions	16	0.70	0.70	0.64	1.00	.	0.75	1.63
5. Writing Strategies	17	0.70	0.73	0.67	0.70	1.00	0.76	1.79
Grade 8		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.57	1.21
2. Reading Comprehension	18	0.65	1.00	.	.	.	0.82	1.65
3. Literary Response and Analysis	15	0.64	0.74	1.00	.	.	0.76	1.64
4. Written and Oral Language Conventions	16	0.62	0.73	0.72	1.00	.	0.78	1.67
5. Writing Strategies	17	0.62	0.74	0.73	0.77	1.00	0.78	1.75

Subscore Reliabilities and Intercorrelations for ELA								
Subscore Area	**N of Items**	**Intercorrelation**					**Reliab.**	**SEM**
Grade 9		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.63	1.11
2. Reading Comprehension	18	0.63	1.00	.	.	.	0.81	1.76
3. Literary Response and Analysis	16	0.62	0.76	1.00	.	.	0.76	1.73
4. Written and Oral Language Conventions	13	0.63	0.70	0.69	1.00	.	0.73	1.55
5. Writing Strategies	20	0.64	0.75	0.73	0.74	1.00	0.78	1.91
Grade 10		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.71	1.09
2. Reading Comprehension	18	0.74	1.00	.	.	.	0.85	1.71
3. Literary Response and Analysis	16	0.69	0.77	1.00	.	.	0.76	1.77
4. Written and Oral Language Conventions	13	0.69	0.73	0.67	1.00	.	0.75	1.49
5. Writing Strategies	20	0.73	0.80	0.75	0.76	1.00	0.82	1.86
Grade 11		**1**	**2**	**3**	**4**	**5**		
1. Word Analysis and Vocabulary Development	8	1.00	.	.	.	.	0.67	1.10
2. Reading Comprehension	19	0.69	1.00	.	.	.	0.84	1.86
3. Literary Response and Analysis	17	0.63	0.76	1.00	.	.	0.73	1.85
4. Written and Oral Language Conventions	9	0.66	0.69	0.63	1.00	.	0.68	1.22
5. Writing Strategies	22	0.71	0.80	0.73	0.75	1.00	0.85	1.98

Table 8.B.2 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	1.68
2. Late Antiquity and the Middle Ages	14	0.73	1.00	.	.	.	0.78	1.60
3. Renaissance/Reformation	10	0.65	0.68	1.00	.	.	0.64	1.42
4. U.S. Constitution and the Early Republic	22	0.72	0.75	0.70	1.00	.	0.83	2.03
5. Civil War and Its Aftermath	13	0.68	0.72	0.67	0.79	1.00	0.79	1.51
World History		**1**	**2**	**3**	**4**	**5**		
1. Development of Modern Political Thought	13	1.00	.	.	.	.	0.73	1.54
2. Industrial Expansion and Imperialism	10	0.70	1.00	.	.	.	0.72	1.35
3. Causes and Effects of World War I	14	0.70	0.71	1.00	.	.	0.79	1.59
4. Causes and Effects of World War II	13	0.69	0.70	0.75	1.00	.	0.76	1.53
5. International Developments in the Post-World War II Era	10	0.65	0.66	0.69	0.70	1.00	0.71	1.35
Grade 11 (U.S. History)		**1**	**2**	**3**	**4**	**5**		
1. Foundations of American Political and Social Thought	10	1.00	.	.	.	.	0.70	1.34
2. Industrialization and the U.S. role as a World Power	13	0.71	1.00	.	.	.	0.76	1.51
3. United States between the World Wars	12	0.68	0.73	1.00	.	.	0.72	1.50
4. World War II and Foreign Affairs	12	0.66	0.71	0.70	1.00	.	0.72	1.52
5. Post-World War II Domestic Affairs	13	0.67	0.71	0.72	0.71	1.00	0.76	1.53

Table 8.B.3 Subscore Reliabilities and Intercorrelations for Mathematics

Subscore Reliabilities and Intercorrelations for Mathematics									
Subscore Area	**N of Items**	**Intercorrelation**						**Reliab.**	**SEM**
Grade 2		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Place Value, Addition, and Subtraction	15	1.00	.	.	.	.	.	0.81	1.42
2. Number Sense: Multiplication, Division, and Fractions	23	0.81	1.00	.	.	.	.	0.86	1.72
3. Algebra and Functions	6	0.65	0.66	1.00	.	.	.	0.57	0.91
4. Measurement and Geometry	14	0.69	0.72	0.59	1.00	.	.	0.69	1.39
5. Statistics, Data Analysis, and Probability	7	0.69	0.70	0.58	0.62	1.00	.	0.66	0.93
Grade 3		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Place Value, Fractions, and Decimals	16	1.00	.	.	.	.	.	0.79	1.38
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.80	1.00	.	.	.	.	0.83	1.42
3. Algebra and Functions	12	0.75	0.76	1.00	.	.	.	0.77	1.29
4. Measurement and Geometry	16	0.71	0.70	0.69	1.00	.	.	0.76	1.37
5. Statistics, Data Analysis, and Probability	5	0.55	0.53	0.53	0.54	1.00	.	0.48	0.73
Grade 4		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	1.00	.	.	.	.	.	0.79	1.41
2. Number Sense: Operations, and Factoring	14	0.73	1.00	.	.	.	.	0.83	1.36
3. Algebra and Functions	18	0.74	0.77	1.00	.	.	.	0.87	1.35
4. Measurement and Geometry	12	0.67	0.69	0.69	1.00	.	.	0.77	1.35
5. Statistics, Data Analysis, and Probability	4	0.52	0.50	0.53	0.53	1.00	.	0.43	0.73
Grade 5		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Estimation, Percents, and Factoring	12	1.00	.	.	.	.	.	0.78	1.37
2. Number Sense: Operations with Fractions and Decimals	17	0.74	1.00	.	.	.	.	0.82	1.70
3. Algebra and Functions	17	0.73	0.74	1.00	.	.	.	0.81	1.57
4. Measurement and Geometry	15	0.72	0.73	0.74	1.00	.	.	0.79	1.54
5. Statistics, Data Analysis, and Probability	4	0.51	0.53	0.59	0.55	1.00	.	0.64	0.62
Grade 6		**1**	**2**	**3**	**4**	**5**			
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	1.00	.	.	.	.	.	0.78	1.61
2. Number Sense: Operations and Problem Solving with Fractions	10	0.68	1.00	.	.	.	.	0.71	1.28
3. Algebra and Functions	19	0.77	0.70	1.00	.	.	.	0.84	1.73
4. Measurement and Geometry	10	0.69	0.61	0.70	1.00	.	.	0.72	1.34
5. Statistics, Data Analysis, and Probability	11	0.69	0.61	0.71	0.65	1.00	.	0.73	1.38

Subscore Reliabilities and Intercorrelations for Mathematics

Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Grade 7		**1**	**2**	**3**	**4**	**5**			
1. Number Sense: Rational Numbers	14	1.00	.	.	.	.	.	0.75	1.61
2. Number Sense: Exponent, Powers and Roots	8	0.66	1.00	.	.	.	.	0.69	1.23
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.63	0.63	1.00	.	.	.	0.63	1.35
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.73	0.64	0.66	1.00	.	.	0.77	1.63
5. Measurement and Geometry	13	0.68	0.61	0.62	0.72	1.00	.	0.72	1.55
6. Statistics, Data Analysis, and Probability	5	0.56	0.54	0.56	0.60	0.59	1.00	0.61	0.91
General Mathematics		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Rational Numbers	14	1.00	.	.	.	.	.	0.72	1.65
2. Number Sense: Exponent, Powers and Roots	10	0.65	1.00	.	.	.	.	0.70	1.40
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.62	0.61	1.00	.	.	.	0.69	1.47
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.60	0.56	0.60	1.00	.	.	0.60	1.42
5. Measurement and Geometry	11	0.56	0.51	0.52	0.56	1.00	.	0.54	1.54
6. Statistics, Data Analysis, and Probability	9	0.53	0.51	0.57	0.55	0.53	1.00	0.64	1.31
Algebra I		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Properties, Operations, and Linear Equations	17	1.00	.	.	.	.	.	0.76	1.79
2. Graphing and Systems of Linear Equations	14	0.70	1.00	.	.	.	.	0.77	1.66
3. Quadratics and Polynomials	21	0.72	0.74	1.00	.	.	.	0.81	2.02
4. Functions and Rational Expressions	13	0.59	0.61	0.67	1.00	.	.	0.64	1.61
Geometry		**1**	**2**	**3**	**4**	**5**	**6**		
1. Logic and Geometric Proofs	23	1.00	.	.	.	.	.	0.83	2.10
2. Volume and Area Formulas	11	0.70	1.00	.	.	.	.	0.68	1.48
3. Angle Relationships, Constructions, and Lines	16	0.75	0.67	1.00	.	.	.	0.73	1.75
4. Trigonometry	15	0.75	0.68	0.73	1.00	.	.	0.77	1.68
Algebra II		**1**	**2**	**3**	**4**	**5**	**6**		
1. Polynomials and Rational Expressions	19	1.00	.	.	.	.	.	0.80	1.84
2. Quadratics, Conics, and Complex Numbers	16	0.72	1.00	.	.	.	.	0.75	1.79
3. Exponents and Logarithms	16	0.70	0.68	1.00	.	.	.	0.76	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.66	0.65	0.66	1.00	.	.	0.71	1.65
Summative High School Mathematics		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I	18	1.00	.	.	.	.	.	0.79	1.58
2. Geometry	19	0.74	1.00	.	.	.	.	0.81	1.71
3. Algebra II	23	0.78	0.75	1.00	.	.	.	0.84	1.92
4. Probability and Statistics	5	0.56	0.59	0.59	1.00	.	.	0.58	0.96

Subscore Reliabilities and Intercorrelations for Mathematics									
Subscore Area	**N of Items**	**Intercorrelation**						**Reliab.**	**SEM**
Integrated Mathematics 1		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I: Number Properties, Operations and Linear Equations	15	1.00	.	.	.	.	.	0.68	1.71
2. Algebra I: Graphing	9	0.52	1.00	.	.	.	.	0.58	1.35
3. Algebra I: Quadratics and Polynomials	14	0.54	0.52	1.00	.	.	.	0.66	1.65
4. Algebra I: Functions and Relations Expressions	7	0.41	0.40	0.52	1.00	.	.	0.45	1.16
5. Geometry	20	0.38	0.36	0.41	0.30	1.00	.	0.45	2.00
Integrated Mathematics 2		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I	20	1.00	.	.	.	.	.	0.74	2.00
2. Geometry: Logic and Geometric Proofs	22	0.66	1.00	.	.	.	.	0.77	2.12
3. Geometry: Angle Relationships, Construction, and Lines	8	0.59	0.65	1.00	.	.	.	0.60	1.24
4. Trigonometry	10	0.58	0.63	0.56	1.00	.	.	0.60	1.40
5. Algebra II: Probability and Statistics	5	0.31	0.35	0.27	0.31	1.00	.	0.30	0.96
Integrated Mathematics 3		**1**	**2**	**3**	**4**	**5**	**6**		
1. Geometry	5	1.00	.	.	.	.	.	0.63	0.87
2. Algebra II: Polynomials and Relations Expressions	19	0.49	1.00	.	.	.	.	0.78	1.91
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	0.45	0.71	1.00	.	.	.	0.69	1.82
4. Algebra II: Exponents and Logarithms	16	0.57	0.71	0.66	1.00	.	.	0.80	1.75
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.46	0.63	0.58	0.65	1.00	.	0.59	1.33

Table 8.B.4 Subscore Reliabilities and Intercorrelations for Science

Subscore Reliabilities and Intercorrelations for Science									
Subscore Area	**N of Items**	**Intercorrelation**						**Reliab.**	**SEM**
Grade 5 Science		**1**	**2**	**3**	**4**	**5**	**6**		
1. Physical Science (Grade 5)	11	1.00	.	.	.	.	.	0.70	1.37
2. Physical Science (Grade 4)	8	0.65	1.00	.	.	.	.	0.62	1.18
3. Life Science (Grade 5)	13	0.69	0.66	1.00	.	.	.	0.76	1.43
4. Life Science (Grade 4)	9	0.64	0.61	0.68	1.00	.	.	0.66	1.23
5. Earth Science (Grade 5)	11	0.63	0.60	0.68	0.63	1.00	.	0.66	1.36
6. Earth Science (Grade 4)	8	0.65	0.62	0.69	0.64	0.67	1.00	0.69	1.14
Grade 8 Science		**1**	**2**	**3**	**4**	**5**	**6**		
1. Motion	8	1.00	.	.	.	.	.	0.64	1.18
2. Forces, Density, and Buoyancy	13	0.60	1.00	.	.	.	.	0.75	1.42
3. Structure of Matter and Periodic Table	16	0.64	0.71	1.00	.	.	.	0.80	1.66
4. Earth in the Solar System	7	0.49	0.58	0.61	1.00	.	.	0.57	1.05
5. Reactions and the Chemistry of Living Systems	10	0.57	0.66	0.71	0.58	1.00	.	0.69	1.33
6. Investigation and Experimentation	6	0.55	0.67	0.64	0.52	0.62	1.00	0.63	0.89

Subscore Reliabilities and Intercorrelations for Science

Subscore Area	N of Items	Intercorrelation						Reliab.	SEM
Grade 10 Life Science									
1. Cell Biology	10	1.00	.	.	.	.	.	0.65	1.37
2. Genetics	12	0.64	1.00	.	.	.	.	0.72	1.51
3. Physiology	10	0.62	0.64	1.00	.	.	.	0.72	1.29
4. Ecology	11	0.63	0.65	0.72	1.00	.	.	0.74	1.36
5. Evolution	11	0.61	0.64	0.69	0.74	1.00	.	0.77	1.36
6. Investigation and Experimentation	6	0.49	0.53	0.60	0.63	0.64	1.00	0.59	0.94
Biology		**1**	**2**	**3**	**4**	**5**	**6**		
1. Cell Biology	9	1.00	.	.	.	.	.	0.59	1.35
2. Genetics	18	0.65	1.00	.	.	.	.	0.78	1.83
3. Ecology and Evolution	16	0.64	0.75	1.00	.	.	.	0.80	1.72
4. Physiology	11	0.58	0.70	0.74	1.00	.	.	0.80	1.31
5. Investigation and Experimentation	6	0.53	0.64	0.68	0.65	1.00	.	0.56	1.04
Chemistry		**1**	**2**	**3**	**4**	**5**	**6**		
1. Atomic and Molecular Structure	8	1.00	.	.	.	.	.	0.57	1.25
2. Chemical Bonds, Biochemistry	9	0.58	1.00	.	.	.	.	0.64	1.27
3. Kinetics, Thermodynamics	14	0.61	0.64	1.00	.	.	.	0.73	1.66
4. Chemical Reactions	13	0.59	0.62	0.69	1.00	.	.	0.72	1.61
5. Conservation of Matter and Stoichiometry	10	0.57	0.60	0.68	0.65	1.00	.	0.72	1.36
6. Investigation and Experimentation	6	0.53	0.56	0.64	0.63	0.61	1.00	0.62	1.03
Earth Science		**1**	**2**	**3**	**4**	**5**	**6**		
1. Astronomy and Cosmology	12	1.00	.	.	.	.	.	0.65	1.57
2. Solid Earth	14	0.61	1.00	.	.	.	.	0.68	1.69
3. The Earth's Energy	28	0.71	0.73	1.00	.	.	.	0.85	2.38
4. Investigation and Experimentation	6	0.58	0.65	0.70	1.00	.	.	0.63	1.03
Physics		**1**	**2**	**3**	**4**	**5**	**6**		
1. Motion and Forces	12	1.00	.	.	.	.	.	0.72	1.51
2. Conservation of Energy and Momentum	12	0.71	1.00	.	.	.	.	0.74	1.51
3. Heat and Thermodynamics	9	0.66	0.67	1.00	.	.	.	0.70	1.26
4. Waves	10	0.65	0.66	0.66	1.00	.	.	0.70	1.32
5. Electric and Magnetic Phenomena	11	0.59	0.62	0.59	0.60	1.00	.	0.61	1.51
6. Investigation and Experimentation	6	0.60	0.60	0.60	0.58	0.51	1.00	0.53	1.06
Integrated/Coordinated Science 1		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	10	1.00	.	.	.	.	.	0.63	1.42
2. Chemistry	15	0.54	1.00	.	.	.	.	0.57	1.82
3. Earth Sciences	17	0.65	0.59	1.00	.	.	.	0.75	1.85
4. Physics	12	0.54	0.52	0.60	1.00	.	.	0.55	1.60
5. Investigation and Experimentation	6	0.55	0.51	0.59	0.51	1.00	.	0.48	1.10
Integrated/Coordinated Science 2		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	15	1.00	.	.	.	.	.	0.66	1.76
2. Chemistry	6	0.49	1.00	.	.	.	.	0.47	1.12
3. Earth Sciences	15	0.59	0.51	1.00	.	.	.	0.71	1.76
4. Physics	18	0.49	0.49	0.53	1.00	.	.	0.60	1.94
5. Investigation and Experimentation	6	0.48	0.42	0.51	0.43	1.00	.	0.41	1.14

Subscore Reliabilities and Intercorrelations for Science									
Subscore Area	**N of Items**	**Intercorrelation**						**Reliab.**	**SEM**
Integrated/Coordinated Science 3		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	16	1.00	.	.	.	.	.	0.70	1.81
2. Chemistry	23	0.62	1.00	.	.	.	.	0.74	2.18
3. Earth Sciences	7	0.63	0.57	1.00	.	.	.	0.63	1.16
4. Physics	8	0.50	0.51	0.43	1.00	.	.	0.38	1.31
5. Investigation and Experimentation	6	0.59	0.54	0.57	0.40	1.00	.	0.51	1.05
Integrated/Coordinated Science 4		**1**	**2**	**3**	**4**	**5**	**6**		
1. Biology/Life Sciences	13	1.00	.	.	.	.	.	0.68	1.60
2. Chemistry	10	0.28	1.00	.	.	.	.	0.23	1.46
3. Earth Sciences	15	0.62	0.41	1.00	.	.	.	0.66	1.78
4. Physics	16	0.34	0.23	0.37	1.00	.	.	0.36	1.81
5. Investigation and Experimentation	6	0.42	0.27	0.44	0.29	1.00	.	0.34	1.12

Table 8.B.5 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	1.73
2. Graphing and Systems of Linear Equations	14	0.71	1.00	.	.	.	.	0.78	1.63
3. Quadratics and Polynomials	21	0.73	0.75	1.00	.	.	.	0.83	1.99
4. Functions and Rational Expressions	13	0.62	0.64	0.70	1.00	.	.	0.68	1.61
Geometry – 9		**1**	**2**	**3**	**4**	**5**	**6**		
1. Logic and Geometric Proofs	23	1.00	.	.	.	.	.	0.81	2.01
2. Volume and Area Formulas	11	0.69	1.00	.	.	.	.	0.70	1.44
3. Angle Relationships, Constructions, and Lines	16	0.73	0.67	1.00	.	.	.	0.72	1.69
4. Trigonometry	15	0.73	0.67	0.71	1.00	.	.	0.76	1.61
Algebra II – 10		**1**	**2**	**3**	**4**	**5**	**6**		
1. Polynomials and Rational Expressions	19	1.00	.	.	.	.	.	0.79	1.79
2. Quadratics, Conics, and Complex Numbers	16	0.71	1.00	.	.	.	.	0.74	1.78
3. Exponents and Logarithms	16	0.68	0.66	1.00	.	.	.	0.74	1.75
4. Series, Combinatorics, and Probability and Statistics	14	0.64	0.62	0.63	1.00	.	.	0.70	1.64
Summative High School Mathematics – 11		**1**	**2**	**3**	**4**	**5**	**6**		
1. Algebra I	18	1.00	.	.	.	.	.	0.79	1.61
2. Geometry	19	0.74	1.00	.	.	.	.	0.80	1.74
3. Algebra II	23	0.77	0.74	1.00	.	.	.	0.84	1.95
4. Probability and Statistics	5	0.55	0.58	0.58	1.00	.	.	0.58	0.97
World History – 10		**1**	**2**	**3**	**4**	**5**	**6**		
1. Development of Modern Political Thought	13	1.00	.	.	.	.	.	0.71	1.54
2. Industrial Expansion and Imperialism	10	0.68	1.00	.	.	.	.	0.71	1.36
3. Causes and Effects of World War I	14	0.68	0.70	1.00	.	.	.	0.78	1.59
4. Causes and Effects of World War II	13	0.68	0.69	0.74	1.00	.	.	0.75	1.53
5. International Developments in the Post-World War II Era	10	0.64	0.65	0.68	0.69	1.00	.	0.70	1.35

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	230,513	0.94	3.30	221,398	0.94	3.22
	3	220,471	0.93	3.34	216,812	0.93	3.27
	4	219,446	0.95	3.51	217,163	0.94	3.43
	5	216,949	0.94	3.64	214,244	0.93	3.54
	6	219,133	0.94	3.64	216,493	0.93	3.56
	7**	221,735	0.94	3.65	218,686	0.93	3.56
	8	226,866	0.94	3.63	223,339	0.93	3.54
	9	248,786	0.94	3.71	239,300	0.93	3.63
	10	245,027	0.95	3.65	234,759	0.94	3.57
	11	227,878	0.95	3.74	221,138	0.94	3.65
History–Social Science	8	238,481	0.95	3.69	229,063	0.93	3.77
	World History	242,473	0.94	3.26	232,753	0.92	3.38
	11	223,913	0.94	3.28	217,991	0.92	3.36
Mathematics	2	231,119	0.94	2.94	221,522	0.93	2.95
	3	222,488	0.94	2.84	217,275	0.94	2.86
	4	222,284	0.95	2.87	217,980	0.94	2.87
	5	219,059	0.94	3.20	214,757	0.94	3.19
	6	220,140	0.94	3.31	216,528	0.93	3.35
	7	205,358	0.93	3.46	203,436	0.93	3.46
	General Math	120,659	0.91	3.63	99,204	0.90	3.63
	Algebra I	385,213	0.92	3.58	360,829	0.92	3.58
	Geometry	201,278	0.93	3.53	207,226	0.92	3.56
	Algebra II	125,455	0.93	3.54	139,477	0.91	3.56
	Summ. H.S. Math	62,398	0.93	3.10	68,157	0.93	3.27
	Integrated Math 1	6,009	0.85	3.63	5,247	0.83	3.62
	Integrated Math 2	1,996	0.90	3.62	1,834	0.89	3.63
	Integrated Math 3	387	0.92	3.57	408	0.92	3.58
Science	5	217,918	0.93	3.14	214,479	0.92	3.21
	8	226,977	0.94	3.12	223,070	0.92	3.21
	10 Life Science	236,511	0.94	3.23	229,201	0.92	3.28
	Biology	271,067	0.94	3.31	273,549	0.92	3.34
	Chemistry	120,339	0.93	3.34	136,151	0.91	3.47
	Earth Science	117,074	0.92	3.43	100,622	0.90	3.53
	Physics	38,430	0.93	3.31	34,296	0.91	3.45
	Integrated Science 1	34,092	0.90	3.54	29,888	0.87	3.57
	Integrated Science 2	2,897	0.88	3.56	2,456	0.85	3.57
	Integrated Science 3	760	0.89	3.50	584	0.86	3.52
	Integrated Science 4	209	0.82	3.55	156	0.79	3.55
Grade-Specific	Algebra I – 8	133,920	0.93	3.52	139,889	0.92	3.52
	Geometry – 9	63,295	0.93	3.38	71,030	0.92	3.44
	Algebra II – 10	55,107	0.92	3.49	63,222	0.91	3.52
	Summ. H. S. Math – 11	51,551	0.93	3.17	58,092	0.93	3.32
	World History – 10	217,428	0.94	3.26	211,372	0.92	3.39

* 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	177,560	0.93	3.00	273,639	0.93	3.41
	3	174,322	0.92	3.04	262,310	0.92	3.46
	4	177,966	0.93	3.16	258,115	0.94	3.67
	5	177,395	0.92	3.32	253,289	0.93	3.76
	6	183,270	0.92	3.36	251,719	0.92	3.77
	7**	190,120	0.93	3.38	249,473	0.92	3.77
	8	197,500	0.93	3.36	251,873	0.93	3.75
	9	227,701	0.93	3.49	259,471	0.92	3.83
	10	229,194	0.94	3.43	249,612	0.94	3.77
	11	224,246	0.94	3.53	223,990	0.93	3.85
History–Social Science	8	201,873	0.94	3.54	264,678	0.93	3.87
	World History	228,042	0.93	3.18	246,228	0.92	3.45
	11	221,375	0.93	3.20	219,791	0.92	3.44
Mathematics	2	177,759	0.93	2.65	274,165	0.93	3.12
	3	174,964	0.93	2.56	264,111	0.93	3.02
	4	179,066	0.93	2.58	260,660	0.94	3.05
	5	178,044	0.94	3.00	255,250	0.93	3.32
	6	183,323	0.94	3.11	252,714	0.93	3.48
	7	168,300	0.93	3.33	239,702	0.92	3.56
	General Mathematics	77,387	0.92	3.59	141,676	0.90	3.66
	Algebra I	320,474	0.93	3.52	424,167	0.90	3.62
	Geometry	205,769	0.93	3.46	202,196	0.90	3.64
	Algebra II	151,187	0.92	3.51	113,495	0.91	3.60
	Summ. H.S. Mathematics	88,866	0.93	3.08	41,614	0.92	3.40
	Integrated Mathematics 1	4,974	0.86	3.62	6,252	0.81	3.63
	Integrated Mathematics 2	1,893	0.91	3.61	1,936	0.88	3.64
	Integrated Mathematics 3	665	0.91	3.57	129	0.91	3.61
Science	5	177,574	0.92	2.87	254,308	0.91	3.37
	8	197,212	0.92	2.94	252,025	0.92	3.33
	10 Life Science	224,058	0.93	3.09	240,763	0.91	3.40
	Biology	268,638	0.93	3.18	275,071	0.91	3.46
	Chemistry	142,986	0.92	3.30	113,303	0.90	3.54
	Earth Science	93,332	0.92	3.40	123,908	0.90	3.54
	Physics	43,096	0.92	3.29	29,563	0.90	3.51
	Int/Coord Science 1	21,947	0.90	3.50	41,910	0.86	3.58
	Int/Coord Science 2	2,307	0.89	3.53	3,043	0.82	3.59
	Int/Coord Science 3	741	0.90	3.47	595	0.82	3.54
	Int/Coord Science 4	211	0.81	3.55	154	0.81	3.54
Grade-Specific	Algebra I – 8	125,527	0.93	3.43	147,936	0.91	3.60
	Geometry – 9	77,990	0.91	3.30	56,228	0.91	3.56
	Algebra II – 10	71,971	0.91	3.47	46,267	0.91	3.56
	Summ. H.S. Math – 11	73,293	0.93	3.15	36,284	0.92	3.43
	World History – 10	206,410	0.93	3.19	221,601	0.92	3.45

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

** MC only

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	417,393	0.94	3.24	34,656	0.94	3.53
	3	410,378	0.93	3.29	27,034	0.94	3.50
	4	411,916	0.94	3.46	24,766	0.95	3.70
	5	407,164	0.93	3.57	24,113	0.94	3.82
	6	411,520	0.93	3.59	24,175	0.93	3.85
	7**	416,393	0.93	3.59	24,111	0.93	3.87
	8	425,011	0.93	3.57	25,293	0.93	3.87
	9	456,329	0.93	3.66	31,859	0.91	3.95
	10	440,884	0.94	3.58	39,020	0.92	3.93
	11	414,627	0.94	3.67	34,504	0.90	3.96
History–Social Science	8	424,626	0.94	3.71	43,006	0.92	3.93
	World History	437,265	0.93	3.30	38,064	0.91	3.52
	11	408,343	0.93	3.31	33,662	0.90	3.51
Mathematics	2	417,171	0.93	2.91	35,602	0.95	3.32
	3	410,353	0.93	2.83	29,538	0.95	3.17
	4	411,932	0.94	2.85	28,399	0.95	3.20
	5	407,074	0.94	3.18	26,825	0.94	3.43
	6	411,255	0.94	3.32	25,477	0.93	3.56
	7	384,975	0.93	3.46	23,900	0.91	3.62
	General Mathematics	176,180	0.90	3.63	43,742	0.86	3.66
	Algebra I	696,605	0.92	3.58	49,606	0.86	3.61
	Geometry	389,880	0.92	3.54	18,689	0.88	3.64
	Algebra II	259,515	0.92	3.55	5,443	0.91	3.60
	Summ. H.S. Mathematics	129,509	0.93	3.19	1,051	0.95	3.33
	Integrated Mathematics 1	10,111	0.84	3.63	1,149	0.77	3.61
	Integrated Mathematics 2	3,601	0.90	3.62	229	0.86	3.65
	Integrated Mathematics 3	772	0.92	3.58	23	0.93	3.50
Science	5	406,648	0.92	3.17	25,833	0.93	3.37
	8	423,623	0.92	3.15	26,525	0.92	3.47
	10 Life Science	433,614	0.93	3.24	32,202	0.90	3.50
	Biology	508,032	0.93	3.31	36,694	0.89	3.53
	Chemistry	250,494	0.92	3.40	6,015	0.92	3.51
	Earth Science	192,494	0.91	3.47	25,251	0.89	3.55
	Physics	70,914	0.92	3.38	1,821	0.91	3.48
	Int/Coord Science 1	56,869	0.88	3.55	7,119	0.82	3.54
	Int/Coord Science 2	4,866	0.86	3.57	488	0.72	3.54
	Int/Coord Science 3	1,163	0.88	3.51	181	0.77	3.51
	Int/Coord Science 4	265	0.81	3.54	100	0.71	3.56
Grade-Specific	Algebra I – 8	264,666	0.93	3.52	9,183	0.91	3.60
	Geometry – 9	131,991	0.92	3.41	2,342	0.94	3.55
	Algebra II – 10	116,728	0.91	3.51	1,607	0.92	3.58
	Summ. H.S. Math – 11	108,732	0.93	3.25	915	0.95	3.38
	World History – 10	395,240	0.93	3.31	33,656	0.90	3.53

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

** MC only

Table 8.B.9 Reliabilities and SEMs for the CSTs by English Fluency

		English Only			Initially Desig. Fluent		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	250,716	0.94	3.17	18,691	0.93	2.88
	3	241,454	0.93	3.20	18,816	0.92	2.97
	4	241,334	0.94	3.35	30,453	0.93	3.17
	5	240,759	0.93	3.49	33,550	0.92	3.36
	6	243,431	0.93	3.51	36,305	0.92	3.41
	7**	243,569	0.93	3.52	32,607	0.93	3.39
	8	248,574	0.94	3.50	31,801	0.93	3.37
	9	273,243	0.94	3.59	40,649	0.93	3.50
	10	270,609	0.95	3.54	39,422	0.94	3.42
	11	255,767	0.94	3.62	38,601	0.94	3.54
History–Social Science	8	257,834	0.94	3.67	32,120	0.94	3.53
	World History	266,443	0.93	3.27	39,702	0.93	3.18
	11	251,718	0.93	3.27	38,194	0.92	3.21
Mathematics	2	251,133	0.94	2.86	18,679	0.92	2.55
	3	242,743	0.94	2.78	18,854	0.93	2.45
	4	243,306	0.94	2.81	30,552	0.93	2.53
	5	241,913	0.94	3.16	33,622	0.94	2.96
	6	243,598	0.94	3.28	36,329	0.94	3.12
	7	224,416	0.93	3.43	27,969	0.93	3.31
	General Mathematics	123,008	0.91	3.62	9,726	0.91	3.60
	Algebra I	407,984	0.92	3.58	54,672	0.94	3.50
	Geometry	226,515	0.93	3.52	37,046	0.94	3.45
	Algebra II	150,880	0.91	3.56	28,140	0.93	3.46
	Summ. H.S. Mathematics	76,778	0.93	3.18	18,079	0.93	3.02
	Integrated Mathematics 1	6,845	0.85	3.63	893	0.86	3.62
	Integrated Mathematics 2	2,476	0.90	3.62	271	0.91	3.61
	Integrated Mathematics 3	642	0.91	3.57	42	0.90	3.64
Science	5	241,161	0.92	3.06	33,569	0.92	2.95
	8	248,115	0.93	3.09	31,768	0.92	2.94
	10 Life Science	262,202	0.93	3.18	38,827	0.93	3.11
	Biology	304,099	0.93	3.26	48,499	0.93	3.19
	Chemistry	142,594	0.92	3.36	27,791	0.92	3.31
	Earth Science	127,933	0.92	3.44	14,358	0.91	3.45
	Physics	42,211	0.92	3.34	8,019	0.92	3.31
	Int/Coord Science 1	29,050	0.89	3.53	4,868	0.89	3.51
	Int/Coord Science 2	2,749	0.87	3.56	503	0.89	3.52
	Int/Coord Science 3	778	0.90	3.47	94	0.82	3.58
	Int/Coord Science 4	271	0.81	3.53	12	0.91	3.44
Grade-Specific	Algebra I – 8	151,100	0.93	3.51	21,091	0.93	3.41
	Geometry – 9	77,857	0.91	3.37	14,933	0.92	3.33
	Algebra II – 10	69,303	0.91	3.51	13,488	0.92	3.43
	Summ. H.S. Math – 11	65,143	0.93	3.23	14,300	0.93	3.11
	World History – 10	241,310	0.93	3.27	35,569	0.92	3.20

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

** MC only

Table 8.B.10 Reliabilities and SEMs for the CSTs by English Fluency

		Learner			Redesigned Fluent		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	173,520	0.93	3.43	8,541	0.89	2.92
	3	148,175	0.91	3.54	28,404	0.85	2.98
	4	121,463	0.92	3.85	42,980	0.87	3.16
	5	97,249	0.90	3.94	59,290	0.87	3.45
	6	80,487	0.89	3.96	75,003	0.88	3.56
	7**	76,386	0.88	3.95	87,248	0.89	3.58
	8	72,070	0.88	3.94	97,136	0.90	3.57
	9	76,936	0.86	4.01	96,487	0.89	3.68
	10	71,926	0.89	3.98	97,087	0.91	3.59
	11	60,901	0.87	4.03	93,202	0.91	3.72
History–Social Science	8	79,297	0.88	3.99	97,527	0.91	3.73
	World History	70,492	0.87	3.57	97,911	0.91	3.33
	11	59,021	0.86	3.56	92,441	0.90	3.35
Mathematics	2	173,840	0.93	3.11	8,539	0.90	2.58
	3	149,313	0.93	3.08	28,393	0.89	2.36
	4	123,041	0.93	3.20	42,983	0.90	2.39
	5	98,638	0.92	3.45	59,294	0.92	2.97
	6	81,340	0.90	3.62	75,006	0.92	3.26
	7	76,101	0.89	3.66	79,729	0.91	3.41
	General Mathematics	58,018	0.87	3.68	28,537	0.89	3.59
	Algebra I	131,698	0.86	3.62	150,536	0.92	3.57
	Geometry	49,684	0.87	3.66	94,863	0.91	3.58
	Algebra II	18,311	0.91	3.59	67,394	0.92	3.56
	Summ. H.S. Mathematics	3,138	0.94	3.41	32,494	0.93	3.27
	Integrated Mathematics 1	1,703	0.73	3.61	1,793	0.81	3.64
	Integrated Mathematics 2	426	0.85	3.62	652	0.89	3.63
	Integrated Mathematics 3	20	0.87	3.62	90	0.94	3.53
Science	5	98,057	0.89	3.55	59,265	0.87	3.10
	8	72,545	0.88	3.54	97,009	0.89	3.12
	10 Life Science	67,983	0.86	3.55	96,001	0.90	3.27
	Biology	75,914	0.84	3.58	115,429	0.90	3.36
	Chemistry	18,454	0.87	3.58	67,486	0.91	3.49
	Earth Science	41,663	0.85	3.60	33,400	0.88	3.49
	Physics	4,830	0.87	3.54	17,620	0.90	3.46
	Int/Coord Science 1	14,119	0.79	3.58	15,853	0.85	3.57
	Int/Coord Science 2	910	0.72	3.57	1,185	0.84	3.58
	Int/Coord Science 3	228	0.66	3.53	243	0.83	3.55
	Int/Coord Science 4	61	0.51	3.55	21	0.63	3.62
Grade-Specific	Algebra I – 8	33,332	0.90	3.62	67,996	0.92	3.52
	Geometry – 9	8,062	0.92	3.61	33,378	0.91	3.50
	Algebra II – 10	5,384	0.93	3.56	30,079	0.91	3.52
	Summ. H.S. Math – 11	2,773	0.94	3.45	27,370	0.93	3.33
	World History – 10	61,832	0.87	3.58	89,518	0.91	3.34

* 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	2,961	0.94	3.40	36,996	0.93	2.85
	3	2,857	0.92	3.40	36,538	0.93	2.95
	4	2,860	0.94	3.60	38,632	0.94	3.06
	5	2,957	0.93	3.71	35,833	0.94	3.22
	6	3,027	0.93	3.72	36,257	0.93	3.24
	7**	3,040	0.93	3.68	38,494	0.94	3.24
	8	3,138	0.93	3.68	39,531	0.94	3.20
	9	3,518	0.93	3.74	41,286	0.93	3.35
	10	3,348	0.95	3.68	42,078	0.94	3.24
	11	2,929	0.94	3.76	41,840	0.94	3.40
History–Social Science	8	3,305	0.93	3.83	40,030	0.94	3.35
	World History	3,330	0.93	3.37	42,250	0.93	3.02
	11	2,884	0.93	3.38	41,415	0.93	3.10
Mathematics	2	2,962	0.93	3.10	37,015	0.93	2.45
	3	2,871	0.94	3.01	36,622	0.93	2.31
	4	2,886	0.94	3.07	38,807	0.93	2.26
	5	2,990	0.93	3.35	35,993	0.94	2.68
	6	3,020	0.93	3.48	36,347	0.94	2.80
	7	2,918	0.92	3.55	30,205	0.94	3.08
	General Mathematics	2,206	0.91	3.65	7,519	0.93	3.50
	Algebra I	5,275	0.90	3.63	51,885	0.95	3.24
	Geometry	2,479	0.91	3.60	41,000	0.94	3.21
	Algebra II	1,235	0.90	3.60	36,799	0.93	3.30
	Summ. H. S. Mathematics	479	0.92	3.29	32,040	0.92	2.83
	Integrated Mathematics 1	82	0.80	3.64	462	0.89	3.60
	Integrated Mathematics 2	37	0.83	3.65	230	0.94	3.51
	Integrated Mathematics 3	3	–	–	77	0.95	3.33
Science	5	2,969	0.92	3.29	35,866	0.93	2.76
	8	3,135	0.92	3.29	39,535	0.92	2.73
	10 Life Science	3,176	0.93	3.29	41,591	0.93	2.95
	Biology	3,571	0.92	3.36	51,848	0.93	3.00
	Chemistry	1,088	0.90	3.45	36,021	0.92	3.12
	Earth Science	1,878	0.91	3.48	10,159	0.91	3.41
	Physics	360	0.92	3.39	11,737	0.91	3.19
	Int/Coord Science 1	444	0.89	3.55	3,591	0.91	3.42
	Int/Coord Science 2	36	0.83	3.61	332	0.92	3.31
	Int/Coord Science 3	9	–	–	35	0.93	3.39
	Int/Coord Science 4	5	–	–	11	0.61	3.66
Grade-Specific	Algebra I – 8	1,625	0.91	3.60	26,209	0.93	3.17
	Geometry – 9	703	0.92	3.48	19,708	0.92	3.15
	Algebra II – 10	525	0.90	3.56	19,003	0.91	3.31
	Summ. H.S. Math – 11	422	0.92	3.31	24,252	0.92	2.92
	World History – 10	3,020	0.93	3.36	36,997	0.92	3.05

* 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	2,463	0.93	3.28	10,378	0.92	3.00
	3	2,357	0.91	3.34	10,791	0.91	3.09
	4	2,404	0.93	3.56	11,080	0.92	3.24
	5	2,438	0.92	3.66	11,369	0.91	3.40
	6	2,594	0.92	3.66	11,923	0.91	3.42
	7**	2,683	0.93	3.68	12,105	0.92	3.41
	8	2,590	0.93	3.65	12,260	0.92	3.39
	9	2,872	0.93	3.75	13,426	0.91	3.49
	10	2,841	0.94	3.71	13,139	0.92	3.42
	11	2,741	0.94	3.79	13,005	0.92	3.59
History–Social Science	8	2,653	0.93	3.80	12,421	0.92	3.58
	World History	2,837	0.92	3.42	13,354	0.91	3.21
	11	2,677	0.92	3.41	12,877	0.91	3.26
Mathematics	2	2,460	0.93	3.02	10,393	0.92	2.70
	3	2,356	0.93	2.89	10,801	0.92	2.57
	4	2,431	0.94	2.95	11,121	0.93	2.57
	5	2,441	0.93	3.26	11,408	0.93	2.97
	6	2,599	0.93	3.40	11,932	0.93	3.15
	7	2,537	0.92	3.51	10,740	0.92	3.32
	General Mathematics	1,200	0.91	3.63	3,302	0.91	3.54
	Algebra I	4,602	0.90	3.62	18,584	0.92	3.52
	Geometry	2,515	0.91	3.62	13,062	0.92	3.50
	Algebra II	1,504	0.90	3.61	10,633	0.91	3.54
	Summ. H.S. Mathematics	604	0.93	3.28	5,703	0.91	3.29
	Integrated Mathematics 1	89	0.78	3.66	299	0.88	3.62
	Integrated Mathematics 2	39	0.82	3.73	117	0.94	3.44
	Integrated Mathematics 3	4	–	–	27	0.94	3.49
Science	5	2,441	0.92	3.30	11,380	0.90	2.99
	8	2,585	0.92	3.25	12,250	0.90	2.96
	10 Life Science	2,749	0.91	3.38	12,957	0.91	3.13
	Biology	3,280	0.91	3.43	16,428	0.90	3.22
	Chemistry	1,454	0.91	3.50	10,011	0.90	3.42
	Earth Science	1,339	0.90	3.54	4,239	0.90	3.41
	Physics	491	0.92	3.45	3,035	0.89	3.41
	Int/Coord Science 1	377	0.86	3.59	1,544	0.87	3.51
	Int/Coord Science 2	42	0.87	3.56	150	0.86	3.55
	Int/Coord Science 3	3	–	–	40	0.89	3.49
	Int/Coord Science 4	2	–	–	4	–	–
Grade-Specific	Algebra I – 8	1,615	0.91	3.57	8,577	0.92	3.44
	Geometry – 9	778	0.90	3.53	5,667	0.90	3.39
	Algebra II – 10	628	0.91	3.55	5,282	0.90	3.51
	Summ. H.S. Math – 11	534	0.93	3.32	4,948	0.91	3.33
	World History – 10	2,575	0.92	3.42	12,198	0.91	3.23

* 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	239,733	0.93	3.41	28,780	0.94	3.38	113,153	0.94	3.06
	3	228,537	0.92	3.45	27,743	0.92	3.43	111,522	0.92	3.08
	4	224,965	0.94	3.66	27,942	0.94	3.65	113,323	0.94	3.20
	5	220,107	0.92	3.75	28,308	0.93	3.74	115,046	0.92	3.35
	6	221,438	0.92	3.76	28,745	0.93	3.76	116,629	0.92	3.38
	7**	221,470	0.92	3.76	29,077	0.93	3.76	118,958	0.93	3.39
	8	224,198	0.93	3.74	29,619	0.93	3.75	123,947	0.93	3.38
	9	244,464	0.92	3.82	33,374	0.93	3.83	134,022	0.93	3.46
	10	233,459	0.94	3.77	33,376	0.94	3.78	136,346	0.94	3.41
	11	210,465	0.93	3.84	30,668	0.94	3.85	133,403	0.94	3.51
History–Social Science	8	234,739	0.93	3.87	31,633	0.93	3.87	127,448	0.94	3.57
	World History	230,909	0.92	3.44	32,685	0.92	3.47	135,046	0.93	3.16
	11	206,864	0.92	3.44	29,880	0.92	3.44	131,680	0.93	3.18
Mathematics	2	240,178	0.93	3.10	28,829	0.94	3.18	113,337	0.93	2.69
	3	230,119	0.93	3.00	27,798	0.94	3.10	112,176	0.93	2.63
	4	227,187	0.94	3.04	28,093	0.94	3.15	114,228	0.93	2.66
	5	221,921	0.93	3.31	28,416	0.93	3.38	115,478	0.94	3.06
	6	222,399	0.93	3.48	28,742	0.93	3.53	116,608	0.93	3.15
	7	213,405	0.92	3.56	27,971	0.91	3.59	107,700	0.93	3.35
	General Mathematics	124,541	0.90	3.66	17,934	0.90	3.66	56,034	0.92	3.59
	Algebra I	396,959	0.89	3.63	53,472	0.89	3.63	191,735	0.92	3.54
	Geometry	191,503	0.89	3.65	26,303	0.88	3.66	119,321	0.92	3.46
	Algebra II	106,198	0.90	3.62	14,857	0.89	3.63	85,580	0.91	3.55
	Summ. H.S. Math	35,256	0.92	3.46	4,377	0.92	3.51	47,800	0.92	3.14
	Integrated Math 1	5,802	0.81	3.63	1,039	0.82	3.62	3,119	0.86	3.63
	Integrated Math 2	1,616	0.86	3.65	343	0.89	3.62	1,296	0.90	3.61
	Integrated Math 3	149	0.92	3.60	48	0.74	3.62	438	0.90	3.58
Science	5	221,127	0.91	3.37	28,343	0.92	3.37	115,127	0.92	2.89
	8	224,416	0.91	3.33	29,528	0.92	3.37	123,757	0.92	2.95
	10 Life Science	225,771	0.91	3.40	31,811	0.92	3.41	133,052	0.93	3.07
	Biology	261,276	0.91	3.47	36,780	0.91	3.48	155,007	0.92	3.16
	Chemistry	107,335	0.90	3.55	15,045	0.90	3.57	78,043	0.91	3.28
	Earth Science	115,076	0.90	3.54	15,651	0.90	3.56	62,503	0.92	3.37
	Physics	26,096	0.90	3.52	4,097	0.90	3.53	24,314	0.91	3.27
	Int/Coord Science 1	40,412	0.86	3.58	4,988	0.86	3.58	11,043	0.89	3.47
	Int/Coord Science 2	2,974	0.83	3.59	495	0.76	3.59	1,185	0.87	3.55
	Int/Coord Science 3	686	0.83	3.55	74	0.80	3.54	469	0.91	3.44
	Int/Coord Science 4	139	0.77	3.56	22	0.80	3.55	151	0.83	3.53
Grade-Specific	Algebra I – 8	133,065	0.91	3.61	17,229	0.91	3.62	76,466	0.92	3.46
	Geometry – 9	51,936	0.91	3.57	6,140	0.90	3.61	45,389	0.90	3.30
	Algebra II – 10	42,497	0.90	3.58	5,726	0.90	3.61	41,019	0.90	3.50
	Summ. H.S. Math – 11	31,302	0.92	3.49	3,924	0.92	3.53	40,772	0.92	3.19
	World History – 10	207,945	0.92	3.44	29,205	0.92	3.47	123,699	0.93	3.17

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

** MC only

Table 8.B.14 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Not Economically Disadvantaged

		American Indian			Asian		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	1,042	0.93	3.24	23,713	0.92	2.66
	3	1,076	0.93	3.26	23,268	0.91	2.76
	4	1,123	0.94	3.41	24,437	0.93	2.83
	5	1,161	0.93	3.55	22,346	0.92	3.01
	6	1,205	0.92	3.57	22,552	0.92	3.05
	7**	1,299	0.93	3.54	23,662	0.92	3.03
	8	1,402	0.93	3.54	23,810	0.92	2.99
	9	1,789	0.93	3.62	24,829	0.92	3.15
	10	1,734	0.94	3.56	25,255	0.93	3.04
	11	1,678	0.94	3.67	24,750	0.94	3.21
History–Social Science	8	1,459	0.93	3.73	23,983	0.93	3.13
	World History	1,734	0.93	3.26	25,476	0.92	2.86
	11	1,653	0.93	3.31	24,570	0.92	2.95
Mathematics	2	1,044	0.93	2.90	23,718	0.91	2.25
	3	1,078	0.94	2.85	23,295	0.92	2.08
	4	1,131	0.94	2.88	24,519	0.91	2.06
	5	1,168	0.94	3.26	22,422	0.93	2.47
	6	1,203	0.92	3.37	22,595	0.93	2.58
	7	1,221	0.92	3.48	17,311	0.93	2.91
	General Mathematics	861	0.91	3.62	3,226	0.93	3.40
	Algebra I	2,550	0.91	3.61	29,378	0.94	3.08
	Geometry	1,433	0.92	3.55	24,456	0.94	3.05
	Algebra II	820	0.90	3.59	23,382	0.93	3.22
	Summ. H.S. Mathematics	366	0.93	3.22	22,649	0.91	2.71
	Integrated Mathematics 1	41	0.81	3.66	210	0.91	3.58
	Integrated Mathematics 2	18	0.77	3.71	112	0.94	3.46
	Integrated Mathematics 3	3	–	–	66	0.95	3.28
Science	5	1,161	0.92	3.13	22,365	0.91	2.53
	8	1,399	0.92	3.16	23,808	0.91	2.51
	10 Life Science	1,676	0.93	3.18	25,054	0.92	2.78
	Biology	1,984	0.92	3.28	31,658	0.92	2.82
	Chemistry	712	0.90	3.40	23,252	0.92	2.99
	Earth Science	898	0.91	3.42	4,595	0.91	3.30
	Physics	258	0.92	3.32	7,720	0.90	3.09
	Int/Coord Science 1	187	0.90	3.49	1,813	0.91	3.33
	Int/Coord Science 2	23	0.85	3.57	279	0.90	3.25
	Int/Coord Science 3	5	–	–	26	0.94	3.34
	Int/Coord Science 4	3	–	–	9	–	–
Grade-Specific	Algebra I – 8	780	0.92	3.55	15,457	0.93	3.03
	Geometry – 9	441	0.91	3.40	12,634	0.91	3.02
	Algebra II – 10	360	0.89	3.54	12,489	0.91	3.26
	Summ. H.S. Math – 11	324	0.93	3.25	16,669	0.92	2.80
	World History – 10	1,607	0.93	3.26	21,819	0.91	2.89

* 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	946	0.92	3.17	6,656	0.92	2.91
	3	887	0.91	3.18	6,997	0.90	3.00
	4	926	0.93	3.37	7,132	0.92	3.14
	5	980	0.92	3.48	7,330	0.90	3.30
	6	1,086	0.92	3.52	7,642	0.90	3.34
	7**	1,191	0.92	3.54	7,982	0.91	3.33
	8	1,181	0.93	3.50	8,194	0.91	3.31
	9	1,430	0.93	3.64	9,532	0.90	3.43
	10	1,455	0.94	3.62	9,519	0.92	3.35
	11	1,474	0.94	3.70	9,401	0.92	3.54
History–Social Science	8	1,201	0.93	3.69	8,279	0.92	3.50
	World History	1,452	0.92	3.36	9,676	0.91	3.17
	11	1,450	0.92	3.34	9,315	0.90	3.22
Mathematics	2	946	0.93	2.89	6,663	0.92	2.60
	3	886	0.93	2.71	7,004	0.92	2.47
	4	936	0.92	2.77	7,159	0.92	2.48
	5	984	0.93	3.12	7,352	0.93	2.90
	6	1,093	0.93	3.27	7,639	0.93	3.07
	7	1,108	0.92	3.45	6,960	0.92	3.27
	General Mathematics	473	0.91	3.61	2,043	0.91	3.51
	Algebra I	2,173	0.91	3.59	12,561	0.92	3.49
	Geometry	1,318	0.92	3.58	9,451	0.92	3.47
	Algebra II	890	0.90	3.60	7,963	0.91	3.54
	Summ. H.S. Mathematics	409	0.93	3.22	4,380	0.91	3.26
	Integrated Mathematics 1	38	0.70	3.70	194	0.87	3.61
	Integrated Mathematics 2	17	0.72	3.79	88	0.94	3.42
	Integrated Mathematics 3	2	–	–	22	0.93	3.43
Science	5	980	0.91	3.11	7,337	0.89	2.89
	8	1,179	0.92	3.10	8,186	0.90	2.88
	10 Life Science	1,415	0.92	3.31	9,403	0.90	3.09
	Biology	1,722	0.92	3.36	11,869	0.90	3.17
	Chemistry	817	0.92	3.46	7,446	0.90	3.39
	Earth Science	648	0.90	3.51	2,896	0.89	3.37
	Physics	305	0.91	3.42	2,278	0.89	3.39
	Int/Coord Science 1	151	0.87	3.57	1,015	0.87	3.50
	Int/Coord Science 2	25	0.90	3.54	109	0.86	3.53
	Int/Coord Science 3	3	–	–	34	0.89	3.49
	Int/Coord Science 4	2	–	–	2	–	–
Grade-Specific	Algebra I – 8	774	0.92	3.51	5,754	0.92	3.41
	Geometry – 9	433	0.90	3.46	4,199	0.90	3.35
	Algebra II – 10	372	0.90	3.54	3,990	0.90	3.50
	Summ. H.S. Math – 11	359	0.93	3.26	3,761	0.91	3.30
	World History – 10	1,319	0.92	3.36	8,824	0.90	3.19

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

** MC only

Table 8.B.16 Reliabilities and SEMs for the CSTs by Primary Ethnicity-for-Not Economically Disadvantaged

		Hispanic			African American			White		
Content Area	**CST***	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**	**N**	**Rel**	**SEM**
English–Language Arts	2	43,006	0.93	3.22	8,133	0.94	3.22	82,750	0.93	2.96
	3	40,463	0.92	3.27	7,992	0.92	3.29	82,643	0.91	2.98
	4	41,236	0.94	3.43	8,444	0.94	3.47	84,548	0.92	3.07
	5	41,365	0.92	3.55	8,730	0.93	3.58	85,740	0.91	3.24
	6	43,907	0.92	3.58	9,570	0.93	3.62	87,753	0.91	3.29
	7**	46,123	0.92	3.60	10,002	0.93	3.64	90,661	0.92	3.30
	8	48,347	0.93	3.59	10,668	0.93	3.64	94,474	0.92	3.29
	9	61,608	0.93	3.70	13,975	0.93	3.75	105,225	0.92	3.38
	10	60,034	0.94	3.65	14,232	0.94	3.70	107,356	0.94	3.34
	11	56,343	0.94	3.74	13,773	0.94	3.78	107,644	0.94	3.45
History–Social Science	8	49,940	0.93	3.75	11,096	0.93	3.78	96,335	0.93	3.48
	World History	59,195	0.93	3.36	13,983	0.92	3.42	107,105	0.93	3.11
	11	55,451	0.92	3.36	13,429	0.93	3.40	106,509	0.93	3.13
Mathematics	2	43,062	0.93	2.90	8,145	0.94	3.00	82,863	0.92	2.57
	3	40,703	0.93	2.81	7,978	0.94	2.92	82,983	0.92	2.51
	4	41,576	0.93	2.84	8,455	0.94	2.96	85,121	0.93	2.54
	5	41,612	0.93	3.20	8,766	0.93	3.27	85,983	0.93	2.98
	6	43,982	0.93	3.35	9,548	0.93	3.42	87,715	0.93	3.06
	7	43,391	0.92	3.48	9,424	0.92	3.53	80,749	0.92	3.29
	General Mathematics	24,825	0.91	3.64	5,799	0.90	3.64	36,495	0.91	3.56
	Algebra I	93,778	0.90	3.62	21,036	0.90	3.62	144,647	0.92	3.51
	Geometry	50,563	0.91	3.61	11,950	0.90	3.64	98,278	0.92	3.43
	Algebra II	30,236	0.90	3.61	7,358	0.90	3.62	74,482	0.91	3.54
	Summ. H.S. Math	11,547	0.92	3.38	2,523	0.92	3.46	43,564	0.92	3.12
	Integrated Math 1	1,521	0.84	3.63	438	0.84	3.62	2,306	0.86	3.62
	Integrated Math 2	424	0.88	3.64	148	0.89	3.64	988	0.90	3.61
	Integrated Math 3	80	0.92	3.59	29	0.78	3.67	421	0.90	3.58
Science	5	41,473	0.91	3.15	8,733	0.92	3.21	85,786	0.90	2.78
	8	48,295	0.92	3.19	10,645	0.92	3.25	94,330	0.91	2.86
	10 Life Science	58,243	0.92	3.30	13,691	0.92	3.35	105,273	0.92	3.00
	Biology	69,015	0.92	3.38	16,302	0.92	3.43	125,319	0.92	3.10
	Chemistry	29,915	0.91	3.49	7,315	0.90	3.55	67,993	0.91	3.26
	Earth Science	28,786	0.91	3.50	6,246	0.91	3.53	45,321	0.91	3.32
	Physics	7,323	0.91	3.46	1,978	0.91	3.50	21,402	0.91	3.25
	Int/Coord Science 1	7,986	0.88	3.56	1,854	0.87	3.57	8,070	0.89	3.45
	Int/Coord Science 2	589	0.83	3.59	206	0.79	3.59	977	0.87	3.53
	Int/Coord Science 3	207	0.86	3.54	39	0.82	3.53	408	0.91	3.43
	Int/Coord Science 4	42	0.81	3.55	16	0.71	3.57	117	0.82	3.54
Grade-Specific	Algebra I – 8	29,807	0.91	3.57	6,486	0.91	3.59	60,556	0.92	3.42
	Geometry – 9	14,597	0.91	3.49	3,112	0.90	3.56	39,618	0.90	3.28
	Algebra II – 10	12,675	0.90	3.57	2,944	0.90	3.59	36,299	0.90	3.49
	Summ. H.S. Math – 11	10,089	0.92	3.42	2,247	0.92	3.49	37,091	0.92	3.17
	World History – 10	53,527	0.92	3.36	12,579	0.92	3.42	98,368	0.92	3.11

* 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	1,917	0.93	3.48	13,213	0.93	3.15
	3	1,778	0.92	3.49	13,221	0.92	3.23
	4	1,735	0.94	3.72	14,145	0.94	3.40
	5	1,792	0.93	3.80	13,433	0.93	3.53
	6	1,812	0.92	3.81	13,666	0.93	3.53
	7**	1,735	0.93	3.78	14,764	0.93	3.53
	8	1,728	0.93	3.78	15,667	0.93	3.49
	9	1,724	0.92	3.85	16,413	0.93	3.61
	10	1,602	0.94	3.81	16,784	0.94	3.51
	11	1,247	0.93	3.87	17,052	0.94	3.66
History–Social Science	8	1,837	0.92	3.90	15,991	0.94	3.63
	World History	1,586	0.91	3.48	16,736	0.93	3.24
	11	1,227	0.91	3.47	16,810	0.92	3.29
Mathematics	2	1,916	0.93	3.21	13,226	0.93	2.77
	3	1,789	0.93	3.10	13,275	0.93	2.62
	4	1,753	0.94	3.18	14,237	0.94	2.57
	5	1,819	0.93	3.41	13,515	0.94	2.98
	6	1,808	0.92	3.55	13,713	0.94	3.12
	7	1,691	0.91	3.60	12,838	0.93	3.28
	General Math	1,336	0.90	3.67	4,274	0.92	3.56
	Algebra I	2,717	0.88	3.65	22,423	0.93	3.44
	Geometry	1,040	0.88	3.67	16,512	0.93	3.43
	Algebra II	415	0.89	3.63	13,388	0.93	3.43
	Summ. H.S. Mathematics	113	0.91	3.49	9,375	0.92	3.10
	Integrated Mathematics 1	41	0.80	3.62	251	0.86	3.63
	Integrated Mathematics 2	19	0.86	3.61	118	0.93	3.55
	Integrated Mathematics 3	0	–	–	11	0.92	3.64
Science	5	1,804	0.92	3.38	13,447	0.93	3.11
	8	1,728	0.92	3.38	15,674	0.92	3.03
	10 Life Science	1,489	0.91	3.40	16,501	0.92	3.18
	Biology	1,582	0.91	3.46	20,143	0.92	3.25
	Chemistry	375	0.89	3.54	12,752	0.91	3.34
	Earth Science	975	0.90	3.54	5,552	0.90	3.48
	Physics	102	0.89	3.53	4,014	0.90	3.36
	Int/Coord Science 1	256	0.86	3.59	1,773	0.89	3.50
	Int/Coord Science 2	13	0.75	3.63	53	0.85	3.60
	Int/Coord Science 3	4	–	–	9	–	–
	Int/Coord Science 4	2	–	–	2	–	–
Grade-Specific	Algebra I – 8	844	0.90	3.64	10,711	0.93	3.36
	Geometry – 9	262	0.90	3.60	7,059	0.91	3.36
	Algebra II – 10	165	0.90	3.60	6,501	0.91	3.41
	Summ. H.S. Math – 11	98	0.90	3.51	7,570	0.92	3.16
	World History – 10	1,403	0.91	3.48	15,150	0.92	3.25

* 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	1,512	0.93	3.35	3,707	0.93	3.15
	3	1,464	0.91	3.43	3,778	0.91	3.24
	4	1,475	0.93	3.67	3,937	0.93	3.43
	5	1,454	0.92	3.77	4,025	0.92	3.56
	6	1,501	0.92	3.76	4,262	0.91	3.56
	7**	1,486	0.92	3.77	4,109	0.92	3.56
	8	1,404	0.92	3.77	4,047	0.92	3.54
	9	1,436	0.92	3.84	3,881	0.92	3.65
	10	1,378	0.93	3.81	3,611	0.93	3.58
	11	1,260	0.93	3.89	3,587	0.92	3.72
History–Social Science	8	1,444	0.92	3.89	4,121	0.92	3.73
	World History	1,377	0.91	3.48	3,668	0.91	3.32
	11	1,220	0.91	3.48	3,545	0.91	3.35
Mathematics	2	1,509	0.93	3.10	3,714	0.93	2.86
	3	1,464	0.93	2.98	3,779	0.92	2.73
	4	1,492	0.94	3.06	3,951	0.93	2.73
	5	1,453	0.93	3.35	4,041	0.94	3.11
	6	1,499	0.92	3.49	4,274	0.93	3.28
	7	1,423	0.92	3.56	3,767	0.92	3.41
	General Mathematics	720	0.91	3.64	1,248	0.91	3.59
	Algebra I	2,421	0.88	3.65	6,001	0.92	3.56
	Geometry	1,191	0.88	3.67	3,600	0.91	3.57
	Algebra II	611	0.89	3.63	2,661	0.91	3.56
	Summ. H. S. Mathematics	194	0.92	3.41	1,321	0.92	3.40
	Integrated Mathematics 1	51	0.82	3.62	104	0.88	3.64
	Integrated Mathematics 2	22	0.87	3.71	29	0.94	3.51
	Integrated Mathematics 3	2	–	–	5	–	–
Science	5	1,457	0.91	3.41	4,028	0.91	3.17
	8	1,401	0.91	3.37	4,045	0.91	3.11
	10 Life Science	1,326	0.90	3.45	3,548	0.91	3.25
	Biology	1,553	0.90	3.50	4,545	0.90	3.33
	Chemistry	633	0.90	3.56	2,556	0.89	3.50
	Earth Science	688	0.89	3.56	1,337	0.90	3.48
	Physics	185	0.91	3.50	757	0.89	3.48
	Int/Coord Science 1	225	0.85	3.61	527	0.86	3.55
	Int/Coord Science 2	17	0.68	3.60	41	0.81	3.62
	Int/Coord Science 3	0	–	–	6	–	–
	Int/Coord Science 4	0	–	–	2	–	–
Grade-Specific	Algebra I – 8	839	0.90	3.63	2,811	0.92	3.51
	Geometry – 9	343	0.89	3.62	1,462	0.90	3.48
	Algebra II – 10	254	0.91	3.57	1,290	0.91	3.52
	Summ. H.S. Math – 11	174	0.92	3.43	1,185	0.92	3.43
	World History – 10	1,249	0.91	3.48	3,365	0.91	3.32

* 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	196,409	0.93	3.45	20,577	0.93	3.44	30,180	0.94	3.32
	3	187,808	0.92	3.49	19,682	0.92	3.48	28,674	0.92	3.34
	4	183,531	0.93	3.71	19,443	0.94	3.72	28,608	0.94	3.53
	5	178,549	0.92	3.79	19,529	0.92	3.81	29,170	0.93	3.63
	6	177,273	0.92	3.80	19,126	0.92	3.82	28,681	0.92	3.65
	7**	175,010	0.92	3.80	18,986	0.92	3.82	28,087	0.93	3.66
	8	175,522	0.92	3.78	18,861	0.92	3.82	29,223	0.93	3.65
	9	182,420	0.92	3.86	19,283	0.92	3.89	28,568	0.93	3.72
	10	172,980	0.93	3.80	19,008	0.94	3.84	28,743	0.94	3.68
	11	153,748	0.93	3.87	16,809	0.93	3.90	25,567	0.94	3.76
History–Social Science	8	184,373	0.92	3.90	20,421	0.92	3.92	30,843	0.93	3.80
	World History	171,286	0.91	3.47	18,556	0.91	3.51	27,712	0.93	3.37
	11	151,056	0.91	3.46	16,371	0.91	3.48	24,990	0.93	3.37
Mathematics	2	196,793	0.93	3.14	20,615	0.94	3.24	30,251	0.93	2.99
	3	189,138	0.93	3.04	19,747	0.93	3.16	28,975	0.93	2.92
	4	185,405	0.94	3.08	19,582	0.94	3.23	28,940	0.94	2.98
	5	180,110	0.93	3.34	19,598	0.93	3.43	29,355	0.93	3.29
	6	178,160	0.92	3.51	19,147	0.92	3.57	28,700	0.93	3.41
	7	169,686	0.91	3.58	18,457	0.91	3.61	26,751	0.92	3.53
	General Mathematics	99,348	0.89	3.67	12,024	0.89	3.66	19,323	0.91	3.65
	Algebra I	302,532	0.89	3.64	32,269	0.87	3.63	46,742	0.90	3.62
	Geometry	140,706	0.88	3.66	14,287	0.86	3.67	20,912	0.91	3.60
	Algebra II	75,865	0.89	3.62	7,479	0.88	3.63	11,034	0.90	3.61
	Summ. H. S. Math	23,689	0.91	3.50	1,853	0.92	3.57	4,214	0.92	3.34
	Integrated Math 1	4,268	0.80	3.63	598	0.79	3.63	807	0.82	3.65
	Integrated Math 2	1,192	0.86	3.66	195	0.89	3.61	308	0.88	3.62
	Integrated Math 3	69	0.91	3.61	19	0.61	3.53	17	0.93	3.54
Science	5	179,458	0.91	3.42	19,558	0.91	3.44	29,203	0.92	3.19
	8	175,798	0.91	3.37	18,799	0.91	3.44	29,182	0.92	3.22
	10 Life Science	167,118	0.91	3.43	18,000	0.91	3.46	27,557	0.93	3.29
	Biology	191,837	0.90	3.49	20,363	0.90	3.51	29,482	0.92	3.37
	Chemistry	77,339	0.89	3.57	7,705	0.89	3.59	10,003	0.90	3.45
	Earth Science	86,072	0.89	3.56	9,357	0.88	3.57	17,049	0.92	3.47
	Physics	18,742	0.89	3.54	2,110	0.87	3.56	2,896	0.91	3.44
	Int/Coord Science 1	32,369	0.85	3.59	3,109	0.84	3.58	2,947	0.89	3.55
	Int/Coord Science 2	2,383	0.82	3.59	289	0.72	3.59	207	0.82	3.60
	Int/Coord Science 3	475	0.80	3.55	34	0.76	3.56	60	0.89	3.49
	Int/Coord Science 4	97	0.75	3.56	6	0.90	3.58	34	0.85	3.46
Grade-Specific	Algebra I – 8	103,141	0.91	3.61	10,708	0.90	3.63	15,807	0.91	3.59
	Geometry – 9	37,302	0.90	3.60	3,023	0.89	3.65	5,743	0.91	3.48
	Algebra II – 10	29,796	0.90	3.59	2,773	0.89	3.62	4,692	0.90	3.57
	Summ. H.S. Math – 11	21,194	0.91	3.52	1,677	0.92	3.59	3,663	0.92	3.38
	World History – 10	154,059	0.91	3.47	16,510	0.91	3.51	25,141	0.92	3.37

* 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	Male		Female		Not Econ. Dis.		Econ. Dis.	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2									
1. Word Analysis and Vocabulary Development	22	0.82	1.91	0.81	1.66	0.82	1.80	0.84	1.83
2. Reading Comprehension	15	0.76	1.68	0.78	1.48	0.78	1.60	0.80	1.62
3. Literary Response and Analysis	6	0.66	0.96	0.64	0.78	0.66	0.88	0.69	0.91
4. Written and Oral Language Conventions	14	0.79	1.58	0.80	1.40	0.80	1.48	0.81	1.54
5. Writing Strategies	8	0.60	1.27	0.66	1.17	0.65	1.22	0.65	1.24
Grade 3									
1. Word Analysis and Vocabulary Development	20	0.78	1.87	0.78	1.62	0.80	1.76	0.81	1.79
2. Reading Comprehension	15	0.73	1.66	0.70	1.47	0.74	1.57	0.75	1.61
3. Literary Response and Analysis	8	0.67	1.11	0.64	0.91	0.67	1.01	0.69	1.07
4. Written and Oral Language Conventions	13	0.68	1.59	0.71	1.46	0.72	1.53	0.72	1.56
5. Writing Strategies	9	0.64	1.34	0.67	1.19	0.68	1.27	0.69	1.29
Grade 4									
1. Word Analysis and Vocabulary Development	18	0.82	1.72	0.81	1.43	0.83	1.60	0.85	1.63
2. Reading Comprehension	15	0.77	1.65	0.77	1.43	0.79	1.55	0.80	1.58
3. Literary Response and Analysis	9	0.67	1.30	0.68	1.10	0.70	1.23	0.71	1.22
4. Written and Oral Language Conventions	18	0.79	1.76	0.77	1.51	0.79	1.62	0.81	1.70
5. Writing Strategies	15	0.70	1.69	0.71	1.51	0.72	1.61	0.75	1.63
Grade 5									
1. Word Analysis and Vocabulary Development	14	0.71	1.66	0.70	1.48	0.73	1.59	0.75	1.59
2. Reading Comprehension	16	0.75	1.74	0.75	1.56	0.76	1.67	0.79	1.68
3. Literary Response and Analysis	12	0.70	1.50	0.73	1.26	0.74	1.38	0.75	1.44
4. Written and Oral Language Conventions	17	0.74	1.71	0.72	1.53	0.73	1.59	0.76	1.69
5. Writing Strategies	16	0.74	1.71	0.73	1.51	0.75	1.61	0.77	1.66
Grade 6									
1. Word Analysis and Vocabulary Development	13	0.75	1.48	0.74	1.24	0.76	1.37	0.78	1.40
2. Reading Comprehension	17	0.71	1.86	0.72	1.68	0.74	1.78	0.75	1.79
3. Literary Response and Analysis	12	0.69	1.47	0.67	1.29	0.71	1.38	0.72	1.42
4. Written and Oral Language Conventions	16	0.73	1.66	0.71	1.45	0.72	1.54	0.76	1.61
5. Writing Strategies	17	0.72	1.87	0.73	1.75	0.75	1.81	0.76	1.83
Grade 7									
1. Word Analysis and Vocabulary Development	11	0.68	1.45	0.68	1.29	0.68	1.37	0.73	1.39
2. Reading Comprehension	18	0.80	1.78	0.80	1.53	0.81	1.65	0.83	1.70
3. Literary Response and Analysis	13	0.69	1.58	0.67	1.41	0.70	1.49	0.73	1.53
4. Written and Oral Language Conventions	16	0.72	1.71	0.74	1.52	0.73	1.60	0.76	1.67
5. Writing Strategies	17	0.70	1.84	0.76	1.72	0.76	1.78	0.76	1.80
Grade 8									
1. Word Analysis and Vocabulary Development	8	0.52	1.26	0.54	1.14	0.55	1.21	0.59	1.21
2. Reading Comprehension	18	0.81	1.74	0.79	1.53	0.80	1.63	0.83	1.67
3. Literary Response and Analysis	15	0.72	1.72	0.74	1.53	0.75	1.62	0.77	1.66
4. Written and Oral Language Conventions	16	0.75	1.75	0.77	1.56	0.77	1.63	0.78	1.70
5. Writing Strategies	17	0.74	1.81	0.77	1.67	0.76	1.73	0.78	1.78
Grade 9									
1. Word Analysis and Vocabulary Development	8	0.60	1.16	0.60	1.04	0.57	1.09	0.67	1.12
2. Reading Comprehension	18	0.78	1.85	0.81	1.65	0.80	1.76	0.83	1.76
3. Literary Response and Analysis	16	0.72	1.78	0.75	1.67	0.75	1.72	0.77	1.74
4. Written and Oral Language Conventions	13	0.69	1.63	0.73	1.45	0.71	1.52	0.74	1.57
5. Writing Strategies	20	0.75	1.97	0.77	1.83	0.76	1.88	0.78	1.93

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 10									
1. Word Analysis and Vocabulary Development	8	0.68	1.16	0.70	1.00	0.68	1.08	0.74	1.09
2. Reading Comprehension	18	0.83	1.80	0.85	1.59	0.84	1.69	0.86	1.72
3. Literary Response and Analysis	16	0.72	1.82	0.75	1.70	0.74	1.75	0.76	1.78
4. Written and Oral Language Conventions	13	0.73	1.56	0.74	1.42	0.72	1.47	0.77	1.52
5. Writing Strategies	20	0.80	1.93	0.82	1.78	0.81	1.83	0.83	1.88
Grade 11									
1. Word Analysis and Vocabulary Development	8	0.65	1.17	0.66	1.03	0.63	1.08	0.69	1.12
2. Reading Comprehension	19	0.81	1.93	0.84	1.78	0.82	1.84	0.85	1.87
3. Literary Response and Analysis	17	0.68	1.90	0.74	1.79	0.72	1.84	0.74	1.86
4. Written and Oral Language Conventions	9	0.65	1.28	0.68	1.15	0.64	1.19	0.70	1.24
5. Writing Strategies	22	0.82	2.07	0.85	1.89	0.84	1.95	0.86	2.01

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	0.68	1.73	0.71	1.59	0.70	1.69	0.74	1.66
2. Late Antiquity and the Middle Ages	14	0.74	1.66	0.76	1.52	0.75	1.63	0.80	1.57
3. Renaissance/Reformation	10	0.59	1.45	0.64	1.38	0.60	1.43	0.68	1.40
4. U.S. Constitution and the Early Republic	22	0.80	2.11	0.83	1.91	0.81	2.05	0.85	2.00
5. Civil War and Its Aftermath	13	0.76	1.59	0.79	1.40	0.77	1.53	0.81	1.50
World History									
1. Development of Modern Political Thought	13	0.69	1.60	0.73	1.47	0.69	1.55	0.75	1.53
2. Industrial Expansion and Imperialism	10	0.69	1.41	0.71	1.29	0.68	1.39	0.75	1.32
3. Causes and Effects of World War I	14	0.76	1.66	0.79	1.52	0.76	1.64	0.81	1.54
4. Causes and Effects of World War II	13	0.73	1.58	0.77	1.47	0.72	1.56	0.79	1.50
5. International Developments in the Post-World War II Era	10	0.67	1.39	0.70	1.30	0.66	1.37	0.74	1.33
Grade 11 (U.S. History)									
1. Foundations of American Political and Social Thought	10	0.65	1.39	0.71	1.29	0.68	1.36	0.72	1.33
2. Industrialization and the U.S. role as a World Power	13	0.73	1.57	0.77	1.44	0.73	1.52	0.79	1.49
3. United States between the World Wars	12	0.69	1.56	0.72	1.44	0.69	1.52	0.75	1.48
4. World War II and Foreign Affairs	12	0.69	1.55	0.72	1.47	0.66	1.55	0.76	1.48
5. Post-World War II Domestic Affairs	13	0.73	1.58	0.76	1.47	0.73	1.53	0.78	1.52

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	Male		Female		Not Econ. Dis.		Econ. Dis.	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 2									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.80	1.49	0.77	1.28	0.80	1.42	0.82	1.41
2. Number Sense: Multiplication, Division, and Fractions	23	0.86	1.82	0.85	1.54	0.86	1.72	0.87	1.71
3. Algebra and Functions	6	0.54	0.96	0.57	0.81	0.55	0.91	0.59	0.90
4. Measurement and Geometry	14	0.67	1.47	0.66	1.25	0.67	1.39	0.72	1.38
5. Statistics, Data Analysis, and Probability	7	0.65	0.97	0.62	0.86	0.63	0.93	0.68	0.94
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.45	0.76	1.25	0.78	1.39	0.80	1.36
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.82	1.49	0.82	1.30	0.83	1.41	0.84	1.43
3. Algebra and Functions	12	0.75	1.38	0.76	1.15	0.77	1.31	0.78	1.28
4. Measurement and Geometry	16	0.75	1.46	0.74	1.22	0.76	1.38	0.77	1.36
5. Statistics, Data Analysis, and Probability	5	0.47	0.77	0.44	0.64	0.45	0.72	0.50	0.73
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.78	1.52	0.75	1.23	0.77	1.44	0.80	1.38
2. Number Sense: Operations and Factoring	14	0.82	1.44	0.81	1.23	0.82	1.34	0.83	1.37
3. Algebra and Functions	18	0.87	1.45	0.84	1.18	0.86	1.33	0.87	1.36
4. Measurement and Geometry	12	0.75	1.41	0.75	1.27	0.76	1.35	0.77	1.35
5. Statistics, Data Analysis, and Probability	4	0.40	0.76	0.43	0.66	0.38	0.72	0.46	0.73
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.76	1.41	0.78	1.29	0.77	1.37	0.79	1.36
2. Number Sense: Operations with Fractions and Decimals	17	0.80	1.76	0.81	1.59	0.81	1.68	0.82	1.71
3. Algebra and Functions	17	0.79	1.64	0.81	1.46	0.80	1.57	0.82	1.58
4. Measurement and Geometry	15	0.76	1.59	0.79	1.47	0.77	1.54	0.80	1.54
5. Statistics, Data Analysis, and Probability	4	0.62	0.68	0.63	0.51	0.59	0.62	0.67	0.62
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.75	1.67	0.77	1.52	0.77	1.61	0.78	1.61
2. Number Sense: Operations and Problem Solving with Fractions	10	0.68	1.34	0.70	1.18	0.69	1.28	0.73	1.27
3. Algebra and Functions	19	0.82	1.82	0.84	1.57	0.84	1.75	0.85	1.70
4. Measurement and Geometry	10	0.69	1.38	0.73	1.26	0.72	1.34	0.73	1.33
5. Statistics, Data Analysis, and Probability	11	0.69	1.44	0.73	1.29	0.72	1.38	0.75	1.39
Grade 7									
1. Number Sense: Rational Numbers	14	0.73	1.65	0.75	1.56	0.75	1.61	0.76	1.61
2. Number Sense: Exponent, Powers and Roots	8	0.66	1.26	0.69	1.19	0.68	1.23	0.69	1.23
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.61	1.39	0.62	1.30	0.61	1.35	0.65	1.36
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.75	1.68	0.77	1.54	0.76	1.64	0.78	1.61
5. Measurement and Geometry	13	0.68	1.59	0.73	1.49	0.71	1.55	0.73	1.55
6. Statistics, Data Analysis, and Probability	5	0.59	0.95	0.59	0.85	0.59	0.90	0.62	0.91
General Mathematics									
1. Number Sense: Rational Numbers	14	0.70	1.66	0.74	1.64	0.70	1.64	0.74	1.66
2. Number Sense: Exponent, Powers and Roots	10	0.68	1.41	0.71	1.39	0.71	1.40	0.69	1.40
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.68	1.49	0.70	1.43	0.67	1.47	0.71	1.46
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.57	1.43	0.63	1.39	0.58	1.43	0.62	1.41
5. Measurement and Geometry	11	0.49	1.54	0.58	1.54	0.51	1.55	0.56	1.53
6. Statistics, Data Analysis, and Probability	9	0.61	1.33	0.67	1.28	0.62	1.30	0.66	1.32

Subscore Reliabilities and SEM for Mathematics by *Gender/Economic Status*									
Subscore Area	**N of**	**Male**		**Female**		**Not Econ. Dis.**		**Econ. Dis.**	
	Items	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**	**Reliab.**	**SEM**
Algebra I									
1. Number Properties, Operations, and Linear Equations	17	0.73	1.83	0.78	1.73	0.75	1.79	0.77	1.79
2. Graphing and Systems of Linear Equations	14	0.72	1.68	0.80	1.63	0.76	1.66	0.77	1.65
3. Quadratics and Polynomials	21	0.78	2.04	0.84	1.99	0.81	2.02	0.82	2.02
4. Functions and Rational Expressions	13	0.55	1.61	0.69	1.60	0.64	1.61	0.64	1.61
Geometry									
1. Logic and Geometric Proofs	23	0.78	2.16	0.83	2.04	0.82	2.11	0.83	2.09
2. Volume and Area Formulas	11	0.58	1.50	0.72	1.45	0.67	1.48	0.69	1.48
3. Angle Relationships, Constructions, and Lines	16	0.66	1.80	0.75	1.71	0.70	1.76	0.75	1.75
4. Trigonometry	15	0.73	1.73	0.79	1.63	0.76	1.70	0.79	1.67
Algebra II									
1. Polynomials and Rational Expressions	19	0.79	1.88	0.80	1.80	0.80	1.85	0.81	1.82
2. Quadratics, Conics, and Complex Numbers	16	0.71	1.81	0.76	1.78	0.74	1.79	0.76	1.79
3. Exponents and Logarithms	16	0.73	1.80	0.76	1.75	0.74	1.79	0.78	1.76
4. Series, Combinatorics, and Probability and Statistics	14	0.66	1.65	0.72	1.64	0.69	1.64	0.73	1.65
Summative High School Mathematics									
1. Algebra I	18	0.79	1.69	0.78	1.51	0.78	1.62	0.80	1.52
2. Geometry	19	0.80	1.84	0.79	1.64	0.80	1.76	0.81	1.65
3. Algebra II	23	0.83	2.03	0.84	1.86	0.83	1.96	0.85	1.87
4. Probability and Statistics	5	0.52	1.01	0.57	0.94	0.56	0.98	0.59	0.94
Integrated Mathematics 1									
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.66	1.73	0.69	1.68	0.65	1.71	0.71	1.71
2. Algebra I: Graphing	9	0.54	1.36	0.62	1.34	0.56	1.36	0.60	1.34
3. Algebra I: Quadratics and Polynomials	14	0.63	1.65	0.69	1.65	0.65	1.65	0.67	1.65
4. Algebra I: Functions and Relations Expressions	7	0.37	1.17	0.51	1.16	0.48	1.16	0.43	1.17
5. Geometry	20	0.37	1.99	0.51	2.02	0.42	1.99	0.47	2.02
Integrated Mathematics 2									
1. Algebra I	20	0.72	2.01	0.75	1.99	0.72	2.01	0.76	1.99
2. Geometry: Logic and Geometric Proofs	22	0.74	2.13	0.79	2.11	0.76	2.13	0.79	2.11
3. Geometry: Angle Relationships, Construction and Lines	8	0.56	1.26	0.63	1.22	0.59	1.24	0.61	1.24
4. Trigonometry	10	0.56	1.41	0.63	1.40	0.59	1.40	0.62	1.40
5. Algebra II: Probability and Statistics	5	0.22	0.95	0.35	0.97	0.34	0.94	0.26	0.98
Integrated Mathematics 3									
1. Geometry	5	0.55	0.99	0.62	0.85	0.62	0.89	0.63	0.84
2. Algebra II: Polynomials and Relations Expressions	19	0.76	1.94	0.78	1.90	0.79	1.92	0.77	1.90
3. Algebra II: Quadratics, Conics and Complex Numbers	16	0.66	1.81	0.69	1.82	0.69	1.82	0.70	1.82
4. Algebra II: Exponents and Logarithms	16	0.75	1.76	0.79	1.75	0.80	1.74	0.79	1.76
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.54	1.33	0.59	1.32	0.54	1.33	0.63	1.32

Table 8.B.23 Subscore Reliabilities and SEM for Science by Gender/Economic Status

Subscore Reliabilities and SEM for Science by *Gender/Economic Status*									
Subscore Area	N of	Male		Female		Not Econ. Dis.		Econ. Dis.	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Grade 5 Science									
1. Physical Science (Grade 5)	11	0.65	1.46	0.67	1.23	0.68	1.38	0.71	1.36
2. Physical Science (Grade 4)	8	0.57	1.25	0.60	1.08	0.60	1.19	0.65	1.17
3. Life Science (Grade 5)	13	0.74	1.53	0.73	1.29	0.74	1.45	0.78	1.41
4. Life Science (Grade 4)	9	0.61	1.31	0.63	1.11	0.64	1.24	0.67	1.22
5. Earth Science (Grade 5)	11	0.63	1.43	0.62	1.25	0.64	1.38	0.68	1.35
6. Earth Science (Grade 4)	8	0.64	1.22	0.68	1.01	0.67	1.16	0.72	1.12
Grade 8 Science									
1. Motion	8	0.57	1.23	0.65	1.11	0.62	1.20	0.65	1.16
2. Forces, Density, and Buoyancy	13	0.74	1.50	0.73	1.30	0.72	1.45	0.78	1.37
3. Structure of Matter and Periodic Table	16	0.76	1.74	0.79	1.55	0.78	1.68	0.82	1.65
4. Earth in the Solar System	7	0.55	1.10	0.54	0.98	0.50	1.08	0.63	1.02
5. Reactions and the Chemistry of Living Systems	10	0.66	1.40	0.66	1.24	0.66	1.34	0.72	1.32
6. Investigation and Experimentation	6	0.61	0.96	0.60	0.80	0.59	0.89	0.66	0.90
Grade 10 Life Science									
1. Cell Biology	10	0.59	1.41	0.67	1.33	0.61	1.39	0.69	1.36
2. Genetics	12	0.68	1.55	0.72	1.47	0.70	1.52	0.74	1.50
3. Physiology	10	0.68	1.36	0.73	1.20	0.68	1.31	0.76	1.27
4. Ecology	11	0.70	1.43	0.75	1.28	0.71	1.38	0.77	1.34
5. Evolution	11	0.73	1.43	0.77	1.28	0.74	1.37	0.79	1.35
6. Investigation and Experimentation	6	0.57	0.99	0.58	0.87	0.54	0.92	0.63	0.94
Biology									
1. Cell Biology	9	0.51	1.39	0.61	1.31	0.56	1.36	0.62	1.34
2. Genetics	18	0.74	1.89	0.78	1.77	0.76	1.83	0.80	1.83
3. Ecology and Evolution	16	0.75	1.80	0.80	1.64	0.77	1.74	0.82	1.70
4. Physiology	11	0.77	1.39	0.79	1.21	0.77	1.33	0.82	1.28
5. Investigation and Experimentation	6	0.52	1.08	0.54	1.00	0.53	1.04	0.59	1.04
Chemistry									
1. Atomic and Molecular Structure	8	0.54	1.29	0.55	1.22	0.54	1.27	0.59	1.23
2. Chemical Bonds, Biochemistry	9	0.61	1.33	0.63	1.23	0.60	1.30	0.67	1.24
3. Kinetics, Thermodynamics	14	0.69	1.73	0.72	1.61	0.70	1.70	0.76	1.62
4. Chemical Reactions	13	0.67	1.65	0.73	1.57	0.70	1.63	0.75	1.58
5. Conservation of Matter and Stoichiometry	10	0.67	1.43	0.73	1.31	0.68	1.39	0.75	1.33
6. Investigation and Experimentation	6	0.58	1.09	0.60	0.97	0.60	1.04	0.65	1.01
Earth Science									
1. Astronomy and Cosmology	12	0.61	1.59	0.66	1.55	0.58	1.60	0.68	1.55
2. Solid Earth	14	0.65	1.72	0.67	1.66	0.64	1.71	0.70	1.68
3. The Earth's Energy	28	0.82	2.42	0.86	2.32	0.81	2.42	0.86	2.34
4. Investigation and Experimentation	6	0.59	1.07	0.64	0.98	0.59	1.04	0.65	1.02
Physics									
1. Motion and Forces	12	0.67	1.56	0.70	1.47	0.68	1.54	0.73	1.47
2. Conservation of Energy and Momentum	12	0.69	1.57	0.74	1.46	0.71	1.55	0.77	1.47
3. Heat and Thermodynamics	9	0.65	1.32	0.69	1.22	0.65	1.29	0.72	1.23
4. Waves	10	0.66	1.40	0.68	1.27	0.65	1.37	0.73	1.28
5. Electric and Magnetic Phenomena	11	0.57	1.54	0.60	1.48	0.56	1.53	0.64	1.48
6. Investigation and Experimentation	6	0.48	1.10	0.50	1.03	0.50	1.07	0.56	1.05

Subscore Reliabilities and SEM for Science by *Gender/Economic Status*									
Subscore Area	N of	Male		Female		Not Econ. Dis.		Econ. Dis.	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Integrated/Coordinated Science 1									
1. Biology/Life Sciences	10	0.59	1.44	0.66	1.38	0.60	1.43	0.66	1.41
2. Chemistry	15	0.51	1.82	0.63	1.81	0.54	1.82	0.60	1.81
3. Earth Sciences	17	0.73	1.88	0.77	1.81	0.72	1.87	0.78	1.84
4. Physics	12	0.50	1.61	0.60	1.59	0.50	1.61	0.59	1.59
5. Investigation and Experimentation	6	0.42	1.11	0.54	1.07	0.45	1.10	0.51	1.09
Integrated/Coordinated Science 2									
1. Biology/Life Sciences	15	0.62	1.78	0.68	1.73	0.62	1.76	0.68	1.76
2. Chemistry	6	0.36	1.13	0.53	1.11	0.46	1.13	0.47	1.12
3. Earth Sciences	15	0.65	1.79	0.74	1.72	0.68	1.77	0.73	1.75
4. Physics	18	0.48	1.93	0.66	1.95	0.55	1.94	0.63	1.93
5. Investigation and Experimentation	6	0.32	1.16	0.45	1.13	0.41	1.14	0.41	1.14
Integrated/Coordinated Science 3									
1. Biology/Life Sciences	16	0.60	1.84	0.72	1.78	0.67	1.82	0.72	1.80
2. Chemistry	23	0.64	2.18	0.78	2.17	0.71	2.18	0.76	2.17
3. Earth Sciences	7	0.55	1.20	0.65	1.13	0.57	1.19	0.66	1.14
4. Physics	8	0.27	1.28	0.40	1.32	0.30	1.31	0.43	1.30
5. Investigation and Experimentation	6	0.40	1.09	0.55	1.02	0.49	1.05	0.53	1.05
Integrated/Coordinated Science 4									
1. Biology/Life Sciences	13	0.70	1.60	0.65	1.60	0.64	1.63	0.70	1.57
2. Chemistry	10	0.17	1.45	0.27	1.46	0.09	1.47	0.32	1.45
3. Earth Sciences	15	0.64	1.79	0.67	1.77	0.58	1.79	0.70	1.77
4. Physics	16	0.26	1.80	0.41	1.82	0.37	1.80	0.35	1.82
5. Investigation and Experimentation	6	0.31	1.12	0.36	1.11	0.37	1.09	0.32	1.13

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	Male		Female		Not Econ. Dis.		Econ. Dis.	
	Items	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Algebra I – 8									
1. Number Properties, Operations, and Linear Equations	17	0.74	1.79	0.75	1.65	0.75	1.73	0.77	1.73
2. Graphing and Systems of Linear Equations	14	0.75	1.67	0.79	1.58	0.78	1.63	0.79	1.63
3. Quadratics and Polynomials	21	0.81	2.03	0.83	1.94	0.82	1.99	0.83	1.99
4. Functions and Rational Expressions	13	0.62	1.62	0.70	1.60	0.68	1.61	0.68	1.61
Geometry – 9									
1. Logic and Geometric Proofs	23	0.79	2.11	0.79	1.93	0.80	2.02	0.82	1.99
2. Volume and Area Formulas	11	0.64	1.48	0.69	1.40	0.69	1.44	0.71	1.43
3. Angle Relationships, Constructions, and Lines	16	0.68	1.75	0.71	1.63	0.70	1.70	0.74	1.67
4. Trigonometry	15	0.74	1.68	0.74	1.55	0.75	1.63	0.78	1.59
Algebra II – 10									
1. Polynomials and Rational Expressions	19	0.79	1.84	0.78	1.76	0.78	1.80	0.80	1.78
2. Quadratics, Conics, and Complex Numbers	16	0.73	1.80	0.74	1.77	0.73	1.79	0.75	1.78
3. Exponents and Logarithms	16	0.73	1.79	0.74	1.73	0.73	1.77	0.76	1.74
4. Series, Combinatorics, and Probability and Statistics	14	0.67	1.65	0.69	1.63	0.68	1.64	0.71	1.64

Subscore Reliabilities and SEM for Grade-Specific CSTs by *Gender/Economic Status*									
Subscore Area	N of Items	Male		Female		Not Econ. Dis.		Econ. Dis.	
		Reliab.	SEM	Reliab.	SEM	Reliab.	SEM	Reliab.	SEM
Summative High School Mathematics – 11									
1. Algebra I	18	0.78	1.72	0.78	1.56	0.78	1.65	0.79	1.57
2. Geometry	19	0.79	1.86	0.79	1.68	0.80	1.79	0.81	1.69
3. Algebra II	23	0.82	2.05	0.84	1.91	0.83	1.99	0.85	1.91
4. Probability and Statistics	5	0.51	1.01	0.57	0.95	0.56	0.99	0.59	0.95
World History – 10									
1. Development of Modern Political Thought	13	0.68	1.60	0.72	1.48	0.68	1.56	0.74	1.53
2. Industrial Expansion and Imperialism	10	0.69	1.41	0.70	1.29	0.67	1.39	0.74	1.32
3. Causes and Effects of World War I	14	0.76	1.66	0.78	1.53	0.75	1.64	0.81	1.54
4. Causes and Effects of World War II	13	0.72	1.58	0.76	1.47	0.71	1.56	0.78	1.50
5. International Developments in the Post-World War II Era	10	0.67	1.39	0.69	1.30	0.65	1.37	0.73	1.33

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 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 2													
1. Word Analysis and Vocabulary Development	22	0.83	1.76	0.78	1.58	0.82	1.92	0.70	1.59	0.82	1.80	0.84	2.02
2. Reading Comprehension	15	0.79	1.56	0.76	1.44	0.76	1.69	0.69	1.48	0.78	1.60	0.78	1.71
3. Literary Response and Analysis	6	0.67	0.84	0.60	0.73	0.65	0.99	0.48	0.75	0.66	0.88	0.68	1.04
4. Written and Oral Language Conventions	14	0.81	1.48	0.79	1.32	0.79	1.58	0.72	1.33	0.80	1.50	0.79	1.63
5. Writing Strategies	8	0.66	1.22	0.64	1.14	0.60	1.27	0.57	1.16	0.65	1.23	0.61	1.27
Grade 3													
1. Word Analysis and Vocabulary Development	20	0.79	1.72	0.77	1.58	0.76	1.92	0.62	1.57	0.80	1.77	0.83	1.91
2. Reading Comprehension	15	0.73	1.54	0.68	1.44	0.71	1.70	0.53	1.46	0.74	1.59	0.78	1.68
3. Literary Response and Analysis	8	0.67	0.98	0.62	0.87	0.64	1.16	0.42	0.86	0.68	1.03	0.71	1.16
4. Written and Oral Language Conventions	13	0.72	1.52	0.71	1.44	0.66	1.61	0.61	1.44	0.72	1.54	0.72	1.60
5. Writing Strategies	9	0.68	1.25	0.67	1.16	0.62	1.36	0.52	1.18	0.68	1.28	0.69	1.33
Grade 4													
1. Word Analysis and Vocabulary Development	18	0.83	1.53	0.79	1.44	0.78	1.83	0.64	1.44	0.84	1.60	0.86	1.75
2. Reading Comprehension	15	0.79	1.51	0.76	1.44	0.71	1.72	0.65	1.47	0.79	1.56	0.81	1.64
3. Literary Response and Analysis	9	0.70	1.18	0.68	1.10	0.62	1.36	0.57	1.12	0.70	1.22	0.72	1.29
4. Written and Oral Language Conventions	18	0.80	1.61	0.77	1.51	0.76	1.85	0.62	1.46	0.80	1.65	0.82	1.81
5. Writing Strategies	15	0.73	1.58	0.69	1.51	0.66	1.75	0.55	1.52	0.73	1.62	0.76	1.70

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 5													
1. Word Analysis and Vocabulary Development	14	0.72	1.55	0.70	1.51	0.63	1.71	0.59	1.58	0.73	1.59	0.76	1.65
2. Reading Comprehension	16	0.77	1.63	0.75	1.58	0.69	1.81	0.64	1.63	0.77	1.67	0.79	1.76
3. Literary Response and Analysis	12	0.74	1.34	0.71	1.31	0.61	1.60	0.60	1.38	0.74	1.40	0.76	1.51
4. Written and Oral Language Conventions	17	0.74	1.61	0.72	1.52	0.71	1.82	0.59	1.52	0.74	1.63	0.77	1.79
5. Writing Strategies	16	0.75	1.59	0.72	1.52	0.69	1.81	0.60	1.56	0.76	1.63	0.79	1.74
Grade 6													
1. Word Analysis and Vocabulary Development	13	0.76	1.33	0.73	1.27	0.66	1.61	0.64	1.35	0.77	1.37	0.77	1.55
2. Reading Comprehension	17	0.73	1.75	0.72	1.71	0.61	1.91	0.64	1.79	0.74	1.78	0.74	1.87
3. Literary Response and Analysis	12	0.70	1.35	0.66	1.32	0.62	1.57	0.56	1.39	0.71	1.39	0.74	1.51
4. Written and Oral Language Conventions	16	0.74	1.53	0.71	1.47	0.70	1.78	0.61	1.51	0.74	1.57	0.77	1.75
5. Writing Strategies	17	0.75	1.80	0.73	1.77	0.61	1.90	0.66	1.83	0.75	1.82	0.74	1.86
Grade 7													
1. Word Analysis and Vocabulary Development	11	0.71	1.35	0.67	1.29	0.55	1.52	0.56	1.37	0.70	1.38	0.71	1.48
2. Reading Comprehension	18	0.81	1.61	0.79	1.54	0.71	1.91	0.72	1.65	0.81	1.66	0.81	1.86
3. Literary Response and Analysis	13	0.70	1.46	0.66	1.44	0.59	1.66	0.59	1.51	0.71	1.50	0.72	1.61
4. Written and Oral Language Conventions	16	0.75	1.59	0.73	1.52	0.64	1.81	0.63	1.60	0.74	1.62	0.73	1.78
5. Writing Strategies	17	0.76	1.76	0.77	1.72	0.54	1.86	0.68	1.80	0.76	1.79	0.71	1.84
Grade 8													
1. Word Analysis and Vocabulary Development	8	0.55	1.18	0.55	1.14	0.36	1.31	0.44	1.22	0.56	1.20	0.55	1.29
2. Reading Comprehension	18	0.81	1.60	0.78	1.53	0.74	1.88	0.71	1.62	0.81	1.64	0.82	1.84
3. Literary Response and Analysis	15	0.76	1.60	0.74	1.54	0.58	1.80	0.67	1.64	0.75	1.63	0.71	1.76
4. Written and Oral Language Conventions	16	0.78	1.63	0.77	1.56	0.62	1.85	0.68	1.66	0.77	1.66	0.73	1.81
5. Writing Strategies	17	0.78	1.72	0.76	1.67	0.61	1.86	0.69	1.75	0.77	1.75	0.74	1.84
Grade 9													
1. Word Analysis and Vocabulary Development	8	0.63	1.07	0.55	1.04	0.53	1.27	0.45	1.07	0.61	1.10	0.63	1.25
2. Reading Comprehension	18	0.81	1.71	0.80	1.65	0.65	1.97	0.73	1.76	0.81	1.75	0.75	1.93
3. Literary Response and Analysis	16	0.76	1.70	0.74	1.68	0.56	1.82	0.66	1.75	0.76	1.73	0.69	1.79
4. Written and Oral Language Conventions	13	0.74	1.50	0.70	1.48	0.55	1.70	0.59	1.57	0.72	1.54	0.66	1.66
5. Writing Strategies	20	0.78	1.88	0.76	1.82	0.63	2.06	0.69	1.90	0.77	1.90	0.70	2.04
Grade 10													
1. Word Analysis and Vocabulary Development	8	0.72	1.04	0.67	1.00	0.55	1.28	0.57	1.08	0.69	1.07	0.64	1.25
2. Reading Comprehension	18	0.85	1.66	0.84	1.58	0.73	1.93	0.78	1.69	0.84	1.69	0.77	1.90
3. Literary Response and Analysis	16	0.76	1.74	0.74	1.71	0.56	1.88	0.67	1.78	0.74	1.76	0.66	1.84
4. Written and Oral Language	13	0.76	1.47	0.72	1.40	0.64	1.65	0.64	1.46	0.73	1.48	0.66	1.64

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**
Conventions													
5. Writing Strategies	20	0.83	1.83	0.81	1.78	0.66	2.02	0.74	1.85	0.81	1.85	0.73	2.01
Grade 11													
1. Word Analysis and Vocabulary Development	8	0.68	1.07	0.63	1.01	0.52	1.31	0.54	1.06	0.65	1.08	0.57	1.30
2. Reading Comprehension	19	0.84	1.82	0.82	1.79	0.65	2.00	0.77	1.88	0.83	1.85	0.73	1.96
3. Literary Response and Analysis	17	0.74	1.82	0.71	1.81	0.49	1.93	0.63	1.88	0.72	1.84	0.62	1.90
4. Written and Oral Language Conventions	9	0.69	1.18	0.65	1.14	0.51	1.39	0.56	1.20	0.66	1.20	0.58	1.37
5. Writing Strategies	22	0.86	1.94	0.84	1.90	0.69	2.17	0.78	2.00	0.84	1.97	0.75	2.13

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 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													
1. World History and Geography: Ancient Civilizations	16	0.71	1.65	0.72	1.58	0.58	1.81	0.63	1.65	0.71	1.66	0.67	1.80
2. Late Antiquity and the Middle Ages	14	0.77	1.58	0.77	1.51	0.62	1.70	0.71	1.60	0.77	1.59	0.72	1.67
3. Renaissance/Reformation	10	0.64	1.41	0.64	1.37	0.47	1.45	0.55	1.42	0.63	1.42	0.57	1.43
4. U.S. Constitution and the Early Republic	22	0.84	1.99	0.83	1.91	0.71	2.17	0.77	2.03	0.82	2.01	0.78	2.14
5. Civil War and Its Aftermath	13	0.80	1.47	0.79	1.41	0.64	1.66	0.73	1.51	0.79	1.50	0.71	1.62
World History													
1. Development of Modern Political Thought	13	0.73	1.51	0.72	1.47	0.56	1.68	0.66	1.54	0.72	1.53	0.63	1.66
2. Industrial Expansion and Imperialism	10	0.72	1.33	0.70	1.29	0.59	1.45	0.65	1.37	0.71	1.35	0.66	1.42
3. Causes and Effects of World War I	14	0.79	1.57	0.78	1.52	0.66	1.72	0.75	1.59	0.79	1.58	0.73	1.69
4. Causes and Effects of World War II	13	0.77	1.50	0.75	1.47	0.63	1.64	0.71	1.53	0.76	1.52	0.70	1.62
5. International Developments in the Post-World War II Era	10	0.71	1.33	0.70	1.29	0.57	1.43	0.65	1.35	0.70	1.34	0.65	1.41
Grade 11 (U.S. History)													
1. Foundations of American Political and Social Thought	10	0.71	1.32	0.71	1.29	0.47	1.43	0.64	1.35	0.70	1.34	0.57	1.43
2. Industrialization and the U.S. role as a World Power	13	0.77	1.48	0.75	1.44	0.62	1.65	0.70	1.51	0.76	1.50	0.69	1.62
3. United States between the World Wars	12	0.73	1.47	0.71	1.45	0.55	1.62	0.65	1.51	0.71	1.49	0.65	1.58
4. World War II and Foreign Affairs	12	0.73	1.50	0.70	1.48	0.60	1.59	0.66	1.52	0.71	1.51	0.66	1.57
5. Post-World War II Domestic Affairs	13	0.77	1.49	0.73	1.48	0.56	1.63	0.68	1.55	0.75	1.52	0.67	1.61

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	1.38	0.76	1.23	0.81	1.49	0.72	1.23	0.79	1.40	0.84	1.58
2. Number Sense: Multiplication, Division, and Fractions	23	0.86	1.66	0.83	1.47	0.86	1.82	0.79	1.49	0.85	1.70	0.89	1.95
3. Algebra and Functions	6	0.58	0.88	0.53	0.78	0.54	0.96	0.49	0.78	0.55	0.90	0.60	1.02
4. Measurement and Geometry	14	0.69	1.34	0.61	1.22	0.68	1.47	0.57	1.24	0.66	1.37	0.76	1.57
5. Statistics, Data Analysis and Probability	7	0.66	0.92	0.59	0.82	0.64	0.96	0.54	0.83	0.63	0.92	0.72	1.04
Grade 3													
1. Number Sense: Place Value, Fractions, and Decimals	16	0.79	1.34	0.76	1.21	0.78	1.47	0.67	1.17	0.78	1.37	0.83	1.51
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.83	1.40	0.82	1.22	0.82	1.50	0.76	1.15	0.83	1.41	0.84	1.57
3. Algebra and Functions	12	0.78	1.25	0.76	1.11	0.73	1.41	0.68	1.08	0.77	1.28	0.77	1.43
4. Measurement and Geometry	16	0.76	1.32	0.73	1.17	0.75	1.50	0.66	1.13	0.75	1.36	0.80	1.55
5. Statistics, Data Analysis, and Probability	5	0.48	0.70	0.39	0.61	0.46	0.80	0.25	0.60	0.46	0.72	0.58	0.82
Grade 4													
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.78	1.36	0.75	1.23	0.77	1.61	0.64	1.16	0.78	1.40	0.83	1.58
2. Number Sense: Operations and Factoring	14	0.82	1.34	0.81	1.20	0.81	1.49	0.75	1.12	0.82	1.35	0.83	1.51
3. Algebra and Functions	18	0.86	1.32	0.83	1.15	0.86	1.53	0.75	1.04	0.86	1.33	0.88	1.57
4. Measurement and Geometry	12	0.76	1.34	0.75	1.24	0.73	1.45	0.69	1.21	0.76	1.35	0.77	1.45
5. Statistics, Data Analysis, and Probability	4	0.44	0.71	0.38	0.66	0.37	0.79	0.27	0.65	0.42	0.72	0.48	0.79
Grade 5													
1. Number Sense: Estimation, Percents, and Factoring	12	0.78	1.36	0.79	1.28	0.72	1.45	0.75	1.29	0.78	1.36	0.77	1.44
2. Number Sense: Operations with Fractions and Decimals	17	0.82	1.68	0.83	1.57	0.77	1.82	0.79	1.58	0.81	1.69	0.80	1.81
3. Algebra and Functions	17	0.81	1.55	0.81	1.44	0.76	1.72	0.76	1.45	0.81	1.56	0.81	1.72
4. Measurement and Geometry	15	0.79	1.53	0.80	1.45	0.71	1.64	0.75	1.46	0.78	1.54	0.77	1.63
5. Statistics, Data Analysis, and Probability	4	0.65	0.58	0.60	0.52	0.57	0.77	0.51	0.50	0.63	0.61	0.65	0.74
Grade 6													
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.77	1.59	0.78	1.52	0.70	1.72	0.73	1.58	0.77	1.61	0.76	1.69
2. Number Sense: Operations and Problem Solving with Fractions	10	0.70	1.25	0.70	1.19	0.63	1.39	0.64	1.24	0.70	1.27	0.70	1.38
3. Algebra and Functions	19	0.84	1.69	0.84	1.59	0.78	1.93	0.80	1.67	0.84	1.72	0.83	1.89
4. Measurement and Geometry	10	0.72	1.32	0.74	1.26	0.63	1.42	0.69	1.32	0.72	1.33	0.68	1.40
5. Statistics, Data Analysis, and Probability	11	0.74	1.36	0.74	1.30	0.60	1.50	0.67	1.36	0.73	1.38	0.70	1.47
Grade 7													
1. Number Sense: Rational Numbers	14	0.75	1.60	0.77	1.55	0.65	1.67	0.72	1.60	0.75	1.61	0.70	1.66
2. Number Sense: Exponent, Powers and Roots	8	0.69	1.22	0.70	1.17	0.59	1.28	0.65	1.22	0.68	1.23	0.63	1.26

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
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.63	1.34	0.64	1.29	0.54	1.44	0.56	1.33	0.63	1.35	0.60	1.42
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.78	1.60	0.77	1.54	0.68	1.74	0.72	1.59	0.77	1.62	0.74	1.73
5. Measurement and Geometry	13	0.73	1.53	0.74	1.48	0.60	1.63	0.67	1.53	0.72	1.54	0.66	1.62
6. Statistics, Data Analysis, and Probability	5	0.61	0.89	0.59	0.85	0.52	1.00	0.54	0.88	0.60	0.90	0.55	0.99
General Mathematics													
1. Number Sense: Rational Numbers	14	0.73	1.65	0.73	1.64	0.66	1.66	0.71	1.63	0.71	1.65	0.62	1.66
2. Number Sense: Exponent, Powers and Roots	10	0.70	1.40	0.72	1.39	0.62	1.41	0.69	1.39	0.70	1.41	0.58	1.39
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.70	1.45	0.68	1.43	0.63	1.51	0.60	1.43	0.67	1.46	0.64	1.50
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.62	1.41	0.61	1.40	0.50	1.45	0.56	1.38	0.59	1.41	0.49	1.44
5. Measurement and Geometry	11	0.56	1.54	0.55	1.55	0.38	1.52	0.51	1.56	0.54	1.54	0.38	1.50
6. Statistics, Data Analysis, and Probability	9	0.66	1.30	0.64	1.28	0.50	1.36	0.59	1.26	0.63	1.30	0.53	1.37
Algebra I													
1. Number Properties, Operations, and Linear Equations	17	0.77	1.78	0.78	1.73	0.66	1.86	0.73	1.77	0.76	1.78	0.67	1.86
2. Graphing and Systems of Linear Equations	14	0.77	1.65	0.81	1.61	0.62	1.68	0.77	1.66	0.77	1.66	0.62	1.67
3. Quadratics and Polynomials	21	0.82	2.02	0.85	1.98	0.71	2.04	0.81	2.02	0.82	2.02	0.69	2.02
4. Functions and Rational Expressions	13	0.64	1.61	0.71	1.59	0.46	1.59	0.64	1.62	0.64	1.61	0.44	1.58
Geometry													
1. Logic and Geometric Proofs	23	0.83	2.08	0.84	2.04	0.71	2.17	0.80	2.13	0.82	2.10	0.75	2.16
2. Volume and Area Formulas	11	0.69	1.47	0.74	1.43	0.48	1.50	0.66	1.48	0.68	1.48	0.48	1.50
3. Angle Relationships, Constructions, and Lines	16	0.73	1.74	0.77	1.71	0.60	1.81	0.70	1.77	0.73	1.75	0.63	1.80
4. Trigonometry	15	0.77	1.67	0.80	1.63	0.66	1.75	0.75	1.70	0.77	1.68	0.67	1.73
Algebra II													
1. Polynomials and Rational Expressions	19	0.79	1.84	0.83	1.76	0.81	1.91	0.80	1.84	0.80	1.83	0.79	1.92
2. Quadratics, Conics, and Complex Numbers	16	0.73	1.80	0.79	1.75	0.72	1.79	0.75	1.79	0.75	1.79	0.68	1.80
3. Exponents and Logarithms	16	0.75	1.78	0.79	1.72	0.73	1.79	0.75	1.78	0.76	1.77	0.74	1.79
4. Series, Combinatorics, and Probability and Statistics	14	0.70	1.65	0.74	1.62	0.63	1.63	0.68	1.65	0.71	1.65	0.67	1.64
Summative High School Mathematics													
1. Algebra I	18	0.78	1.57	0.79	1.48	0.83	1.72	0.79	1.62	0.79	1.57	0.87	1.67
2. Geometry	19	0.79	1.69	0.81	1.62	0.85	1.84	0.81	1.77	0.81	1.71	0.86	1.80
3. Algebra II	23	0.83	1.92	0.85	1.81	0.86	2.03	0.84	1.95	0.84	1.92	0.88	1.99
4. Probability and Statistics	5	0.57	0.95	0.59	0.94	0.55	0.98	0.55	0.99	0.58	0.96	0.65	0.95

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
Integrated Mathematics 1													
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.69	1.70	0.68	1.69	0.59	1.77	0.65	1.70	0.68	1.70	0.62	1.77
2. Algebra I: Graphing	9	0.60	1.35	0.61	1.35	0.42	1.35	0.57	1.36	0.59	1.35	0.46	1.35
3. Algebra I: Quadratics and Polynomials	14	0.67	1.65	0.70	1.64	0.52	1.63	0.65	1.65	0.67	1.65	0.54	1.62
4. Algebra I: Functions and Relations Expressions	7	0.48	1.16	0.53	1.15	0.24	1.17	0.41	1.17	0.46	1.16	0.32	1.16
5. Geometry	20	0.49	2.01	0.51	2.02	0.22	1.96	0.34	2.01	0.46	2.01	0.29	1.97
Integrated Mathematics 2													
1. Algebra I	20	0.73	2.00	0.78	1.98	0.69	2.00	0.73	2.00	0.74	2.00	0.64	2.05
2. Geometry: Logic and Geometric Proofs	22	0.78	2.12	0.79	2.11	0.69	2.10	0.74	2.14	0.77	2.12	0.76	2.10
3. Geometry: Angle Relationships, Construction and Lines	8	0.61	1.23	0.65	1.23	0.52	1.27	0.57	1.24	0.60	1.24	0.55	1.25
4. Trigonometry	10	0.62	1.40	0.64	1.40	0.42	1.40	0.58	1.41	0.61	1.40	0.49	1.40
5. Algebra II: Probability and Statistics	5	0.29	0.96	0.34	0.96	0.23	0.96	0.38	0.92	0.31	0.95	0.23	0.99
Integrated Mathematics 3													
1. Geometry	5	0.60	0.85	0.60	0.95	0.60	0.98	0.62	0.93	0.63	0.87	0.38	1.01
2. Algebra II: Polynomials and Relations Expressions	19	0.77	1.91	0.75	1.96	0.68	1.97	0.83	1.89	0.78	1.91	0.77	1.94
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	0.68	1.82	0.69	1.82	0.51	1.87	0.77	1.78	0.69	1.82	0.69	1.80
4. Algebra II: Exponents and Logarithms	16	0.79	1.75	0.76	1.79	0.64	1.74	0.81	1.74	0.79	1.75	0.86	1.62
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.58	1.33	0.48	1.35	0.68	1.21	0.62	1.31	0.59	1.33	0.66	1.27

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 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 5 Science													
1. Physical Science (Grade 5)	11	0.69	1.31	0.68	1.28	0.56	1.53	0.57	1.36	0.69	1.37	0.71	1.45
2. Physical Science (Grade 4)	8	0.62	1.14	0.60	1.10	0.49	1.31	0.50	1.16	0.62	1.18	0.64	1.24
3. Life Science (Grade 5)	13	0.76	1.38	0.74	1.30	0.69	1.63	0.65	1.37	0.76	1.43	0.78	1.54
4. Life Science (Grade 4)	9	0.65	1.18	0.63	1.14	0.54	1.38	0.54	1.21	0.65	1.23	0.69	1.30
5. Earth Science (Grade 5)	11	0.66	1.32	0.61	1.27	0.57	1.51	0.49	1.32	0.65	1.36	0.71	1.44
6. Earth Science (Grade 4)	8	0.69	1.09	0.66	1.06	0.58	1.29	0.56	1.12	0.69	1.14	0.71	1.21
Grade 8 Science													
1. Motion	8	0.65	1.16	0.66	1.11	0.43	1.29	0.59	1.16	0.63	1.18	0.55	1.27
2. Forces, Density, and Buoyancy	13	0.75	1.37	0.72	1.30	0.70	1.62	0.65	1.39	0.74	1.40	0.76	1.58
3. Structure of Matter and Periodic Table	16	0.80	1.62	0.80	1.56	0.67	1.83	0.75	1.66	0.80	1.66	0.76	1.79
4. Earth in the Solar System	7	0.57	1.03	0.55	0.98	0.52	1.18	0.46	1.03	0.56	1.04	0.61	1.15
5. Reactions and the Chemistry of Living Systems	10	0.69	1.30	0.68	1.25	0.56	1.47	0.60	1.33	0.68	1.33	0.67	1.43
6. Investigation and Experimentation	6	0.63	0.87	0.61	0.79	0.55	1.07	0.51	0.84	0.62	0.88	0.61	1.06
Grade 10 Life Science													
1. Cell Biology	10	0.66	1.36	0.68	1.33	0.45	1.44	0.60	1.38	0.65	1.37	0.54	1.43
2. Genetics	12	0.73	1.49	0.72	1.47	0.56	1.57	0.67	1.52	0.72	1.51	0.62	1.55
3. Physiology	10	0.73	1.24	0.71	1.21	0.55	1.47	0.63	1.30	0.71	1.28	0.67	1.42
4. Ecology	11	0.75	1.32	0.72	1.30	0.55	1.51	0.66	1.37	0.74	1.35	0.67	1.48
5. Evolution	11	0.78	1.32	0.75	1.29	0.56	1.53	0.70	1.37	0.76	1.35	0.68	1.49
6. Investigation and Experimentation	6	0.61	0.90	0.54	0.88	0.52	1.08	0.46	0.92	0.57	0.92	0.59	1.07
Biology													
1. Cell Biology	9	0.59	1.33	0.63	1.30	0.38	1.40	0.53	1.36	0.59	1.35	0.47	1.39
2. Genetics	18	0.78	1.80	0.78	1.76	0.62	1.94	0.73	1.84	0.77	1.82	0.70	1.93
3. Ecology and Evolution	16	0.80	1.68	0.79	1.66	0.58	1.85	0.74	1.75	0.79	1.72	0.69	1.83
4. Physiology	11	0.79	1.26	0.78	1.22	0.66	1.51	0.73	1.32	0.79	1.29	0.74	1.46
5. Investigation and Experimentation	6	0.56	1.02	0.53	1.01	0.36	1.11	0.45	1.06	0.55	1.04	0.48	1.09
Chemistry													
1. Atomic and Molecular Structure	8	0.55	1.24	0.57	1.22	0.47	1.31	0.54	1.28	0.56	1.25	0.58	1.29
2. Chemical Bonds, Biochemistry	9	0.62	1.25	0.64	1.23	0.56	1.39	0.61	1.30	0.63	1.27	0.65	1.35
3. Kinetics, Thermodynamics	14	0.72	1.64	0.74	1.62	0.63	1.73	0.69	1.71	0.73	1.66	0.73	1.69
4. Chemical Reactions	13	0.72	1.59	0.74	1.57	0.57	1.64	0.69	1.64	0.72	1.61	0.69	1.62
5. Conservation of Matter and Stoichiometry	10	0.72	1.34	0.74	1.31	0.58	1.46	0.69	1.40	0.72	1.36	0.65	1.43
6. Investigation and Experimentation	6	0.61	1.00	0.61	0.99	0.45	1.11	0.57	1.07	0.62	1.02	0.60	1.08
Earth Science													
1. Astronomy and Cosmology	12	0.66	1.56	0.64	1.56	0.48	1.62	0.60	1.57	0.64	1.57	0.59	1.60
2. Solid Earth	14	0.69	1.68	0.65	1.67	0.58	1.74	0.59	1.69	0.66	1.69	0.64	1.72
3. The Earth's Energy	28	0.86	2.35	0.84	2.35	0.73	2.46	0.81	2.40	0.84	2.37	0.80	2.42
4. Investigation and Experimentation	6	0.65	1.00	0.60	1.01	0.48	1.12	0.53	1.02	0.62	1.02	0.55	1.10

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
Physics													
1. Motion and Forces	12	0.71	1.49	0.71	1.47	0.59	1.55	0.68	1.54	0.71	1.51	0.70	1.53
2. Conservation of Energy and Momentum	12	0.74	1.49	0.74	1.47	0.63	1.57	0.70	1.55	0.74	1.51	0.68	1.56
3. Heat and Thermodynamics	9	0.70	1.24	0.67	1.23	0.51	1.35	0.65	1.29	0.69	1.26	0.68	1.31
4. Waves	10	0.70	1.29	0.67	1.30	0.59	1.45	0.64	1.37	0.69	1.32	0.71	1.40
5. Electric and Magnetic Phenomena	11	0.60	1.50	0.60	1.48	0.54	1.54	0.57	1.52	0.60	1.51	0.58	1.53
6. Investigation and Experimentation	6	0.53	1.04	0.49	1.04	0.35	1.10	0.45	1.09	0.53	1.06	0.56	1.08
Integrated/Coordinated Science 1													
1. Biology/Life Sciences	10	0.66	1.39	0.65	1.38	0.45	1.47	0.56	1.42	0.63	1.41	0.53	1.45
2. Chemistry	15	0.60	1.82	0.62	1.81	0.37	1.78	0.52	1.84	0.57	1.82	0.40	1.76
3. Earth Sciences	17	0.77	1.83	0.75	1.81	0.65	1.90	0.70	1.85	0.75	1.85	0.69	1.89
4. Physics	12	0.58	1.60	0.58	1.60	0.37	1.59	0.49	1.62	0.55	1.61	0.42	1.58
5. Investigation and Experimentation	6	0.52	1.08	0.50	1.08	0.25	1.11	0.42	1.10	0.48	1.10	0.34	1.09
Integrated/Coordinated Science 2													
1. Biology/Life Sciences	15	0.65	1.76	0.68	1.72	0.58	1.80	0.62	1.75	0.64	1.76	0.52	1.79
2. Chemistry	6	0.47	1.13	0.60	1.09	0.18	1.11	0.45	1.13	0.48	1.12	0.10	1.12
3. Earth Sciences	15	0.72	1.75	0.74	1.73	0.51	1.80	0.66	1.76	0.70	1.76	0.57	1.78
4. Physics	18	0.61	1.94	0.66	1.95	0.30	1.89	0.59	1.96	0.60	1.95	0.28	1.88
5. Investigation and Experimentation	6	0.42	1.14	0.51	1.12	0.18	1.14	0.32	1.16	0.39	1.15	0.33	1.10
Integrated/Coordinated Science 3													
1. Biology/Life Sciences	16	0.73	1.78	0.55	1.86	0.32	1.84	0.61	1.82	0.70	1.80	0.50	1.85
2. Chemistry	23	0.78	2.16	0.64	2.23	0.46	2.16	0.66	2.21	0.74	2.18	0.53	2.11
3. Earth Sciences	7	0.66	1.13	0.61	1.15	0.38	1.21	0.51	1.21	0.63	1.16	0.53	1.20
4. Physics	8	0.43	1.31	–	–	0.08	1.26	0.31	1.28	0.39	1.31	0.25	1.29
5. Investigation and Experimentation	6	0.55	1.02	0.43	1.04	0.16	1.13	0.34	1.06	0.52	1.04	0.28	1.10
Integrated/Coordinated Science 4													
1. Biology/Life Sciences	13	0.64	1.59	0.80	1.48	0.51	1.64	0.65	1.61	0.67	1.57	0.59	1.67
2. Chemistry	10	0.26	1.45	0.27	1.48	0.16	1.43	–	–	0.18	1.47	0.34	1.41
3. Earth Sciences	15	0.68	1.77	0.78	1.73	0.13	1.82	0.58	1.80	0.64	1.79	0.64	1.76
4. Physics	16	0.36	1.81	0.70	1.76	0.06	1.80	0.46	1.79	0.40	1.81	0.14	1.80
5. Investigation and Experimentation	6	0.38	1.10	0.55	1.11	–	–	–	–	0.35	1.11	0.19	1.12

Table 8.B.29 Subscore Reliabilities and SEM for Grade-Specific CSTs by Special Services/English Fluency

Subscore Reliabilities and SEM for Grade-Specific CSTs by *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	1.71	0.77	1.65	0.71	1.84	0.73	1.72	0.76	1.72	0.75	1.83
2. Graphing and Systems of Linear Equations	14	0.78	1.63	0.80	1.58	0.70	1.69	0.77	1.63	0.78	1.63	0.74	1.67
3. Quadratics and Polynomials	21	0.83	1.99	0.85	1.93	0.78	2.04	0.82	1.99	0.83	1.99	0.80	2.02
4. Functions and Rational Expressions	13	0.68	1.61	0.73	1.59	0.58	1.60	0.66	1.62	0.68	1.61	0.61	1.60
Geometry – 9													
1. Logic and Geometric Proofs	23	0.79	1.98	0.81	1.96	0.80	2.15	0.79	2.08	0.81	2.01	0.85	2.10
2. Volume and Area Formulas	11	0.68	1.43	0.73	1.39	0.66	1.48	0.67	1.46	0.70	1.44	0.69	1.48
3. Angle Relationships, Constructions, and Lines	16	0.71	1.66	0.73	1.65	0.72	1.78	0.69	1.73	0.72	1.68	0.76	1.76
4. Trigonometry	15	0.75	1.59	0.77	1.57	0.76	1.71	0.74	1.65	0.76	1.61	0.80	1.68
Algebra II – 10													
1. Polynomials and Rational Expressions	19	0.77	1.79	0.80	1.73	0.83	1.87	0.79	1.79	0.79	1.79	0.81	1.88
2. Quadratics, Conics, and Complex Numbers	16	0.73	1.79	0.76	1.75	0.77	1.78	0.75	1.78	0.74	1.78	0.74	1.80
3. Exponents and Logarithms	16	0.73	1.75	0.77	1.71	0.77	1.78	0.74	1.76	0.74	1.75	0.77	1.78
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.64	0.72	1.62	0.69	1.64	0.68	1.64	0.70	1.64	0.73	1.64
1. Algebra I	18	0.78	1.60	0.79	1.53	0.83	1.75	0.79	1.66	0.79	1.61	0.86	1.70
2. Geometry	19	0.79	1.72	0.81	1.67	0.84	1.86	0.80	1.80	0.80	1.74	0.85	1.83
3. Algebra II	23	0.83	1.95	0.85	1.87	0.86	2.06	0.84	1.98	0.84	1.95	0.87	2.02
4. Probability and Statistics	5	0.57	0.96	0.58	0.96	0.53	0.98	0.54	1.00	0.58	0.97	0.64	0.96
World History – 10													
1. Development of Modern Political Thought	13	0.72	1.51	0.70	1.48	0.56	1.68	0.64	1.54	0.70	1.53	0.62	1.66
2. Industrial Expansion and Imperialism	10	0.71	1.33	0.69	1.30	0.59	1.46	0.64	1.37	0.70	1.35	0.66	1.43
3. Causes and Effects of World War I	14	0.79	1.57	0.78	1.53	0.66	1.72	0.74	1.60	0.78	1.59	0.72	1.69
4. Causes and Effects of World War II	13	0.76	1.51	0.74	1.48	0.62	1.64	0.69	1.54	0.75	1.52	0.70	1.62
5. International Developments in the Post-World War II Era	10	0.70	1.33	0.69	1.30	0.56	1.43	0.64	1.35	0.69	1.34	0.64	1.41

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 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	0.83	1.90	0.81	1.57	0.81	1.81	0.78	1.64	0.82	1.91	0.83	1.89	0.81	1.69
2. Reading Comprehension	15	0.78	1.66	0.78	1.43	0.75	1.64	0.75	1.51	0.76	1.68	0.77	1.68	0.79	1.50
3. Literary Response and Analysis	6	0.70	0.93	0.63	0.76	0.64	0.89	0.59	0.80	0.66	0.96	0.67	0.94	0.66	0.79
4. Written and Oral Language Conventions	14	0.78	1.59	0.80	1.29	0.78	1.51	0.78	1.35	0.79	1.57	0.80	1.56	0.80	1.44
5. Writing Strategies	8	0.61	1.27	0.67	1.12	0.62	1.25	0.63	1.19	0.60	1.27	0.62	1.27	0.66	1.19
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.80	1.84	0.79	1.54	0.77	1.78	0.74	1.62	0.78	1.87	0.79	1.85	0.78	1.65
2. Reading Comprehension	15	0.74	1.63	0.72	1.46	0.69	1.63	0.67	1.51	0.73	1.66	0.73	1.66	0.71	1.48
3. Literary Response and Analysis	8	0.69	1.07	0.67	0.91	0.64	1.05	0.61	0.96	0.67	1.11	0.68	1.10	0.65	0.92
4. Written and Oral Language Conventions	13	0.70	1.59	0.73	1.40	0.70	1.55	0.68	1.47	0.69	1.59	0.70	1.58	0.70	1.49
5. Writing Strategies	9	0.67	1.32	0.70	1.15	0.63	1.32	0.63	1.22	0.64	1.34	0.65	1.34	0.68	1.20
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.83	1.68	0.82	1.40	0.82	1.64	0.77	1.47	0.82	1.72	0.84	1.69	0.82	1.44
2. Reading Comprehension	15	0.79	1.61	0.79	1.40	0.76	1.62	0.75	1.49	0.77	1.65	0.77	1.65	0.77	1.43
3. Literary Response and Analysis	9	0.67	1.27	0.71	1.05	0.64	1.25	0.66	1.15	0.68	1.29	0.68	1.29	0.68	1.12
4. Written and Oral Language Conventions	18	0.80	1.74	0.79	1.43	0.78	1.70	0.75	1.52	0.78	1.76	0.80	1.75	0.78	1.53
5. Writing Strategies	15	0.72	1.67	0.73	1.47	0.69	1.66	0.67	1.55	0.70	1.68	0.71	1.69	0.71	1.53
Grade 5															
1. Word Analysis and Vocabulary Development	14	0.73	1.62	0.75	1.46	0.70	1.63	0.67	1.54	0.71	1.66	0.71	1.65	0.70	1.49
2. Reading Comprehension	16	0.77	1.72	0.77	1.54	0.76	1.72	0.73	1.62	0.75	1.74	0.76	1.75	0.76	1.57
3. Literary Response and Analysis	12	0.74	1.45	0.76	1.24	0.72	1.45	0.70	1.34	0.70	1.50	0.71	1.48	0.73	1.26
4. Written and Oral Language Conventions	17	0.76	1.72	0.73	1.42	0.73	1.64	0.69	1.48	0.74	1.71	0.75	1.70	0.72	1.57
5. Writing Strategies	16	0.76	1.70	0.77	1.47	0.74	1.66	0.70	1.55	0.74	1.71	0.75	1.71	0.74	1.53
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.77	1.44	0.78	1.20	0.75	1.42	0.71	1.28	0.75	1.47	0.76	1.47	0.75	1.25
2. Reading Comprehension	17	0.71	1.84	0.75	1.62	0.72	1.81	0.70	1.70	0.71	1.85	0.72	1.85	0.71	1.70
3. Literary Response and Analysis	12	0.71	1.42	0.70	1.27	0.68	1.42	0.63	1.33	0.69	1.47	0.71	1.45	0.67	1.30
4. Written and Oral Language Conventions	16	0.75	1.64	0.73	1.37	0.74	1.58	0.67	1.46	0.73	1.65	0.75	1.67	0.72	1.47
5. Writing Strategies	17	0.73	1.86	0.76	1.70	0.73	1.85	0.71	1.79	0.72	1.87	0.73	1.87	0.73	1.75
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.71	1.41	0.72	1.24	0.68	1.42	0.63	1.31	0.67	1.44	0.70	1.46	0.68	1.29
2. Reading Comprehension	18	0.82	1.71	0.82	1.48	0.80	1.72	0.77	1.55	0.80	1.77	0.81	1.78	0.80	1.54
3. Literary Response and Analysis	13	0.71	1.51	0.71	1.39	0.69	1.54	0.66	1.46	0.69	1.58	0.70	1.56	0.67	1.41
4. Written and Oral Language Conventions	16	0.74	1.69	0.76	1.40	0.72	1.64	0.70	1.49	0.71	1.71	0.74	1.70	0.74	1.54
5. Writing Strategies	17	0.74	1.81	0.79	1.66	0.73	1.82	0.73	1.75	0.70	1.83	0.72	1.83	0.75	1.73

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 8															
1. Word Analysis and Vocabulary Development	8	0.54	1.23	0.63	1.10	0.54	1.23	0.49	1.17	0.51	1.26	0.51	1.26	0.53	1.14
2. Reading Comprehension	18	0.81	1.70	0.80	1.45	0.81	1.69	0.75	1.54	0.80	1.73	0.82	1.74	0.79	1.53
3. Literary Response and Analysis	15	0.75	1.68	0.76	1.45	0.73	1.68	0.71	1.55	0.72	1.72	0.73	1.72	0.74	1.54
4. Written and Oral Language Conventions	16	0.77	1.71	0.77	1.47	0.76	1.69	0.72	1.56	0.75	1.75	0.77	1.75	0.77	1.56
5. Writing Strategies	17	0.77	1.79	0.77	1.61	0.77	1.77	0.73	1.69	0.74	1.81	0.76	1.82	0.77	1.68
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.63	1.13	0.59	1.02	0.60	1.13	0.48	1.03	0.60	1.16	0.64	1.16	0.60	1.03
2. Reading Comprehension	18	0.81	1.80	0.82	1.55	0.80	1.81	0.77	1.65	0.78	1.85	0.79	1.86	0.80	1.63
3. Literary Response and Analysis	16	0.75	1.75	0.75	1.62	0.74	1.75	0.70	1.67	0.72	1.78	0.74	1.77	0.74	1.66
4. Written and Oral Language Conventions	13	0.72	1.58	0.72	1.41	0.71	1.58	0.66	1.48	0.69	1.62	0.71	1.62	0.73	1.43
5. Writing Strategies	20	0.77	1.94	0.76	1.76	0.76	1.93	0.71	1.82	0.75	1.97	0.77	1.98	0.76	1.83
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.73	1.09	0.71	0.95	0.68	1.12	0.62	0.99	0.68	1.16	0.70	1.16	0.70	0.98
2. Reading Comprehension	18	0.85	1.75	0.85	1.47	0.83	1.78	0.80	1.58	0.83	1.80	0.84	1.81	0.84	1.59
3. Literary Response and Analysis	16	0.76	1.78	0.75	1.64	0.71	1.81	0.68	1.73	0.72	1.82	0.74	1.82	0.75	1.69
4. Written and Oral Language Conventions	13	0.75	1.54	0.71	1.32	0.73	1.51	0.66	1.38	0.73	1.55	0.75	1.56	0.74	1.42
5. Writing Strategies	20	0.82	1.89	0.82	1.70	0.80	1.91	0.78	1.78	0.79	1.93	0.80	1.94	0.82	1.77
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.66	1.14	0.66	0.99	0.64	1.15	0.56	1.02	0.65	1.16	0.67	1.18	0.66	1.02
2. Reading Comprehension	19	0.83	1.89	0.84	1.70	0.82	1.91	0.80	1.82	0.81	1.93	0.82	1.93	0.84	1.77
3. Literary Response and Analysis	17	0.71	1.87	0.76	1.76	0.71	1.88	0.68	1.83	0.68	1.90	0.69	1.90	0.73	1.78
4. Written and Oral Language Conventions	9	0.66	1.25	0.67	1.08	0.67	1.25	0.58	1.15	0.64	1.28	0.67	1.29	0.68	1.14
5. Writing Strategies	22	0.85	2.01	0.84	1.83	0.83	2.04	0.82	1.93	0.82	2.07	0.84	2.06	0.86	1.88

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	0.69	1.71	0.75	1.52	0.67	1.70	0.66	1.60	0.68	1.73	0.69	1.75	0.70	1.61
2. Late Antiquity and the Middle Ages	14	0.74	1.65	0.78	1.41	0.74	1.63	0.72	1.53	0.74	1.66	0.75	1.66	0.76	1.53
3. Renaissance/Reformation	10	0.62	1.44	0.65	1.32	0.59	1.45	0.57	1.39	0.59	1.45	0.60	1.45	0.64	1.38
4. U.S. Constitution and the Early Republic	22	0.82	2.07	0.83	1.82	0.81	2.06	0.79	1.94	0.80	2.10	0.81	2.10	0.83	1.92
5. Civil War and Its Aftermath	13	0.78	1.56	0.79	1.32	0.76	1.56	0.76	1.43	0.76	1.59	0.78	1.57	0.79	1.41
World History															
1. Development of Modern Political Thought	13	0.73	1.56	0.71	1.41	0.69	1.59	0.67	1.49	0.69	1.60	0.69	1.61	0.73	1.46
2. Industrial Expansion and Imperialism	10	0.71	1.38	0.69	1.22	0.68	1.39	0.63	1.31	0.69	1.41	0.70	1.41	0.71	1.28
3. Causes and Effects of World War I	14	0.79	1.61	0.77	1.44	0.75	1.64	0.74	1.54	0.76	1.65	0.75	1.67	0.79	1.51
4. Causes and Effects of World War II	13	0.76	1.55	0.76	1.41	0.73	1.57	0.71	1.49	0.72	1.58	0.73	1.60	0.76	1.46
5. International Developments in the Post-World War II Era	10	0.68	1.37	0.69	1.22	0.67	1.39	0.65	1.30	0.67	1.39	0.67	1.40	0.69	1.29
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.67	1.38	0.73	1.24	0.65	1.37	0.66	1.32	0.65	1.39	0.64	1.40	0.70	1.29
2. Industrialization and the U.S. role as a World Power	13	0.75	1.54	0.76	1.38	0.73	1.56	0.70	1.46	0.73	1.57	0.74	1.58	0.77	1.43
3. United States between the World Wars	12	0.70	1.53	0.71	1.40	0.69	1.54	0.65	1.48	0.69	1.56	0.70	1.56	0.72	1.43
4. World War II and Foreign Affairs	12	0.71	1.54	0.70	1.43	0.71	1.54	0.66	1.49	0.69	1.55	0.68	1.56	0.72	1.46
5. Post-World War II Domestic Affairs	13	0.76	1.54	0.74	1.44	0.74	1.56	0.69	1.50	0.73	1.58	0.76	1.56	0.76	1.46

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 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	1.49	0.77	1.17	0.78	1.44	0.77	1.28	0.80	1.49	0.81	1.51	0.77	1.31
2. Number Sense: Multiplication, Division, and Fractions	23	0.86	1.82	0.85	1.42	0.84	1.78	0.84	1.58	0.86	1.81	0.87	1.86	0.84	1.56
3. Algebra and Functions	6	0.55	0.96	0.56	0.73	0.56	0.92	0.55	0.80	0.53	0.96	0.56	0.98	0.56	0.82
4. Measurement and Geometry	14	0.67	1.44	0.67	1.19	0.67	1.43	0.64	1.28	0.67	1.46	0.69	1.50	0.65	1.26
5. Statistics, Data Analysis and Probability	7	0.64	0.99	0.60	0.81	0.62	0.96	0.59	0.88	0.64	0.96	0.68	0.99	0.63	0.87
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.79	1.44	0.76	1.13	0.76	1.38	0.73	1.24	0.78	1.44	0.79	1.49	0.77	1.27
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.83	1.53	0.82	1.12	0.82	1.43	0.80	1.27	0.82	1.48	0.83	1.53	0.82	1.35
3. Algebra and Functions	12	0.76	1.36	0.77	1.04	0.75	1.33	0.74	1.17	0.75	1.37	0.76	1.41	0.76	1.17
4. Measurement and Geometry	16	0.77	1.44	0.75	1.12	0.74	1.39	0.72	1.24	0.75	1.45	0.76	1.49	0.74	1.24
5. Statistics, Data Analysis and Probability	5	0.48	0.76	0.42	0.60	0.46	0.74	0.37	0.66	0.46	0.77	0.52	0.81	0.47	0.65
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.78	1.50	0.75	1.09	0.76	1.47	0.73	1.24	0.77	1.52	0.79	1.57	0.76	1.26
2. Number Sense: Operations and Factoring	14	0.82	1.46	0.79	1.04	0.81	1.40	0.79	1.21	0.82	1.43	0.83	1.48	0.81	1.28
3. Algebra and Functions	18	0.87	1.48	0.82	1.00	0.86	1.36	0.82	1.16	0.86	1.44	0.88	1.50	0.85	1.23
4. Measurement and Geometry	12	0.76	1.41	0.76	1.16	0.75	1.40	0.74	1.28	0.75	1.40	0.75	1.45	0.75	1.29
5. Statistics, Data Analysis, and Probability	4	0.45	0.76	0.40	0.60	0.42	0.75	0.37	0.67	0.38	0.76	0.43	0.78	0.44	0.67
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.75	1.43	0.79	1.14	0.76	1.39	0.77	1.28	0.75	1.41	0.75	1.43	0.78	1.32
2. Number Sense: Operations with Fractions and Decimals	17	0.80	1.79	0.82	1.40	0.79	1.73	0.80	1.57	0.80	1.76	0.79	1.79	0.81	1.64
3. Algebra and Functions	17	0.80	1.65	0.81	1.32	0.80	1.61	0.80	1.46	0.79	1.63	0.80	1.68	0.80	1.50
4. Measurement and Geometry	15	0.77	1.59	0.80	1.35	0.76	1.57	0.78	1.46	0.76	1.59	0.75	1.61	0.79	1.49
5. Statistics, Data Analysis, and Probability	4	0.66	0.67	0.62	0.45	0.63	0.66	0.60	0.53	0.61	0.68	0.63	0.71	0.65	0.52
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.74	1.68	0.78	1.38	0.75	1.63	0.76	1.53	0.75	1.67	0.74	1.69	0.76	1.55
2. Number Sense: Operations and Problem Solving with Fractions	10	0.68	1.35	0.70	1.05	0.67	1.30	0.67	1.19	0.68	1.34	0.68	1.34	0.69	1.20
3. Algebra and Functions	19	0.82	1.82	0.84	1.37	0.82	1.77	0.83	1.60	0.82	1.83	0.83	1.86	0.83	1.60
4. Measurement and Geometry	10	0.67	1.38	0.74	1.15	0.71	1.36	0.71	1.27	0.69	1.38	0.67	1.41	0.71	1.28
5. Statistics, Data Analysis, and Probability	11	0.71	1.43	0.75	1.22	0.71	1.41	0.70	1.33	0.69	1.44	0.69	1.45	0.73	1.30

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 7															
1. Number Sense: Rational Numbers	14	0.72	1.65	0.78	1.45	0.73	1.63	0.75	1.56	0.73	1.65	0.71	1.65	0.74	1.58
2. Number Sense: Exponent, Powers and Roots	8	0.68	1.24	0.70	1.08	0.67	1.24	0.66	1.18	0.65	1.26	0.65	1.26	0.68	1.20
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.61	1.38	0.64	1.21	0.61	1.37	0.59	1.29	0.60	1.39	0.61	1.40	0.62	1.31
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.75	1.67	0.79	1.43	0.75	1.66	0.75	1.55	0.74	1.68	0.73	1.70	0.76	1.55
5. Measurement and Geometry	13	0.69	1.58	0.76	1.39	0.69	1.57	0.72	1.49	0.67	1.59	0.66	1.60	0.72	1.50
6. Statistics, Data Analysis, and Probability	5	0.59	0.94	0.61	0.78	0.59	0.93	0.56	0.84	0.58	0.95	0.58	0.96	0.59	0.86
General Mathematics															
1. Number Sense: Rational Numbers	14	0.72	1.66	0.77	1.57	0.71	1.64	0.75	1.60	0.70	1.66	0.69	1.66	0.73	1.65
2. Number Sense: Exponent, Powers and Roots	10	0.68	1.41	0.77	1.33	0.70	1.40	0.73	1.37	0.68	1.41	0.68	1.40	0.71	1.40
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.69	1.47	0.69	1.39	0.70	1.45	0.68	1.40	0.67	1.49	0.69	1.48	0.70	1.43
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.61	1.42	0.66	1.36	0.62	1.41	0.61	1.38	0.57	1.43	0.55	1.44	0.63	1.39
5. Measurement and Geometry	11	0.53	1.54	0.61	1.53	0.55	1.54	0.57	1.55	0.48	1.54	0.45	1.53	0.59	1.53
6. Statistics, Data Analysis, and Probability	9	0.62	1.33	0.65	1.25	0.62	1.31	0.64	1.26	0.60	1.33	0.61	1.34	0.68	1.28
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.73	1.83	0.80	1.55	0.72	1.81	0.75	1.73	0.72	1.83	0.71	1.85	0.76	1.74
2. Graphing and Systems of Linear Equations	14	0.72	1.68	0.83	1.49	0.75	1.67	0.78	1.63	0.71	1.68	0.69	1.68	0.79	1.64
3. Quadratics and Polynomials	21	0.77	2.04	0.87	1.83	0.78	2.05	0.82	1.99	0.77	2.05	0.75	2.05	0.82	2.01
4. Functions and Rational Expressions	13	0.55	1.62	0.77	1.53	0.57	1.62	0.66	1.61	0.52	1.61	0.51	1.60	0.66	1.61
Geometry															
1. Logic and Geometric Proofs	23	0.80	2.13	0.86	1.90	0.79	2.15	0.81	2.07	0.77	2.16	0.76	2.18	0.82	2.04
2. Volume and Area Formulas	11	0.63	1.50	0.78	1.33	0.62	1.50	0.68	1.46	0.56	1.51	0.51	1.51	0.69	1.46
3. Angle Relationships, Constructions, and Lines	16	0.69	1.77	0.79	1.60	0.68	1.78	0.70	1.73	0.64	1.80	0.62	1.80	0.73	1.71
4. Trigonometry	15	0.73	1.71	0.81	1.51	0.73	1.72	0.76	1.65	0.71	1.74	0.69	1.74	0.77	1.64
Algebra II															
1. Polynomials and Rational Expressions	19	0.77	1.87	0.82	1.63	0.77	1.88	0.78	1.82	0.77	1.90	0.77	1.92	0.78	1.82
2. Quadratics, Conics, and Complex Numbers	16	0.68	1.83	0.80	1.68	0.69	1.82	0.74	1.79	0.68	1.82	0.66	1.81	0.72	1.79
3. Exponents and Logarithms	16	0.73	1.80	0.80	1.64	0.73	1.80	0.73	1.77	0.71	1.81	0.70	1.81	0.74	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.65	0.75	1.59	0.65	1.66	0.68	1.65	0.64	1.66	0.61	1.65	0.69	1.65

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
Summative High School Mathematics															
1. Algebra I	18	0.78	1.64	0.75	1.36	0.80	1.61	0.75	1.63	0.77	1.73	0.79	1.76	0.77	1.55
2. Geometry	19	0.79	1.75	0.78	1.52	0.81	1.77	0.78	1.77	0.78	1.88	0.79	1.91	0.78	1.67
3. Algebra II	23	0.84	1.98	0.83	1.70	0.84	1.97	0.81	1.97	0.81	2.06	0.82	2.09	0.83	1.91
4. Probability and Statistics	5	0.57	0.98	0.56	0.92	0.54	1.00	0.51	1.01	0.50	1.01	0.52	1.01	0.56	0.94
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.66	1.73	0.73	1.65	0.56	1.76	0.68	1.67	0.66	1.73	0.65	1.74	0.69	1.68
2. Algebra I: Graphing	9	0.56	1.36	0.66	1.33	0.58	1.35	0.64	1.34	0.54	1.36	0.55	1.35	0.61	1.35
3. Algebra I: Quadratics and Polynomials	14	0.58	1.66	0.74	1.64	0.66	1.65	0.72	1.64	0.62	1.65	0.64	1.64	0.67	1.66
4. Algebra I: Functions and Relations Expressions	7	0.22	1.16	0.58	1.15	0.46	1.14	0.52	1.18	0.38	1.17	0.43	1.16	0.50	1.16
5. Geometry	20	0.40	2.00	0.64	2.02	0.06	2.02	0.58	2.02	0.36	1.99	0.32	1.98	0.50	2.03
Integrated Mathematics 2															
1. Algebra I	20	0.68	2.02	0.81	1.94	0.64	2.09	0.83	1.89	0.70	2.02	0.74	2.00	0.73	2.00
2. Geometry: Logic and Geometric Proofs	22	0.69	2.16	0.85	2.05	0.72	2.16	0.84	2.04	0.72	2.14	0.74	2.13	0.78	2.11
3. Geometry: Angle Relationships, Construction, and Lines	8	0.30	1.28	0.69	1.20	0.67	1.20	0.75	1.13	0.54	1.26	0.61	1.25	0.60	1.22
4. Trigonometry	10	0.45	1.38	0.73	1.36	0.56	1.40	0.75	1.34	0.52	1.42	0.60	1.40	0.61	1.40
5. Algebra II: Probability and Statistics	5	0.02	0.97	0.60	0.92	–	–	0.56	0.92	0.20	0.95	0.23	0.95	0.30	0.97
Integrated Mathematics 3															
1. Geometry	5	–	–	0.65	0.85	–	–	0.69	0.88	0.68	0.90	0.32	1.05	0.57	0.84
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.84	1.79	–	–	0.82	1.90	0.77	1.94	0.49	1.94	0.75	1.90
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	–	–	0.82	1.70	–	–	0.77	1.79	0.71	1.81	0.09	1.80	0.63	1.84
4. Algebra II: Exponents and Logarithms	16	–	–	0.88	1.56	–	–	0.84	1.66	0.76	1.78	0.64	1.73	0.76	1.77
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.73	1.26	–	–	0.61	1.28	0.55	1.32	0.00	1.38	0.57	1.32

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	0.69	1.41	0.71	1.19	0.66	1.42	0.62	1.28	0.65	1.46	0.67	1.44	0.66	1.24
2. Physical Science (Grade 4)	8	0.60	1.22	0.64	1.04	0.60	1.22	0.58	1.13	0.57	1.25	0.59	1.25	0.60	1.09
3. Life Science (Grade 5)	13	0.75	1.49	0.77	1.23	0.74	1.50	0.71	1.34	0.74	1.52	0.75	1.54	0.73	1.30
4. Life Science (Grade 4)	9	0.64	1.26	0.68	1.07	0.62	1.28	0.61	1.17	0.61	1.31	0.63	1.31	0.62	1.11
5. Earth Science (Grade 5)	11	0.67	1.41	0.65	1.22	0.62	1.42	0.58	1.30	0.62	1.43	0.67	1.44	0.62	1.26
6. Earth Science (Grade 4)	8	0.67	1.19	0.72	0.96	0.66	1.18	0.63	1.05	0.64	1.22	0.66	1.22	0.68	1.02
Grade 8 Science															
1. Motion	8	0.59	1.22	0.69	1.03	0.59	1.21	0.63	1.13	0.56	1.23	0.56	1.26	0.64	1.12
2. Forces, Density, and Buoyancy	13	0.75	1.48	0.70	1.21	0.73	1.46	0.67	1.31	0.73	1.50	0.74	1.53	0.73	1.30
3. Structure of Matter and Periodic Table	16	0.78	1.72	0.80	1.45	0.78	1.70	0.76	1.57	0.76	1.75	0.77	1.75	0.79	1.56
4. Earth in the Solar System	7	0.56	1.09	0.54	0.93	0.54	1.09	0.48	0.98	0.55	1.10	0.56	1.12	0.54	0.98
5. Reactions and the Chemistry of Living Systems	10	0.67	1.37	0.67	1.18	0.69	1.36	0.62	1.26	0.66	1.40	0.68	1.39	0.66	1.25
6. Investigation and Experimentation	6	0.63	0.96	0.57	0.69	0.61	0.92	0.55	0.78	0.61	0.96	0.62	0.99	0.61	0.81
Grade 10 Life Science															
1. Cell Biology	10	0.63	1.39	0.70	1.26	0.59	1.40	0.62	1.34	0.58	1.41	0.58	1.42	0.66	1.33
2. Genetics	12	0.72	1.52	0.72	1.40	0.68	1.55	0.67	1.48	0.68	1.55	0.69	1.55	0.72	1.46
3. Physiology	10	0.72	1.30	0.72	1.14	0.69	1.35	0.65	1.22	0.67	1.36	0.69	1.37	0.73	1.18
4. Ecology	11	0.75	1.37	0.72	1.22	0.71	1.41	0.67	1.31	0.70	1.43	0.71	1.43	0.74	1.26
5. Evolution	11	0.77	1.38	0.75	1.22	0.73	1.42	0.71	1.30	0.73	1.43	0.73	1.44	0.77	1.26
6. Investigation and Experimentation	6	0.62	0.94	0.48	0.83	0.55	0.99	0.45	0.88	0.57	0.99	0.60	1.01	0.59	0.85
Biology															
1. Cell Biology	9	0.56	1.36	0.65	1.23	0.53	1.38	0.54	1.32	0.50	1.39	0.51	1.39	0.59	1.31
2. Genetics	18	0.77	1.86	0.78	1.66	0.75	1.87	0.72	1.78	0.74	1.89	0.75	1.90	0.77	1.76
3. Ecology and Evolution	16	0.79	1.74	0.80	1.55	0.76	1.78	0.75	1.68	0.75	1.80	0.75	1.81	0.80	1.62
4. Physiology	11	0.79	1.31	0.79	1.14	0.77	1.37	0.73	1.22	0.77	1.39	0.78	1.40	0.78	1.19
5. Investigation and Experimentation	6	0.55	1.04	0.53	0.97	0.53	1.07	0.47	1.01	0.52	1.08	0.52	1.08	0.52	0.98
Chemistry															
1. Atomic and Molecular Structure	8	0.53	1.26	0.56	1.17	0.55	1.28	0.49	1.26	0.53	1.30	0.52	1.30	0.51	1.21
2. Chemical Bonds, Biochemistry	9	0.58	1.29	0.64	1.14	0.62	1.33	0.58	1.26	0.60	1.34	0.60	1.36	0.60	1.22
3. Kinetics, Thermodynamics	14	0.67	1.69	0.73	1.53	0.71	1.70	0.66	1.68	0.68	1.73	0.67	1.74	0.69	1.60
4. Chemical Reactions	13	0.68	1.62	0.74	1.51	0.69	1.64	0.68	1.62	0.66	1.65	0.66	1.65	0.70	1.58
5. Conservation of Matter and Stoichiometry	10	0.70	1.38	0.74	1.20	0.69	1.41	0.68	1.36	0.65	1.44	0.63	1.45	0.71	1.31
6. Investigation and Experimentation	6	0.58	1.03	0.59	0.92	0.63	1.06	0.55	1.03	0.57	1.09	0.58	1.09	0.58	0.96
Earth Science															
1. Astronomy and Cosmology	12	0.64	1.57	0.65	1.56	0.61	1.59	0.63	1.55	0.61	1.59	0.60	1.59	0.66	1.54
2. Solid Earth	14	0.67	1.70	0.65	1.66	0.65	1.71	0.60	1.66	0.65	1.71	0.65	1.72	0.68	1.65
3. The Earth's Energy	28	0.85	2.37	0.85	2.31	0.82	2.42	0.83	2.33	0.82	2.42	0.81	2.43	0.86	2.29
4. Investigation and Experimentation	6	0.61	1.03	0.60	0.99	0.60	1.04	0.56	0.97	0.59	1.07	0.59	1.08	0.65	0.96

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
Physics															
1. Motion and Forces	12	0.69	1.52	0.70	1.42	0.71	1.52	0.66	1.53	0.66	1.56	0.66	1.56	0.68	1.46
2. Conservation of Energy and Momentum	12	0.76	1.49	0.73	1.40	0.74	1.54	0.67	1.53	0.68	1.58	0.66	1.59	0.73	1.45
3. Heat and Thermodynamics	9	0.67	1.27	0.66	1.19	0.66	1.31	0.61	1.27	0.64	1.32	0.64	1.33	0.68	1.21
4. Waves	10	0.67	1.33	0.64	1.25	0.70	1.37	0.63	1.32	0.66	1.40	0.65	1.42	0.67	1.26
5. Electric and Magnetic Phenomena	11	0.60	1.51	0.59	1.43	0.58	1.53	0.52	1.51	0.56	1.55	0.53	1.55	0.59	1.48
6. Investigation and Experimentation	6	0.58	1.04	0.48	1.00	0.49	1.10	0.39	1.07	0.47	1.10	0.46	1.11	0.48	1.02
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.67	1.40	0.69	1.33	0.58	1.44	0.58	1.39	0.59	1.44	0.60	1.44	0.66	1.35
2. Chemistry	15	0.55	1.83	0.67	1.79	0.47	1.82	0.57	1.83	0.51	1.82	0.51	1.80	0.62	1.82
3. Earth Sciences	17	0.75	1.86	0.77	1.75	0.75	1.87	0.70	1.82	0.73	1.88	0.72	1.89	0.76	1.79
4. Physics	12	0.52	1.60	0.64	1.57	0.46	1.62	0.55	1.59	0.49	1.61	0.47	1.60	0.60	1.59
5. Investigation and Experimentation	6	0.53	1.09	0.56	1.03	0.43	1.12	0.52	1.06	0.41	1.11	0.41	1.11	0.54	1.05
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.64	1.77	0.72	1.60	0.71	1.74	0.58	1.76	0.63	1.78	0.62	1.77	0.64	1.75
2. Chemistry	6	0.29	1.17	0.59	1.03	0.51	1.12	0.53	1.10	0.38	1.13	0.33	1.12	0.47	1.13
3. Earth Sciences	15	0.55	1.84	0.79	1.57	0.71	1.78	0.63	1.77	0.65	1.79	0.52	1.82	0.73	1.71
4. Physics	18	0.64	1.92	0.76	1.91	0.60	1.93	0.64	1.94	0.49	1.93	0.28	1.91	0.63	1.97
5. Investigation and Experimentation	6	0.43	1.13	0.52	1.05	0.58	1.07	0.55	1.10	0.33	1.16	0.26	1.17	0.42	1.12
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.81	1.71	–	–	0.73	1.77	0.60	1.84	0.61	1.86	0.73	1.75
2. Chemistry	23	–	–	0.86	2.11	–	–	0.77	2.20	0.64	2.19	0.55	2.16	0.79	2.16
3. Earth Sciences	7	–	–	0.74	1.05	–	–	0.52	1.16	0.55	1.20	0.54	1.20	0.66	1.11
4. Physics	8	–	–	0.41	1.31	–	–	0.15	1.35	0.24	1.30	0.28	1.27	0.45	1.31
5. Investigation and Experimentation	6	–	–	0.29	1.08	–	–	0.50	1.04	0.45	1.07	0.42	1.06	0.56	1.01
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	0.58	1.66	–	–	–	–	0.66	1.64	0.77	1.57	0.66	1.57
2. Chemistry	10	–	–	–	–	–	–	–	–	0.20	1.45	–	–	0.28	1.44
3. Earth Sciences	15	–	–	0.53	1.89	–	–	–	–	0.55	1.81	0.60	1.78	0.72	1.75
4. Physics	16	–	–	0.01	1.80	–	–	–	–	0.35	1.79	0.35	1.86	0.36	1.84
5. Investigation and Experimentation	6	–	–	0.25	1.16	–	–	–	–	0.23	1.13	–	–	0.42	1.10

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	0.73	1.79	0.76	1.49	0.73	1.76	0.73	1.66	0.73	1.79	0.74	1.82	0.74	1.66
2. Graphing and Systems of Linear Equations	14	0.75	1.68	0.80	1.46	0.77	1.65	0.78	1.59	0.75	1.68	0.73	1.68	0.78	1.60
3. Quadratics and Polynomials	21	0.80	2.03	0.84	1.79	0.80	2.03	0.82	1.94	0.80	2.04	0.79	2.04	0.82	1.97
4. Functions and Rational Expressions	13	0.61	1.62	0.75	1.52	0.63	1.62	0.67	1.60	0.60	1.63	0.59	1.62	0.68	1.61
Geometry – 9															
1. Logic and Geometric Proofs	23	0.81	2.05	0.80	1.85	0.78	2.10	0.77	2.00	0.79	2.12	0.79	2.14	0.76	1.93
2. Volume and Area Formulas	11	0.69	1.45	0.72	1.31	0.62	1.49	0.67	1.42	0.63	1.49	0.60	1.50	0.67	1.41
3. Angle Relationships, Constructions, and Lines	16	0.70	1.71	0.73	1.57	0.68	1.73	0.66	1.68	0.67	1.76	0.66	1.77	0.68	1.63
4. Trigonometry	15	0.73	1.65	0.74	1.48	0.72	1.68	0.72	1.59	0.73	1.69	0.73	1.71	0.72	1.56
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.77	1.81	0.78	1.62	0.77	1.84	0.76	1.78	0.78	1.85	0.77	1.89	0.76	1.77
2. Quadratics, Conics, and Complex Numbers	16	0.68	1.82	0.76	1.70	0.72	1.80	0.72	1.79	0.71	1.81	0.69	1.81	0.71	1.78
3. Exponents and Logarithms	16	0.71	1.79	0.75	1.64	0.74	1.76	0.71	1.75	0.72	1.80	0.72	1.80	0.71	1.75
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.64	0.70	1.60	0.69	1.65	0.67	1.65	0.66	1.65	0.63	1.65	0.67	1.64
Summative High School Mathematics – 11															
1. Algebra I	18	0.77	1.66	0.76	1.41	0.80	1.64	0.75	1.66	0.77	1.75	0.79	1.78	0.77	1.58
2. Geometry	19	0.78	1.77	0.79	1.56	0.80	1.79	0.78	1.79	0.77	1.89	0.78	1.92	0.78	1.69
3. Algebra II	23	0.83	1.99	0.83	1.76	0.83	1.99	0.81	2.00	0.81	2.08	0.81	2.10	0.83	1.94
4. Probability and Statistics	5	0.56	0.98	0.57	0.93	0.55	1.00	0.51	1.01	0.49	1.01	0.51	1.01	0.56	0.95
World History – 10															
1. Development of Modern Political Thought	13	0.72	1.56	0.70	1.42	0.68	1.59	0.65	1.50	0.68	1.60	0.68	1.61	0.71	1.46
2. Industrial Expansion and Imperialism	10	0.70	1.37	0.68	1.23	0.68	1.39	0.62	1.31	0.68	1.41	0.69	1.41	0.69	1.28
3. Causes and Effects of World War I	14	0.79	1.60	0.76	1.45	0.75	1.64	0.73	1.55	0.75	1.66	0.75	1.67	0.78	1.52
4. Causes and Effects of World War II	13	0.75	1.54	0.75	1.42	0.72	1.57	0.70	1.50	0.72	1.58	0.72	1.60	0.75	1.46
5. International Developments in the Post-World War II Era	10	0.67	1.37	0.69	1.23	0.66	1.39	0.64	1.30	0.66	1.39	0.67	1.40	0.68	1.29

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**	**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	0.81	1.80	0.77	1.46	0.80	1.74	0.76	1.58	0.81	1.79	0.83	1.78	0.79	1.63
2. Reading Comprehension	15	0.78	1.58	0.75	1.34	0.74	1.58	0.74	1.47	0.77	1.59	0.78	1.60	0.77	1.45
3. Literary Response and Analysis	6	0.68	0.85	0.57	0.69	0.63	0.83	0.55	0.77	0.65	0.86	0.66	0.86	0.62	0.75
4. Written and Oral Language Conventions	14	0.79	1.53	0.77	1.20	0.77	1.46	0.76	1.31	0.79	1.50	0.81	1.49	0.79	1.39
5. Writing Strategies	8	0.65	1.24	0.65	1.07	0.61	1.24	0.63	1.17	0.63	1.23	0.64	1.24	0.64	1.16
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.80	1.75	0.76	1.43	0.73	1.69	0.73	1.56	0.78	1.76	0.78	1.76	0.76	1.58
2. Reading Comprehension	15	0.73	1.56	0.67	1.39	0.68	1.54	0.65	1.48	0.71	1.57	0.73	1.59	0.68	1.43
3. Literary Response and Analysis	8	0.70	0.99	0.62	0.81	0.61	0.98	0.59	0.91	0.66	1.01	0.66	1.03	0.61	0.87
4. Written and Oral Language Conventions	13	0.71	1.55	0.70	1.33	0.68	1.51	0.67	1.44	0.70	1.54	0.71	1.54	0.68	1.45
5. Writing Strategies	9	0.68	1.28	0.65	1.07	0.63	1.26	0.62	1.19	0.66	1.28	0.66	1.30	0.65	1.16
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.83	1.55	0.78	1.28	0.81	1.53	0.75	1.41	0.82	1.58	0.84	1.58	0.79	1.37
2. Reading Comprehension	15	0.79	1.52	0.75	1.30	0.76	1.53	0.73	1.44	0.77	1.55	0.78	1.58	0.74	1.38
3. Literary Response and Analysis	9	0.67	1.20	0.67	0.96	0.66	1.18	0.65	1.11	0.68	1.20	0.68	1.23	0.65	1.07
4. Written and Oral Language Conventions	18	0.79	1.65	0.74	1.32	0.77	1.60	0.72	1.47	0.78	1.64	0.80	1.65	0.75	1.47
5. Writing Strategies	15	0.70	1.61	0.69	1.39	0.69	1.58	0.65	1.51	0.70	1.61	0.71	1.63	0.68	1.48
Grade 5															
1. Word Analysis and Vocabulary Development	14	0.72	1.56	0.70	1.37	0.69	1.56	0.64	1.51	0.70	1.59	0.71	1.59	0.66	1.45
2. Reading Comprehension	16	0.77	1.66	0.72	1.46	0.76	1.64	0.71	1.58	0.75	1.66	0.76	1.68	0.73	1.52
3. Literary Response and Analysis	12	0.73	1.37	0.71	1.14	0.73	1.36	0.68	1.29	0.72	1.39	0.73	1.39	0.70	1.21
4. Written and Oral Language Conventions	17	0.75	1.66	0.67	1.33	0.72	1.57	0.65	1.44	0.72	1.62	0.74	1.63	0.69	1.52
5. Writing Strategies	16	0.76	1.63	0.72	1.38	0.72	1.58	0.68	1.51	0.74	1.61	0.74	1.63	0.70	1.48
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.76	1.34	0.74	1.08	0.74	1.33	0.68	1.23	0.74	1.36	0.76	1.38	0.71	1.19
2. Reading Comprehension	17	0.72	1.77	0.71	1.53	0.71	1.76	0.68	1.66	0.71	1.78	0.72	1.80	0.69	1.66
3. Literary Response and Analysis	12	0.69	1.36	0.64	1.20	0.66	1.36	0.61	1.30	0.68	1.38	0.70	1.39	0.63	1.26
4. Written and Oral Language Conventions	16	0.73	1.57	0.68	1.27	0.74	1.50	0.65	1.42	0.72	1.56	0.74	1.59	0.68	1.42
5. Writing Strategies	17	0.72	1.83	0.72	1.63	0.72	1.81	0.69	1.76	0.72	1.83	0.73	1.84	0.71	1.72
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.71	1.35	0.67	1.15	0.66	1.36	0.60	1.28	0.67	1.38	0.70	1.40	0.65	1.26
2. Reading Comprehension	18	0.81	1.63	0.78	1.36	0.80	1.62	0.75	1.50	0.80	1.66	0.80	1.70	0.77	1.48
3. Literary Response and Analysis	13	0.70	1.44	0.65	1.32	0.67	1.48	0.63	1.43	0.68	1.50	0.68	1.51	0.62	1.37
4. Written and Oral Language Conventions	16	0.74	1.63	0.72	1.30	0.72	1.57	0.68	1.45	0.72	1.63	0.74	1.63	0.71	1.50
5. Writing Strategies	17	0.75	1.78	0.76	1.58	0.72	1.80	0.72	1.72	0.73	1.80	0.74	1.80	0.74	1.70

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 8															
1. Word Analysis and Vocabulary Development	8	0.55	1.18	0.58	1.03	0.53	1.18	0.46	1.14	0.51	1.21	0.51	1.22	0.49	1.12
2. Reading Comprehension	18	0.79	1.64	0.75	1.34	0.79	1.61	0.73	1.50	0.80	1.65	0.81	1.68	0.76	1.49
3. Literary Response and Analysis	15	0.75	1.61	0.71	1.36	0.75	1.61	0.69	1.51	0.73	1.64	0.74	1.67	0.72	1.50
4. Written and Oral Language Conventions	16	0.78	1.65	0.73	1.36	0.77	1.62	0.70	1.52	0.76	1.67	0.77	1.69	0.75	1.52
5. Writing Strategies	17	0.77	1.74	0.73	1.52	0.79	1.71	0.72	1.65	0.75	1.76	0.77	1.77	0.75	1.64
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.60	1.08	0.53	0.96	0.57	1.09	0.44	1.01	0.61	1.11	0.64	1.13	0.55	1.00
2. Reading Comprehension	18	0.80	1.72	0.79	1.43	0.80	1.75	0.75	1.61	0.80	1.78	0.80	1.81	0.79	1.59
3. Literary Response and Analysis	16	0.74	1.71	0.70	1.55	0.74	1.72	0.67	1.65	0.74	1.74	0.75	1.75	0.72	1.63
4. Written and Oral Language Conventions	13	0.71	1.52	0.69	1.30	0.72	1.53	0.64	1.45	0.71	1.56	0.72	1.59	0.70	1.39
5. Writing Strategies	20	0.77	1.89	0.72	1.68	0.76	1.89	0.69	1.79	0.76	1.92	0.77	1.94	0.74	1.80
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.71	1.03	0.66	0.86	0.69	1.07	0.60	0.96	0.70	1.10	0.71	1.11	0.67	0.95
2. Reading Comprehension	18	0.84	1.68	0.82	1.36	0.83	1.72	0.79	1.54	0.84	1.73	0.84	1.76	0.83	1.54
3. Literary Response and Analysis	16	0.77	1.73	0.72	1.56	0.72	1.79	0.67	1.71	0.74	1.79	0.75	1.80	0.73	1.67
4. Written and Oral Language Conventions	13	0.75	1.49	0.66	1.25	0.74	1.47	0.63	1.36	0.74	1.51	0.76	1.53	0.72	1.39
5. Writing Strategies	20	0.82	1.84	0.79	1.61	0.81	1.87	0.76	1.76	0.81	1.88	0.81	1.91	0.80	1.73
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.65	1.10	0.61	0.91	0.64	1.10	0.54	1.00	0.66	1.11	0.68	1.14	0.64	0.99
2. Reading Comprehension	19	0.84	1.84	0.83	1.59	0.83	1.87	0.79	1.80	0.82	1.89	0.83	1.90	0.83	1.73
3. Literary Response and Analysis	17	0.71	1.84	0.74	1.68	0.71	1.85	0.67	1.81	0.70	1.87	0.71	1.88	0.72	1.76
4. Written and Oral Language Conventions	9	0.67	1.20	0.65	1.01	0.66	1.21	0.57	1.13	0.66	1.23	0.67	1.26	0.66	1.11
5. Writing Strategies	22	0.85	1.97	0.82	1.73	0.84	1.98	0.81	1.90	0.84	2.01	0.84	2.03	0.85	1.85

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 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	0.70	1.67	0.71	1.42	0.68	1.66	0.64	1.57	0.69	1.67	0.69	1.70	0.67	1.57
2. Late Antiquity and the Middle Ages	14	0.75	1.60	0.75	1.31	0.73	1.58	0.71	1.50	0.75	1.61	0.76	1.63	0.74	1.50
3. Renaissance/Reformation	10	0.64	1.42	0.62	1.26	0.59	1.43	0.56	1.37	0.61	1.43	0.60	1.44	0.62	1.37
4. U.S. Constitution and the Early Republic	22	0.82	2.02	0.80	1.71	0.82	1.99	0.78	1.89	0.81	2.03	0.82	2.05	0.81	1.87
5. Civil War and Its Aftermath	13	0.79	1.51	0.77	1.21	0.77	1.49	0.75	1.39	0.78	1.52	0.79	1.51	0.78	1.37
World History															
1. Development of Modern Political Thought	13	0.74	1.51	0.69	1.34	0.69	1.56	0.66	1.47	0.71	1.55	0.71	1.58	0.72	1.44
2. Industrial Expansion and Imperialism	10	0.71	1.33	0.66	1.15	0.69	1.37	0.62	1.29	0.70	1.37	0.70	1.39	0.69	1.26
3. Causes and Effects of World War I	14	0.80	1.55	0.75	1.36	0.75	1.62	0.74	1.52	0.78	1.61	0.77	1.65	0.78	1.49
4. Causes and Effects of World War II	13	0.78	1.50	0.74	1.34	0.73	1.55	0.70	1.47	0.74	1.54	0.74	1.57	0.75	1.44
5. International Developments in the Post-World War II Era	10	0.69	1.33	0.64	1.17	0.66	1.37	0.64	1.28	0.69	1.36	0.69	1.38	0.67	1.27
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.68	1.35	0.71	1.17	0.67	1.34	0.66	1.31	0.68	1.36	0.67	1.38	0.69	1.27
2. Industrialization and the U.S. role as a World Power	13	0.77	1.50	0.75	1.30	0.74	1.52	0.69	1.44	0.75	1.53	0.76	1.55	0.76	1.40
3. United States between the World Wars	12	0.70	1.50	0.68	1.34	0.70	1.51	0.64	1.46	0.71	1.52	0.71	1.54	0.70	1.41
4. World War II and Foreign Affairs	12	0.71	1.51	0.68	1.38	0.70	1.52	0.65	1.48	0.71	1.53	0.70	1.55	0.71	1.45
5. Post-World War II Domestic Affairs	13	0.76	1.51	0.71	1.38	0.74	1.53	0.68	1.49	0.74	1.54	0.76	1.54	0.75	1.44

Table 8.B.37 Subscore Reliabilities and SEM for Mathematics by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for Mathematics by *Primary Ethnicity-for-Not Economically Disadvantaged*															
Subscore Area	**N of**	**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	0.78	1.39	0.73	1.07	0.78	1.37	0.75	1.24	0.79	1.40	0.81	1.43	0.74	1.26
2. Number Sense: Multiplication, Division, and Fractions	23	0.85	1.69	0.82	1.29	0.84	1.70	0.83	1.52	0.85	1.69	0.86	1.75	0.83	1.48
3. Algebra and Functions	6	0.52	0.89	0.53	0.65	0.56	0.88	0.53	0.77	0.55	0.90	0.58	0.92	0.54	0.78
4. Measurement and Geometry	14	0.63	1.36	0.62	1.10	0.64	1.37	0.62	1.24	0.66	1.36	0.69	1.42	0.61	1.20
5. Statistics, Data Analysis, and Probability	7	0.62	0.93	0.56	0.75	0.62	0.93	0.58	0.85	0.63	0.92	0.68	0.95	0.60	0.84
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.78	1.37	0.72	1.03	0.74	1.31	0.71	1.20	0.76	1.36	0.79	1.40	0.74	1.22
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.83	1.46	0.79	1.02	0.82	1.34	0.80	1.23	0.82	1.40	0.83	1.45	0.81	1.29
3. Algebra and Functions	12	0.77	1.28	0.73	0.93	0.76	1.25	0.73	1.12	0.76	1.28	0.77	1.33	0.74	1.11
4. Measurement and Geometry	16	0.77	1.36	0.71	1.01	0.74	1.29	0.71	1.19	0.74	1.35	0.76	1.40	0.72	1.18
5. Statistics, Data Analysis and Probability	5	0.44	0.69	0.36	0.55	0.41	0.69	0.37	0.63	0.44	0.71	0.50	0.76	0.43	0.61
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.76	1.38	0.69	0.97	0.74	1.35	0.70	1.19	0.76	1.39	0.78	1.46	0.73	1.19
2. Number Sense: Operations and Factoring	14	0.81	1.38	0.75	0.94	0.77	1.33	0.77	1.17	0.81	1.35	0.83	1.40	0.79	1.22
3. Algebra and Functions	18	0.86	1.36	0.77	0.89	0.83	1.24	0.80	1.10	0.85	1.32	0.87	1.39	0.83	1.16
4. Measurement and Geometry	12	0.76	1.36	0.73	1.09	0.73	1.35	0.72	1.25	0.75	1.35	0.76	1.40	0.74	1.25
5. Statistics, Data Analysis, and Probability	4	0.46	0.72	0.36	0.55	0.42	0.72	0.35	0.65	0.40	0.72	0.44	0.75	0.42	0.64
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.76	1.40	0.77	1.05	0.76	1.35	0.75	1.25	0.76	1.38	0.77	1.40	0.77	1.28
2. Number Sense: Operations with Fractions and Decimals	17	0.81	1.73	0.79	1.29	0.80	1.65	0.79	1.53	0.80	1.70	0.80	1.74	0.80	1.60
3. Algebra and Functions	17	0.81	1.60	0.78	1.21	0.81	1.52	0.78	1.41	0.79	1.57	0.80	1.61	0.79	1.45
4. Measurement and Geometry	15	0.78	1.56	0.78	1.27	0.77	1.53	0.77	1.43	0.77	1.54	0.77	1.57	0.78	1.46
5. Statistics, Data Analysis, and Probability	4	0.64	0.64	0.58	0.38	0.60	0.58	0.57	0.50	0.62	0.60	0.64	0.64	0.63	0.48
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.73	1.64	0.76	1.29	0.77	1.58	0.75	1.50	0.76	1.62	0.75	1.65	0.75	1.52
2. Number Sense: Operations and Problem Solving with Fractions	10	0.67	1.30	0.67	0.95	0.66	1.26	0.65	1.16	0.68	1.28	0.68	1.29	0.68	1.16
3. Algebra and Functions	19	0.82	1.73	0.82	1.23	0.82	1.69	0.82	1.55	0.83	1.74	0.84	1.78	0.82	1.54
4. Measurement and Geometry	10	0.67	1.35	0.73	1.07	0.70	1.32	0.70	1.25	0.70	1.34	0.69	1.38	0.70	1.25
5. Statistics, Data Analysis, and Probability	11	0.70	1.39	0.72	1.13	0.72	1.36	0.70	1.30	0.71	1.39	0.71	1.42	0.71	1.27

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 7															
1. Number Sense: Rational Numbers	14	0.71	1.63	0.76	1.38	0.72	1.62	0.74	1.54	0.73	1.62	0.73	1.63	0.73	1.55
2. Number Sense: Exponent, Powers and Roots	8	0.68	1.23	0.68	1.01	0.68	1.22	0.65	1.17	0.66	1.24	0.66	1.24	0.67	1.18
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.60	1.36	0.61	1.15	0.61	1.34	0.57	1.27	0.60	1.36	0.61	1.37	0.60	1.29
4. Algebra and Functions: Multistep Problems, Graphing and Functions	15	0.76	1.63	0.77	1.34	0.76	1.61	0.74	1.53	0.75	1.63	0.75	1.67	0.75	1.52
5. Measurement and Geometry	13	0.70	1.55	0.75	1.32	0.69	1.55	0.71	1.47	0.69	1.56	0.68	1.58	0.71	1.47
6. Statistics, Data Analysis, and Probability	5	0.61	0.90	0.57	0.72	0.59	0.90	0.55	0.82	0.58	0.91	0.58	0.93	0.57	0.83
General Mathematics															
1. Number Sense: Rational Numbers	14	0.74	1.65	0.77	1.53	0.73	1.63	0.74	1.59	0.71	1.66	0.71	1.65	0.73	1.63
2. Number Sense: Exponent, Powers and Roots	10	0.71	1.40	0.77	1.29	0.68	1.41	0.73	1.36	0.69	1.41	0.70	1.40	0.71	1.39
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.68	1.46	0.67	1.34	0.68	1.44	0.66	1.38	0.68	1.46	0.71	1.46	0.69	1.41
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.61	1.41	0.67	1.32	0.62	1.40	0.61	1.36	0.60	1.42	0.57	1.43	0.63	1.37
5. Measurement and Geometry	11	0.53	1.54	0.62	1.52	0.59	1.53	0.57	1.54	0.52	1.54	0.48	1.54	0.59	1.53
6. Statistics, Data Analysis, and Probability	9	0.62	1.32	0.66	1.20	0.67	1.28	0.64	1.23	0.64	1.31	0.63	1.33	0.67	1.25
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.74	1.81	0.79	1.44	0.74	1.79	0.74	1.71	0.74	1.82	0.73	1.83	0.76	1.71
2. Graphing and Systems of Linear Equations	14	0.75	1.67	0.83	1.40	0.77	1.66	0.78	1.61	0.73	1.68	0.72	1.68	0.79	1.62
3. Quadratics and Polynomials	21	0.79	2.04	0.87	1.74	0.80	2.04	0.82	1.98	0.78	2.04	0.77	2.04	0.83	1.99
4. Functions and Rational Expressions	13	0.60	1.62	0.78	1.49	0.62	1.61	0.67	1.61	0.57	1.62	0.55	1.61	0.67	1.61
Geometry															
1. Logic and Geometric Proofs	23	0.81	2.10	0.85	1.79	0.81	2.12	0.81	2.05	0.80	2.14	0.78	2.17	0.81	2.02
2. Volume and Area Formulas	11	0.67	1.48	0.77	1.27	0.65	1.49	0.68	1.46	0.61	1.50	0.56	1.51	0.69	1.45
3. Angle Relationships, Constructions, and Lines	16	0.71	1.75	0.78	1.53	0.71	1.76	0.70	1.72	0.68	1.78	0.65	1.79	0.73	1.69
4. Trigonometry	15	0.75	1.68	0.79	1.44	0.73	1.71	0.76	1.64	0.73	1.71	0.72	1.73	0.77	1.62
Algebra II															
1. Polynomials and Rational Expressions	19	0.78	1.85	0.81	1.58	0.77	1.87	0.78	1.81	0.77	1.88	0.77	1.91	0.78	1.81
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.82	0.80	1.65	0.70	1.82	0.74	1.79	0.69	1.82	0.68	1.82	0.73	1.79
3. Exponents and Logarithms	16	0.73	1.79	0.79	1.59	0.73	1.79	0.73	1.77	0.72	1.80	0.72	1.81	0.74	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.67	1.65	0.74	1.57	0.66	1.67	0.68	1.65	0.66	1.66	0.64	1.65	0.69	1.64

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
Summative High School Mathematics															
1. Algebra I	18	0.78	1.61	0.72	1.30	0.80	1.58	0.74	1.61	0.77	1.68	0.78	1.73	0.76	1.54
2. Geometry	19	0.78	1.72	0.76	1.45	0.81	1.73	0.77	1.74	0.78	1.82	0.79	1.89	0.77	1.66
3. Algebra II	23	0.84	1.94	0.81	1.63	0.84	1.93	0.80	1.95	0.82	2.02	0.82	2.06	0.83	1.90
4. Probability and Statistics	5	0.56	0.97	0.54	0.89	0.57	0.98	0.51	1.00	0.53	1.00	0.52	1.01	0.56	0.93
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations, and Linear Equations	15	0.68	1.72	0.74	1.61	0.51	1.79	0.66	1.65	0.68	1.70	0.67	1.72	0.69	1.67
2. Algebra I: Graphing	9	0.61	1.36	0.71	1.30	0.37	1.39	0.62	1.35	0.58	1.35	0.60	1.35	0.62	1.34
3. Algebra I: Quadratics and Polynomials	14	0.63	1.65	0.77	1.64	0.54	1.72	0.72	1.65	0.64	1.66	0.68	1.63	0.69	1.65
4. Algebra I: Functions and Relations Expressions	7	0.36	1.16	0.64	1.14	0.42	1.13	0.50	1.18	0.46	1.17	0.49	1.16	0.52	1.16
5. Geometry	20	0.30	2.03	0.69	2.03	–	–	0.61	2.02	0.43	2.00	0.38	1.99	0.52	2.03
Integrated Mathematics 2															
1. Algebra I	20	0.60	2.03	0.83	1.91	0.58	2.08	0.82	1.89	0.72	2.00	0.74	2.01	0.73	2.00
2. Geometry: Logic and Geometric Proofs	22	0.62	2.20	0.86	2.02	0.71	2.18	0.85	2.01	0.76	2.14	0.75	2.14	0.79	2.11
3. Geometry: Angle Relationships, Construction and Lines	8	0.05	1.29	0.73	1.14	0.44	1.32	0.74	1.13	0.58	1.24	0.65	1.22	0.61	1.22
4. Trigonometry	10	0.44	1.39	0.74	1.35	0.41	1.47	0.74	1.34	0.56	1.41	0.55	1.44	0.63	1.40
5. Algebra II: Probability and Statistics	5	0.11	1.02	0.65	0.91	–	–	0.57	0.93	0.20	0.95	0.19	0.98	0.33	0.98
Integrated Mathematics 3															
1. Geometry	5	–	–	0.67	0.81	–	–	0.69	0.86	0.70	0.85	0.45	1.02	0.57	0.84
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.84	1.77	–	–	0.78	1.89	0.77	1.94	0.61	1.95	0.75	1.91
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	–	–	0.83	1.67	–	–	0.74	1.77	0.69	1.82	0.09	1.82	0.64	1.84
4. Algebra II: Exponents and Logarithms	16	–	–	0.87	1.54	–	–	0.83	1.64	0.80	1.74	0.60	1.83	0.76	1.77
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.74	1.24	–	–	0.67	1.22	0.55	1.32	0.04	1.37	0.57	1.32

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	0.67	1.34	0.66	1.08	0.64	1.34	0.60	1.24	0.66	1.36	0.67	1.37	0.63	1.19
2. Physical Science (Grade 4)	8	0.61	1.17	0.60	0.96	0.58	1.16	0.57	1.09	0.59	1.18	0.59	1.20	0.56	1.05
3. Life Science (Grade 5)	13	0.75	1.41	0.72	1.12	0.72	1.40	0.69	1.29	0.74	1.41	0.75	1.45	0.70	1.24
4. Life Science (Grade 4)	9	0.63	1.20	0.64	0.97	0.60	1.20	0.59	1.13	0.62	1.22	0.65	1.24	0.59	1.07
5. Earth Science (Grade 5)	11	0.64	1.36	0.59	1.14	0.61	1.34	0.56	1.26	0.62	1.35	0.65	1.37	0.58	1.22
6. Earth Science (Grade 4)	8	0.67	1.13	0.68	0.86	0.65	1.10	0.61	1.00	0.66	1.13	0.68	1.15	0.65	0.97
Grade 8 Science															
1. Motion	8	0.62	1.18	0.66	0.95	0.63	1.16	0.62	1.10	0.60	1.19	0.59	1.22	0.63	1.09
2. Forces, Density, and Buoyancy	13	0.74	1.41	0.65	1.11	0.74	1.38	0.64	1.27	0.73	1.42	0.74	1.47	0.70	1.25
3. Structure of Matter and Periodic Table	16	0.78	1.67	0.77	1.33	0.79	1.64	0.75	1.53	0.78	1.68	0.78	1.70	0.77	1.51
4. Earth in the Solar System	7	0.53	1.05	0.49	0.87	0.53	1.04	0.45	0.96	0.54	1.05	0.56	1.08	0.50	0.95
5. Reactions and the Chemistry of Living Systems	10	0.66	1.32	0.62	1.09	0.71	1.29	0.59	1.23	0.66	1.34	0.67	1.35	0.63	1.21
6. Investigation and Experimentation	6	0.60	0.91	0.51	0.61	0.61	0.86	0.52	0.75	0.59	0.90	0.62	0.93	0.58	0.77
Grade 10 Life Science															
1. Cell Biology	10	0.66	1.36	0.68	1.20	0.61	1.39	0.62	1.33	0.61	1.39	0.61	1.40	0.65	1.31
2. Genetics	12	0.73	1.49	0.70	1.36	0.70	1.53	0.66	1.47	0.70	1.53	0.70	1.53	0.71	1.45
3. Physiology	10	0.72	1.24	0.69	1.04	0.70	1.31	0.64	1.20	0.70	1.31	0.70	1.33	0.71	1.14
4. Ecology	11	0.76	1.31	0.69	1.14	0.72	1.39	0.66	1.28	0.73	1.38	0.72	1.40	0.73	1.23
5. Evolution	11	0.78	1.32	0.73	1.14	0.75	1.39	0.69	1.28	0.75	1.38	0.75	1.41	0.76	1.23
6. Investigation and Experimentation	6	0.64	0.89	0.43	0.77	0.56	0.96	0.43	0.86	0.58	0.95	0.60	0.98	0.56	0.82
Biology															
1. Cell Biology	9	0.58	1.34	0.65	1.16	0.55	1.36	0.54	1.31	0.54	1.37	0.53	1.38	0.58	1.29
2. Genetics	18	0.77	1.82	0.76	1.57	0.75	1.84	0.72	1.75	0.75	1.86	0.76	1.88	0.76	1.73
3. Ecology and Evolution	16	0.80	1.69	0.79	1.45	0.76	1.75	0.74	1.66	0.77	1.75	0.77	1.78	0.79	1.59
4. Physiology	11	0.78	1.25	0.76	1.04	0.78	1.33	0.72	1.20	0.78	1.33	0.78	1.36	0.76	1.16
5. Investigation and Experimentation	6	0.54	1.02	0.47	0.93	0.52	1.05	0.45	1.00	0.53	1.05	0.53	1.07	0.49	0.97
Chemistry															
1. Atomic and Molecular Structure	8	0.50	1.25	0.53	1.13	0.57	1.26	0.48	1.26	0.53	1.28	0.52	1.29	0.50	1.20
2. Chemical Bonds, Biochemistry	9	0.58	1.27	0.62	1.09	0.62	1.31	0.57	1.25	0.60	1.32	0.60	1.34	0.59	1.21
3. Kinetics, Thermodynamics	14	0.68	1.65	0.71	1.46	0.72	1.69	0.66	1.67	0.69	1.71	0.68	1.73	0.69	1.58
4. Chemical Reactions	13	0.69	1.61	0.73	1.47	0.70	1.63	0.68	1.61	0.69	1.63	0.67	1.65	0.70	1.57
5. Conservation of Matter and Stoichiometry	10	0.70	1.35	0.73	1.14	0.71	1.39	0.68	1.35	0.67	1.41	0.64	1.44	0.71	1.30
6. Investigation and Experimentation	6	0.57	1.01	0.56	0.87	0.64	1.04	0.55	1.01	0.58	1.06	0.59	1.08	0.57	0.95
Earth Science															
1. Astronomy and Cosmology	12	0.66	1.55	0.65	1.53	0.62	1.58	0.63	1.54	0.63	1.58	0.63	1.59	0.66	1.52
2. Solid Earth	14	0.66	1.68	0.65	1.62	0.64	1.70	0.59	1.64	0.67	1.69	0.67	1.71	0.66	1.63
3. The Earth's Energy	28	0.85	2.33	0.85	2.23	0.83	2.40	0.82	2.30	0.83	2.39	0.83	2.41	0.85	2.26
4. Investigation and Experimentation	6	0.64	0.98	0.58	0.93	0.60	1.02	0.55	0.95	0.61	1.04	0.60	1.06	0.63	0.93

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
Physics															
1. Motion and Forces	12	0.70	1.50	0.68	1.38	0.72	1.51	0.65	1.52	0.69	1.54	0.68	1.56	0.67	1.45
2. Conservation of Energy and Momentum	12	0.76	1.46	0.71	1.35	0.74	1.51	0.67	1.52	0.70	1.56	0.69	1.57	0.72	1.44
3. Heat and Thermodynamics	9	0.65	1.25	0.65	1.14	0.62	1.30	0.61	1.26	0.67	1.29	0.67	1.31	0.67	1.20
4. Waves	10	0.67	1.31	0.63	1.20	0.66	1.34	0.62	1.30	0.68	1.36	0.67	1.39	0.67	1.24
5. Electric and Magnetic Phenomena	11	0.61	1.48	0.58	1.41	0.57	1.52	0.52	1.51	0.55	1.54	0.55	1.55	0.59	1.48
6. Investigation and Experimentation	6	0.58	1.02	0.45	0.97	0.42	1.11	0.38	1.06	0.48	1.08	0.50	1.10	0.47	1.01
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.72	1.33	0.69	1.28	0.62	1.42	0.56	1.38	0.63	1.42	0.63	1.42	0.65	1.33
2. Chemistry	15	0.62	1.82	0.68	1.77	0.52	1.83	0.58	1.83	0.56	1.82	0.56	1.80	0.62	1.81
3. Earth Sciences	17	0.76	1.81	0.77	1.70	0.73	1.87	0.70	1.80	0.75	1.85	0.74	1.87	0.75	1.77
4. Physics	12	0.53	1.60	0.68	1.54	0.48	1.60	0.55	1.59	0.53	1.61	0.50	1.60	0.59	1.58
5. Investigation and Experimentation	6	0.56	1.07	0.59	0.99	0.48	1.10	0.54	1.05	0.45	1.11	0.44	1.11	0.54	1.04
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.68	1.74	0.65	1.56	0.78	1.68	0.56	1.75	0.65	1.76	0.65	1.76	0.65	1.74
2. Chemistry	6	0.34	1.13	0.54	1.00	0.36	1.17	0.55	1.10	0.41	1.13	0.42	1.11	0.47	1.13
3. Earth Sciences	15	0.50	1.84	0.77	1.51	0.78	1.71	0.62	1.75	0.64	1.79	0.56	1.82	0.73	1.70
4. Physics	18	0.68	1.91	0.75	1.90	0.57	1.99	0.69	1.93	0.52	1.94	0.29	1.93	0.64	1.97
5. Investigation and Experimentation	6	0.43	1.14	0.48	1.03	0.61	1.07	0.60	1.07	0.31	1.16	0.33	1.16	0.43	1.12
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.82	1.70	–	–	0.74	1.76	0.63	1.84	0.68	1.85	0.74	1.75
2. Chemistry	23	–	–	0.88	2.07	–	–	0.77	2.20	0.69	2.19	0.60	2.15	0.79	2.16
3. Earth Sciences	7	–	–	0.78	1.00	–	–	0.49	1.15	0.59	1.19	0.45	1.23	0.68	1.10
4. Physics	8	–	–	0.36	1.34	–	–	0.23	1.34	0.23	1.33	0.37	1.26	0.44	1.32
5. Investigation and Experimentation	6	–	–	0.39	1.01	–	–	0.54	1.03	0.51	1.04	0.58	1.02	0.57	1.01
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	0.68	1.63	0.75	1.59	0.64	1.57
2. Chemistry	10	–	–	–	–	–	–	–	–	0.18	1.46	–	–	0.34	1.45
3. Earth Sciences	15	–	–	–	–	–	–	–	–	0.64	1.79	0.30	1.82	0.71	1.75
4. Physics	16	–	–	–	–	–	–	–	–	0.55	1.74	0.26	1.85	0.35	1.85
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.39	1.12	–	–	0.39	1.10

Table 8.B.39 Subscore Reliabilities and SEM for Grade-Specific CSTs by Primary Ethnicity-for-Not Economically Disadvantaged

Subscore Reliabilities and SEM for Grade-Specific CSTs by Primary Ethnicity-for-Not Economically Disadvantaged															
Subscore Area	N of	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	0.73	1.75	0.73	1.40	0.73	1.71	0.73	1.64	0.74	1.76	0.75	1.78	0.73	1.63
2. Graphing and Systems of Linear Equations	14	0.77	1.65	0.79	1.38	0.79	1.61	0.78	1.57	0.76	1.66	0.76	1.67	0.78	1.58
3. Quadratics and Polynomials	21	0.81	2.01	0.83	1.71	0.81	1.99	0.82	1.92	0.81	2.02	0.80	2.03	0.82	1.95
4. Functions and Rational Expressions	13	0.65	1.61	0.74	1.48	0.67	1.61	0.67	1.60	0.63	1.62	0.62	1.63	0.68	1.60
Geometry – 9															
1. Logic and Geometric Proofs	23	0.80	2.00	0.78	1.77	0.78	2.04	0.76	1.98	0.79	2.06	0.78	2.10	0.75	1.91
2. Volume and Area Formulas	11	0.71	1.41	0.71	1.26	0.64	1.46	0.66	1.41	0.65	1.47	0.63	1.48	0.66	1.40
3. Angle Relationships, Constructions, and Lines	16	0.67	1.67	0.71	1.52	0.68	1.70	0.65	1.66	0.68	1.71	0.67	1.74	0.67	1.62
4. Trigonometry	15	0.72	1.62	0.72	1.42	0.70	1.65	0.71	1.57	0.73	1.65	0.73	1.69	0.71	1.54
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.76	1.79	0.77	1.58	0.75	1.82	0.75	1.77	0.77	1.83	0.77	1.87	0.76	1.77
2. Quadratics, Conics, and Complex Numbers	16	0.67	1.82	0.76	1.68	0.69	1.82	0.72	1.79	0.70	1.81	0.71	1.81	0.71	1.78
3. Exponents and Logarithms	16	0.70	1.78	0.74	1.61	0.72	1.75	0.71	1.74	0.72	1.79	0.73	1.80	0.71	1.74
4. Series, Combinatorics, and Probability and Statistics	14	0.66	1.64	0.68	1.59	0.69	1.64	0.66	1.65	0.66	1.66	0.66	1.65	0.67	1.63
Summative High School Mathematics – 11															
1. Algebra I	18	0.78	1.62	0.73	1.35	0.80	1.61	0.74	1.64	0.77	1.70	0.78	1.75	0.76	1.57
2. Geometry	19	0.77	1.73	0.77	1.49	0.81	1.75	0.77	1.77	0.78	1.84	0.78	1.90	0.77	1.68
3. Algebra II	23	0.84	1.95	0.82	1.69	0.84	1.95	0.80	1.98	0.81	2.04	0.81	2.08	0.82	1.93
4. Probability and Statistics	5	0.55	0.98	0.55	0.91	0.57	0.98	0.50	1.01	0.52	1.01	0.51	1.01	0.56	0.94
World History – 10															
1. Development of Modern Political Thought	13	0.73	1.51	0.68	1.35	0.69	1.56	0.64	1.48	0.70	1.55	0.70	1.58	0.70	1.44
2. Industrial Expansion and Imperialism	10	0.70	1.33	0.65	1.16	0.68	1.37	0.62	1.29	0.69	1.37	0.70	1.39	0.68	1.26
3. Causes and Effects of World War I	14	0.79	1.55	0.74	1.38	0.75	1.62	0.73	1.53	0.77	1.61	0.76	1.65	0.77	1.49
4. Causes and Effects of World War II	13	0.77	1.49	0.73	1.35	0.72	1.55	0.70	1.48	0.73	1.54	0.73	1.57	0.74	1.44
5. International Developments in the Post-World War II Era	10	0.67	1.33	0.64	1.18	0.66	1.37	0.63	1.29	0.68	1.36	0.68	1.38	0.66	1.27

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	0.82	1.96	0.81	1.74	0.81	1.85	0.79	1.73	0.82	1.93	0.83	1.93	0.82	1.85
2. Reading Comprehension	15	0.76	1.70	0.77	1.58	0.75	1.67	0.74	1.59	0.75	1.70	0.75	1.70	0.79	1.62
3. Literary Response and Analysis	6	0.69	0.97	0.64	0.87	0.64	0.92	0.62	0.86	0.65	0.98	0.67	0.97	0.68	0.90
4. Written and Oral Language Conventions	14	0.76	1.62	0.80	1.42	0.77	1.54	0.80	1.42	0.78	1.59	0.79	1.59	0.79	1.55
5. Writing Strategies	8	0.57	1.29	0.64	1.21	0.61	1.26	0.61	1.23	0.59	1.28	0.60	1.28	0.64	1.25
Grade 3															
1. Word Analysis and Vocabulary Development	20	0.78	1.89	0.79	1.71	0.76	1.83	0.74	1.71	0.77	1.89	0.78	1.88	0.79	1.81
2. Reading Comprehension	15	0.72	1.67	0.73	1.58	0.67	1.67	0.68	1.57	0.72	1.68	0.73	1.68	0.73	1.60
3. Literary Response and Analysis	8	0.68	1.12	0.66	1.04	0.65	1.09	0.61	1.04	0.66	1.13	0.67	1.13	0.68	1.04
4. Written and Oral Language Conventions	13	0.67	1.61	0.72	1.51	0.69	1.58	0.68	1.52	0.67	1.60	0.68	1.60	0.69	1.57
5. Writing Strategies	9	0.65	1.34	0.68	1.27	0.60	1.35	0.62	1.27	0.63	1.35	0.63	1.35	0.66	1.30
Grade 4															
1. Word Analysis and Vocabulary Development	18	0.82	1.75	0.83	1.57	0.81	1.71	0.79	1.56	0.82	1.75	0.84	1.73	0.83	1.63
2. Reading Comprehension	15	0.77	1.66	0.79	1.54	0.74	1.66	0.75	1.56	0.76	1.67	0.76	1.68	0.78	1.58
3. Literary Response and Analysis	9	0.65	1.31	0.69	1.19	0.62	1.30	0.66	1.22	0.66	1.31	0.66	1.32	0.67	1.24
4. Written and Oral Language Conventions	18	0.78	1.80	0.79	1.60	0.77	1.75	0.76	1.61	0.78	1.78	0.80	1.78	0.79	1.70
5. Writing Strategies	15	0.70	1.71	0.73	1.60	0.66	1.70	0.68	1.62	0.69	1.70	0.70	1.71	0.71	1.64
Grade 5															
1. Word Analysis and Vocabulary Development	14	0.71	1.66	0.73	1.59	0.68	1.68	0.68	1.61	0.70	1.67	0.70	1.68	0.71	1.60
2. Reading Comprehension	16	0.76	1.76	0.77	1.67	0.75	1.76	0.74	1.69	0.74	1.75	0.74	1.78	0.76	1.69
3. Literary Response and Analysis	12	0.72	1.50	0.74	1.40	0.68	1.51	0.70	1.42	0.68	1.53	0.69	1.52	0.73	1.41
4. Written and Oral Language Conventions	17	0.75	1.76	0.75	1.55	0.72	1.68	0.71	1.56	0.74	1.73	0.75	1.73	0.75	1.69
5. Writing Strategies	16	0.74	1.74	0.77	1.62	0.72	1.72	0.71	1.62	0.74	1.73	0.74	1.74	0.75	1.66
Grade 6															
1. Word Analysis and Vocabulary Development	13	0.75	1.50	0.77	1.36	0.73	1.49	0.72	1.36	0.74	1.50	0.74	1.51	0.76	1.40
2. Reading Comprehension	17	0.68	1.88	0.74	1.75	0.70	1.85	0.70	1.77	0.69	1.87	0.69	1.88	0.71	1.81
3. Literary Response and Analysis	12	0.70	1.47	0.70	1.39	0.66	1.46	0.63	1.39	0.68	1.49	0.69	1.48	0.69	1.40
4. Written and Oral Language Conventions	16	0.74	1.69	0.73	1.51	0.73	1.64	0.68	1.52	0.72	1.67	0.74	1.70	0.74	1.61
5. Writing Strategies	17	0.71	1.88	0.75	1.80	0.71	1.87	0.71	1.83	0.70	1.88	0.70	1.88	0.73	1.84
Grade 7															
1. Word Analysis and Vocabulary Development	11	0.70	1.46	0.70	1.36	0.65	1.47	0.65	1.36	0.66	1.45	0.68	1.48	0.70	1.40
2. Reading Comprehension	18	0.81	1.77	0.81	1.65	0.78	1.79	0.78	1.65	0.79	1.80	0.80	1.82	0.81	1.70
3. Literary Response and Analysis	13	0.70	1.56	0.71	1.49	0.67	1.58	0.68	1.51	0.68	1.59	0.70	1.59	0.70	1.51
4. Written and Oral Language Conventions	16	0.72	1.73	0.75	1.55	0.70	1.69	0.71	1.56	0.70	1.73	0.72	1.73	0.74	1.67
5. Writing Strategies	17	0.70	1.83	0.76	1.77	0.70	1.83	0.72	1.79	0.68	1.84	0.69	1.85	0.73	1.81

Subscore Reliabilities and SEM for ELA by *Primary Ethnicity-for-Economically Disadvantaged*

Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Grade 8															
1. Word Analysis and Vocabulary Development	8	0.50	1.26	0.61	1.20	0.49	1.27	0.49	1.21	0.49	1.27	0.49	1.27	0.54	1.21
2. Reading Comprehension	18	0.81	1.76	0.81	1.60	0.80	1.76	0.76	1.63	0.80	1.76	0.81	1.78	0.81	1.68
3. Literary Response and Analysis	15	0.72	1.74	0.75	1.58	0.69	1.74	0.72	1.62	0.71	1.74	0.71	1.75	0.74	1.67
4. Written and Oral Language Conventions	16	0.75	1.77	0.75	1.62	0.74	1.75	0.73	1.63	0.74	1.76	0.75	1.78	0.77	1.70
5. Writing Strategies	17	0.74	1.83	0.77	1.72	0.74	1.81	0.74	1.75	0.73	1.82	0.74	1.84	0.77	1.78
Grade 9															
1. Word Analysis and Vocabulary Development	8	0.62	1.18	0.59	1.10	0.60	1.16	0.50	1.08	0.59	1.17	0.63	1.19	0.65	1.12
2. Reading Comprehension	18	0.79	1.87	0.81	1.71	0.78	1.87	0.79	1.74	0.77	1.87	0.76	1.89	0.80	1.79
3. Literary Response and Analysis	16	0.72	1.79	0.73	1.72	0.71	1.78	0.72	1.72	0.70	1.79	0.72	1.79	0.75	1.75
4. Written and Oral Language Conventions	13	0.70	1.63	0.69	1.54	0.68	1.63	0.65	1.56	0.67	1.64	0.68	1.65	0.73	1.56
5. Writing Strategies	20	0.75	1.98	0.76	1.87	0.75	1.97	0.72	1.89	0.74	1.99	0.75	2.00	0.77	1.93
Grade 10															
1. Word Analysis and Vocabulary Development	8	0.71	1.16	0.70	1.07	0.65	1.16	0.63	1.07	0.67	1.18	0.69	1.18	0.72	1.10
2. Reading Comprehension	18	0.83	1.82	0.85	1.63	0.81	1.83	0.81	1.69	0.82	1.82	0.83	1.84	0.85	1.75
3. Literary Response and Analysis	16	0.72	1.83	0.74	1.74	0.69	1.84	0.69	1.79	0.71	1.84	0.72	1.84	0.75	1.78
4. Written and Oral Language Conventions	13	0.72	1.59	0.72	1.43	0.71	1.55	0.68	1.44	0.72	1.57	0.74	1.59	0.75	1.53
5. Writing Strategies	20	0.79	1.94	0.82	1.81	0.77	1.95	0.79	1.84	0.78	1.94	0.79	1.96	0.82	1.89
Grade 11															
1. Word Analysis and Vocabulary Development	8	0.64	1.20	0.66	1.09	0.62	1.20	0.58	1.08	0.64	1.17	0.65	1.21	0.67	1.13
2. Reading Comprehension	19	0.80	1.95	0.83	1.84	0.79	1.96	0.80	1.88	0.80	1.95	0.81	1.95	0.83	1.89
3. Literary Response and Analysis	17	0.68	1.90	0.73	1.85	0.66	1.91	0.66	1.88	0.66	1.91	0.67	1.91	0.71	1.87
4. Written and Oral Language Conventions	9	0.63	1.31	0.66	1.18	0.65	1.29	0.58	1.21	0.63	1.29	0.65	1.31	0.68	1.24
5. Writing Strategies	22	0.83	2.06	0.83	1.97	0.81	2.10	0.81	2.00	0.81	2.09	0.82	2.09	0.85	2.01

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	0.66	1.75	0.72	1.64	0.65	1.73	0.67	1.66	0.66	1.74	0.67	1.77	0.68	1.71
2. Late Antiquity and the Middle Ages	14	0.71	1.68	0.77	1.54	0.71	1.67	0.73	1.59	0.73	1.67	0.73	1.68	0.75	1.63
3. Renaissance/Reformation	10	0.58	1.46	0.62	1.40	0.57	1.46	0.57	1.43	0.57	1.45	0.58	1.46	0.61	1.44
4. U.S. Constitution and the Early Republic	22	0.80	2.12	0.81	1.98	0.79	2.12	0.80	2.02	0.79	2.12	0.79	2.13	0.82	2.06
5. Civil War and Its Aftermath	13	0.75	1.60	0.78	1.46	0.72	1.60	0.75	1.52	0.74	1.60	0.75	1.60	0.78	1.54
World History															
1. Development of Modern Political Thought	13	0.68	1.62	0.70	1.51	0.66	1.61	0.67	1.54	0.68	1.61	0.67	1.63	0.72	1.56
2. Industrial Expansion and Imperialism	10	0.68	1.42	0.69	1.32	0.66	1.42	0.63	1.36	0.68	1.42	0.68	1.42	0.71	1.37
3. Causes and Effects of World War I	14	0.76	1.67	0.77	1.54	0.74	1.67	0.74	1.60	0.75	1.67	0.73	1.69	0.78	1.62
4. Causes and Effects of World War II	13	0.70	1.60	0.75	1.50	0.71	1.60	0.71	1.54	0.71	1.59	0.70	1.61	0.75	1.55
5. International Developments in the Post-World War II Era	10	0.64	1.42	0.70	1.30	0.66	1.40	0.66	1.34	0.66	1.40	0.65	1.42	0.69	1.37
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.62	1.41	0.70	1.33	0.61	1.40	0.65	1.36	0.63	1.39	0.61	1.41	0.67	1.37
2. Industrialization and the U.S. role as a World Power	13	0.71	1.59	0.75	1.47	0.71	1.59	0.70	1.51	0.72	1.58	0.72	1.60	0.76	1.53
3. United States between the World Wars	12	0.68	1.57	0.69	1.49	0.66	1.59	0.65	1.53	0.68	1.57	0.69	1.57	0.72	1.52
4. World War II and Foreign Affairs	12	0.68	1.57	0.70	1.50	0.69	1.55	0.68	1.51	0.68	1.56	0.66	1.57	0.72	1.53
5. Post-World War II Domestic Affairs	13	0.74	1.57	0.74	1.52	0.72	1.59	0.70	1.54	0.71	1.59	0.74	1.58	0.76	1.54

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*															
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	0.79	1.54	0.79	1.31	0.78	1.48	0.78	1.35	0.80	1.51	0.81	1.54	0.79	1.44
2. Number Sense: Multiplication, Division, and Fractions	23	0.86	1.89	0.85	1.62	0.84	1.82	0.84	1.68	0.86	1.84	0.86	1.90	0.85	1.74
3. Algebra and Functions	6	0.53	0.99	0.55	0.83	0.55	0.94	0.55	0.86	0.52	0.97	0.54	1.00	0.55	0.92
4. Measurement and Geometry	14	0.67	1.48	0.68	1.33	0.67	1.46	0.65	1.36	0.66	1.48	0.67	1.53	0.67	1.39
5. Statistics, Data Analysis, and Probability	7	0.64	1.01	0.61	0.89	0.61	0.98	0.60	0.91	0.64	0.97	0.67	1.01	0.65	0.95
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.79	1.47	0.77	1.27	0.76	1.42	0.74	1.31	0.77	1.46	0.79	1.52	0.78	1.40
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.82	1.56	0.83	1.27	0.81	1.47	0.81	1.35	0.82	1.49	0.82	1.56	0.82	1.49
3. Algebra and Functions	12	0.75	1.40	0.76	1.21	0.74	1.37	0.73	1.26	0.74	1.39	0.75	1.44	0.76	1.32
4. Measurement and Geometry	16	0.76	1.49	0.75	1.28	0.72	1.44	0.73	1.32	0.75	1.47	0.76	1.52	0.76	1.39
5. Statistics, Data Analysis and Probability	5	0.48	0.80	0.45	0.68	0.46	0.77	0.37	0.70	0.46	0.78	0.52	0.83	0.50	0.73
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.78	1.56	0.77	1.26	0.76	1.53	0.75	1.33	0.77	1.54	0.78	1.61	0.77	1.43
2. Number Sense: Operations and Factoring	14	0.81	1.51	0.81	1.18	0.82	1.43	0.81	1.29	0.82	1.45	0.82	1.52	0.82	1.43
3. Algebra and Functions	18	0.87	1.54	0.85	1.16	0.87	1.43	0.84	1.25	0.86	1.47	0.87	1.55	0.86	1.42
4. Measurement and Geometry	12	0.74	1.44	0.77	1.27	0.75	1.43	0.75	1.32	0.75	1.42	0.74	1.47	0.75	1.38
5. Statistics, Data Analysis, and Probability	4	0.42	0.79	0.39	0.68	0.41	0.77	0.39	0.71	0.37	0.77	0.42	0.80	0.44	0.74
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.73	1.45	0.79	1.27	0.75	1.42	0.77	1.33	0.75	1.42	0.74	1.45	0.76	1.41
2. Number Sense: Operations with Fractions and Decimals	17	0.78	1.82	0.81	1.56	0.77	1.78	0.80	1.65	0.79	1.77	0.78	1.81	0.80	1.75
3. Algebra and Functions	17	0.78	1.69	0.81	1.47	0.78	1.66	0.81	1.53	0.79	1.65	0.78	1.71	0.79	1.62
4. Measurement and Geometry	15	0.75	1.61	0.79	1.47	0.74	1.60	0.78	1.51	0.75	1.60	0.74	1.63	0.77	1.58
5.Statistics, Data Analysis, and Probability	4	0.66	0.69	0.62	0.56	0.62	0.71	0.63	0.59	0.60	0.70	0.62	0.74	0.66	0.62
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages and Negative Fractions	15	0.73	1.70	0.77	1.51	0.73	1.67	0.75	1.58	0.74	1.68	0.72	1.71	0.74	1.66
2. Number Sense: Operations and Problem Solving with Fractions	10	0.66	1.38	0.69	1.18	0.66	1.32	0.67	1.25	0.67	1.35	0.66	1.37	0.68	1.32
3. Algebra and Functions	19	0.81	1.87	0.84	1.57	0.81	1.83	0.83	1.68	0.81	1.85	0.81	1.89	0.82	1.76
4. Measurement and Geometry	10	0.66	1.40	0.73	1.27	0.69	1.38	0.71	1.31	0.68	1.39	0.64	1.42	0.68	1.36
5. Statistics, Data Analysis, and Probability	11	0.69	1.46	0.73	1.33	0.68	1.45	0.69	1.39	0.68	1.45	0.67	1.47	0.71	1.40

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 7															
1. Number Sense: Rational Numbers	14	0.71	1.67	0.77	1.54	0.73	1.63	0.75	1.59	0.72	1.65	0.69	1.66	0.72	1.65
2. Number Sense: Exponent, Powers and Roots	8	0.67	1.25	0.69	1.16	0.65	1.26	0.67	1.21	0.65	1.27	0.64	1.27	0.66	1.25
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.60	1.40	0.64	1.28	0.60	1.39	0.60	1.33	0.59	1.40	0.59	1.41	0.61	1.37
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.73	1.70	0.78	1.53	0.73	1.70	0.74	1.60	0.74	1.69	0.72	1.72	0.75	1.65
5. Measurement and Geometry	13	0.67	1.60	0.74	1.48	0.67	1.59	0.71	1.52	0.66	1.60	0.63	1.61	0.69	1.57
6. Statistics, Data Analysis, and Probability	5	0.57	0.97	0.62	0.84	0.59	0.95	0.58	0.88	0.57	0.96	0.56	0.98	0.59	0.93
General Mathematics															
1. Number Sense: Rational Numbers	14	0.70	1.67	0.76	1.60	0.70	1.65	0.75	1.61	0.69	1.66	0.67	1.66	0.71	1.67
2. Number Sense: Exponent, Powers and Roots	10	0.66	1.42	0.75	1.36	0.71	1.40	0.73	1.38	0.67	1.41	0.67	1.40	0.68	1.41
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.68	1.49	0.68	1.43	0.70	1.47	0.69	1.43	0.67	1.49	0.68	1.49	0.70	1.46
4. Algebra and Functions: Multistep Problems, Graphing and Functions	10	0.60	1.42	0.63	1.39	0.61	1.42	0.59	1.41	0.56	1.43	0.53	1.44	0.60	1.42
5. Measurement and Geometry	11	0.52	1.54	0.58	1.54	0.52	1.54	0.54	1.55	0.46	1.54	0.43	1.52	0.55	1.54
6. Statistics, Data Analysis, and Probability	9	0.62	1.34	0.62	1.28	0.58	1.33	0.61	1.29	0.59	1.34	0.59	1.35	0.66	1.32
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.71	1.86	0.78	1.68	0.70	1.83	0.74	1.76	0.71	1.84	0.69	1.86	0.74	1.82
2. Graphing and Systems of Linear Equations	14	0.68	1.70	0.80	1.59	0.71	1.69	0.77	1.65	0.70	1.69	0.65	1.69	0.74	1.68
3. Quadratics and Polynomials	21	0.74	2.05	0.85	1.94	0.74	2.07	0.82	2.01	0.76	2.05	0.72	2.05	0.78	2.05
4. Functions and Rational Expressions	13	0.47	1.61	0.72	1.59	0.50	1.62	0.64	1.61	0.50	1.61	0.46	1.59	0.56	1.62
Geometry															
1. Logic and Geometric Proofs	23	0.75	2.18	0.84	2.03	0.75	2.18	0.79	2.12	0.76	2.17	0.73	2.19	0.80	2.13
2. Volume and Area Formulas	11	0.52	1.52	0.73	1.43	0.54	1.51	0.66	1.48	0.53	1.51	0.43	1.51	0.62	1.51
3. Angle Relationships, Constructions, and Lines	16	0.63	1.81	0.76	1.70	0.63	1.80	0.69	1.76	0.62	1.81	0.57	1.81	0.68	1.77
4. Trigonometry	15	0.68	1.74	0.79	1.61	0.71	1.74	0.75	1.68	0.70	1.74	0.65	1.75	0.74	1.70
Algebra II															
1. Polynomials and Rational Expressions	19	0.76	1.90	0.82	1.72	0.77	1.90	0.79	1.84	0.77	1.90	0.76	1.93	0.77	1.87
2. Quadratics, Conics, and Complex Numbers	16	0.63	1.84	0.79	1.74	0.66	1.82	0.74	1.80	0.67	1.81	0.63	1.81	0.70	1.81
3. Exponents and Logarithms	16	0.71	1.81	0.78	1.72	0.70	1.81	0.74	1.78	0.70	1.81	0.68	1.82	0.72	1.81
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.64	0.73	1.63	0.62	1.65	0.68	1.65	0.62	1.65	0.56	1.64	0.66	1.66

Subscore Reliabilities and SEM for Mathematics by *Primary Ethnicity*

Subscore Area	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM	Rel.	SEM
Summative High School Mathematics															
1. Algebra I	18	0.74	1.75	0.77	1.50	0.80	1.67	0.76	1.70	0.77	1.75	0.79	1.80	0.78	1.66
2. Geometry	19	0.77	1.88	0.79	1.67	0.79	1.86	0.79	1.84	0.77	1.90	0.78	1.94	0.78	1.79
3. Algebra II	23	0.78	2.10	0.83	1.86	0.82	2.04	0.81	2.02	0.81	2.08	0.81	2.13	0.82	2.01
4. Probability and Statistics	5	0.53	1.00	0.54	0.98	0.43	1.03	0.49	1.02	0.46	1.02	0.48	1.01	0.54	0.99
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.63	1.76	0.71	1.68	0.58	1.73	0.71	1.70	0.65	1.74	0.64	1.76	0.67	1.72
2. Algebra I: Graphing	9	0.50	1.36	0.60	1.36	0.68	1.31	0.67	1.33	0.52	1.36	0.50	1.35	0.56	1.35
3. Algebra I: Quadratics and Polynomials	14	0.50	1.66	0.70	1.64	0.73	1.59	0.72	1.64	0.61	1.65	0.61	1.65	0.62	1.66
4. Algebra I: Functions and Relations Expressions	7	0.00	1.16	0.49	1.17	0.49	1.15	0.55	1.18	0.34	1.17	0.37	1.16	0.43	1.17
5. Geometry	20	0.48	1.98	0.55	2.00	0.21	2.01	0.52	2.04	0.33	1.99	0.26	1.98	0.43	2.03
Integrated Mathematics 2															
1. Algebra I	20	0.71	2.01	0.78	1.96	0.67	2.11	0.85	1.93	0.69	2.02	0.74	2.00	0.71	2.00
2. Geometry: Logic and Geometric Proofs	22	0.74	2.13	0.82	2.07	0.74	2.15	0.80	2.12	0.70	2.14	0.72	2.12	0.77	2.12
3. Geometry: Angle Relationships, Construction and Lines	8	0.46	1.27	0.63	1.25	0.78	1.10	0.78	1.13	0.52	1.27	0.58	1.26	0.58	1.22
4. Trigonometry	10	0.49	1.35	0.71	1.37	0.64	1.37	0.75	1.33	0.50	1.42	0.63	1.37	0.56	1.40
5. Algebra II: Probability and Statistics	5	–	–	0.49	0.94	–	–	0.49	0.90	0.19	0.95	0.26	0.93	0.17	0.93
Integrated Mathematics 3															
1. Geometry	5	–	–	0.39	1.04	–	–	–	–	0.60	0.96	0.02	1.09	0.54	0.88
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.79	2.00	–	–	–	–	0.76	1.94	0.03	1.93	0.84	1.86
3. Algebra II: Quadratics, Conics, and Complex Numbers	16	–	–	0.39	1.88	–	–	–	–	0.72	1.80	0.10	1.77	0.64	1.86
4. Algebra II: Exponents and Logarithms	16	–	–	0.87	1.63	–	–	–	–	0.71	1.82	0.62	1.58	0.78	1.70
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.61	1.32	–	–	–	–	0.55	1.32	–	–	0.67	1.33

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	0.67	1.45	0.69	1.34	0.63	1.46	0.63	1.36	0.63	1.48	0.65	1.47	0.67	1.37
2. Physical Science (Grade 4)	8	0.58	1.26	0.62	1.16	0.57	1.26	0.57	1.19	0.56	1.26	0.57	1.27	0.59	1.19
3. Life Science (Grade 5)	13	0.74	1.54	0.77	1.40	0.72	1.56	0.72	1.43	0.73	1.55	0.73	1.57	0.74	1.44
4. Life Science (Grade 4)	9	0.62	1.30	0.65	1.21	0.58	1.32	0.60	1.24	0.59	1.32	0.60	1.34	0.63	1.23
5. Earth Science (Grade 5)	11	0.66	1.44	0.65	1.34	0.60	1.46	0.58	1.36	0.61	1.45	0.65	1.46	0.65	1.37
6. Earth Science (Grade 4)	8	0.65	1.23	0.69	1.11	0.63	1.23	0.63	1.13	0.63	1.24	0.64	1.25	0.67	1.15
Grade 8 Science															
1. Motion	8	0.54	1.25	0.67	1.13	0.52	1.26	0.62	1.17	0.54	1.24	0.51	1.28	0.60	1.20
2. Forces, Density, and Buoyancy	13	0.75	1.53	0.70	1.35	0.71	1.53	0.68	1.38	0.73	1.52	0.73	1.57	0.75	1.43
3. Structure of Matter and Periodic Table	16	0.76	1.77	0.79	1.60	0.75	1.75	0.77	1.64	0.75	1.76	0.74	1.78	0.78	1.69
4. Earth in the Solar System	7	0.57	1.12	0.54	1.02	0.52	1.13	0.51	1.03	0.54	1.11	0.55	1.15	0.57	1.06
5. Reactions and the Chemistry of Living Systems	10	0.65	1.41	0.66	1.29	0.65	1.41	0.64	1.32	0.65	1.41	0.66	1.42	0.67	1.35
6. Investigation and Experimentation	6	0.62	1.00	0.58	0.79	0.60	0.97	0.57	0.84	0.60	0.98	0.61	1.02	0.62	0.93
Grade 10 Life Science															
1. Cell Biology	10	0.56	1.43	0.68	1.33	0.56	1.41	0.61	1.37	0.56	1.42	0.54	1.43	0.62	1.40
2. Genetics	12	0.68	1.55	0.71	1.47	0.64	1.57	0.67	1.51	0.67	1.55	0.67	1.55	0.71	1.53
3. Physiology	10	0.69	1.35	0.70	1.26	0.65	1.39	0.66	1.29	0.66	1.38	0.67	1.39	0.72	1.30
4. Ecology	11	0.70	1.43	0.70	1.33	0.68	1.44	0.68	1.36	0.68	1.44	0.68	1.45	0.74	1.38
5. Evolution	11	0.73	1.44	0.74	1.34	0.70	1.46	0.71	1.36	0.71	1.45	0.71	1.47	0.77	1.37
6. Investigation and Experimentation	6	0.59	0.99	0.49	0.90	0.52	1.02	0.48	0.93	0.56	1.00	0.59	1.04	0.62	0.94
Biology															
1. Cell Biology	9	0.50	1.39	0.59	1.32	0.48	1.40	0.52	1.35	0.48	1.40	0.47	1.40	0.54	1.37
2. Genetics	18	0.75	1.90	0.76	1.77	0.72	1.90	0.72	1.83	0.72	1.90	0.73	1.92	0.76	1.85
3. Ecology and Evolution	16	0.76	1.79	0.78	1.69	0.73	1.81	0.74	1.75	0.73	1.81	0.72	1.83	0.78	1.74
4. Physiology	11	0.78	1.38	0.78	1.27	0.76	1.42	0.75	1.29	0.76	1.42	0.76	1.42	0.79	1.31
5. Investigation and Experimentation	6	0.52	1.07	0.53	1.04	0.49	1.09	0.49	1.04	0.50	1.09	0.49	1.09	0.54	1.05
Chemistry															
1. Atomic and Molecular Structure	8	0.53	1.28	0.55	1.24	0.48	1.31	0.47	1.29	0.52	1.30	0.50	1.31	0.53	1.26
2. Chemical Bonds, Biochemistry	9	0.57	1.33	0.62	1.23	0.61	1.35	0.58	1.30	0.60	1.35	0.58	1.37	0.58	1.30
3. Kinetics, Thermodynamics	14	0.63	1.75	0.71	1.64	0.70	1.73	0.64	1.72	0.66	1.74	0.64	1.75	0.68	1.68
4. Chemical Reactions	13	0.64	1.65	0.72	1.59	0.67	1.65	0.67	1.64	0.64	1.66	0.64	1.65	0.69	1.62
5. Conservation of Matter and Stoichiometry	10	0.65	1.43	0.72	1.30	0.65	1.44	0.67	1.40	0.63	1.45	0.59	1.46	0.69	1.39
6. Investigation and Experimentation	6	0.59	1.06	0.59	1.01	0.59	1.08	0.53	1.07	0.55	1.10	0.57	1.10	0.59	1.03
Earth Science															
1. Astronomy and Cosmology	12	0.60	1.59	0.62	1.58	0.58	1.60	0.62	1.58	0.59	1.60	0.57	1.60	0.65	1.57
2. Solid Earth	14	0.66	1.72	0.63	1.69	0.66	1.72	0.61	1.69	0.64	1.72	0.64	1.73	0.68	1.69
3. The Earth's Energy	28	0.83	2.41	0.84	2.37	0.80	2.45	0.82	2.38	0.81	2.43	0.78	2.44	0.85	2.37
4. Investigation and Experimentation	6	0.57	1.07	0.58	1.03	0.60	1.06	0.57	1.01	0.57	1.08	0.56	1.10	0.64	1.02

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
Physics															
1. Motion and Forces	12	0.60	1.58	0.68	1.49	0.66	1.54	0.65	1.55	0.64	1.57	0.60	1.56	0.67	1.53
2. Conservation of Energy and Momentum	12	0.67	1.58	0.71	1.49	0.67	1.58	0.66	1.56	0.66	1.59	0.60	1.60	0.72	1.54
3. Heat and Thermodynamics	9	0.65	1.30	0.64	1.26	0.67	1.32	0.61	1.30	0.62	1.33	0.57	1.35	0.69	1.28
4. Waves	10	0.63	1.40	0.61	1.34	0.70	1.40	0.63	1.36	0.64	1.42	0.61	1.44	0.68	1.35
5. Electric and Magnetic Phenomena	11	0.43	1.58	0.58	1.49	0.55	1.55	0.53	1.53	0.55	1.55	0.49	1.56	0.57	1.53
6. Investigation and Experimentation	6	0.50	1.09	0.46	1.06	0.54	1.09	0.37	1.10	0.45	1.11	0.37	1.13	0.49	1.08
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.60	1.44	0.66	1.38	0.54	1.46	0.59	1.40	0.57	1.45	0.56	1.45	0.64	1.40
2. Chemistry	15	0.44	1.83	0.63	1.81	0.43	1.82	0.53	1.84	0.49	1.82	0.47	1.80	0.57	1.82
3. Earth Sciences	17	0.73	1.89	0.76	1.81	0.75	1.88	0.70	1.85	0.72	1.88	0.71	1.89	0.76	1.84
4. Physics	12	0.48	1.60	0.55	1.61	0.45	1.63	0.53	1.61	0.48	1.61	0.45	1.60	0.57	1.60
5. Investigation and Experimentation	6	0.49	1.10	0.51	1.06	0.38	1.12	0.46	1.08	0.40	1.11	0.38	1.11	0.51	1.09
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.30	1.81	0.70	1.75	0.50	1.82	0.60	1.79	0.62	1.78	0.59	1.78	0.59	1.78
2. Chemistry	6	0.07	1.15	0.34	1.15	0.64	1.04	0.43	1.13	0.36	1.13	0.25	1.13	0.39	1.15
3. Earth Sciences	15	0.60	1.83	0.65	1.80	0.35	1.89	0.63	1.82	0.65	1.79	0.46	1.82	0.68	1.77
4. Physics	18	0.57	1.94	0.57	1.93	0.41	1.83	0.35	1.95	0.49	1.93	0.27	1.90	0.47	1.97
5. Investigation and Experimentation	6	0.43	1.12	0.44	1.15	0.36	1.09	0.42	1.15	0.33	1.15	0.19	1.17	0.31	1.14
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	–	–	–	–	–	–	0.55	1.84	0.47	1.88	0.65	1.81
2. Chemistry	23	–	–	–	–	–	–	–	–	0.60	2.19	0.49	2.18	0.78	2.17
3. Earth Sciences	7	–	–	–	–	–	–	–	–	0.52	1.21	0.64	1.17	0.56	1.19
4. Physics	8	–	–	–	–	–	–	–	–	0.21	1.28	0.18	1.28	0.51	1.29
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.40	1.09	0.03	1.12	0.45	1.03
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	0.63	1.64	–	–	0.73	1.54
2. Chemistry	10	–	–	–	–	–	–	–	–	0.22	1.44	–	–	–	–
3. Earth Sciences	15	–	–	–	–	–	–	–	–	0.49	1.81	–	–	0.75	1.72
4. Physics	16	–	–	–	–	–	–	–	–	0.23	1.80	–	–	0.34	1.78
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.14	1.14	–	–	0.52	1.10

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**	**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	1.83	0.75	1.61	0.71	1.79	0.73	1.71	0.73	1.80	0.72	1.84	0.73	1.77
2. Graphing and Systems of Linear Equations	14	0.71	1.70	0.79	1.55	0.73	1.69	0.77	1.62	0.74	1.68	0.71	1.69	0.75	1.67
3. Quadratics and Polynomials	21	0.79	2.04	0.83	1.89	0.77	2.06	0.82	1.97	0.79	2.04	0.77	2.05	0.80	2.03
4. Functions and Rational Expressions	13	0.55	1.63	0.72	1.58	0.56	1.63	0.66	1.61	0.58	1.63	0.55	1.61	0.61	1.63
Geometry – 9															
1. Logic and Geometric Proofs	23	0.79	2.12	0.80	1.99	0.74	2.16	0.77	2.06	0.78	2.14	0.77	2.17	0.78	2.05
2. Volume and Area Formulas	11	0.60	1.51	0.69	1.41	0.55	1.51	0.67	1.45	0.61	1.50	0.53	1.52	0.65	1.47
3. Angle Relationships, Constructions, and Lines	16	0.67	1.78	0.71	1.67	0.63	1.77	0.67	1.72	0.65	1.77	0.63	1.79	0.67	1.71
4. Trigonometry	15	0.73	1.71	0.74	1.57	0.71	1.71	0.73	1.63	0.73	1.71	0.71	1.74	0.74	1.64
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.77	1.85	0.78	1.68	0.78	1.86	0.78	1.80	0.78	1.86	0.76	1.91	0.75	1.83
2. Quadratics, Conics, and Complex Numbers	16	0.67	1.83	0.76	1.74	0.73	1.79	0.72	1.79	0.71	1.81	0.67	1.82	0.71	1.80
3. Exponents and Logarithms	16	0.72	1.81	0.75	1.70	0.75	1.78	0.73	1.76	0.72	1.80	0.71	1.81	0.71	1.79
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.64	0.70	1.63	0.65	1.65	0.68	1.64	0.65	1.65	0.59	1.65	0.65	1.66
Summative High School Mathematics – 11															
1. Algebra I	18	0.72	1.77	0.77	1.54	0.80	1.68	0.76	1.72	0.76	1.77	0.79	1.81	0.77	1.69
2. Geometry	19	0.77	1.88	0.79	1.71	0.78	1.88	0.78	1.85	0.77	1.91	0.77	1.95	0.78	1.81
3. Algebra II	23	0.78	2.11	0.83	1.89	0.81	2.06	0.81	2.04	0.80	2.09	0.80	2.13	0.81	2.03
4. Probability and Statistics	5	0.56	0.99	0.54	0.99	0.46	1.02	0.48	1.02	0.45	1.02	0.48	1.01	0.53	1.00
World History – 10															
1. Development of Modern Political Thought	13	0.68	1.61	0.68	1.52	0.65	1.62	0.66	1.54	0.67	1.61	0.66	1.63	0.71	1.56
2. Industrial Expansion and Imperialism	10	0.68	1.42	0.68	1.33	0.66	1.42	0.62	1.36	0.67	1.42	0.68	1.42	0.70	1.37
3. Causes and Effects of World War I	14	0.76	1.66	0.76	1.55	0.75	1.66	0.73	1.60	0.74	1.67	0.73	1.69	0.77	1.61
4. Causes and Effects of World War II	13	0.70	1.60	0.73	1.51	0.71	1.60	0.70	1.54	0.70	1.59	0.70	1.61	0.74	1.55
5 International Developments in the Post-World War II Era	10	0.63	1.42	0.69	1.31	0.65	1.40	0.66	1.34	0.65	1.40	0.64	1.42	0.68	1.37

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 – 21	0.05	0.02	0.00	0.00	0.00	0.08
	22 – 31	0.01	0.09	0.03	0.00	0.00	0.13
	32 – 45	0.00	0.01	0.23	0.02	0.00	0.26
	46 – 55	0.00	0.01	0.04	0.22	0.03	0.30
	56 – 65	0.00	0.00	0.00	0.04	0.20	0.24
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 21	0.05	0.02	0.00	0.00	0.00	0.08
	22 – 31	0.02	0.07	0.04	0.00	0.00	0.13
	32 – 45	0.00	0.02	0.20	0.04	0.00	0.26
	46 – 55	0.00	0.01	0.06	0.19	0.05	0.30
	56 – 65	0.00	0.00	0.00	0.05	0.19	0.24
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89						

Table 8.B.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	0.06	0.02	0.00	0.00	0.00	0.09
	25 – 35	0.01	0.12	0.03	0.00	0.00	0.16
	36 – 48	0.00	0.03	0.25	0.04	0.00	0.32
	49 – 56	0.00	0.00	0.04	0.18	0.03	0.26
	57 – 65	0.00	0.00	0.00	0.03	0.14	0.18
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 24	0.06	0.02	0.00	0.00	0.00	0.09
	25 – 35	0.02	0.10	0.04	0.00	0.00	0.16
	36 – 48	0.00	0.04	0.22	0.05	0.00	0.32
	49 – 56	0.00	0.00	0.05	0.15	0.05	0.26
	57 – 65	0.00	0.00	0.00	0.04	0.13	0.18
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

Table 8.B.47 Reliability of Classification for ELA, Grade Four

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 23	0.03	0.01	0.00	0.00	0.00	0.05
	24 – 33	0.01	0.06	0.03	0.00	0.00	0.09
	34 – 49	0.00	0.01	0.20	0.02	0.00	0.23
	50 – 60	0.00	0.00	0.03	0.20	0.03	0.27
	61 – 75	0.00	0.00	0.00	0.04	0.31	0.36
	Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 23	0.03	0.01	0.00	0.00	0.00	0.05
	24 – 33	0.01	0.05	0.03	0.00	0.00	0.09
	34 – 49	0.00	0.02	0.17	0.04	0.00	0.23
	50 – 60	0.00	0.00	0.05	0.17	0.05	0.27
	61 – 75	0.00	0.00	0.00	0.06	0.30	0.36
	Estimated Proportion Consistently Classified: Total = 0.72, Proficient & Above = 0.90						

Table 8.B.48 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	0.04	0.01	0.00	0.00	0.00	0.05
	25 – 33	0.01	0.05	0.03	0.00	0.00	0.09
	34 – 49	0.00	0.01	0.23	0.03	0.00	0.27
	50 – 61	0.00	0.00	0.04	0.25	0.03	0.32
	62 – 75	0.00	0.00	0.00	0.04	0.21	0.26
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 24	0.04	0.01	0.00	0.00	0.00	0.05
	25 – 33	0.01	0.04	0.03	0.00	0.00	0.09
	34 – 49	0.00	0.02	0.20	0.04	0.00	0.27
	50 – 61	0.00	0.00	0.06	0.22	0.05	0.32
	62 – 75	0.00	0.00	0.00	0.05	0.20	0.26
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89						

Table 8.B.49 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 – 23	0.03	0.02	0.00	0.00	0.00	0.05
	24 – 33	0.01	0.07	0.03	0.00	0.00	0.11
	34 – 49	0.00	0.02	0.24	0.03	0.00	0.29
	50 – 60	0.00	0.00	0.04	0.22	0.04	0.31
	61 – 75	0.00	0.00	0.00	0.03	0.21	0.25
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 23	0.03	0.02	0.00	0.00	0.00	0.05
	24 – 33	0.02	0.06	0.03	0.00	0.00	0.11
	34 – 49	0.00	0.03	0.21	0.05	0.00	0.29
	50 – 60	0.00	0.00	0.05	0.19	0.06	0.31
	61 – 75	0.00	0.00	0.00	0.05	0.20	0.25
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89						

Table 8.B.50 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	0.05	0.02	0.00	0.00	0.00	0.07
	25 – 35	0.01	0.10	0.03	0.00	0.00	0.13
	36 – 49	0.00	0.02	0.22	0.03	0.00	0.27
	50 – 61	0.00	0.00	0.04	0.24	0.03	0.31
	62 – 75	0.00	0.00	0.00	0.03	0.19	0.22
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 24	0.04	0.02	0.00	0.00	0.00	0.07
	25 – 35	0.02	0.08	0.03	0.00	0.00	0.13
	36 – 49	0.00	0.03	0.19	0.05	0.00	0.27
	50 – 61	0.00	0.00	0.05	0.21	0.05	0.31
	62 – 75	0.00	0.00	0.00	0.04	0.18	0.22
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.90						

Table 8.B.51 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	0.04	0.02	0.00	0.00	0.00	0.07
	30 – 39	0.01	0.06	0.03	0.00	0.00	0.11
	40 – 54	0.00	0.03	0.19	0.05	0.00	0.27
	55 – 67	0.00	0.00	0.05	0.23	0.04	0.32
	68 – 83	0.00	0.00	0.00	0.05	0.19	0.24
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.90						
Decision Consistency Alternate Form	0 – 29	0.04	0.02	0.01	0.00	0.00	0.07
	30 – 39	0.02	0.05	0.04	0.00	0.00	0.11
	40 – 54	0.00	0.04	0.16	0.06	0.00	0.27
	55 – 67	0.00	0.00	0.07	0.19	0.07	0.32
	68 – 83	0.00	0.00	0.00	0.06	0.17	0.24
	Estimated Proportion Consistently Classified: Total = 0.60, Proficient & Above = 0.86						

Table 8.B.52 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 – 25	0.05	0.02	0.00	0.00	0.00	0.08
	26 – 34	0.01	0.07	0.03	0.00	0.00	0.11
	35 – 49	0.00	0.01	0.23	0.03	0.00	0.27
	50 – 59	0.00	0.00	0.04	0.19	0.03	0.25
	60 – 74	0.00	0.00	0.00	0.04	0.24	0.29
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 25	0.05	0.02	0.00	0.00	0.00	0.08
	26 – 34	0.02	0.06	0.04	0.00	0.00	0.11
	35 – 49	0.00	0.03	0.21	0.04	0.00	0.27
	50 – 59	0.00	0.00	0.05	0.16	0.04	0.25
	60 – 74	0.00	0.00	0.01	0.05	0.23	0.29
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89						

Table 8.B.53 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 – 23	0.05	0.02	0.00	0.00	0.00	0.08
	24 – 33	0.01	0.08	0.03	0.00	0.00	0.13
	34 – 47	0.00	0.01	0.21	0.02	0.00	0.25
	48 – 59	0.00	0.00	0.04	0.24	0.03	0.30
	60 – 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 – 23	0.05	0.02	0.00	0.00	0.00	0.08
	24 – 33	0.02	0.07	0.04	0.00	0.00	0.13
	34 – 47	0.00	0.03	0.19	0.04	0.00	0.25
	48 – 59	0.00	0.00	0.05	0.21	0.04	0.30
	60 – 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.54 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 – 25	0.08	0.02	0.01	0.01	0.00	0.12
	26 – 37	0.01	0.11	0.02	0.00	0.00	0.14
	38 – 53	0.00	0.02	0.26	0.02	0.00	0.29
	54 – 62	0.00	0.00	0.04	0.16	0.02	0.23
	63 – 75	0.00	0.00	0.00	0.03	0.18	0.22
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 25	0.08	0.03	0.01	0.01	0.00	0.12
	26 – 37	0.02	0.09	0.03	0.00	0.00	0.14
	38 – 53	0.00	0.03	0.23	0.04	0.00	0.29
	54 – 62	0.00	0.00	0.05	0.13	0.04	0.23
	63 – 75	0.00	0.00	0.00	0.04	0.18	0.22
	Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.90						

Table 8.B.55 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	0.11	0.03	0.01	0.01	0.00	0.15
	28 – 38	0.01	0.11	0.03	0.00	0.00	0.15
	39 – 52	0.00	0.02	0.23	0.02	0.00	0.27
	53 – 61	0.00	0.00	0.04	0.15	0.02	0.22
	62 – 75	0.00	0.00	0.00	0.04	0.17	0.21
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 27	0.10	0.03	0.01	0.01	0.00	0.15
	28 – 38	0.02	0.09	0.04	0.00	0.00	0.15
	39 – 52	0.00	0.04	0.20	0.04	0.00	0.27
	53 – 61	0.00	0.00	0.05	0.12	0.04	0.22
	62 – 75	0.00	0.00	0.00	0.04	0.16	0.21
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

Table 8.B.56 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	0.12	0.03	0.00	0.00	0.00	0.15
	28 – 34	0.02	0.06	0.03	0.00	0.00	0.11
	35 – 48	0.00	0.03	0.21	0.03	0.00	0.27
	49 – 58	0.00	0.00	0.04	0.15	0.03	0.22
	59 – 75	0.00	0.00	0.00	0.03	0.22	0.25
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 27	0.11	0.03	0.01	0.00	0.00	0.15
	28 – 34	0.03	0.05	0.03	0.00	0.00	0.11
	35 – 48	0.00	0.04	0.18	0.04	0.00	0.27
	49 – 58	0.00	0.00	0.05	0.13	0.04	0.22
	59 – 75	0.00	0.00	0.00	0.04	0.21	0.25
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.90						

Table 8.B.57 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	0.19	0.03	0.01	0.00	0.00	0.23
	26 – 30	0.02	0.05	0.03	0.00	0.00	0.10
	31 – 41	0.00	0.03	0.19	0.03	0.00	0.25
	42 – 49	0.00	0.00	0.04	0.14	0.03	0.22
	50 – 60	0.00	0.00	0.00	0.03	0.16	0.20
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 25	0.18	0.03	0.01	0.00	0.00	0.23
	26 – 30	0.03	0.04	0.03	0.00	0.00	0.10
	31 – 41	0.01	0.03	0.16	0.05	0.00	0.25
	42 – 49	0.00	0.00	0.05	0.12	0.04	0.22
	50 – 60	0.00	0.00	0.00	0.04	0.16	0.20
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90						

Table 8.B.58 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	0.13	0.04	0.01	0.01	0.00	0.18
	23 – 29	0.02	0.08	0.03	0.00	0.00	0.13
	30 – 39	0.00	0.03	0.18	0.03	0.00	0.23
	40 – 48	0.00	0.00	0.05	0.18	0.02	0.25
	49 – 60	0.00	0.00	0.00	0.04	0.16	0.20
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 22	0.13	0.04	0.01	0.01	0.00	0.18
	23 – 29	0.03	0.06	0.04	0.00	0.00	0.13
	30 – 39	0.00	0.04	0.15	0.04	0.00	0.23
	40 – 48	0.00	0.00	0.06	0.15	0.04	0.25
	49 – 60	0.00	0.00	0.00	0.04	0.15	0.20
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.88						

Table 8.B.59 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 – 38	0.01	0.11	0.03	0.00	0.00	0.14
	39 – 48	0.00	0.02	0.15	0.03	0.00	0.20
	49 – 56	0.00	0.00	0.04	0.19	0.03	0.26
	57 – 65	0.00	0.00	0.00	0.04	0.31	0.36
	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 – 38	0.01	0.10	0.03	0.00	0.00	0.14
	39 – 48	0.00	0.03	0.12	0.04	0.00	0.20
	49 – 56	0.00	0.00	0.05	0.16	0.05	0.26
	57 – 65	0.00	0.00	0.00	0.06	0.30	0.36
	Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.90						

Table 8.B.60 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	0.10	0.02	0.00	0.00	0.12
	38 – 47	0.00	0.02	0.14	0.03	0.00	0.20
	48 – 56	0.00	0.00	0.03	0.21	0.03	0.27
	57 – 65	0.00	0.00	0.00	0.04	0.34	0.38
	Estimated Proportion Correctly Classified: Total = 0.81, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 23	0.02	0.01	0.00	0.00	0.00	0.02
	24 – 37	0.01	0.09	0.03	0.00	0.00	0.12
	38 – 47	0.00	0.03	0.12	0.05	0.00	0.20
	48 – 56	0.00	0.00	0.04	0.18	0.05	0.27
	57 – 65	0.00	0.00	0.00	0.05	0.33	0.39
	Estimated Proportion Consistently Classified: Total = 0.73, Proficient & Above = 0.91						

Table 8.B.61 Reliability of Classification for Mathematics, Grade Four

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 19	0.01	0.00	0.00	0.00	0.00	0.02
	20 – 34	0.00	0.08	0.02	0.00	0.00	0.11
	35 – 47	0.00	0.01	0.16	0.02	0.00	0.19
	48 – 56	0.00	0.00	0.03	0.20	0.03	0.26
	57 – 65	0.00	0.00	0.00	0.05	0.37	0.42
	Estimated Proportion Correctly Classified: Total = 0.81, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 19	0.01	0.00	0.00	0.00	0.00	0.02
	20 – 34	0.01	0.07	0.03	0.00	0.00	0.11
	35 – 47	0.00	0.02	0.14	0.04	0.00	0.19
	48 – 56	0.00	0.00	0.04	0.16	0.05	0.26
	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 Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 21	0.03	0.02	0.00	0.00	0.00	0.05
	22 – 30	0.01	0.10	0.03	0.00	0.00	0.14
	31 – 40	0.00	0.03	0.15	0.03	0.00	0.20
	41 – 53	0.00	0.00	0.03	0.26	0.03	0.31
	54 – 65	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 – 21	0.03	0.02	0.00	0.00	0.00	0.05
	22 – 30	0.02	0.08	0.04	0.00	0.00	0.14
	31 – 40	0.00	0.04	0.12	0.04	0.00	0.20
	41 – 53	0.00	0.00	0.04	0.23	0.04	0.31
	54 – 65	0.00	0.00	0.00	0.04	0.25	0.29
	Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.91						

Table 8.B.63 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	0.05
	20 – 30	0.01	0.13	0.03	0.00	0.00	0.17
	31 – 42	0.00	0.03	0.20	0.03	0.00	0.26
	43 – 54	0.00	0.00	0.04	0.23	0.02	0.29
	55 – 65	0.00	0.00	0.00	0.03	0.20	0.23
	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	0.05
	20 – 30	0.02	0.11	0.04	0.00	0.00	0.17
	31 – 42	0.00	0.04	0.17	0.05	0.00	0.26
	43 – 54	0.00	0.00	0.05	0.21	0.04	0.29
	55 – 65	0.00	0.00	0.00	0.04	0.19	0.23
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.90						

Table 8.B.64 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	0.04	0.03	0.00	0.00	0.00	0.06
	19 – 27	0.01	0.12	0.04	0.00	0.00	0.17
	28 – 39	0.00	0.03	0.22	0.04	0.00	0.28
	40 – 52	0.00	0.00	0.04	0.25	0.02	0.31
	53 – 65	0.00	0.00	0.00	0.03	0.15	0.18
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 18	0.04	0.03	0.00	0.00	0.00	0.06
	19 – 27	0.03	0.10	0.05	0.00	0.00	0.17
	28 – 39	0.00	0.04	0.19	0.05	0.00	0.28
	40 – 52	0.00	0.00	0.05	0.22	0.04	0.31
	53 – 65	0.00	0.00	0.00	0.04	0.14	0.18
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.65 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	0.12	0.05	0.00	0.00	0.00	0.17
	20 – 28	0.04	0.18	0.04	0.00	0.00	0.26
	29 – 40	0.00	0.04	0.23	0.03	0.00	0.30
	41 – 53	0.00	0.00	0.04	0.17	0.01	0.22
	54 – 65	0.00	0.00	0.00	0.02	0.03	0.05
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 19	0.11	0.06	0.00	0.00	0.00	0.17
	20 – 28	0.06	0.15	0.06	0.00	0.00	0.26
	29 – 40	0.00	0.06	0.20	0.05	0.00	0.30
	41 – 53	0.00	0.00	0.05	0.15	0.02	0.22
	54 – 65	0.00	0.00	0.00	0.02	0.03	0.05
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.91						

Table 8.B.66 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	0.12	0.02	0.00	0.00	0.00	0.14
	19 – 27	0.04	0.18	0.07	0.02	0.01	0.31
	28 – 37	0.00	0.02	0.19	0.03	0.00	0.24
	38 – 51	0.00	0.00	0.02	0.20	0.00	0.22
	52 – 65	0.00	0.00	0.01	0.03	0.05	0.09
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 18	0.11	0.03	0.00	0.00	0.00	0.14
	19 – 27	0.05	0.15	0.08	0.02	0.01	0.31
	28 – 37	0.00	0.04	0.15	0.05	0.00	0.24
	38 – 51	0.00	0.00	0.03	0.18	0.00	0.22
	52 – 65	0.00	0.00	0.01	0.03	0.05	0.09
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.88						

Table 8.B.67 Reliability of Classification for Geometry

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 19	0.10	0.02	0.00	0.00	0.00	0.12
	20 – 31	0.03	0.23	0.06	0.01	0.00	0.34
	32 – 43	0.00	0.02	0.23	0.02	0.00	0.27
	44 – 55	0.00	0.00	0.02	0.17	0.00	0.19
	56 – 65	0.00	0.00	0.01	0.03	0.04	0.08
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 19	0.10	0.03	0.00	0.00	0.00	0.12
	20 – 31	0.04	0.20	0.07	0.01	0.01	0.34
	32 – 43	0.00	0.04	0.20	0.04	0.00	0.27
	44 – 55	0.00	0.00	0.03	0.15	0.01	0.19
	56 – 65	0.00	0.00	0.01	0.03	0.04	0.08
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.90						

Table 8.B.68 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	0.12	0.04	0.00	0.00	0.00	0.16
	22 – 30	0.03	0.17	0.04	0.00	0.00	0.25
	31 – 41	0.00	0.04	0.21	0.03	0.00	0.28
	42 – 52	0.00	0.00	0.04	0.15	0.01	0.20
	53 – 65	0.00	0.00	0.00	0.02	0.08	0.11
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 21	0.11	0.05	0.00	0.00	0.00	0.16
	22 – 30	0.05	0.14	0.06	0.00	0.00	0.25
	31 – 41	0.00	0.06	0.18	0.05	0.00	0.28
	42 – 52	0.00	0.00	0.04	0.13	0.02	0.20
	53 – 65	0.00	0.00	0.00	0.03	0.08	0.11
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.91						

Table 8.B.69 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	0.03	0.01	0.00	0.00	0.00	0.04
	23 – 37	0.01	0.15	0.03	0.00	0.00	0.19
	38 – 47	0.00	0.03	0.17	0.04	0.00	0.23
	48 – 57	0.00	0.00	0.04	0.25	0.03	0.32
	58 – 65	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 – 22	0.03	0.02	0.00	0.00	0.00	0.04
	23 – 37	0.01	0.13	0.04	0.00	0.00	0.19
	38 – 47	0.00	0.04	0.14	0.05	0.00	0.23
	48 – 57	0.00	0.00	0.05	0.21	0.05	0.32
	58 – 65	0.00	0.00	0.00	0.05	0.17	0.22
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.70 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 – 18	0.12	0.05	0.00	0.00	0.00	0.17
	19 – 28	0.05	0.32	0.08	0.01	0.00	0.46
	29 – 37	0.00	0.04	0.18	0.01	0.00	0.24
	38 – 50	0.00	0.00	0.03	0.08	0.00	0.11
	51 – 65	0.00	0.00	0.01	0.01	0.00	0.02
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 18	0.12	0.05	0.00	0.00	0.00	0.17
	19 – 28	0.07	0.27	0.10	0.02	0.00	0.46
	29 – 37	0.00	0.06	0.14	0.03	0.00	0.24
	38 – 50	0.00	0.00	0.04	0.07	0.00	0.11
	51 – 65	0.00	0.00	0.01	0.01	0.00	0.02
	Estimated Proportion Consistently Classified: Total = 0.61, Proficient & Above = 0.90						

Table 8.B.71 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	0.08	0.02	0.00	0.00	0.00	0.10
	17 – 25	0.04	0.19	0.07	0.01	0.00	0.31
	26 – 35	0.00	0.04	0.23	0.04	0.00	0.32
	36 – 49	0.00	0.00	0.02	0.19	0.00	0.21
	50 – 65	0.00	0.00	0.01	0.03	0.03	0.07
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 16	0.08	0.02	0.00	0.00	0.00	0.10
	17 – 25	0.05	0.16	0.08	0.01	0.01	0.31
	26 – 35	0.00	0.06	0.19	0.06	0.00	0.32
	36 – 49	0.00	0.00	0.03	0.17	0.00	0.21
	50 – 65	0.00	0.00	0.01	0.02	0.03	0.07
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.88						

Table 8.B.72 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 – 19	0.13	0.05	0.00	0.00	0.00	0.18
	20 – 27	0.03	0.15	0.04	0.00	0.00	0.22
	28 – 36	0.00	0.04	0.16	0.03	0.00	0.23
	37 – 49	0.00	0.00	0.04	0.20	0.02	0.27
	50 – 65	0.00	0.00	0.00	0.02	0.08	0.10
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 19	0.12	0.05	0.01	0.00	0.00	0.18
	20 – 27	0.05	0.12	0.05	0.00	0.00	0.22
	28 – 36	0.00	0.05	0.13	0.05	0.00	0.23
	37 – 49	0.00	0.00	0.05	0.18	0.03	0.27
	50 – 65	0.00	0.00	0.00	0.02	0.08	0.10
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.89						

Table 8.B.73 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	0.05	0.02	0.00	0.00	0.00	0.08
	23 – 30	0.01	0.07	0.03	0.00	0.00	0.12
	31 – 41	0.00	0.02	0.19	0.03	0.00	0.24
	42 – 51	0.00	0.00	0.04	0.25	0.03	0.31
	52 – 60	0.00	0.00	0.00	0.04	0.20	0.25
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 22	0.05	0.02	0.00	0.00	0.00	0.08
	23 – 30	0.02	0.06	0.04	0.00	0.00	0.12
	31 – 41	0.00	0.03	0.16	0.05	0.00	0.24
	42 – 51	0.00	0.00	0.06	0.21	0.05	0.31
	52 – 60	0.00	0.00	0.00	0.05	0.19	0.25
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.74 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	0.09	0.02	0.00	0.00	0.00	0.11
	25 – 31	0.01	0.07	0.03	0.00	0.00	0.11
	32 – 39	0.00	0.03	0.12	0.04	0.00	0.19
	40 – 46	0.00	0.00	0.04	0.13	0.04	0.21
	47 – 60	0.00	0.00	0.00	0.04	0.34	0.38
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 24	0.08	0.03	0.00	0.00	0.00	0.11
	25 – 31	0.02	0.05	0.03	0.00	0.00	0.11
	32 – 39	0.00	0.03	0.10	0.05	0.00	0.19
	40 – 46	0.00	0.00	0.05	0.11	0.05	0.21
	47 – 60	0.00	0.00	0.00	0.05	0.33	0.38
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.90						

Table 8.B.75 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 – 21	0.09	0.03	0.00	0.00	0.00	0.12
	22 – 28	0.02	0.08	0.03	0.00	0.00	0.13
	29 – 40	0.00	0.03	0.23	0.03	0.00	0.29
	41 – 48	0.00	0.00	0.04	0.15	0.03	0.23
	49 – 60	0.00	0.00	0.00	0.03	0.20	0.23
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 21	0.09	0.03	0.01	0.00	0.00	0.12
	22 – 28	0.03	0.06	0.04	0.00	0.00	0.13
	29 – 40	0.00	0.04	0.20	0.05	0.00	0.29
	41 – 48	0.00	0.00	0.05	0.13	0.05	0.23
	49 – 60	0.00	0.00	0.00	0.04	0.19	0.23
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.89						

Table 8.B.76 Reliability of Classification for Biology

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 19	0.08	0.03	0.00	0.00	0.00	0.11
	20 – 25	0.02	0.06	0.03	0.00	0.00	0.12
	26 – 39	0.00	0.02	0.26	0.03	0.00	0.32
	40 – 48	0.00	0.00	0.04	0.18	0.03	0.25
	49 – 60	0.00	0.00	0.00	0.03	0.18	0.21
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 19	0.07	0.03	0.01	0.00	0.00	0.11
	20 – 25	0.03	0.05	0.04	0.00	0.00	0.12
	26 – 39	0.00	0.04	0.23	0.05	0.00	0.32
	40 – 48	0.00	0.00	0.05	0.15	0.05	0.25
	49 – 60	0.00	0.00	0.00	0.04	0.17	0.21
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

Table 8.B.77 Reliability of Classification for Chemistry

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 20	0.08	0.03	0.00	0.00	0.00	0.12
	21 – 27	0.02	0.09	0.04	0.00	0.00	0.15
	28 – 41	0.00	0.03	0.29	0.03	0.00	0.36
	42 – 50	0.00	0.00	0.04	0.17	0.02	0.23
	51 – 60	0.00	0.00	0.00	0.03	0.12	0.14
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 20	0.08	0.03	0.01	0.00	0.00	0.12
	21 – 27	0.03	0.07	0.04	0.00	0.00	0.15
	28 – 41	0.00	0.05	0.26	0.05	0.00	0.36
	42 – 50	0.00	0.00	0.05	0.14	0.04	0.23
	51 – 60	0.00	0.00	0.00	0.03	0.11	0.14
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.89						

Table 8.B.78 Reliability of Classification for Earth Science

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 19	0.11	0.04	0.00	0.00	0.00	0.16
	20 – 25	0.03	0.08	0.04	0.00	0.00	0.15
	26 – 39	0.00	0.04	0.29	0.03	0.00	0.36
	40 – 49	0.00	0.00	0.04	0.18	0.02	0.24
	50 – 60	0.00	0.00	0.00	0.03	0.07	0.09
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 19	0.10	0.04	0.01	0.00	0.00	0.16
	20 – 25	0.04	0.06	0.05	0.00	0.00	0.15
	26 – 39	0.01	0.05	0.26	0.05	0.00	0.36
	40 – 49	0.00	0.00	0.05	0.15	0.03	0.24
	50 – 60	0.00	0.00	0.00	0.03	0.06	0.09
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.89						

Table 8.B.79 Reliability of Classification for Physics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0 – 17	0.05	0.02	0.00	0.00	0.00	0.08
	18 – 23	0.01	0.06	0.03	0.00	0.00	0.11
	24 – 37	0.00	0.02	0.27	0.04	0.00	0.33
	38 – 47	0.00	0.00	0.04	0.21	0.03	0.28
	48 – 60	0.00	0.00	0.00	0.03	0.18	0.21
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 17	0.04	0.02	0.01	0.00	0.00	0.08
	18 – 23	0.02	0.05	0.04	0.00	0.00	0.11
	24 – 37	0.00	0.03	0.24	0.05	0.00	0.33
	38 – 47	0.00	0.00	0.06	0.17	0.05	0.28
	48 – 60	0.00	0.00	0.00	0.04	0.17	0.21
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

Table 8.B.80 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 – 19	0.16	0.05	0.01	0.00	0.00	0.22
	20 – 25	0.04	0.11	0.05	0.00	0.00	0.19
	26 – 39	0.00	0.05	0.33	0.03	0.00	0.41
	40 – 49	0.00	0.00	0.04	0.11	0.00	0.16
	50 – 60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 19	0.15	0.06	0.01	0.00	0.00	0.22
	20 – 25	0.05	0.08	0.06	0.00	0.00	0.19
	26 – 39	0.01	0.06	0.29	0.05	0.00	0.41
	40 – 49	0.00	0.00	0.05	0.10	0.01	0.16
	50 – 60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.91						

Table 8.B.81 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 – 18	0.11	0.06	0.00	0.00	0.00	0.17
	19 – 24	0.04	0.14	0.06	0.00	0.00	0.24
	25 – 38	0.00	0.06	0.35	0.02	0.00	0.43
	39 – 48	0.00	0.00	0.03	0.09	0.00	0.12
	49 – 60	0.00	0.00	0.00	0.01	0.02	0.03
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0 – 18	0.10	0.06	0.01	0.00	0.00	0.17
	19 – 24	0.06	0.11	0.07	0.00	0.00	0.24
	25 – 38	0.01	0.07	0.31	0.04	0.00	0.43
	39 – 48	0.00	0.00	0.04	0.08	0.01	0.12
	49 – 60	0.00	0.00	0.00	0.01	0.02	0.03
	Estimated Proportion Consistently Classified: Total = 0.61, Proficient & Above = 0.92						

Table 8.B.82 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 – 17	0.15	0.04	0.00	0.00	0.00	0.19
	18 – 23	0.04	0.13	0.07	0.01	0.00	0.25
	24 – 37	0.00	0.03	0.36	0.01	0.00	0.40
	38 – 47	0.00	0.00	0.03	0.09	0.00	0.11
	48 – 60	0.00	0.00	0.01	0.02	0.01	0.04
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 17	0.14	0.04	0.01	0.00	0.00	0.20
	18 – 23	0.06	0.10	0.08	0.01	0.00	0.25
	24 – 37	0.00	0.05	0.31	0.04	0.00	0.40
	38 – 47	0.00	0.00	0.03	0.08	0.00	0.11
	48 – 60	0.00	0.00	0.01	0.02	0.01	0.04
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.90						

Table 8.B.83 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	0.20	0.08	0.01	0.00	0.00	0.29
	20 – 25	0.04	0.15	0.04	0.00	0.00	0.23
	26 – 39	0.01	0.07	0.33	0.01	0.00	0.43
	40 – 48	0.00	0.00	0.02	0.02	0.00	0.04
	49 – 60	0.00	0.00	0.00	0.00	0.00	0.01
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.96						
Decision Consistency Alternate Form	0 – 19	0.18	0.08	0.02	0.00	0.00	0.29
	20 – 25	0.06	0.11	0.06	0.00	0.00	0.23
	26 – 39	0.02	0.08	0.30	0.03	0.00	0.43
	40 – 48	0.00	0.00	0.02	0.02	0.00	0.04
	49 – 60	0.00	0.00	0.00	0.00	0.00	0.01
	Estimated Proportion Consistently Classified: Total = 0.61, Proficient & Above = 0.95						

Table 8.B.84 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	0.04	0.00	0.00	0.00	0.07
	19 – 27	0.02	0.16	0.04	0.00	0.00	0.22
	28 – 37	0.00	0.04	0.18	0.03	0.00	0.24
	38 – 51	0.00	0.00	0.04	0.24	0.02	0.30
	52 – 65	0.00	0.00	0.00	0.02	0.13	0.16
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0 – 18	0.04	0.04	0.00	0.00	0.00	0.07
	19 – 27	0.04	0.13	0.05	0.00	0.00	0.22
	28 – 37	0.00	0.05	0.15	0.05	0.00	0.24
	38 – 51	0.00	0.00	0.05	0.22	0.03	0.30
	52 – 65	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90						

Table 8.B.85 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	0.02	0.02	0.00	0.00	0.00	0.04
	20 – 31	0.01	0.15	0.04	0.00	0.00	0.19
	32 – 43	0.00	0.03	0.24	0.04	0.00	0.31
	44 – 55	0.00	0.00	0.04	0.26	0.02	0.32
	56 – 65	0.00	0.00	0.00	0.03	0.10	0.13
	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	0.13	0.05	0.00	0.00	0.19
	32 – 43	0.00	0.05	0.20	0.06	0.00	0.31
	44 – 55	0.00	0.00	0.06	0.23	0.04	0.32
	56 – 65	0.00	0.00	0.00	0.03	0.10	0.13
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.88						

Table 8.B.86 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	0.06	0.03	0.00	0.00	0.00	0.09
	22 – 30	0.02	0.13	0.04	0.00	0.00	0.19
	31 – 41	0.00	0.04	0.23	0.04	0.00	0.31
	42 – 52	0.00	0.00	0.04	0.21	0.02	0.27
	53 – 65	0.00	0.00	0.00	0.03	0.10	0.13
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.91						
Decision Consistency Alternate Form	0 – 21	0.06	0.03	0.00	0.00	0.00	0.09
	22 – 30	0.03	0.11	0.05	0.00	0.00	0.19
	31 – 41	0.00	0.05	0.19	0.06	0.00	0.31
	42 – 52	0.00	0.00	0.06	0.18	0.03	0.27
	53 – 65	0.00	0.00	0.00	0.03	0.10	0.13
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.88						

Table 8.B.87 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	0.02	0.00	0.00	0.00	0.05
	23 – 37	0.01	0.17	0.03	0.00	0.00	0.21
	38 – 47	0.00	0.03	0.18	0.04	0.00	0.24
	48 – 57	0.00	0.00	0.04	0.24	0.03	0.31
	58 – 65	0.00	0.00	0.00	0.04	0.15	0.19
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 22	0.03	0.02	0.00	0.00	0.00	0.05
	23 – 37	0.02	0.15	0.04	0.00	0.00	0.21
	38 – 47	0.00	0.04	0.15	0.05	0.00	0.24
	48 – 57	0.00	0.00	0.05	0.21	0.05	0.31
	58 – 65	0.00	0.00	0.00	0.04	0.15	0.19
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.88 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	0.18	0.03	0.00	0.00	0.00	0.22
	26 – 30	0.02	0.05	0.03	0.00	0.00	0.10
	31 – 41	0.00	0.03	0.20	0.03	0.00	0.26
	42 – 49	0.00	0.00	0.04	0.15	0.03	0.22
	50 – 60	0.00	0.00	0.00	0.03	0.16	0.20
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0 – 25	0.17	0.03	0.01	0.00	0.00	0.22
	26 – 30	0.03	0.04	0.04	0.00	0.00	0.10
	31 – 41	0.01	0.04	0.17	0.05	0.00	0.26
	42 – 49	0.00	0.00	0.05	0.12	0.05	0.22
	50 – 60	0.00	0.00	0.00	0.04	0.16	0.20
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90						

Table 8.B.89 Inter-Rater Agreement Analyses for ELA for Writing (Grade Seven)

		Rater 1								
		1	**%**	**2**	**%**	**3**	**%**	**4**	**%**	**Total**
Rater 2	**1**	710	1.51	424	0.90	79	0.17	5	0.01	1218
	2	402	0.85	5,198	11.02	2,759	5.85	147	0.31	8,506
	3	72	0.15	2,682	5.69	22,063	46.78	3,550	7.53	28,367
	4	2	0.00	159	0.34	3,669	7.78	5,246	11.12	9,076
	Total	1,186	2.51	8,463	17.94	28,570	60.57	8,948	18.97	47,167

Percent Exact= 70.42%

Percent Adjacent= 28.59%

Percent Exact + Adjacent=99.02%

Kappa=0.48

Weighted Kappa=0.55

Table 8.B.90 Descriptive Statistics for the Ratings by the Two Raters

Grades	N*	Rater 1		Rater 2		
		Mean	Std	Mean	Std	*Pearson Correlation*
7	47,167	2.96	0.69	2.96	0.68	0.65

* Number of students who received valid ratings of 1–4

Table 8.B.91 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	43.65	43.65	0.02	3.45
P:E	47,165	36727.54	0.78	0.31	63.12
R	1	0.00	0.00	0.00	0.00
ER	1	0.18	0.18	0.00	0.00
PR:E	47,165	7688.31	0.16	0.16	33.42
Note: E=Essay Prompt, P=Person and R=Rating				**G-Coefficient= 0.79**	

Appendix 8.C—Validity Analyses

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**230,513**	0.79					
	2. Mathematics	229,998	**231,119**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**220,471**	0.79					
	2. Mathematics	219,531	**222,488**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**219,446**	0.75					
	2. Mathematics	218,730	**222,284**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**216,949**	0.75	0.82				
	2. Mathematics	215,942	**219,059**	0.73				
	3. Science	216,433	218,634	**232,750**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**219,133**	0.79					
	2. Mathematics	217,780	**220,140**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**221,735**	0.76	0.58				
	2. Mathematics	203,469	**205,358**	N/A				
	3. Algebra I	16,599	N/A	**16,621**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**226,866**	0.82	0.68	0.67	0.54	0.60	0.82
	2. History–Social Science	225,777	**238,481**	0.64	0.63	0.51	0.59	0.81
	3. General Mathematics	78,417	87,010	**87,848**	N/A	N/A	N/A	0.68
	4. Algebra I	133,105	133,575	N/A	**133,920**	N/A	N/A	0.70
	5. Geometry	11,952	11,947	N/A	N/A	**11,963**	N/A	0.61
	6. Algebra II	424	424	N/A	N/A	N/A	**425**	0.66
	7. Science	225,495	237,340	86,920	133,559	11,948	424	**238,533**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**248,786**	0.82	0.65	0.60	0.67	0.59	0.63	0.81	0.80	0.76	0.77
	2. World History	16,572	**16,954**	0.57	0.64	0.72	0.63	0.45	0.85	0.77	0.76	0.81
	3. General Mathematics	29,572	1,820	**32,811**	N/A	N/A	N/A	N/A	0.65	0.75	0.63	0.34
	4. Algebra I	136,289	6,824	N/A	**138,323**	N/A	N/A	N/A	0.64	0.72	0.56	0.67
	5. Geometry	63,056	5,860	N/A	N/A	**63,295**	N/A	N/A	0.70	0.84	0.64	0.76
9	**6. Algebra II**	12,377	1,743	N/A	N/A	N/A	**12,392**	N/A	0.61	0.77	0.52	0.70
	7. Summ. H.S. Mathematics	421	66	N/A	N/A	N/A	N/A	**422**	0.56	0.63	0.19	0.47
	8. Biology	97,713	9,285	4,793	42,309	41,282	8,810	282	**99,501**	N/A	N/A	N/A
	9. Chemistry	2,538	581	41	346	1,205	884	40	N/A	**2,557**	N/A	N/A
	10. Earth Science	73,848	1,721	12,114	51,322	10,014	788	38	N/A	N/A	**77,177**	N/A
	11. Physics	6,608	450	50	2,626	2,847	797	34	N/A	N/A	N/A	**6,683**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**245,027**	0.78	0.55	0.63	0.58	0.57	0.80	0.79	0.72	0.74	0.76
	2. World History	216,078	**217,428**	0.51	0.57	0.50	0.47	0.77	0.76	0.67	0.74	0.72
	3. Algebra I	63,940	57,655	**64,629**	N/A	N/A	N/A	0.55	0.55	0.65	0.52	0.65
	4. Geometry	83,538	78,300	N/A	**83,863**	N/A	N/A	0.65	0.65	0.74	0.60	0.75
	5. Algebra II	55,036	50,804	N/A	N/A	**55,107**	N/A	0.58	0.60	0.70	0.50	0.70
10	**6. Summ. H.S. Mathematics**	10,420	9,301	N/A	N/A	N/A	**10,425**	0.57	0.60	0.67	0.53	0.64
	7. Life Science	235,099	210,188	61,941	82,039	54,691	10,380	**236,511**	0.87	0.77	0.78	0.80
	8. Biology	123,590	117,390	38,189	52,995	19,683	2,336	120,585	**124,392**	N/A	N/A	N/A
	9. Chemistry	55,101	50,202	2,069	15,132	29,688	7,049	54,813	N/A	**55,196**	N/A	N/A
	10. Earth Science	17,441	15,799	8,277	5,000	1,090	60	16,511	N/A	N/A	**17,606**	N/A
	11. Physics	4,524	3,841	361	1,593	1,799	634	4,451	N/A	N/A	N/A	**4,543**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**227,878**	0.62	0.82	0.51	0.56	0.49	0.61	0.82	0.71	0.73	0.74
	2. World History	7,948	**8,091**	0.67	0.40	0.44	0.31	0.30	0.63	0.43	0.62	0.47
	3. History–Social Science	222,278	7,058	**223,913**	0.47	0.52	0.44	0.52	0.80	0.68	0.75	0.70
	4. Algebra I	31,255	2,556	30,160	**31,720**	N/A	N/A	N/A	0.51	0.59	0.49	0.59
	5. Geometry	41,866	1,588	41,318	N/A	**42,157**	N/A	N/A	0.59	0.65	0.54	0.69
11	**6. Algebra II**	57,369	746	57,006	N/A	N/A	**57,531**	N/A	0.51	0.63	0.43	0.61
	7. Summ. H.S. Mathematics	51,477	261	51,306	N/A	N/A	N/A	**51,551**	0.64	0.73	0.49	0.69
	8. Biology	46,769	2,124	46,187	8,692	10,872	9,332	10,859	**47,174**	N/A	N/A	N/A
	9. Chemistry	62,405	729	62,169	1,791	9,614	28,663	17,941	N/A	**62,586**	N/A	N/A
	10. Earth Science	22,059	1,139	21,683	6,903	5,640	2,935	1,470	N/A	N/A	**22,291**	N/A
	11. Physics	27,136	207	27,037	540	2,238	7,113	15,879	N/A	N/A	N/A	**27,204**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**221,398**	0.78					
	2. Mathematics	220,984	**221,522**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**216,812**	0.79					
	2. Mathematics	216,096	**217,275**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**217,163**	0.75					
	2. Mathematics	216,562	**217,980**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**214,244**	0.73	0.82				
	2. Mathematics	213,485	**214,757**	0.72				
	3. Science	213,850	214,436	**222,031**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**216,493**	0.79					
	2. Mathematics	215,541	**216,528**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**218,686**	0.75	0.58				
	2. Mathematics	202,644	**203,436**	N/A				
	3. Algebra I	14,843	N/A	**14,851**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**223,339**	0.82	0.68	0.66	0.56	0.55	0.81
	2. History–Social Science	222,534	**229,063**	0.63	0.65	0.57	0.62	0.81
	3. General Mathematics	70,599	74,914	**75,415**	N/A	N/A	N/A	0.68
	4. Algebra I	139,472	139,611	N/A	**139,889**	N/A	N/A	0.72
	5. Geometry	10,968	10,960	N/A	N/A	**10,971**	N/A	0.66
	6. Algebra II	265	266	N/A	N/A	N/A	**266**	0.65
	7. Science	222,392	228,366	74,874	139,589	10,957	266	**229,072**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**239,300**	0.82	0.65	0.59	0.66	0.60	0.59	0.81	0.80	0.76	0.76
	2. World History	15,045	**15,220**	0.55	0.64	0.72	0.63	0.65	0.83	0.85	0.77	0.75
	3. General Mathematics	22,054	1,108	**23,789**	N/A	N/A	N/A	N/A	0.63	0.62	0.60	0.12
	4. Algebra I	128,600	5,773	N/A	**129,703**	N/A	N/A	N/A	0.63	0.70	0.56	0.66
	5. Geometry	70,894	6,127	N/A	N/A	**71,030**	N/A	N/A	0.70	0.82	0.64	0.75
9	**6. Algebra II**	12,322	1,738	N/A	N/A	N/A	**12,332**	N/A	0.64	0.79	0.59	0.72
	7. Summ. H.S. Mathematics	266	51	N/A	N/A	N/A	N/A	**267**	0.59	0.77	0.33	0.64
	8. Biology	104,541	8,907	3,716	43,333	48,018	8,848	193	**105,504**	N/A	N/A	N/A
	9. Chemistry	2,508	453	28	312	1,230	910	20	N/A	**2,525**	N/A	N/A
	10. Earth Science	66,629	1,281	8,979	46,724	10,124	725	18	N/A	N/A	**68,469**	N/A
	11. Physics	6,844	517	31	2,495	3,287	739	18	N/A	N/A	N/A	**6,880**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**234,759**	0.78	0.51	0.62	0.57	0.57	0.80	0.79	0.71	0.74	0.76
	2. World History	210,428	**211,372**	0.47	0.57	0.53	0.54	0.77	0.77	0.69	0.72	0.71
	3. Algebra I	51,804	46,853	**52,223**	N/A	N/A	N/A	0.51	0.51	0.61	0.48	0.50
	4. Geometry	86,119	80,976	N/A	**86,411**	N/A	N/A	0.64	0.63	0.72	0.58	0.73
	5. Algebra II	63,143	58,348	N/A	N/A	**63,222**	N/A	0.58	0.61	0.70	0.54	0.71
10	**6. Summ. H.S. Mathematics**	9,790	8,757	N/A	N/A	N/A	**9,798**	0.60	0.64	0.70	0.57	0.68
	7. Life Science	228,198	206,599	50,489	84,954	62,790	9,755	**229,201**	0.86	0.77	0.76	0.77
	8. Biology	117,235	111,644	31,853	53,587	21,414	2,189	115,252	**117,792**	N/A	N/A	N/A
	9. Chemistry	64,235	58,883	2,109	18,212	35,947	6,820	63,896	N/A	**64,314**	N/A	N/A
	10. Earth Science	13,698	12,371	6,196	4,495	1,010	70	13,218	N/A	N/A	**13,802**	N/A
	11. Physics	4,077	3,535	312	1,517	1,717	427	4,018	N/A	N/A	N/A	**4,094**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**221,138**	0.58	0.82	0.48	0.53	0.47	0.61	0.81	0.70	0.75	0.74
	2. World History	6,092	**6,161**	0.62	0.38	0.38	0.30	0.22	0.60	0.43	0.54	0.42
	3. History–Social Science	216,896	5,453	**217,991**	0.45	0.50	0.45	0.55	0.80	0.68	0.76	0.71
	4. Algebra I	23,867	1,751	23,125	**24,163**	N/A	N/A	N/A	0.50	0.53	0.46	0.58
	5. Geometry	38,590	1,283	38,143	N/A	**38,814**	N/A	N/A	0.55	0.60	0.49	0.60
11	**6. Algebra II**	63,490	748	63,117	N/A	N/A	**63,657**	N/A	0.50	0.61	0.44	0.59
	7. Summ. H.S. Mathematics	57,998	253	57,781	N/A	N/A	N/A	**58,092**	0.65	0.74	0.52	0.71
	8. Biology	49,976	1,632	49,525	6,707	9,908	11,501	15,927	**50,253**	N/A	N/A	N/A
	9. Chemistry	69,131	725	68,813	1,789	10,285	32,690	19,803	N/A	**69,312**	N/A	N/A
	10. Earth Science	18,187	777	17,934	4,869	4,668	2,902	1,877	N/A	N/A	**18,351**	N/A
	11. Physics	23,255	153	23,194	394	1,897	6,452	13,420	N/A	N/A	N/A	**23,322**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**167**	0.78					
	2. Mathematics	164	**165**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**167**	0.82					
	2. Mathematics	164	**175**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**87**	0.71					
	2. Mathematics	87	**88**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**101**	0.74	0.87				
	2. Mathematics	99	**103**	0.77				
	3. Science	101	102	**113**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**82**	0.62					
	2. Mathematics	80	**81**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**100**	0.58	–				
	2. Mathematics	97	**100**	N/A				
	3. Algebra I	2	N/A	**2**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**116**	0.81	0.61	0.54	–	N/A	0.79
	2. History–Social Science	111	**139**	0.63	0.47	–	N/A	0.80
	3. General Mathematics	55	75	**76**	N/A	N/A	N/A	0.57
	4. Algebra I	45	46	N/A	**48**	N/A	N/A	0.54
	5. Geometry	4	4	N/A	N/A	**4**	N/A	–
	6. Algebra II	0	0	N/A	N/A	N/A	**0**	N/A
	7. Science	112	131	68	47	4	0	**169**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**120**	–	0.56	0.36	–	–	N/A	0.77	N/A	0.77	N/A
	2. World History	6	**6**	N/A	–	–	N/A	N/A	–	N/A	N/A	N/A
	3. General Mathematics	30	0	**31**	N/A	N/A	N/A	N/A	–	N/A	–	N/A
	4. Algebra I	63	3	N/A	**64**	N/A	N/A	N/A	0.12	N/A	0.54	N/A
	5. Geometry	8	1	N/A	N/A	**8**	N/A	N/A	–	N/A	–	N/A
9	**6. Algebra II**	1	0	N/A	N/A	N/A	**1**	N/A	–	N/A	N/A	N/A
	7. Summ. H.S. Mathematics	0	0	N/A	N/A	N/A	N/A	**0**	N/A	N/A	N/A	N/A
	8. Biology	16	4	1	12	2	1	0	**17**	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	35	0	5	26	4	0	0	N/A	N/A	**39**	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	**139**	0.81	0.56	0.79	–	–	0.85	0.77	0.68	0.52	–
	2. World History	112	**113**	0.50	0.81	–	–	0.78	0.67	–	0.74	N/A
	3. Algebra I	53	47	**54**	N/A	N/A	N/A	0.59	0.41	N/A	–	N/A
	4. Geometry	37	35	N/A	**38**	N/A	N/A	0.75	0.78	–	–	–
	5. Algebra II	8	5	N/A	N/A	**8**	N/A	–	–	–	–	N/A
10	**6. Summ. H.S. Mathematics**	2	2	N/A	N/A	N/A	**2**	–	N/A	–	N/A	N/A
	7. Life Science	123	101	52	33	7	2	**124**	0.69	–	0.57	–
	8. Biology	70	65	33	25	1	0	62	**72**	N/A	N/A	N/A
	9. Chemistry	11	10	0	5	5	1	10	N/A	**11**	N/A	N/A
	10. Earth Science	13	11	6	2	1	0	12	N/A	N/A	**14**	N/A
	11. Physics	1	0	0	1	0	0	1	N/A	N/A	N/A	**1**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**124**	–	0.82	0.50	0.74	0.08	–	0.82	–	0.39	–
	2. World History	5	**5**	–	–	N/A	–	N/A	–	N/A	–	N/A
	3. History–Social Science	108	3	**111**	0.41	0.70	0.50	–	0.79	–	–	–
	4. Algebra I	31	3	29	**32**	N/A	N/A	N/A	0.61	N/A	–	–
	5. Geometry	17	0	16	N/A	**18**	N/A	N/A	–	–	N/A	–
11	**6. Algebra II**	19	1	17	N/A	N/A	**19**	N/A	–	–	–	–
	7. Summ. H.S. Mathematics	5	0	5	N/A	N/A	N/A	**5**	N/A	–	N/A	–
	8. Biology	32	3	29	15	6	4	0	**32**	N/A	N/A	N/A
	9. Chemistry	8	0	8	0	3	4	1	N/A	**8**	N/A	N/A
	10. Earth Science	11	1	9	6	0	1	0	N/A	N/A	**11**	N/A
	11. Physics	8	0	7	1	2	3	2	N/A	N/A	N/A	**8**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**2,961**	0.77					
	2. Mathematics	2,947	**2,962**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**2,857**	0.77					
	2. Mathematics	2,836	**2,871**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**2,860**	0.73					
	2. Mathematics	2,840	**2,886**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**2,957**	0.72	0.80				
	2. Mathematics	2,942	**2,990**	0.70				
	3. Science	2,946	2,980	**3,189**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**3,027**	0.75					
	2. Mathematics	2,996	**3,020**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**3,040**	0.73	0.67				
	2. Mathematics	2,895	**2,918**	N/A				
	3. Algebra I	115	N/A	**116**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**3,138**	0.79	0.68	0.63	0.47	N/A	0.78
	2. History–Social Science	3,109	**3,305**	0.65	0.60	0.54	N/A	0.78
	3. General Mathematics	1,404	1,533	**1,548**	N/A	N/A	N/A	0.68
	4. Algebra I	1,616	1,617	N/A	**1,625**	N/A	N/A	0.69
	5. Geometry	63	63	N/A	N/A	**63**	N/A	0.66
	6. Algebra II	0	0	N/A	N/A	N/A	**0**	N/A
	7. Science	3,110	3,282	1,537	1,612	63	0	**3,302**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**3,518**	0.79	0.62	0.59	0.66	0.37	–	0.79	0.78	0.71	0.70
	2. World History	198	**203**	0.56	0.48	0.68	–	N/A	0.78	–	0.55	–
	3. General Mathematics	583	50	**658**	N/A	N/A	N/A	N/A	0.59	–	0.64	–
	4. Algebra I	2,018	84	N/A	**2,060**	N/A	N/A	N/A	0.65	–	0.50	0.73
	5. Geometry	701	49	N/A	N/A	**703**	N/A	N/A	0.73	0.78	0.69	0.75
9	**6. Algebra II**	87	9	N/A	N/A	N/A	**88**	N/A	0.27	–	–	–
	7. Summ. H. S. Mathematics	1	0	N/A	N/A	N/A	N/A	**1**	–	N/A	N/A	N/A
	8. Biology	1,154	77	77	595	409	60	1	**1,174**	N/A	N/A	N/A
	9. Chemistry	22	6	1	3	12	7	0	N/A	**23**	N/A	N/A
	10. Earth Science	1,190	41	268	796	139	3	0	N/A	N/A	**1,254**	N/A
	11. Physics	60	8	3	19	29	8	0	N/A	N/A	N/A	**61**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**3,348**	0.74	0.58	0.63	0.57	0.60	0.79	0.77	0.63	0.68	0.77
	2. World History	2,992	**3,020**	0.53	0.55	0.56	0.56	0.77	0.75	0.64	0.76	0.69
	3. Algebra I	994	923	**1,011**	N/A	N/A	N/A	0.57	0.56	–	0.47	–
	4. Geometry	1,127	1,062	N/A	**1,128**	N/A	N/A	0.67	0.65	0.70	0.61	0.73
	5. Algebra II	524	507	N/A	N/A	**525**	N/A	0.57	0.59	0.72	0.47	0.59
10	**6. Summ. H.S. Mathematics**	56	51	N/A	N/A	N/A	**56**	0.72	0.63	0.82	–	–
	7. Life Science	3,147	2,874	952	1,091	525	56	**3,176**	0.86	0.75	0.78	0.78
	8. Biology	1,820	1,743	601	762	221	18	1,746	**1,833**	N/A	N/A	N/A
	9. Chemistry	447	427	10	154	248	28	442	N/A	**447**	N/A	N/A
	10. Earth Science	311	285	141	77	13	3	293	N/A	N/A	**314**	N/A
	11. Physics	42	37	5	16	16	4	42	N/A	N/A	N/A	**43**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**2,929**	0.69	0.78	0.53	0.56	0.50	0.59	0.80	0.66	0.69	0.70
	2. World History	105	**107**	0.73	0.41	0.61	–	–	0.66	–	0.40	N/A
	3. History–Social Science	2,855	95	**2,884**	0.48	0.58	0.43	0.51	0.76	0.68	0.73	0.71
	4. Algebra I	449	31	439	**463**	N/A	N/A	N/A	0.58	0.82	0.41	–
	5. Geometry	580	25	581	N/A	**585**	N/A	N/A	0.65	0.66	0.66	0.80
11	**6. Algebra II**	621	4	611	N/A	N/A	**622**	N/A	0.60	0.62	0.56	0.61
	7. Summ. H.S. Mathematics	421	1	421	N/A	N/A	N/A	**422**	0.70	0.68	0.30	0.66
	8. Biology	557	20	557	114	141	85	90	**564**	N/A	N/A	N/A
	9. Chemistry	617	3	613	17	102	293	144	N/A	**618**	N/A	N/A
	10. Earth Science	304	18	304	84	75	36	13	N/A	N/A	**310**	N/A
	11. Physics	254	0	255	5	28	77	130	N/A	N/A	N/A	**256**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**36,996**	0.75					
	2. Mathematics	36,956	**37,015**					
3	1. English–Language Arts	**36,538**	0.75					
	2. Mathematics	36,485	**36,622**					
4	1. English–Language Arts	**38,632**	0.70					
	2. Mathematics	38,592	**38,807**					
5	1. English–Language Arts	**35,833**	0.72	0.80				
	2. Mathematics	35,796	**35,993**	0.71				
	3. Science	35,810	35,958	**36,514**				
6	1. English–Language Arts	**36,257**	0.76					
	2. Mathematics	36,205	**36,347**					
7	1. English–Language Arts	**38,494**	0.72	0.53				
	2. Mathematics	30,078	**30,205**	N/A				
	3. Algebra I	8,339	N/A	**8,340**				
8	1. English–Language Arts	**39,531**	0.80	0.62	0.61	0.50	0.56	0.79
	2. History–Social Science	39,486	**40,030**	0.60	0.59	0.49	0.52	0.80
	3. General Mathematics	5,844	6,216	**6,242**	N/A	N/A	N/A	0.69
	4. Algebra I	26,150	26,183	N/A	**26,209**	N/A	N/A	0.70
	5. Geometry	7,062	7,061	N/A	N/A	**7,064**	N/A	0.58
	6. Algebra II	277	278	N/A	N/A	N/A	**278**	0.61
	7. Science	39,477	39,981	6,213	26,190	7,060	278	**40,029**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**41,286**	0.70	0.61	0.48	0.60	0.50	0.57	0.75	0.62	0.75	0.73
	2. World History	4,643	**4,662**	0.71	0.55	0.53	0.45	0.42	0.70	0.52	0.74	0.62
	3. General Mathematics	1,176	77	**1,277**	N/A	N/A	N/A	N/A	0.59	N/A	0.56	–
	4. Algebra I	12,100	665	N/A	**12,222**	N/A	N/A	N/A	0.57	0.72	0.49	0.61
	5. Geometry	19,694	2,327	N/A	N/A	**19,708**	N/A	N/A	0.66	0.66	0.57	0.70
9	**6. Algebra II**	7,585	1,494	N/A	N/A	N/A	**7,586**	N/A	0.57	0.65	0.46	0.69
	7. Summ. H.S. Mathematics	356	67	N/A	N/A	N/A	N/A	**356**	0.55	0.52	0.39	0.42
	8. Biology	24,920	3,231	180	4,334	14,221	5,866	243	**25,005**	N/A	N/A	N/A
	9. Chemistry	879	136	0	27	309	506	33	N/A	**880**	N/A	N/A
	10. Earth Science	6,919	159	501	4,076	1,974	339	26	N/A	N/A	**7,046**	N/A
	11. Physics	1,730	146	2	241	1,023	399	42	N/A	N/A	N/A	**1,733**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**42,078**	0.74	0.40	0.53	0.50	0.51	0.78	0.80	0.63	0.73	0.70
	2. World History	36,927	**36,997**	0.44	0.50	0.48	0.47	0.75	0.76	0.63	0.76	0.66
	3. Algebra I	3,512	3,078	**3,543**	N/A	N/A	N/A	0.42	0.51	0.62	0.44	0.34
	4. Geometry	10,686	9,772	N/A	**10,713**	N/A	N/A	0.58	0.57	0.74	0.42	0.70
	5. Algebra II	18,993	16,797	N/A	N/A	**19,003**	N/A	0.55	0.56	0.68	0.27	0.65
10	**6. Summ. H.S. Mathematics**	7,427	6,267	N/A	N/A	N/A	**7,432**	0.56	0.57	0.65	0.48	0.56
	7. Life Science	41,515	36,560	3,432	10,565	18,896	7,411	**41,591**	0.87	0.73	0.80	0.75
	8. Biology	16,359	15,203	2,010	6,519	5,813	1,517	16,184	**16,399**	N/A	N/A	N/A
	9. Chemistry	20,489	17,836	183	2,672	12,085	5,389	20,415	N/A	**20,498**	N/A	N/A
	10. Earth Science	1,190	1,073	454	420	159	33	1,150	N/A	N/A	**1,195**	N/A
	11. Physics	1,123	900	15	294	427	371	1,112	N/A	N/A	N/A	**1,124**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**41,840**	0.51	0.80	0.28	0.41	0.34	0.59	0.79	0.71	0.76	0.67
	2. World History	589	**591**	0.58	0.48	0.30	0.37	0.28	0.57	0.16	0.54	0.32
	3. History–Social Science	41,316	464	**41,415**	0.26	0.40	0.33	0.52	0.77	0.68	0.77	0.65
	4. Algebra I	1,547	119	1,464	**1,571**	N/A	N/A	N/A	0.35	0.65	0.32	0.57
	5. Geometry	3,497	122	3,446	N/A	**3,515**	N/A	N/A	0.45	0.61	0.47	0.63
11	**6. Algebra II**	9,909	129	9,797	N/A	N/A	**9,932**	N/A	0.36	0.62	0.35	0.60
	7. Summ. H.S. Mathematics	24,228	98	24,144	N/A	N/A	N/A	**24,252**	0.63	0.72	0.54	0.69
	8. Biology	10,409	161	10,335	438	917	1,839	6,685	**10,444**	N/A	N/A	N/A
	9. Chemistry	14,624	90	14,565	116	1,040	5,085	7,917	N/A	**14,643**	N/A	N/A
	10. Earth Science	1,912	63	1,893	268	379	371	656	N/A	N/A	**1,918**	N/A
	11. Physics	8,873	34	8,844	30	229	1,304	7,129	N/A	N/A	N/A	**8,880**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**2,463**	0.77					
	2. Mathematics	2,456	**2,460**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**2,357**	0.77					
	2. Mathematics	2,342	**2,356**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**2,404**	0.72					
	2. Mathematics	2,398	**2,431**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**2,438**	0.72	0.79				
	2. Mathematics	2,426	**2,441**	0.70				
	3. Science	2,432	2,438	**2,545**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**2,594**	0.77					
	2. Mathematics	2,582	**2,599**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**2,683**	0.73	0.64				
	2. Mathematics	2,522	**2,537**	N/A				
	3. Algebra I	147	N/A	**147**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**2,590**	0.78	0.68	0.66	0.58	–	0.78
	2. History–Social Science	2,583	**2,653**	0.57	0.64	0.60	–	0.77
	3. General Mathematics	851	896	**902**	N/A	N/A	N/A	0.69
	4. Algebra I	1,611	1,615	N/A	**1,615**	N/A	N/A	0.69
	5. Geometry	97	97	N/A	N/A	**97**	N/A	0.67
	6. Algebra II	5	5	N/A	N/A	N/A	**5**	–
	7. Science	2,579	2,645	895	1,610	97	5	**2,647**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**2,872**	0.80	0.63	0.56	0.65	0.61	–	0.77	0.76	0.71	0.74
	2. World History	162	**165**	0.91	0.58	0.58	0.73	N/A	0.81	–	0.78	–
	3. General Mathematics	272	14	**298**	N/A	N/A	N/A	N/A	0.72	N/A	0.53	–
	4. Algebra I	1,670	81	N/A	**1,685**	N/A	N/A	N/A	0.54	–	0.48	0.59
	5. Geometry	775	53	N/A	N/A	**778**	N/A	N/A	0.66	0.87	0.65	0.79
9	**6. Algebra II**	83	12	N/A	N/A	N/A	**83**	N/A	0.65	–	–	0.66
	7. Summ. H.S. Mathematics	4	0	N/A	N/A	N/A	N/A	**4**	–	–	N/A	N/A
	8. Biology	1,107	86	42	518	489	54	2	**1,118**	N/A	N/A	N/A
	9. Chemistry	28	3	0	7	18	3	1	N/A	**29**	N/A	N/A
	10. Earth Science	918	23	125	634	143	9	0	N/A	N/A	**940**	N/A
	11. Physics	131	9	1	60	54	12	0	N/A	N/A	N/A	**133**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**2,841**	0.73	0.52	0.59	0.61	0.58	0.76	0.75	0.71	0.68	0.79
	2. World History	2,560	**2,575**	0.45	0.54	0.51	0.52	0.75	0.74	0.70	0.75	0.79
	3. Algebra I	771	707	**780**	N/A	N/A	N/A	0.46	0.48	0.57	0.48	–
	4. Geometry	1,090	1,020	N/A	**1,095**	N/A	N/A	0.61	0.61	0.72	0.52	0.90
	5. Algebra II	626	588	N/A	N/A	**628**	N/A	0.56	0.61	0.71	–	0.84
10	**6. Summ. H.S. Mathematics**	66	60	N/A	N/A	N/A	**66**	0.56	0.70	0.68	N/A	–
	7. Life Science	2,737	2,511	745	1,075	620	66	**2,749**	0.84	0.78	0.71	0.86
	8. Biology	1,496	1,422	471	701	220	14	1,464	**1,499**	N/A	N/A	N/A
	9. Chemistry	647	611	43	211	338	45	645	N/A	**648**	N/A	N/A
	10. Earth Science	190	172	90	69	9	0	182	N/A	N/A	**191**	N/A
	11. Physics	57	41	7	20	23	6	56	N/A	N/A	N/A	**57**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**2,741**	0.71	0.79	0.54	0.48	0.40	0.63	0.82	0.66	0.70	0.72
	2. World History	95	**97**	0.71	0.51	0.17	–	–	0.77	–	–	–
	3. History–Social Science	2,660	85	**2,677**	0.50	0.46	0.39	0.61	0.77	0.67	0.73	0.70
	4. Algebra I	367	37	350	**375**	N/A	N/A	N/A	0.59	0.00	0.48	–
	5. Geometry	543	21	532	N/A	**545**	N/A	N/A	0.52	0.47	0.50	0.61
11	**6. Algebra II**	784	4	773	N/A	N/A	**788**	N/A	0.48	0.55	0.54	0.60
	7. Summ. H.S. Mathematics	533	3	532	N/A	N/A	N/A	**534**	0.65	0.71	0.15	0.74
	8. Biology	662	31	652	113	159	142	143	**663**	N/A	N/A	N/A
	9. Chemistry	771	8	767	31	115	396	174	N/A	**777**	N/A	N/A
	10. Earth Science	204	7	199	66	61	26	11	N/A	N/A	**208**	N/A
	11. Physics	301	4	295	4	36	96	149	N/A	N/A	N/A	**301**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**10,378**	0.75					
	2. Mathematics	10,364	**10,393**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**10,791**	0.75					
	2. Mathematics	10,764	**10,801**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**11,080**	0.70					
	2. Mathematics	11,059	**11,121**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**11,369**	0.71	0.77				
	2. Mathematics	11,355	**11,408**	0.69				
	3. Science	11,361	11,400	**11,634**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**11,923**	0.75					
	2. Mathematics	11,900	**11,932**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**12,105**	0.72	0.53				
	2. Mathematics	10,722	**10,740**	N/A				
	3. Algebra I	1,351	N/A	**1,352**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**12,260**	0.77	0.67	0.64	0.52	0.62	0.76
	2. History–Social Science	12,245	**12,421**	0.61	0.60	0.50	0.64	0.77
	3. General Mathematics	2,606	2,726	**2,739**	N/A	N/A	N/A	0.69
	4. Algebra I	8,570	8,572	N/A	**8,577**	N/A	N/A	0.68
	5. Geometry	989	989	N/A	N/A	**989**	N/A	0.65
	6. Algebra II	33	33	N/A	N/A	N/A	**33**	0.62
	7. Science	12,242	12,403	2,726	8,569	989	33	**12,419**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**13,426**	0.71	0.70	0.59	0.62	0.54	0.68	0.74	0.72	0.73	0.70
	2. World History	935	**937**	0.40	0.58	0.56	0.55	–	0.71	0.75	0.83	0.74
	3. General Mathematics	512	16	**563**	N/A	N/A	N/A	N/A	0.75	–	0.69	N/A
	4. Algebra I	6,007	268	N/A	**6,037**	N/A	N/A	N/A	0.60	–0.14	0.51	0.61
	5. Geometry	5,660	508	N/A	N/A	**5,667**	N/A	N/A	0.66	0.77	0.65	0.70
9	**6. Algebra II**	1,035	130	N/A	N/A	N/A	**1,036**	N/A	0.57	0.75	0.51	0.71
	7. Summ. H.S. Mathematics	20	5	N/A	N/A	N/A	N/A	**20**	0.42	–	–	N/A
	8. Biology	6,728	603	102	2,074	3,776	735	16	**6,766**	N/A	N/A	N/A
	9. Chemistry	217	17	1	11	122	81	2	N/A	**217**	N/A	N/A
	10. Earth Science	3,077	61	223	2,063	698	55	1	N/A	N/A	**3,114**	N/A
	11. Physics	764	62	0	194	466	92	0	N/A	N/A	N/A	**767**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**13,139**	0.70	0.54	0.59	0.54	0.52	0.74	0.75	0.64	0.69	0.71
	2. World History	12,175	**12,198**	0.46	0.52	0.47	0.42	0.71	0.72	0.64	0.71	0.69
	3. Algebra I	1,796	1,657	**1,808**	N/A	N/A	N/A	0.54	0.55	0.55	0.51	0.73
	4. Geometry	4,675	4,436	N/A	**4,678**	N/A	N/A	0.61	0.63	0.68	0.58	0.74
	5. Algebra II	5,280	4,897	N/A	N/A	**5,282**	N/A	0.54	0.59	0.65	0.49	0.62
10	**6. Summ. H.S. Mathematics**	734	672	N/A	N/A	N/A	**735**	0.55	0.55	0.65	–	0.71
	7. Life Science	12,930	12,033	1,753	4,628	5,263	731	**12,957**	0.85	0.72	0.75	0.75
	8. Biology	6,505	6,215	1,189	2,936	1,913	189	6,439	**6,521**	N/A	N/A	N/A
	9. Chemistry	4,824	4,428	141	1,127	2,993	490	4,807	N/A	**4,826**	N/A	N/A
	10. Earth Science	463	441	166	193	52	3	448	N/A	N/A	**465**	N/A
	11. Physics	291	252	19	83	156	32	290	N/A	N/A	N/A	**292**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**13,005**	0.56	0.76	0.53	0.54	0.50	0.58	0.76	0.67	0.73	0.68
	2. World History	217	**219**	0.68	0.42	0.45	0.35	0.26	0.52	0.61	0.42	0.68
	3. History–Social Science	12,853	181	**12,877**	0.46	0.50	0.43	0.52	0.74	0.64	0.72	0.65
	4. Algebra I	804	46	785	**810**	N/A	N/A	N/A	0.58	0.52	0.48	0.68
	5. Geometry	1,723	50	1,695	N/A	**1,728**	N/A	N/A	0.60	0.60	0.56	0.70
11	**6. Algebra II**	4,277	44	4,261	N/A	N/A	**4,282**	N/A	0.53	0.64	0.40	0.54
	7. Summ. H.S. Mathematics	4,948	13	4,936	N/A	N/A	N/A	**4,948**	0.61	0.70	0.47	0.68
	8. Biology	3,138	55	3,115	239	430	856	1,374	**3,141**	N/A	N/A	N/A
	9. Chemistry	4,965	35	4,949	86	575	2,306	1,744	N/A	**4,968**	N/A	N/A
	10. Earth Science	655	25	643	157	152	144	105	N/A	N/A	**660**	N/A
	11. Physics	1,975	11	1,968	19	109	504	1,261	N/A	N/A	N/A	**1,976**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**239,733**	0.76					
	2. Mathematics	239,262	**240,178**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**228,537**	0.77					
	2. Mathematics	227,700	**230,119**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**224,965**	0.73					
	2. Mathematics	224,375	**227,187**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**220,107**	0.70	0.79				
	2. Mathematics	219,325	**221,921**	0.68				
	3. Science	219,717	221,614	**234,740**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**221,438**	0.75					
	2. Mathematics	220,476	**222,399**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**221,470**	0.72	0.53				
	2. Mathematics	211,849	**213,405**	N/A				
	3. Algebra I	8,339	N/A	**8,355**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**224,198**	0.78	0.64	0.63	0.52	0.70	0.77
	2. History–Social Science	223,232	**234,739**	0.60	0.58	0.51	0.73	0.77
	3. General Mathematics	84,363	92,219	**92,921**	N/A	N/A	N/A	0.64
	4. Algebra I	132,376	132,765	N/A	**133,065**	N/A	N/A	0.66
	5. Geometry	4,974	4,974	N/A	N/A	**4,979**	N/A	0.62
	6. Algebra II	102	102	N/A	N/A	N/A	**102**	0.66
	7. Science	223,027	233,809	92,137	132,769	4,974	102	**234,755**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**244,464**	0.78	0.62	0.57	0.66	0.62	0.46	0.79	0.78	0.72	0.73
	2. World History	14,192	**14,491**	0.53	0.60	0.73	0.70	0.91	0.82	0.64	0.76	0.79
	3. General Mathematics	28,832	1,621	**31,620**	N/A	N/A	N/A	N/A	0.63	0.64	0.60	0.19
	4. Algebra I	150,924	6,861	N/A	**152,780**	N/A	N/A	N/A	0.61	0.66	0.52	0.65
	5. Geometry	51,733	4,654	N/A	N/A	**51,936**	N/A	N/A	0.70	0.83	0.63	0.75
9	**6. Algebra II**	6,361	763	N/A	N/A	N/A	**6,372**	N/A	0.65	0.79	0.54	0.72
	7. Summ. H.S. Mathematics	103	12	N/A	N/A	N/A	N/A	**105**	0.58	–	–	–
	8. Biology	90,224	7,903	5,022	47,953	33,033	4,033	78	**91,877**	N/A	N/A	N/A
	9. Chemistry	2,087	706	49	446	1,039	518	8	N/A	**2,103**	N/A	N/A
	10. Earth Science	73,156	1,445	10,584	53,981	8,458	454	10	N/A	N/A	**76,100**	N/A
	11. Physics	5,013	282	26	2,506	1,859	372	1	N/A	N/A	N/A	**5,068**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**233,459**	0.74	0.53	0.61	0.58	0.61	0.77	0.77	0.71	0.70	0.73
	2. World History	206,666	**207,945**	0.46	0.55	0.51	0.54	0.75	0.73	0.67	0.72	0.71
	3. Algebra I	68,158	61,596	**68,788**	N/A	N/A	N/A	0.52	0.51	0.61	0.49	0.59
	4. Geometry	88,155	83,046	N/A	**88,491**	N/A	N/A	0.62	0.62	0.69	0.57	0.71
	5. Algebra II	42,438	39,797	N/A	N/A	**42,497**	N/A	0.57	0.60	0.68	0.53	0.70
10	**6. Summ. H.S. Mathematics**	3,845	3,514	N/A	N/A	N/A	**3,849**	0.62	0.64	0.71	0.63	0.70
	7. Life Science	224,403	201,375	66,338	86,718	42,173	3,829	**225,771**	0.85	0.76	0.74	0.76
	8. Biology	123,683	118,326	40,935	55,777	16,053	957	121,044	**124,446**	N/A	N/A	N/A
	9. Chemistry	44,776	41,421	2,506	16,821	21,825	2,513	44,484	N/A	**44,866**	N/A	N/A
	10. Earth Science	16,611	15,176	8,401	4,800	863	27	15,841	N/A	N/A	**16,765**	N/A
	11. Physics	3,197	2,660	374	1,380	1,150	168	3,139	N/A	N/A	N/A	**3,212**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**210,465**	0.58	0.78	0.49	0.53	0.49	0.57	0.78	0.66	0.67	0.69
	2. World History	8,345	**8,473**	0.67	0.37	0.41	0.35	0.31	0.60	0.45	0.62	0.50
	3. History–Social Science	205,382	7,547	**206,864**	0.44	0.49	0.45	0.53	0.76	0.66	0.72	0.69
	4. Algebra I	33,518	2,652	32,486	**33,971**	N/A	N/A	N/A	0.48	0.51	0.46	0.56
	5. Geometry	45,791	1,774	45,263	N/A	**46,097**	N/A	N/A	0.55	0.60	0.49	0.62
11	**6. Algebra II**	57,078	856	56,790	N/A	N/A	**57,227**	N/A	0.51	0.60	0.40	0.57
	7. Summ. H.S. Mathematics	31,253	209	31,168	N/A	N/A	N/A	**31,302**	0.60	0.70	0.52	0.67
	8. Biology	44,555	2,257	44,050	9,540	12,057	9,612	6,868	**44,953**	N/A	N/A	N/A
	9. Chemistry	60,186	890	59,977	2,242	11,637	29,803	12,199	N/A	**60,366**	N/A	N/A
	10. Earth Science	21,982	1,122	21,636	7,332	6,163	2,833	860	N/A	N/A	**22,211**	N/A
	11. Physics	17,757	187	17,710	591	2,224	6,324	7,616	N/A	N/A	N/A	**17,816**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**28,780**	0.78					
	2. Mathematics	28,658	**28,829**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**27,743**	0.78					
	2. Mathematics	27,534	**27,798**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**27,942**	0.75					
	2. Mathematics	27,779	**28,093**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**28,308**	0.72	0.79				
	2. Mathematics	28,091	**28,416**	0.71				
	3. Science	28,170	28,311	**30,886**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**28,745**	0.77					
	2. Mathematics	28,460	**28,742**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**29,077**	0.73	0.59				
	2. Mathematics	27,739	**27,971**	N/A				
	3. Algebra I	1,008	N/A	**1,011**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**29,619**	0.79	0.67	0.66	0.52	0.63	0.78
	2. History–Social Science	29,367	**31,633**	0.63	0.62	0.54	0.89	0.77
	3. General Mathematics	11,423	12,789	**12,955**	N/A	N/A	N/A	0.65
	4. Algebra I	17,060	17,135	N/A	**17,229**	N/A	N/A	0.69
	5. Geometry	574	575	N/A	N/A	**575**	N/A	0.64
	6. Algebra II	11	11	N/A	N/A	N/A	**11**	0.85
	7. Science	29,300	31,352	12,754	17,131	574	11	**31,655**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**33,374**	0.77	0.64	0.59	0.68	0.67	–	0.80	0.78	0.72	0.73
	2. World History	2,066	**2,160**	0.54	0.58	0.76	0.76	–	0.81	0.84	0.68	0.70
	3. General Mathematics	4,485	291	**4,979**	N/A	N/A	N/A	N/A	0.63	–	0.61	–
	4. Algebra I	20,514	1,041	N/A	**20,894**	N/A	N/A	N/A	0.61	0.73	0.55	0.60
	5. Geometry	6,080	529	N/A	N/A	**6,140**	N/A	N/A	0.71	0.76	0.67	0.76
9	**6. Algebra II**	777	143	N/A	N/A	N/A	**780**	N/A	0.67	0.90	0.63	0.68
	7. Summ. H.S. Mathematics	9	3	N/A	N/A	N/A	N/A	**9**	–	–	N/A	N/A
	8. Biology	12,060	1,179	820	6,884	3,747	531	5	**12,382**	N/A	N/A	N/A
	9. Chemistry	198	38	9	35	76	81	1	N/A	**209**	N/A	N/A
	10. Earth Science	9,831	250	1,625	7,197	1,016	55	0	N/A	N/A	**10,441**	N/A
	11. Physics	1,072	74	3	562	378	47	0	N/A	N/A	N/A	**1,090**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**33,376**	0.75	0.56	0.62	0.60	0.62	0.78	0.78	0.72	0.73	0.73
	2. World History	28,895	**29,205**	0.51	0.57	0.54	0.60	0.75	0.74	0.69	0.71	0.74
	3. Algebra I	9,509	8,459	**9,661**	N/A	N/A	N/A	0.53	0.52	0.61	0.52	0.66
	4. Geometry	12,528	11,754	N/A	**12,622**	N/A	N/A	0.63	0.64	0.70	0.58	0.70
	5. Algebra II	5,710	5,306	N/A	N/A	**5,726**	N/A	0.60	0.62	0.72	0.62	0.63
10	**6. Summ. H.S. Mathematics**	444	389	N/A	N/A	N/A	**444**	0.65	0.71	0.75	–	0.78
	7. Life Science	31,495	27,882	9,110	12,192	5,646	440	**31,811**	0.84	0.76	0.73	0.75
	8. Biology	17,684	16,805	5,671	7,989	2,267	115	17,113	**17,872**	N/A	N/A	N/A
	9. Chemistry	5,956	5,477	361	2,360	2,833	275	5,884	N/A	**5,979**	N/A	N/A
	10. Earth Science	2,370	2,084	1,245	578	92	2	2,209	N/A	N/A	**2,399**	N/A
	11. Physics	409	327	44	176	149	22	392	N/A	N/A	N/A	**415**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**30,668**	0.56	0.79	0.49	0.56	0.53	0.59	0.79	0.67	0.69	0.73
	2. World History	1,283	**1,320**	0.60	0.35	0.42	0.10	0.36	0.51	0.40	0.56	0.11
	3. History–Social Science	29,513	1,107	**29,880**	0.46	0.53	0.50	0.55	0.78	0.67	0.71	0.73
	4. Algebra I	4,568	395	4,329	**4,677**	N/A	N/A	N/A	0.47	0.49	0.47	0.41
	5. Geometry	6,890	284	6,773	N/A	**6,966**	N/A	N/A	0.58	0.57	0.51	0.64
11	**6. Algebra II**	8,279	148	8,200	N/A	N/A	**8,340**	N/A	0.52	0.61	0.50	0.59
	7. Summ. H.S. Mathematics	3,916	34	3,886	N/A	N/A	N/A	**3,924**	0.60	0.72	0.52	0.72
	8. Biology	6,438	386	6,296	1,367	1,807	1,305	876	**6,526**	N/A	N/A	N/A
	9. Chemistry	8,794	146	8,733	313	1,844	4,417	1,432	N/A	**8,857**	N/A	N/A
	10. Earth Science	2,759	185	2,698	944	710	329	93	N/A	N/A	**2,811**	N/A
	11. Physics	2,571	34	2,563	79	446	877	984	N/A	N/A	N/A	**2,592**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**113,153**	0.74					
	2. Mathematics	112,931	**113,337**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**111,522**	0.75					
	2. Mathematics	111,097	**112,176**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**113,323**	0.72					
	2. Mathematics	112,902	**114,228**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**115,046**	0.71	0.76				
	2. Mathematics	114,441	**115,478**	0.70				
	3. Science	114,753	115,236	**119,527**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**116,629**	0.75					
	2. Mathematics	115,793	**116,608**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**118,958**	0.73	0.50				
	2. Mathematics	107,069	**107,700**	N/A				
	3. Algebra I	10,899	N/A	**10,907**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**123,947**	0.77	0.66	0.64	0.49	0.50	0.76
	2. History–Social Science	123,474	**127,448**	0.64	0.60	0.47	0.53	0.78
	3. General Mathematics	37,875	40,611	**40,946**	N/A	N/A	N/A	0.69
	4. Algebra I	76,203	76,310	N/A	**76,466**	N/A	N/A	0.68
	5. Geometry	8,191	8,180	N/A	N/A	**8,195**	N/A	0.58
	6. Algebra II	209	209	N/A	N/A	N/A	**210**	0.62
	7. Science	123,371	127,007	40,595	76,291	8,180	209	**127,455**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**134,022**	0.74	0.65	0.58	0.59	0.50	0.58	0.73	0.63	0.72	0.70
	2. World History	8,299	**8,417**	0.57	0.58	0.54	0.49	0.68	0.74	0.72	0.72	0.70
	3. General Mathematics	13,785	750	**15,088**	N/A	N/A	N/A	N/A	0.64	–	0.61	0.09
	4. Algebra I	63,956	3,140	N/A	**64,556**	N/A	N/A	N/A	0.61	0.70	0.53	0.66
	5. Geometry	45,314	3,455	N/A	N/A	**45,389**	N/A	N/A	0.62	0.73	0.58	0.72
9	**6. Algebra II**	7,905	826	N/A	N/A	N/A	**7,909**	N/A	0.54	0.63	0.54	0.64
	7. Summ. H.S. Mathematics	172	24	N/A	N/A	N/A	N/A	**172**	0.57	0.48	0.27	–
	8. Biology	60,019	4,447	2,018	20,944	30,876	5,746	113	**60,596**	N/A	N/A	N/A
	9. Chemistry	1,473	114	6	116	797	534	14	N/A	**1,474**	N/A	N/A
	10. Earth Science	40,810	891	6,914	26,319	7,068	528	18	N/A	N/A	**42,018**	N/A
	11. Physics	4,214	360	39	1,296	2,190	571	8	N/A	N/A	N/A	**4,239**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**136,346**	0.71	0.54	0.58	0.52	0.50	0.75	0.75	0.60	0.70	0.64
	2. World History	123,210	**123,699**	0.48	0.52	0.44	0.46	0.73	0.73	0.60	0.72	0.65
	3. Algebra I	27,343	24,889	**27,555**	N/A	N/A	N/A	0.55	0.55	0.59	0.49	0.54
	4. Geometry	46,419	43,592	N/A	**46,545**	N/A	N/A	0.60	0.61	0.67	0.57	0.70
	5. Algebra II	40,972	37,994	N/A	N/A	**41,019**	N/A	0.53	0.56	0.65	0.50	0.63
10	**6. Summ. H.S. Mathematics**	6,854	6,387	N/A	N/A	N/A	**6,856**	0.53	0.56	0.63	0.55	0.59
	7. Life Science	132,555	120,862	26,590	45,839	40,773	6,823	**133,052**	0.85	0.71	0.76	0.73
	8. Biology	65,999	62,505	16,989	28,799	13,409	1,544	64,755	**66,283**	N/A	N/A	N/A
	9. Chemistry	38,588	35,645	839	9,102	23,309	4,597	38,457	N/A	**38,633**	N/A	N/A
	10. Earth Science	9,026	8,107	3,548	3,078	841	61	8,687	N/A	N/A	**9,090**	N/A
	11. Physics	3,077	2,804	172	994	1,435	408	3,050	N/A	N/A	N/A	**3,086**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**133,403**	0.60	0.77	0.53	0.53	0.45	0.55	0.77	0.64	0.70	0.65
	2. World History	2,896	**2,930**	0.63	0.41	0.43	0.16	0.25	0.65	0.46	0.60	0.50
	3. History–Social Science	131,066	2,597	**131,680**	0.49	0.50	0.40	0.50	0.76	0.64	0.75	0.65
	4. Algebra I	12,135	853	11,781	**12,251**	N/A	N/A	N/A	0.56	0.59	0.48	0.60
	5. Geometry	19,108	501	18,898	N/A	**19,192**	N/A	N/A	0.57	0.63	0.53	0.66
11	**6. Algebra II**	36,372	257	36,183	N/A	N/A	**36,442**	N/A	0.47	0.59	0.38	0.57
	7. Summ. H.S. Mathematics	40,696	132	40,542	N/A	N/A	N/A	**40,772**	0.60	0.70	0.46	0.66
	8. Biology	27,997	691	27,778	3,089	4,663	6,366	9,944	**28,128**	N/A	N/A	N/A
	9. Chemistry	37,858	237	37,684	685	4,004	17,401	13,033	N/A	**37,936**	N/A	N/A
	10. Earth Science	11,315	432	11,148	2,612	2,512	1,948	1,477	N/A	N/A	**11,395**	N/A
	11. Physics	16,949	77	16,893	173	912	3,924	11,063	N/A	N/A	N/A	**16,989**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**17,614**	0.77					
	2. Mathematics	17,572	**17,632**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**17,105**	0.77					
	2. Mathematics	17,033	**17,195**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**15,490**	0.74					
	2. Mathematics	15,434	**15,599**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**15,236**	0.73	0.80				
	2. Mathematics	15,150	**15,272**	0.73				
	3. Science	15,195	15,235	**15,859**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**15,095**	0.78					
	2. Mathematics	14,989	**15,102**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**14,694**	0.74	0.53				
	2. Mathematics	13,336	**13,418**	N/A				
	3. Algebra I	1,246	N/A	**1,246**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**15,038**	0.79	0.67	0.64	0.53	0.52	0.79
	2. History–Social Science	14,926	**15,454**	0.65	0.61	0.50	0.48	0.80
	3. General Mathematics	4,705	5,009	**5,086**	N/A	N/A	N/A	0.71
	4. Algebra I	9,036	9,035	N/A	**9,071**	N/A	N/A	0.69
	5. Geometry	974	972	N/A	N/A	**976**	N/A	0.61
	6. Algebra II	52	52	N/A	N/A	N/A	**52**	0.68
	7. Science	14,893	15,358	5,005	9,023	972	52	**15,512**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**15,244**	0.80	0.66	0.57	0.63	0.53	0.47	0.79	0.64	0.75	0.73
	2. World History	1,128	**1,145**	0.51	0.61	0.58	0.46	–	0.80	0.59	0.74	0.79
	3. General Mathematics	2,011	109	**2,148**	N/A	N/A	N/A	N/A	0.71	–	0.59	–
	4. Algebra I	7,763	460	N/A	**7,856**	N/A	N/A	N/A	0.61	0.65	0.55	0.56
	5. Geometry	4,001	413	N/A	N/A	**4,012**	N/A	N/A	0.68	0.69	0.67	0.72
9	**6. Algebra II**	867	104	N/A	N/A	N/A	**871**	N/A	0.59	0.74	0.49	0.67
	7. Summ. H.S. Mathematics	22	6	N/A	N/A	N/A	N/A	**22**	0.30	–	–	–
	8. Biology	6,058	670	249	2,352	2,751	634	17	**6,104**	N/A	N/A	N/A
	9. Chemistry	142	14	3	13	62	64	1	N/A	**147**	N/A	N/A
	10. Earth Science	4,611	132	858	3,006	646	70	1	N/A	N/A	**4,772**	N/A
	11. Physics	468	26	7	243	135	35	1	N/A	N/A	N/A	**472**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**15,338**	0.75	0.51	0.62	0.55	0.52	0.79	0.77	0.67	0.73	0.75
	2. World History	13,193	**13,274**	0.48	0.59	0.49	0.43	0.77	0.75	0.66	0.73	0.76
	3. Algebra I	3,714	3,246	**3,760**	N/A	N/A	N/A	0.52	0.53	0.65	0.52	0.65
	4. Geometry	5,014	4,629	N/A	**5,040**	N/A	N/A	0.65	0.65	0.71	0.63	0.75
	5. Algebra II	3,644	3,271	N/A	N/A	**3,657**	N/A	0.57	0.59	0.72	0.57	0.73
10	**6. Summ. H.S. Mathematics**	786	720	N/A	N/A	N/A	**787**	0.53	0.54	0.66	–	0.75
	7. Life Science	14,638	12,791	3,562	4,918	3,592	781	**14,729**	0.86	0.75	0.77	0.78
	8. Biology	7,349	6,880	2,209	3,124	1,202	171	7,154	**7,403**	N/A	N/A	N/A
	9. Chemistry	3,620	3,250	95	902	2,009	533	3,585	N/A	**3,624**	N/A	N/A
	10. Earth Science	991	843	434	282	72	1	931	N/A	N/A	**1,003**	N/A
	11. Physics	406	355	37	148	160	50	389	N/A	N/A	N/A	**409**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**14,089**	0.60	0.79	0.52	0.56	0.48	0.59	0.80	0.67	0.74	0.72
	2. World History	515	**520**	0.61	0.42	0.49	0.33	0.07	0.68	0.35	0.45	–0.15
	3. History–Social Science	13,637	438	**13,738**	0.50	0.52	0.45	0.54	0.78	0.66	0.76	0.70
	4. Algebra I	1,765	177	1,680	**1,797**	N/A	N/A	N/A	0.56	0.65	0.54	0.48
	5. Geometry	2,341	94	2,289	N/A	**2,361**	N/A	N/A	0.57	0.68	0.51	0.69
11	**6. Algebra II**	3,558	53	3,525	N/A	N/A	**3,574**	N/A	0.41	0.62	0.47	0.63
	7. Summ. H.S. Mathematics	3,485	24	3,463	N/A	N/A	N/A	**3,494**	0.60	0.73	0.54	0.66
	8. Biology	3,021	158	2,958	514	612	632	806	**3,040**	N/A	N/A	N/A
	9. Chemistry	3,729	45	3,702	90	585	1,656	1,102	N/A	**3,741**	N/A	N/A
	10. Earth Science	1,126	65	1,105	315	256	151	132	N/A	N/A	**1,140**	N/A
	11. Physics	1,719	13	1,710	34	153	462	969	N/A	N/A	N/A	**1,724**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	**1. English–Language Arts**	**250,716**	0.77					
	2. Mathematics	250,125	**251,133**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**241,454**	0.78					
	2. Mathematics	240,346	**242,743**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**241,334**	0.75					
	2. Mathematics	240,413	**243,306**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**240,759**	0.74	0.80				
	2. Mathematics	239,484	**241,913**	0.73				
	3. Science	240,107	241,401	**253,344**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**243,431**	0.78					
	2. Mathematics	241,714	**243,598**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**243,569**	0.75	0.56				
	2. Mathematics	222,950	**224,416**	N/A				
	3. Algebra I	18,593	N/A	**18,608**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**248,574**	0.80	0.68	0.67	0.52	0.57	0.79
	2. History–Social Science	247,296	**257,834**	0.65	0.64	0.52	0.57	0.80
	3. General Mathematics	80,995	87,961	**88,844**	N/A	N/A	N/A	0.70
	4. Algebra I	150,410	150,703	N/A	**151,100**	N/A	N/A	0.71
	5. Geometry	13,448	13,438	N/A	N/A	**13,455**	N/A	0.62
	6. Algebra II	391	391	N/A	N/A	N/A	**392**	0.65
	7. Science	246,981	256,618	87,871	150,655	13,435	391	**257,810**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**273,243**	0.79	0.66	0.61	0.64	0.57	0.64	0.78	0.74	0.74	0.74
	2. World History	17,182	**17,516**	0.58	0.63	0.65	0.58	0.60	0.81	0.82	0.76	0.74
	3. General Mathematics	31,164	1,880	**34,164**	N/A	N/A	N/A	N/A	0.66	0.68	0.63	0.35
	4. Algebra I	142,730	6,921	N/A	**144,433**	N/A	N/A	N/A	0.64	0.70	0.56	0.67
	5. Geometry	77,650	6,332	N/A	N/A	**77,857**	N/A	N/A	0.67	0.78	0.63	0.74
9	**6. Algebra II**	13,806	1,707	N/A	N/A	N/A	**13,818**	N/A	0.60	0.74	0.56	0.69
	7. Summ. H.S. Mathematics	326	61	N/A	N/A	N/A	N/A	**326**	0.57	0.75	0.28	0.60
	8. Biology	114,496	9,445	4,883	46,231	52,526	10,102	228	**116,035**	N/A	N/A	N/A
	9. Chemistry	2,692	343	33	277	1,367	976	34	N/A	**2,713**	N/A	N/A
	10. Earth Science	83,285	1,990	13,506	56,835	12,146	897	26	N/A	N/A	**86,394**	N/A
	11. Physics	7,746	598	57	2,896	3,555	864	16	N/A	N/A	N/A	**7,805**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**270,609**	0.75	0.57	0.63	0.56	0.54	0.78	0.78	0.67	0.72	0.71
	2. World History	240,029	**241,310**	0.51	0.57	0.49	0.49	0.76	0.75	0.66	0.73	0.69
	3. Algebra I	63,333	57,031	**63,966**	N/A	N/A	N/A	0.56	0.56	0.61	0.53	0.59
	4. Geometry	92,270	86,595	N/A	**92,591**	N/A	N/A	0.65	0.65	0.72	0.60	0.74
	5. Algebra II	69,209	64,102	N/A	N/A	**69,303**	N/A	0.57	0.60	0.69	0.52	0.66
10	**6. Summ. H.S. Mathematics**	11,303	10,364	N/A	N/A	N/A	**11,309**	0.56	0.60	0.66	0.61	0.64
	7. Life Science	260,876	234,279	61,360	90,794	68,741	11,254	**262,202**	0.86	0.75	0.77	0.77
	8. Biology	132,487	125,703	38,300	57,511	23,134	2,452	129,487	**133,235**	N/A	N/A	N/A
	9. Chemistry	68,472	63,085	2,148	18,086	39,193	7,757	68,097	N/A	**68,568**	N/A	N/A
	10. Earth Science	18,420	16,514	8,163	5,671	1,344	89	17,534	N/A	N/A	**18,581**	N/A
	11. Physics	5,171	4,539	388	1,779	2,214	638	5,080	N/A	N/A	N/A	**5,199**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**255,767**	0.60	0.80	0.54	0.56	0.49	0.58	0.80	0.68	0.72	0.70
	2. World History	7,497	**7,617**	0.64	0.41	0.47	0.24	0.19	0.62	0.40	0.58	0.40
	3. History–Social Science	250,138	6,734	**251,718**	0.51	0.53	0.44	0.53	0.79	0.67	0.76	0.69
	4. Algebra I	29,452	2,365	28,501	**29,877**	N/A	N/A	N/A	0.54	0.59	0.50	0.59
	5. Geometry	42,340	1,344	41,846	N/A	**42,612**	N/A	N/A	0.60	0.65	0.55	0.67
11	**6. Algebra II**	67,181	637	66,799	N/A	N/A	**67,367**	N/A	0.51	0.61	0.43	0.62
	7. Summ. H.S. Mathematics	65,030	243	64,792	N/A	N/A	N/A	**65,143**	0.63	0.73	0.48	0.69
	8. Biology	54,453	1,881	53,890	8,038	10,560	11,751	16,130	**54,829**	N/A	N/A	N/A
	9. Chemistry	71,109	603	70,777	1,690	9,794	33,078	21,318	N/A	**71,313**	N/A	N/A
	10. Earth Science	22,722	1,081	22,381	6,363	5,400	3,331	2,188	N/A	N/A	**22,958**	N/A
	11. Physics	29,121	182	29,027	476	2,234	7,357	17,531	N/A	N/A	N/A	**29,207**

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	**18,691**	0.74					
	2. Mathematics	18,662	**18,679**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**18,816**	0.75					
	2. Mathematics	18,790	**18,854**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**30,453**	0.73					
	2. Mathematics	30,422	**30,552**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**33,550**	0.74	0.78				
	2. Mathematics	33,492	**33,622**	0.73				
	3. Science	33,515	33,591	**34,017**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**36,305**	0.79					
	2. Mathematics	36,229	**36,329**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**32,607**	0.75	0.59				
	2. Mathematics	27,906	**27,969**	N/A				
	3. Algebra I	4,617	N/A	**4,620**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**31,801**	0.80	0.67	0.69	0.55	0.51	0.79
	2. History–Social Science	31,722	**32,120**	0.60	0.66	0.55	0.57	0.81
	3. General Mathematics	6,918	7,153	**7,194**	N/A	N/A	N/A	0.69
	4. Algebra I	21,052	21,057	N/A	**21,091**	N/A	N/A	0.72
	5. Geometry	3,499	3,498	N/A	N/A	**3,499**	N/A	0.64
	6. Algebra II	154	154	N/A	N/A	N/A	**154**	0.62
	7. Science	31,704	32,052	7,148	21,056	3,497	154	**32,110**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**40,649**	0.77	0.62	0.58	0.67	0.59	0.54	0.78	0.73	0.72	0.73
	2. World History	3,309	**3,333**	0.56	0.62	0.67	0.56	0.49	0.77	0.75	0.81	0.75
	3. General Mathematics	2,389	148	**2,532**	N/A	N/A	N/A	N/A	0.61	–	0.61	–
	4. Algebra I	18,428	822	N/A	**18,557**	N/A	N/A	N/A	0.62	0.81	0.53	0.64
	5. Geometry	14,919	1,609	N/A	N/A	**14,933**	N/A	N/A	0.72	0.80	0.65	0.73
9	**6. Algebra II**	4,103	670	N/A	N/A	N/A	**4,103**	N/A	0.62	0.76	0.55	0.76
	7. Summ. H.S. Mathematics	180	31	N/A	N/A	N/A	N/A	**180**	0.60	0.56	0.19	0.06
	8. Biology	20,640	2,075	444	6,490	10,439	3,037	134	**20,731**	N/A	N/A	N/A
	9. Chemistry	649	115	6	40	285	302	13	N/A	**651**	N/A	N/A
	10. Earth Science	9,596	186	915	6,603	1,788	212	12	N/A	N/A	**9,769**	N/A
	11. Physics	1,387	148	2	353	777	217	16	N/A	N/A	N/A	**1,389**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**39,422**	0.74	0.55	0.61	0.59	0.56	0.77	0.77	0.69	0.69	0.71
	2. World History	35,469	**35,569**	0.48	0.55	0.52	0.52	0.75	0.74	0.67	0.74	0.70
	3. Algebra I	6,967	6,445	**7,019**	N/A	N/A	N/A	0.53	0.53	0.66	0.50	0.37
	4. Geometry	12,746	11,997	N/A	**12,771**	N/A	N/A	0.62	0.62	0.72	0.56	0.73
	5. Algebra II	13,478	12,236	N/A	N/A	**13,488**	N/A	0.60	0.64	0.72	0.46	0.65
10	**6. Summ. H.S. Mathematics**	3,598	3,080	N/A	N/A	N/A	**3,599**	0.60	0.62	0.69	0.64	0.61
	7. Life Science	38,723	35,067	6,828	12,622	13,430	3,587	**38,827**	0.86	0.76	0.76	0.78
	8. Biology	18,507	17,362	4,424	7,835	4,444	811	18,319	**18,577**	N/A	N/A	N/A
	9. Chemistry	14,235	12,845	376	3,085	8,085	2,479	14,182	N/A	**14,244**	N/A	N/A
	10. Earth Science	1,822	1,700	868	603	141	13	1,771	N/A	N/A	**1,836**	N/A
	11. Physics	852	734	42	231	356	215	850	N/A	N/A	N/A	**854**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**38,601**	0.67	0.78	0.51	0.53	0.46	0.61	0.80	0.70	0.71	0.68
	2. World History	779	**800**	0.74	0.45	0.58	0.42	0.59	0.71	0.57	0.74	0.74
	3. History–Social Science	38,054	698	**38,194**	0.45	0.48	0.42	0.54	0.77	0.67	0.73	0.67
	4. Algebra I	3,337	227	3,259	**3,385**	N/A	N/A	N/A	0.52	0.50	0.48	0.55
	5. Geometry	5,820	161	5,768	N/A	**5,843**	N/A	N/A	0.57	0.61	0.54	0.66
11	**6. Algebra II**	10,363	101	10,307	N/A	N/A	**10,395**	N/A	0.51	0.62	0.44	0.56
	7. Summ. H.S. Mathematics	14,286	58	14,233	N/A	N/A	N/A	**14,300**	0.68	0.76	0.56	0.72
	8. Biology	9,145	222	9,090	1,022	1,487	1,899	3,982	**9,191**	N/A	N/A	N/A
	9. Chemistry	12,871	118	12,824	290	1,741	5,394	4,779	N/A	**12,896**	N/A	N/A
	10. Earth Science	2,734	109	2,692	747	674	432	352	N/A	N/A	**2,753**	N/A
	11. Physics	5,766	34	5,748	57	316	1,285	3,930	N/A	N/A	N/A	**5,776**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**173,520**	0.77					
	2. Mathematics	173,219	**173,840**					
3	1. English–Language Arts	**148,175**	0.76					
	2. Mathematics	147,691	**149,313**					
4	1. English–Language Arts	**121,463**	0.69					
	2. Mathematics	121,132	**123,041**					
5	1. English–Language Arts	**97,249**	0.62	0.75				
	2. Mathematics	96,871	**98,638**	0.62				
	3. Science	97,080	98,476	**107,553**				
6	1. English–Language Arts	**80,487**	0.68					
	2. Mathematics	80,076	**81,340**					
7	1. English–Language Arts	**76,386**	0.61	0.56				
	2. Mathematics	75,065	**76,101**	N/A				
	3. Algebra I	728	N/A	**737**				
8	1. English–Language Arts	**72,070**	0.70	0.54	0.54	0.41	–	0.67
	2. History–Social Science	71,713	**79,297**	0.50	0.50	0.49	–	0.67
	3. General Mathematics	37,936	43,234	**43,571**	N/A	N/A	N/A	0.54
	4. Algebra I	32,889	33,229	N/A	**33,332**	N/A	N/A	0.62
	5. Geometry	263	264	N/A	N/A	**265**	N/A	0.65
	6. Algebra II	6	6	N/A	N/A	N/A	**6**	–
	7. Science	71,651	78,902	43,231	33,227	265	6	**79,375**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**76,936**	0.67	0.50	0.44	0.58	0.55	0.52	0.72	0.69	0.63	0.64
	2. World History	4,838	**5,004**	0.32	0.43	0.68	0.67	–	0.73	0.46	0.63	0.73
	3. General Mathematics	12,769	630	**14,447**	N/A	N/A	N/A	N/A	0.46	0.06	0.50	0.40
	4. Algebra I	52,719	2,647	N/A	**53,784**	N/A	N/A	N/A	0.53	0.47	0.44	0.61
	5. Geometry	7,949	1,245	N/A	N/A	**8,062**	N/A	N/A	0.67	0.79	0.56	0.73
9	**6. Algebra II**	807	184	N/A	N/A	N/A	**814**	N/A	0.65	0.80	0.51	0.64
	7. Summ. H.S. Mathematics	18	3	N/A	N/A	N/A	N/A	**20**	–	–	–	–
	8. Biology	20,585	2,502	2,128	14,011	4,200	393	5	**21,492**	N/A	N/A	N/A
	9. Chemistry	545	253	19	165	246	98	1	N/A	**555**	N/A	N/A
	10. Earth Science	24,885	452	4,797	18,788	1,667	83	3	N/A	N/A	**26,580**	N/A
	11. Physics	1,169	73	20	812	264	55	2	N/A	N/A	N/A	**1,212**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**71,926**	0.65	0.40	0.47	0.49	0.47	0.68	0.66	0.69	0.60	0.59
	2. World History	61,189	**61,832**	0.37	0.47	0.52	0.54	0.65	0.64	0.68	0.62	0.59
	3. Algebra I	28,685	25,384	**28,987**	N/A	N/A	N/A	0.41	0.42	0.51	0.39	0.54
	4. Geometry	25,001	23,063	N/A	**25,168**	N/A	N/A	0.51	0.51	0.63	0.47	0.67
	5. Algebra II	5,367	4,752	N/A	N/A	**5,384**	N/A	0.55	0.56	0.75	0.40	0.71
10	**6. Summ. H.S. Mathematics**	342	282	N/A	N/A	N/A	**345**	0.58	0.53	0.73	–	0.96
	7. Life Science	67,276	58,355	27,747	24,264	5,289	336	**67,983**	0.75	0.72	0.62	0.64
	8. Biology	39,770	37,678	16,524	16,442	2,590	141	38,362	**40,139**	N/A	N/A	N/A
	9. Chemistry	6,062	5,262	682	3,149	1,801	151	5,966	N/A	**6,091**	N/A	N/A
	10. Earth Science	6,698	6,045	3,716	1,618	176	6	6,301	N/A	N/A	**6,779**	N/A
	11. Physics	747	608	141	371	189	12	727	N/A	N/A	N/A	**752**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**60,901**	0.50	0.67	0.32	0.40	0.36	0.45	0.62	0.57	0.56	0.62
	2. World History	3,602	**3,656**	0.59	0.31	0.43	0.41	0.51	0.59	0.39	0.57	0.53
	3. History–Social Science	58,323	3,048	**59,021**	0.30	0.38	0.35	0.43	0.61	0.58	0.62	0.62
	4. Algebra I	14,649	1,180	14,000	**14,858**	N/A	N/A	N/A	0.38	0.48	0.37	0.50
	5. Geometry	16,037	892	15,729	N/A	**16,189**	N/A	N/A	0.49	0.53	0.42	0.52
11	**6. Algebra II**	12,048	402	11,871	N/A	N/A	**12,107**	N/A	0.42	0.61	0.35	0.60
	7. Summ. H.S. Mathematics	2,763	63	2,715	N/A	N/A	N/A	**2,773**	0.46	0.74	0.64	0.71
	8. Biology	14,105	1,118	13,773	4,215	4,721	2,229	496	**14,283**	N/A	N/A	N/A
	9. Chemistry	11,749	343	11,664	741	3,136	5,557	1,254	N/A	**11,808**	N/A	N/A
	10. Earth Science	8,195	487	8,005	3,132	2,347	778	79	N/A	N/A	**8,304**	N/A
	11. Physics	2,843	55	2,817	205	651	1,178	544	N/A	N/A	N/A	**2,866**

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	**8,541**	0.69					
	2. Mathematics	8,536	**8,539**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**28,404**	0.66					
	2. Mathematics	28,377	**28,393**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**42,980**	0.61					
	2. Mathematics	42,950	**42,983**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**59,290**	0.64	0.70				
	2. Mathematics	59,237	**59,294**	0.63				
	3. Science	59,238	59,256	**59,491**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**75,003**	0.71					
	2. Mathematics	74,909	**75,006**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**87,248**	0.67	0.59				
	2. Mathematics	79,619	**79,729**	N/A				
	3. Algebra I	7,476	N/A	**7,479**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**97,136**	0.74	0.57	0.61	0.58	0.62	0.72
	2. History–Social Science	96,966	**97,527**	0.51	0.57	0.57	0.63	0.74
	3. General Mathematics	22,849	23,190	**23,254**	N/A	N/A	N/A	0.62
	4. Algebra I	67,947	67,913	N/A	**67,996**	N/A	N/A	0.65
	5. Geometry	5,706	5,703	N/A	N/A	**5,710**	N/A	0.66
	6. Algebra II	138	139	N/A	N/A	N/A	**139**	0.66
	7. Science	96,941	97,391	23,165	67,923	5,704	139	**97,502**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**96,487**	0.75	0.54	0.51	0.62	0.63	0.54	0.75	0.76	0.64	0.72
	2. World History	6,226	**6,255**	0.50	0.57	0.69	0.63	0.29	0.81	0.69	0.73	0.71
	3. General Mathematics	5,140	261	**5,283**	N/A	N/A	N/A	N/A	0.55	0.95	0.54	–
	4. Algebra I	50,565	2,167	N/A	**50,794**	N/A	N/A	N/A	0.55	0.67	0.45	0.62
	5. Geometry	33,338	2,793	N/A	N/A	**33,378**	N/A	N/A	0.68	0.81	0.60	0.75
9	**6. Algebra II**	5,969	916	N/A	N/A	N/A	**5,975**	N/A	0.67	0.79	0.57	0.72
	7. Summ. H.S. Mathematics	163	22	N/A	N/A	N/A	N/A	**163**	0.53	0.59	0.22	0.56
	8. Biology	46,296	4,136	1,040	18,762	22,075	4,117	108	**46,500**	N/A	N/A	N/A
	9. Chemistry	1,154	323	11	176	533	416	12	N/A	**1,157**	N/A	N/A
	10. Earth Science	22,505	362	1,836	15,660	4,530	321	15	N/A	N/A	**22,680**	N/A
	11. Physics	3,141	147	2	1,056	1,537	400	18	N/A	N/A	N/A	**3,148**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**97,087**	0.69	0.47	0.56	0.57	0.59	0.73	0.72	0.69	0.65	0.73
	2. World History	89,266	**89,518**	0.39	0.50	0.51	0.54	0.71	0.70	0.66	0.68	0.72
	3. Algebra I	16,510	15,442	**16,621**	N/A	N/A	N/A	0.46	0.45	0.59	0.45	0.62
	4. Geometry	39,441	37,438	N/A	**39,535**	N/A	N/A	0.58	0.57	0.69	0.51	0.75
	5. Algebra II	30,051	27,995	N/A	N/A	**30,079**	N/A	0.58	0.60	0.70	0.51	0.73
10	**6. Summ. H.S. Mathematics**	4,958	4,323	N/A	N/A	N/A	**4,961**	0.62	0.66	0.72	0.60	0.73
	7. Life Science	95,738	88,563	16,266	39,119	29,948	4,949	**96,001**	0.84	0.75	0.72	0.78
	8. Biology	49,767	48,020	10,667	24,686	10,895	1,119	49,385	**49,924**	N/A	N/A	N/A
	9. Chemistry	30,496	27,824	969	8,990	16,530	3,477	30,396	N/A	**30,535**	N/A	N/A
	10. Earth Science	4,136	3,857	1,690	1,585	438	22	4,065	N/A	N/A	**4,149**	N/A
	11. Physics	1,827	1,490	100	730	754	196	1,808	N/A	N/A	N/A	**1,828**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**93,202**	0.47	0.74	0.47	0.48	0.44	0.59	0.75	0.63	0.62	0.67
	2. World History	2,121	**2,138**	0.59	0.37	0.24	0.31	0.21	0.50	0.37	0.53	0.29
	3. History–Social Science	92,154	1,997	**92,441**	0.40	0.44	0.42	0.54	0.74	0.64	0.69	0.66
	4. Algebra I	7,572	522	7,422	**7,646**	N/A	N/A	N/A	0.46	0.47	0.41	0.53
	5. Geometry	16,174	467	16,035	N/A	**16,240**	N/A	N/A	0.50	0.57	0.44	0.59
11	**6. Algebra II**	31,150	348	31,034	N/A	N/A	**31,201**	N/A	0.48	0.60	0.35	0.54
	7. Summ. H.S. Mathematics	27,339	147	27,293	N/A	N/A	N/A	**27,370**	0.67	0.73	0.50	0.71
	8. Biology	18,929	526	18,849	2,096	3,991	4,925	6,166	**19,005**	N/A	N/A	N/A
	9. Chemistry	35,721	387	35,633	856	5,206	17,282	10,384	N/A	**35,794**	N/A	N/A
	10. Earth Science	6,541	234	6,489	1,513	1,878	1,290	725	N/A	N/A	**6,571**	N/A
	11. Physics	12,628	89	12,605	195	934	3,737	7,277	N/A	N/A	N/A	**12,644**

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**	**610**	0.79					
	2. Mathematics	604	**615**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**601**	0.79					
	2. Mathematics	587	**635**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**466**	0.76					
	2. Mathematics	462	**470**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**446**	0.70	0.85				
	2. Mathematics	442	**452**	0.72				
	3. Science	444	448	**489**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**482**	0.74					
	2. Mathematics	473	**476**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**711**	0.72	0.72				
	2. Mathematics	670	**679**	N/A				
	3. Algebra I	30	N/A	**30**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**740**	0.79	0.64	0.55	–	N/A	0.78
	2. History–Social Science	725	**905**	0.61	0.55	–	N/A	0.76
	3. General Mathematics	373	461	**476**	N/A	N/A	N/A	0.58
	4. Algebra I	324	330	N/A	**338**	N/A	N/A	0.61
	5. Geometry	8	8	N/A	N/A	**9**	N/A	–
	6. Algebra II	0	0	N/A	N/A	N/A	**0**	N/A
	7. Science	722	874	447	334	8	0	**977**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**891**	0.84	0.57	0.52	0.60	0.77	N/A	0.81	–	0.78	–
	2. World History	68	**72**	–	0.47	–	–	N/A	0.85	N/A	0.65	–
	3. General Mathematics	194	9	**205**	N/A	N/A	N/A	N/A	0.82	N/A	0.50	N/A
	4. Algebra I	510	43	N/A	**522**	N/A	N/A	N/A	0.51	N/A	0.53	–
	5. Geometry	102	9	N/A	N/A	**103**	N/A	N/A	0.71	–	0.73	–
9	**6. Algebra II**	15	4	N/A	N/A	N/A	**15**	N/A	–	–	N/A	N/A
	7. Summ. H.S. Mathematics	0	0	N/A	N/A	N/A	N/A	**0**	N/A	N/A	N/A	N/A
	8. Biology	253	38	15	160	62	10	0	**264**	N/A	N/A	N/A
	9. Chemistry	6	0	0	0	4	2	0	N/A	**6**	N/A	N/A
	10. Earth Science	241	12	44	186	11	0	0	N/A	N/A	**262**	N/A
	11. Physics	9	1	0	4	1	0	0	N/A	N/A	N/A	**9**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**881**	0.78	0.39	0.56	0.46	0.55	0.78	0.76	0.72	0.69	–
	2. World History	665	**684**	0.39	0.57	0.47	0.58	0.77	0.75	0.70	0.78	–
	3. Algebra I	302	253	**313**	N/A	N/A	N/A	0.39	0.52	–	0.32	–
	4. Geometry	236	218	N/A	**247**	N/A	N/A	0.63	0.63	0.61	0.66	N/A
	5. Algebra II	82	72	N/A	N/A	**83**	N/A	0.61	0.47	0.76	–	–
10	**6. Summ. H.S. Mathematics**	11	11	N/A	N/A	N/A	**11**	0.73	–	–	N/A	N/A
	7. Life Science	807	624	281	227	80	11	**823**	0.83	0.81	0.77	–
	8. Biology	364	336	160	133	35	2	346	**381**	N/A	N/A	N/A
	9. Chemistry	82	79	3	39	31	6	78	N/A	**83**	N/A	N/A
	10. Earth Science	76	65	42	20	2	0	70	N/A	N/A	**77**	N/A
	11. Physics	5	5	2	0	3	0	5	N/A	N/A	N/A	**5**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**669**	0.50	0.78	0.52	0.56	0.36	0.36	0.76	0.57	0.69	0.66
	2. World History	46	**46**	0.45	0.57	–	–	–	0.30	–	–	N/A
	3. History–Social Science	613	37	**641**	0.47	0.57	0.44	0.27	0.79	0.68	0.79	0.51
	4. Algebra I	143	16	132	**149**	N/A	N/A	N/A	0.45	–	0.50	–
	5. Geometry	102	7	99	N/A	**105**	N/A	N/A	0.36	0.54	–	–
11	**6. Algebra II**	136	7	129	N/A	N/A	**137**	N/A	0.56	0.56	–	0.75
	7. Summ. H.S. Mathematics	62	3	59	N/A	N/A	N/A	**62**	0.38	–	–	0.71
	8. Biology	145	12	139	43	27	33	12	**151**	N/A	N/A	N/A
	9. Chemistry	94	3	92	3	25	46	10	N/A	**95**	N/A	N/A
	10. Earth Science	65	6	59	23	9	7	3	N/A	N/A	**67**	N/A
	11. Physics	41	0	41	2	2	11	19	N/A	N/A	N/A	**41**

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	**177,560**	0.75					
	2. Mathematics	177,294	**177,759**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**174,322**	0.75					
	2. Mathematics	173,760	**174,964**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**177,966**	0.71					
	2. Mathematics	177,466	**179,066**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**177,395**	0.72	0.77				
	2. Mathematics	176,700	**178,044**	0.71				
	3. Science	177,090	177,786	**182,963**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**183,270**	0.76					
	2. Mathematics	182,319	**183,323**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**190,120**	0.73	0.52				
	2. Mathematics	167,519	**168,300**	N/A				
	3. Algebra I	21,441	N/A	**21,453**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**197,500**	0.78	0.66	0.64	0.50	0.53	0.77
	2. History–Social Science	196,864	**201,873**	0.63	0.61	0.51	0.56	0.79
	3. General Mathematics	53,182	56,509	**56,889**	N/A	N/A	N/A	0.70
	4. Algebra I	125,177	125,299	N/A	**125,527**	N/A	N/A	0.69
	5. Geometry	16,633	16,620	N/A	N/A	**16,641**	N/A	0.60
	6. Algebra II	567	568	N/A	N/A	N/A	**569**	0.62
	7. Science	196,697	201,269	56,440	125,266	16,619	568	**201,802**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**227,701**	0.77	0.65	0.59	0.61	0.52	0.57	0.77	0.70	0.73	0.72
	2. World History	16,578	**16,799**	0.59	0.61	0.60	0.52	0.51	0.78	0.77	0.75	0.70
	3. General Mathematics	18,853	1,024	**20,498**	N/A	N/A	N/A	N/A	0.66	0.83	0.61	0.28
	4. Algebra I	108,314	5,756	N/A	**109,360**	N/A	N/A	N/A	0.63	0.67	0.54	0.65
	5. Geometry	77,865	7,094	N/A	N/A	**77,990**	N/A	N/A	0.66	0.76	0.59	0.72
9	**6. Algebra II**	17,220	2,391	N/A	N/A	N/A	**17,229**	N/A	0.58	0.70	0.50	0.68
	7. Summ. H.S. Mathematics	555	101	N/A	N/A	N/A	N/A	**555**	0.55	0.59	0.06	0.46
	8. Biology	109,309	9,844	3,219	37,945	54,392	12,813	384	**110,254**	N/A	N/A	N/A
	9. Chemistry	2,958	348	15	235	1,411	1,239	48	N/A	**2,966**	N/A	N/A
	10. Earth Science	60,511	1,314	8,650	40,209	10,529	987	43	N/A	N/A	**62,138**	N/A
	11. Physics	7,259	611	38	2,184	3,690	1,077	50	N/A	N/A	N/A	**7,297**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**229,194**	0.73	0.55	0.60	0.53	0.50	0.77	0.77	0.65	0.71	0.68
	2. World History	205,626	**206,410**	0.49	0.55	0.47	0.47	0.75	0.74	0.64	0.73	0.68
	3. Algebra I	43,490	39,586	**43,872**	N/A	N/A	N/A	0.55	0.54	0.62	0.52	0.56
	4. Geometry	77,308	72,278	N/A	**77,526**	N/A	N/A	0.63	0.63	0.72	0.58	0.73
	5. Algebra II	71,893	65,720	N/A	N/A	**71,971**	N/A	0.55	0.58	0.68	0.48	0.64
10	**6. Summ. H.S. Mathematics**	15,008	13,419	N/A	N/A	N/A	**15,018**	0.54	0.58	0.65	0.51	0.61
	7. Life Science	223,213	202,102	42,354	76,337	71,529	14,959	**224,058**	0.86	0.74	0.77	0.75
	8. Biology	107,861	101,695	26,960	47,255	22,898	3,174	106,028	**108,358**	N/A	N/A	N/A
	9. Chemistry	72,518	65,937	1,795	16,585	42,418	10,515	72,232	N/A	**72,585**	N/A	N/A
	10. Earth Science	13,576	12,296	5,541	4,622	1,223	80	13,059	N/A	N/A	**13,671**	N/A
	11. Physics	5,149	4,469	281	1,594	2,309	843	5,085	N/A	N/A	N/A	**5,167**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**224,246**	0.57	0.78	0.52	0.54	0.46	0.56	0.79	0.67	0.71	0.67
	2. World History	4,778	**4,833**	0.63	0.39	0.46	0.22	0.17	0.61	0.34	0.58	0.39
	3. History–Social Science	220,344	4,219	**221,375**	0.47	0.51	0.41	0.51	0.78	0.66	0.75	0.67
	4. Algebra I	19,979	1,359	19,429	**20,262**	N/A	N/A	N/A	0.53	0.61	0.50	0.61
	5. Geometry	33,423	949	33,058	N/A	**33,612**	N/A	N/A	0.59	0.64	0.54	0.66
11	**6. Algebra II**	61,282	508	60,906	N/A	N/A	**61,418**	N/A	0.48	0.61	0.38	0.60
	7. Summ. H.S. Mathematics	73,172	251	72,918	N/A	N/A	N/A	**73,293**	0.63	0.72	0.46	0.68
	8. Biology	49,771	1,200	49,353	5,376	8,474	11,026	19,034	**50,026**	N/A	N/A	N/A
	9. Chemistry	67,285	477	66,995	1,317	8,041	30,090	23,526	N/A	**67,435**	N/A	N/A
	10. Earth Science	17,354	674	17,165	4,098	4,089	2,982	2,345	N/A	N/A	**17,523**	N/A
	11. Physics	30,567	136	30,470	321	1,741	6,969	20,200	N/A	N/A	N/A	**30,632**

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

Grade	CST	1.	2.	3.	4.	5.	6.	7.
2	1. English–Language Arts	**273,639**	0.76					
	2. Mathematics	272,983	**274,165**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**262,310**	0.76					
	2. Mathematics	261,240	**264,111**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**258,115**	0.73					
	2. Mathematics	257,305	**260,660**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**253,289**	0.70	0.79				
	2. Mathematics	252,226	**255,250**	0.68				
	3. Science	252,690	254,771	**271,243**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**251,719**	0.75					
	2. Mathematics	250,379	**252,714**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**249,473**	0.72	0.53				
	2. Mathematics	237,816	**239,702**	N/A				
	3. Algebra I	9,971	N/A	**9,988**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**251,873**	0.78	0.64	0.62	0.53	0.65	0.77
	2. History–Social Science	250,640	**264,678**	0.60	0.58	0.52	0.67	0.77
	3. General Mathematics	95,376	104,879	**105,810**	N/A	N/A	N/A	0.64
	4. Algebra I	147,071	147,555	N/A	**147,936**	N/A	N/A	0.66
	5. Geometry	6,281	6,281	N/A	N/A	**6,285**	N/A	0.63
	6. Algebra II	122	122	N/A	N/A	N/A	**122**	0.71
	7. Science	250,384	263,477	104,822	147,543	6,280	122	**264,758**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**259,471**	0.78	0.62	0.56	0.63	0.61	0.58	0.79	0.78	0.72	0.73
	2. World History	14,942	**15,268**	0.52	0.58	0.73	0.70	0.73	0.83	0.66	0.75	0.78
	3. General Mathematics	32,557	1,856	**35,866**	N/A	N/A	N/A	N/A	0.61	0.65	0.60	0.26
	4. Algebra I	156,096	6,803	N/A	**158,172**	N/A	N/A	N/A	0.60	0.69	0.52	0.65
	5. Geometry	55,979	4,886	N/A	N/A	**56,228**	N/A	N/A	0.68	0.81	0.64	0.75
9	**6. Algebra II**	7,464	1,088	N/A	N/A	N/A	**7,480**	N/A	0.66	0.80	0.57	0.70
	7. Summ. H.S. Mathematics	132	16	N/A	N/A	N/A	N/A	**134**	0.56	0.83	0.63	–
	8. Biology	92,682	8,313	5,268	47,534	34,849	4,835	91	**94,475**	N/A	N/A	N/A
	9. Chemistry	2,079	686	53	423	1,018	553	12	N/A	**2,107**	N/A	N/A
	10. Earth Science	79,701	1,653	12,361	57,681	9,594	526	13	N/A	N/A	**83,220**	N/A
	11. Physics	6,175	356	43	2,925	2,442	459	2	N/A	N/A	N/A	**6,248**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**249,612**	0.74	0.51	0.59	0.56	0.58	0.78	0.77	0.71	0.71	0.73
	2. World History	220,108	**221,601**	0.46	0.55	0.52	0.53	0.75	0.74	0.68	0.71	0.71
	3. Algebra I	71,890	64,622	**72,609**	N/A	N/A	N/A	0.51	0.51	0.62	0.47	0.59
	4. Geometry	92,096	86,769	N/A	**92,487**	N/A	N/A	0.61	0.61	0.69	0.57	0.72
	5. Algebra II	46,198	43,349	N/A	N/A	**46,267**	N/A	0.57	0.60	0.69	0.51	0.73
10	**6. Summ. H.S. Mathematics**	5,193	4,630	N/A	N/A	N/A	**5,196**	0.61	0.63	0.71	0.63	0.70
	7. Life Science	239,212	213,963	69,746	90,412	45,864	5,167	**240,763**	0.85	0.76	0.74	0.77
	8. Biology	132,507	126,925	42,892	59,168	18,154	1,348	129,367	**133,356**	N/A	N/A	N/A
	9. Chemistry	46,743	43,078	2,376	16,727	23,189	3,350	46,403	N/A	**46,850**	N/A	N/A
	10. Earth Science	17,472	15,794	8,889	4,849	876	50	16,591	N/A	N/A	**17,645**	N/A
	11. Physics	3,442	2,898	391	1,513	1,202	218	3,374	N/A	N/A	N/A	**3,459**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**223,990**	0.59	0.79	0.48	0.52	0.46	0.56	0.78	0.66	0.68	0.70
	2. World History	9,202	**9,359**	0.66	0.39	0.38	0.36	0.40	0.61	0.50	0.60	0.51
	3. History–Social Science	218,117	8,242	**219,791**	0.44	0.49	0.44	0.53	0.77	0.66	0.72	0.70
	4. Algebra I	34,992	2,933	33,715	**35,462**	N/A	N/A	N/A	0.48	0.52	0.45	0.54
	5. Geometry	46,878	1,900	46,256	N/A	**47,196**	N/A	N/A	0.54	0.60	0.49	0.64
11	**6. Algebra II**	59,436	982	59,078	N/A	N/A	**59,626**	N/A	0.48	0.61	0.42	0.57
	7. Summ. H.S. Mathematics	36,237	262	36,106	N/A	N/A	N/A	**36,284**	0.61	0.72	0.52	0.68
	8. Biology	46,821	2,543	46,211	9,985	12,265	9,786	7,739	**47,240**	N/A	N/A	N/A
	9. Chemistry	64,136	973	63,872	2,256	11,836	31,201	14,204	N/A	**64,346**	N/A	N/A
	10. Earth Science	22,818	1,234	22,381	7,643	6,204	2,849	999	N/A	N/A	**23,043**	N/A
	11. Physics	19,788	224	19,723	613	2,388	6,588	9,080	N/A	N/A	N/A	**19,856**

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**	**879**	0.79					
	2. Mathematics	869	**882**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**818**	0.82					
	2. Mathematics	791	**863**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**615**	0.77					
	2. Mathematics	608	**626**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**610**	0.72	0.84				
	2. Mathematics	600	**625**	0.73				
	3. Science	604	615	**688**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**719**	0.76					
	2. Mathematics	703	**712**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**928**	0.72	0.65				
	2. Mathematics	875	**892**	N/A				
	3. Algebra I	32	N/A	**33**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**948**	0.79	0.69	0.58	–	N/A	0.78
	2. History–Social Science	918	**1,132**	0.67	0.57	–	N/A	0.75
	3. General Mathematics	513	611	**640**	N/A	N/A	N/A	0.63
	4. Algebra I	374	378	N/A	**394**	N/A	N/A	0.63
	5. Geometry	10	10	N/A	N/A	**12**	N/A	–
	6. Algebra II	0	0	N/A	N/A	N/A	**0**	N/A
	7. Science	918	1,091	600	386	10	0	**1,214**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**1,034**	0.72	0.63	0.59	0.62	0.67	N/A	0.82	–	0.79	0.72
	2. World History	103	**113**	0.58	0.60	–	–	N/A	0.91	N/A	0.39	N/A
	3. General Mathematics	246	48	**267**	N/A	N/A	N/A	N/A	0.77	–	0.55	N/A
	4. Algebra I	542	41	N/A	**558**	N/A	N/A	N/A	0.62	N/A	0.60	0.82
	5. Geometry	114	8	N/A	N/A	**115**	N/A	N/A	0.57	–	0.75	–
9	**6. Algebra II**	16	2	N/A	N/A	N/A	**16**	N/A	0.84	–	N/A	N/A
	7. Summ. H.S. Mathematics	0	0	N/A	N/A	N/A	N/A	**0**	N/A	N/A	N/A	N/A
	8. Biology	279	39	23	175	61	11	0	**293**	N/A	N/A	N/A
	9. Chemistry	9	0	1	0	6	2	0	N/A	**9**	N/A	N/A
	10. Earth Science	300	35	87	182	19	0	0	N/A	N/A	**327**	N/A
	11. Physics	18	0	0	12	2	0	0	N/A	N/A	N/A	**18**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**1,119**	0.78	0.49	0.59	0.46	0.60	0.78	0.78	0.73	0.64	0.76
	2. World History	884	**902**	0.51	0.53	0.44	0.76	0.76	0.77	0.68	0.65	–
	3. Algebra I	417	347	**425**	N/A	N/A	N/A	0.51	0.57	–	0.28	–
	4. Geometry	290	264	N/A	**299**	N/A	N/A	0.65	0.64	0.55	0.72	–
	5. Algebra II	96	88	N/A	N/A	**99**	N/A	0.54	0.41	0.70	–	–
10	**6. Summ. H.S. Mathematics**	11	11	N/A	N/A	N/A	**11**	0.72	–	–	N/A	N/A
	7. Life Science	995	823	382	277	95	11	**1,015**	0.85	0.77	0.74	0.94
	8. Biology	527	479	223	184	46	3	504	**542**	N/A	N/A	N/A
	9. Chemistry	86	80	7	37	33	5	84	N/A	**86**	N/A	N/A
	10. Earth Science	104	91	49	26	2	0	91	N/A	N/A	**106**	N/A
	11. Physics	11	9	1	4	5	0	11	N/A	N/A	N/A	**12**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**904**	0.77	0.79	0.41	0.66	0.40	0.50	0.78	0.63	0.70	0.71
	2. World History	65	**65**	0.77	0.09	0.75	–	–	0.82	–	–	N/A
	3. History–Social Science	821	53	**849**	0.37	0.57	0.43	0.44	0.75	0.65	0.79	0.54
	4. Algebra I	182	18	170	**191**	N/A	N/A	N/A	0.51	–	0.42	–
	5. Geometry	172	22	163	N/A	**181**	N/A	N/A	0.67	0.76	0.51	–
11	**6. Algebra II**	160	5	156	N/A	N/A	**163**	N/A	0.36	0.48	–	0.73
	7. Summ. H.S. Mathematics	71	1	68	N/A	N/A	N/A	**71**	0.46	0.66	–	0.67
	8. Biology	185	16	177	53	47	25	13	**193**	N/A	N/A	N/A
	9. Chemistry	123	4	123	7	25	66	15	N/A	**125**	N/A	N/A
	10. Earth Science	85	9	80	37	15	7	3	N/A	N/A	**87**	N/A
	11. Physics	44	0	45	1	8	11	21	N/A	N/A	N/A	**46**

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**	**417,393**	0.77					
	2. Mathematics	416,642	**417,171**					
Grade	**CST**	**1.**	**2.**					
3	**1. English–Language Arts**	**410,378**	0.78					
	2. Mathematics	409,582	**410,353**					
Grade	**CST**	**1.**	**2.**					
4	**1. English–Language Arts**	**411,916**	0.74					
	2. Mathematics	411,374	**411,932**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	**1. English–Language Arts**	**407,164**	0.73	0.81				
	2. Mathematics	406,608	**407,074**	0.73				
	3. Science	406,358	406,439	**407,880**				
Grade	**CST**	**1.**	**2.**					
6	**1. English–Language Arts**	**411,520**	0.78					
	2. Mathematics	410,872	**411,255**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	**1. English–Language Arts**	**416,393**	0.75	0.57				
	2. Mathematics	384,489	**384,975**	N/A				
	3. Algebra I	31,039	N/A	**31,053**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	**1. English–Language Arts**	**425,011**	0.81	0.66	0.66	0.54	0.56	0.79
	2. History–Social Science	423,412	**424,626**	0.61	0.63	0.54	0.59	0.81
	3. General Mathematics	133,512	133,563	**134,319**	N/A	N/A	N/A	0.70
	4. Algebra I	264,367	264,111	N/A	**264,666**	N/A	N/A	0.70
	5. Geometry	22,710	22,695	N/A	N/A	**22,721**	N/A	0.63
	6. Algebra II	678	679	N/A	N/A	N/A	**680**	0.65
	7. Science	423,077	423,425	133,399	264,072	22,693	679	**424,294**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**456,329**	0.80	0.63	0.58	0.66	0.59	0.60	0.80	0.78	0.73	0.75
	2. World History	29,238	**29,397**	0.55	0.63	0.71	0.62	0.56	0.83	0.80	0.76	0.78
	3. General Mathematics	41,325	2,173	**41,861**	N/A	N/A	N/A	N/A	0.62	0.72	0.59	0.18
	4. Algebra I	248,914	11,410	N/A	**250,095**	N/A	N/A	N/A	0.63	0.71	0.54	0.66
	5. Geometry	131,821	11,612	N/A	N/A	**131,991**	N/A	N/A	0.70	0.83	0.64	0.75
9	**6. Algebra II**	24,474	3,456	N/A	N/A	N/A	**24,495**	N/A	0.62	0.78	0.54	0.70
	7. Summ. H.S. Mathematics	676	116	N/A	N/A	N/A	N/A	**677**	0.57	0.66	0.25	0.52
	8. Biology	194,936	17,174	6,157	81,283	88,079	17,525	468	**195,461**	N/A	N/A	N/A
	9. Chemistry	4,902	980	52	621	2,377	1,765	59	N/A	**4,920**	N/A	N/A
	10. Earth Science	129,835	2,545	15,523	91,675	19,666	1,489	55	N/A	N/A	**130,491**	N/A
	11. Physics	13,038	937	66	4,850	6,036	1,523	52	N/A	N/A	N/A	**13,070**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**440,884**	0.75	0.53	0.61	0.57	0.55	0.79	0.78	0.70	0.71	0.73
	2. World History	393,872	**395,240**	0.48	0.56	0.51	0.51	0.76	0.75	0.68	0.72	0.72
	3. Algebra I	102,240	92,432	**103,055**	N/A	N/A	N/A	0.53	0.53	0.63	0.49	0.58
	4. Geometry	160,580	150,994	N/A	**161,042**	N/A	N/A	0.63	0.63	0.72	0.58	0.74
	5. Algebra II	116,591	107,688	N/A	N/A	**116,728**	N/A	0.58	0.60	0.70	0.50	0.69
10	**6. Summ. H.S. Mathematics**	20,088	17,953	N/A	N/A	N/A	**20,100**	0.59	0.61	0.69	0.58	0.66
	7. Life Science	432,110	389,686	99,900	158,935	115,954	20,021	**433,614**	0.86	0.77	0.76	0.79
	8. Biology	221,490	210,740	62,480	100,920	40,372	4,488	219,286	**222,330**	N/A	N/A	N/A
	9. Chemistry	117,332	107,312	3,984	32,367	65,058	13,804	116,799	N/A	**117,470**	N/A	N/A
	10. Earth Science	26,438	24,022	12,419	8,681	2,030	127	25,859	N/A	N/A	**26,591**	N/A
	11. Physics	8,320	7,174	612	2,988	3,466	1,054	8,213	N/A	N/A	N/A	**8,349**
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
	1. English–Language Arts	**414,627**	0.58	0.79	0.48	0.53	0.47	0.59	0.80	0.69	0.70	0.71
	2. World History	12,465	**12,628**	0.65	0.40	0.41	0.31	0.26	0.61	0.43	0.61	0.45
	3. History–Social Science	406,555	11,242	**408,343**	0.45	0.50	0.44	0.54	0.79	0.68	0.74	0.70
	4. Algebra I	47,160	3,765	45,609	**47,736**	N/A	N/A	N/A	0.50	0.56	0.47	0.58
	5. Geometry	73,736	2,615	72,822	N/A	**74,126**	N/A	N/A	0.56	0.62	0.51	0.65
11	**6. Algebra II**	117,322	1,421	116,603	N/A	N/A	**117,612**	N/A	0.49	0.62	0.41	0.60
	7. Summ. H.S. Mathematics	108,572	501	108,192	N/A	N/A	N/A	**108,732**	0.65	0.74	0.49	0.70
	8. Biology	89,747	3,330	88,847	13,426	19,041	20,189	26,605	**90,241**	N/A	N/A	N/A
	9. Chemistry	127,808	1,365	127,260	3,321	18,973	59,913	37,408	N/A	**128,104**	N/A	N/A
	10. Earth Science	35,155	1,654	34,604	10,078	9,285	5,525	3,306	N/A	N/A	**35,412**	N/A
	11. Physics	49,385	332	49,221	863	3,889	13,259	29,131	N/A	N/A	N/A	**49,495**

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	**34,656**	0.81					
	2. Mathematics	34,475	**35,602**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**27,034**	0.81					
	2. Mathematics	26,180	**29,538**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**24,766**	0.77					
	2. Mathematics	23,991	**28,399**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**24,113**	0.75	0.82				
	2. Mathematics	22,902	**26,825**	0.70				
	3. Science	24,009	26,714	**46,972**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**24,175**	0.78					
	2. Mathematics	22,516	**25,477**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**24,111**	0.73	0.65				
	2. Mathematics	21,708	**23,900**	N/A				
	3. Algebra I	405	N/A	**421**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**25,293**	0.80	0.62	0.68	0.58	0.91	0.78
	2. History–Social Science	24,994	**43,006**	0.58	0.66	0.58	0.80	0.68
	3. General Mathematics	15,549	28,402	**28,983**	N/A	N/A	N/A	0.54
	4. Algebra I	8,252	9,117	N/A	**9,183**	N/A	N/A	0.72
	5. Geometry	214	216	N/A	N/A	**217**	N/A	0.68
	6. Algebra II	11	11	N/A	N/A	N/A	**11**	0.80
	7. Science	24,906	42,366	28,430	9,115	216	11	**43,427**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**31,859**	0.76	0.61	0.56	0.77	0.77	0.86	0.83	0.85	0.75	0.76
	2. World History	2,383	**2,780**	0.58	0.57	0.79	0.83	–	0.79	0.65	0.66	0.79
	3. General Mathematics	10,324	755	**14,759**	N/A	N/A	N/A	N/A	0.57	0.56	0.60	0.74
	4. Algebra I	16,028	1,188	N/A	**17,983**	N/A	N/A	N/A	0.65	0.32	0.54	0.60
	5. Geometry	2,137	376	N/A	N/A	**2,342**	N/A	N/A	0.81	0.81	0.75	0.74
9	**6. Algebra II**	226	25	N/A	N/A	N/A	**230**	N/A	0.75	0.84	0.71	0.86
	7. Summ. H.S. Mathematics	11	1	N/A	N/A	N/A	N/A	**11**	–	–	–	N/A
	8. Biology	7,333	1,022	2,352	4,369	1,223	134	7	**9,558**	N/A	N/A	N/A
	9. Chemistry	144	54	17	37	58	29	1	N/A	**162**	N/A	N/A
	10. Earth Science	10,669	455	5,569	6,393	476	24	1	N/A	N/A	**15,183**	N/A
	11. Physics	414	30	15	271	98	13	0	N/A	N/A	N/A	**493**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**39,020**	0.74	0.48	0.65	0.64	0.77	0.76	0.75	0.80	0.69	0.79
	2. World History	32,730	**33,656**	0.44	0.60	0.60	0.82	0.75	0.74	0.78	0.71	0.77
	3. Algebra I	13,548	12,116	**13,842**	N/A	N/A	N/A	0.49	0.49	0.53	0.45	0.45
	4. Geometry	9,111	8,314	N/A	**9,267**	N/A	N/A	0.68	0.66	0.78	0.61	0.77
	5. Algebra II	1,595	1,467	N/A	N/A	**1,607**	N/A	0.66	0.67	0.75	0.56	0.80
10	**6. Summ. H.S. Mathematics**	124	107	N/A	N/A	N/A	**125**	0.78	0.90	0.83	–	–
	7. Life Science	31,291	27,187	12,573	8,088	1,532	116	**32,202**	0.83	0.84	0.72	0.81
	8. Biology	19,399	18,353	7,592	5,687	724	37	16,607	**19,919**	N/A	N/A	N/A
	9. Chemistry	2,015	1,783	194	982	582	66	1,920	N/A	**2,051**	N/A	N/A
	10. Earth Science	4,712	4,157	2,059	816	71	3	3,880	N/A	N/A	**4,829**	N/A
	11. Physics	282	202	61	123	50	7	257	N/A	N/A	N/A	**289**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**34,504**	0.54	0.76	0.41	0.54	0.54	0.71	0.74	0.71	0.67	0.77
	2. World History	1,580	**1,628**	0.59	0.20	0.40	0.17	0.85	0.53	0.21	0.41	0.54
	3. History–Social Science	32,719	1,271	**33,662**	0.39	0.52	0.53	0.65	0.74	0.72	0.70	0.77
	4. Algebra I	7,992	544	7,703	**8,177**	N/A	N/A	N/A	0.43	0.52	0.40	0.54
	5. Geometry	6,737	256	6,655	N/A	**6,863**	N/A	N/A	0.59	0.68	0.52	0.64
11	**6. Algebra II**	3,556	74	3,537	N/A	N/A	**3,595**	N/A	0.56	0.69	0.56	0.65
	7. Summ. H.S. Mathematics	907	13	899	N/A	N/A	N/A	**915**	0.70	0.81	0.78	0.74
	8. Biology	7,030	428	6,893	1,987	1,745	648	181	**7,217**	N/A	N/A	N/A
	9. Chemistry	3,736	89	3,730	259	929	1,444	337	N/A	**3,802**	N/A	N/A
	10. Earth Science	5,100	263	5,020	1,699	1,023	313	41	N/A	N/A	**5,239**	N/A
	11. Physics	1,014	28	1,017	72	248	309	170	N/A	N/A	N/A	**1,039**

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	**29**	0.77					
	2. Mathematics	29	**33**					
Grade	**CST**	**1.**	**2.**					
3	1. English–Language Arts	**38**	0.86					
	2. Mathematics	29	**47**					
Grade	**CST**	**1.**	**2.**					
4	1. English–Language Arts	**14**	0.78					
	2. Mathematics	14	**21**					
Grade	**CST**	**1.**	**2.**	**3.**				
5	1. English–Language Arts	**17**	0.80	0.87				
	2. Mathematics	16	**20**	0.74				
	3. Science	17	19	**42**				
Grade	**CST**	**1.**	**2.**					
6	1. English–Language Arts	**13**	0.74					
	2. Mathematics	13	**17**					
Grade	**CST**	**1.**	**2.**	**3.**				
7	1. English–Language Arts	**17**	0.62	N/A				
	2. Mathematics	13	**19**	N/A				
	3. Algebra I	0	N/A	**0**				
Grade	**CST**	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
8	1. English–Language Arts	**17**	0.89	–	–	N/A	N/A	0.87
	2. History–Social Science	16	**51**	0.77	–	N/A	N/A	0.61
	3. General Mathematics	10	34	**37**	N/A	N/A	N/A	0.63
	4. Algebra I	3	4	N/A	**8**	N/A	N/A	–
	5. Geometry	0	0	N/A	N/A	**0**	N/A	N/A
	6. Algebra II	0	0	N/A	N/A	N/A	**0**	N/A
	7. Science	16	46	33	8	0	0	**53**

Grade	CST	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	1. English–Language Arts	**18**	–	–	–	N/A	N/A	N/A	–	N/A	–	N/A
	2. World History	2	**3**	N/A	–	N/A	N/A	N/A	N/A	N/A	–	N/A
	3. General Mathematics	7	0	**11**	N/A	N/A	N/A	N/A	–	N/A	–	N/A
	4. Algebra I	10	2	N/A	**12**	N/A	N/A	N/A	–	N/A	–	N/A
	5. Geometry	0	0	N/A	N/A	**0**	N/A	N/A	N/A	N/A	N/A	N/A
9	**6. Algebra II**	0	0	N/A	N/A	N/A	**0**	N/A	N/A	N/A	N/A	N/A
	7. Summ. H.S. Mathematics	0	0	N/A	N/A	N/A	N/A	**1**	N/A	N/A	N/A	N/A
	8. Biology	1	0	1	2	0	0	0	**3**	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	8	2	6	4	0	0	0	N/A	N/A	**11**	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	**21**	0.86	–	–	–	N/A	0.63	–	N/A	–	N/A
	2. World History	16	**17**	–	–	–	N/A	0.64	–	N/A	–	N/A
	3. Algebra I	9	7	**9**	N/A	N/A	N/A	–	–	N/A	–	N/A
	4. Geometry	3	3	N/A	**3**	N/A	N/A	–	N/A	N/A	N/A	N/A
	5. Algebra II	1	2	N/A	N/A	**2**	N/A	–	–	N/A	N/A	N/A
10	**6. Summ. H.S. Mathematics**	0	0	N/A	N/A	N/A	**0**	N/A	N/A	N/A	N/A	N/A
	7. Life Science	19	15	9	3	2	0	**20**	–	N/A	–	N/A
	8. Biology	6	6	3	0	2	0	6	**7**	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	2	2	1	0	0	0	2	N/A	N/A	**2**	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	**9**	N/A	–	–	N/A	N/A	–	N/A	N/A	–	N/A
	2. World History	0	**1**	–	–	N/A	N/A	N/A	–	N/A	N/A	N/A
	3. History–Social Science	8	1	**10**	–	N/A	N/A	–	–	N/A	–	N/A
	4. Algebra I	1	1	2	**2**	N/A	N/A	N/A	–	N/A	–	N/A
	5. Geometry	0	0	0	N/A	**0**	N/A	N/A	N/A	N/A	N/A	N/A
11	**6. Algebra II**	0	0	0	N/A	N/A	**0**	N/A	N/A	N/A	N/A	N/A
	7. Summ. H.S. Mathematics	1	0	1	N/A	N/A	N/A	**1**	N/A	N/A	N/A	N/A
	8. Biology	0	1	1	1	0	0	0	**1**	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	2	0	2	1	0	0	0	N/A	N/A	**2**	N/A
	11. Physics	0	0	0	0	0	0	0	N/A	N/A	N/A	**0**

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%	39	60%	32	43%	33	44%	37	49%	39	51%	43	58%	28	37%	29	39%	34	45%
B	10	15%	6	9%	13	17%	9	12%	15	20%	12	16%	7	9%	11	15%	12	16%	10	13%
C	26	40%	20	31%	28	37%	32	43%	22	29%	24	32%	24	32%	35	47%	32	43%	29	39%
D	1	2%	0	0%	2	3%	1	1%	1	1%	1	1%	0	0%	1	1%	1	1%	2	3%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	0	0%
Total	65	100%	65	100%	75	100%	75	100%	75	100%	76	100%	74	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	38	51%	25	42%	29	48%
B	4	5%	8	13%	8	13%
C	33	44%	26	43%	23	38%
D	0	0%	1	2%	0	0%
F	0	0%	0	0%	0	0%
Total	75	100%	60	100%	60	100%

Table 8.D.3 IRT Model Data Fit Distribution for Mathematics, Grades Two through Seven

Operational Items	Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	43	66%	41	63%	37	57%	36	55%	32	49%	29	45%
B	8	12%	13	20%	10	15%	12	18%	11	17%	15	23%
C	14	22%	11	17%	18	28%	17	26%	22	34%	20	31%
D	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%
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	33	51%	20	31%	25	38%	40	62%	34	52%	24	37%	13	20%	8	12%
B	18	28%	7	11%	11	17%	13	20%	26	40%	18	28%	16	25%	11	17%
C	11	17%	35	54%	28	43%	11	17%	5	8%	22	34%	34	52%	41	63%
D	3	5%	3	5%	1	2%	1	2%	0	0%	1	2%	1	2%	5	8%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	0	0%
Total	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%

Table 8.D.5 IRT Model Data Fit Distribution for Science

Operational Items	Grade 5 Science		Grade 8 Science		Grade 10 Life Science		Biology		Chemistry		Earth Science		Physics	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	39	65%	28	47%	21	35%	15	25%	38	63%	25	42%	25	42%
B	2	3%	9	15%	11	18%	11	18%	13	22%	20	33%	26	43%
C	19	32%	23	38%	27	45%	32	53%	9	15%	15	25%	9	15%
D	0	0%	0	0%	1	2%	2	3%	0	0%	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	9	15%	8	13%	3	5%	5	8%	9	16%	11	19%	17	29%	13	22%	5	8%	10	17%
B	11	18%	11	18%	12	20%	16	27%	9	16%	6	10%	11	19%	8	14%	11	18%	11	18%
C	36	60%	37	62%	34	57%	32	54%	34	59%	30	51%	23	39%	26	45%	33	55%	28	47%
D	4	7%	1	2%	3	5%	3	5%	3	5%	4	7%	6	10%	5	9%	7	12%	6	10%
F	0	0%	3	5%	8	13%	3	5%	3	5%	8	14%	2	3%	6	10%	4	7%	5	8%
Total	60	100%	60	100%	60	100%	59	100%	58	100%	59	100%	59	100%	58	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	5	17%	8	27%	5	17%
B	6	20%	8	27%	3	10%
C	11	37%	10	33%	16	53%
D	4	13%	2	7%	2	7%
F	4	13%	2	7%	4	13%
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	19	32%	12	20%	8	13%	5	8%	8	13%	7	12%
B	15	25%	10	17%	12	20%	14	23%	10	17%	14	23%
C	24	40%	34	57%	37	62%	31	52%	39	65%	29	48%
D	2	3%	4	7%	1	2%	8	13%	2	3%	7	12%
F	0	0%	0	0%	2	3%	2	3%	1	2%	3	5%
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%	8	27%	4	13%	5	17%	4	13%	3	50%	0	0%	0	0%
B	1	17%	5	17%	12	40%	8	27%	5	17%	0	0%	2	33%	1	17%
C	2	33%	10	33%	11	37%	14	47%	16	53%	2	33%	3	50%	1	17%
D	0	0%	4	13%	2	7%	1	3%	3	10%	0	0%	0	0%	3	50%
F	1	17%	3	10%	1	3%	2	7%	2	7%	1	17%	1	17%	1	17%
Total	6	100%	30	100%	30	100%	30	100%	30	100%	6	100%	6	100%	6	100%

Table 8.D.10 IRT Model Data Fit Distribution for Science (field-test items)

Field-test Items	Grade 5 Science		Grade 8 Science		Grade 10 Life Science		Biology		Chemistry		Earth Science		Physics	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	7	8%	8	10%	8	10%	5	6%	17	20%	22	26%	11	13%
B	14	17%	21	25%	11	13%	12	14%	13	15%	9	11%	17	20%
C	42	50%	43	51%	42	50%	60	72%	40	48%	38	45%	39	46%
D	12	14%	8	10%	16	19%	4	5%	9	11%	6	7%	7	8%
F	9	11%	4	5%	7	8%	2	2%	5	6%	9	11%	10	12%
Total	84	100%	84	100%	84	100%	83	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	–0.51	0.77	–2.06	0.80
Reading Comprehension	15	0.03	0.66	–1.09	1.47
Literary Response and Analysis	6	–0.64	0.39	–0.97	0.03
Written Conventions	14	–0.04	0.67	–0.85	1.01
Writing Strategies	8	0.42	0.48	–0.22	1.30
All operational items	65	–0.18	0.74	–2.06	1.47
Field-test items	60	0.03	0.69	–1.67	1.55

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	–0.61	0.76	–1.66	1.52
Reading Comprehension	15	–0.49	0.66	–1.60	0.45
Literary Response and Analysis	8	–0.95	0.66	–1.85	0.04
Written Conventions	13	–0.03	0.76	–1.45	1.14
Writing Strategies	9	–0.12	0.39	–0.85	0.48
All operational items	65	–0.44	0.75	–1.85	1.52
Field-test items	60	–0.37	0.99	–2.87	1.90

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	–0.33	0.70	–1.49	0.85
Reading Comprehension	15	0.03	0.74	–1.43	1.23
Literary Response and Analysis	9	–0.00	0.51	–0.73	0.95
Written Conventions	18	–0.33	0.72	–2.05	0.93
Writing Strategies	15	0.08	0.80	–1.41	1.15
All operational items	75	–0.14	0.74	–2.05	1.23
Field-test items	60	0.70	0.80	–1.03	2.88

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	0.05	0.64	–1.06	1.01
Reading Comprehension	16	0.01	0.68	–0.90	1.47
Literary Response and Analysis	12	–0.23	0.54	–1.34	0.62
Written Conventions	17	–0.39	0.88	–1.80	1.21
Writing Strategies	16	–0.24	0.73	–1.62	0.93
All operational items	75	–0.16	0.74	–1.80	1.47
Field-test items	59	0.21	0.91	–1.66	2.04

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	–0.37	0.83	–1.37	1.84
Reading Comprehension	17	0.12	0.65	–1.04	1.14
Literary Response and Analysis	12	–0.20	0.84	–1.54	1.46
Written Conventions	16	–0.51	0.80	–1.91	0.72
Writing Strategies	17	0.39	0.61	–0.57	1.21
All operational items	75	–0.09	0.81	–1.91	1.84
Field-test items	58	0.62	0.84	–1.50	2.33

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	0.06	0.53	–0.82	0.92
Reading Comprehension	18	–0.09	0.73	–1.14	1.80
Literary Response and Analysis	13	0.17	0.76	–0.94	1.51
Written Conventions	16	–0.06	0.79	–1.11	1.07
Writing Strategies	17	0.58	0.85	–1.49	1.72
Writing Applications Score	1	–0.61	N/A	–0.61	–0.61
All operational multiple-choice items	75	0.14	0.79	–1.49	1.80
Field-test items	59	0.89	1.05	–1.55	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	8	–0.06	0.70	–0.94	1.10
Reading Comprehension	18	–0.51	0.74	–1.77	0.73
Literary Response and Analysis	15	–0.10	0.52	–0.69	1.37
Written Conventions	16	–0.16	0.60	–1.28	0.90
Writing Strategies	17	0.02	0.77	–1.92	1.37
All operational items	74	–0.18	0.70	–1.92	1.37
Field-test items	59	0.26	0.74	–1.16	2.01

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	–0.48	0.95	–1.50	1.00
Reading Comprehension	18	–0.22	0.58	–1.45	0.56
Literary Response and Analysis	16	0.20	0.73	–1.22	1.80
Written Conventions	13	–0.10	0.45	–0.84	0.85
Writing Strategies	20	0.03	0.84	–1.59	1.60
All operational items	75	–0.07	0.75	–1.59	1.80
Field-test items	58	0.46	0.81	–0.89	2.85

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	–0.75	0.61	–1.55	0.36
Reading Comprehension	18	–0.48	0.51	–1.73	0.30
Literary Response and Analysis	16	–0.07	0.42	–0.82	0.71
Written Conventions	13	–0.43	0.62	–1.38	0.46
Writing Strategies	20	–0.21	0.84	–1.53	1.39
All operational items	75	–0.34	0.66	–1.73	1.39
Field-test items	60	0.24	0.86	–1.36	2.83

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	–0.85	0.61	–1.73	0.08
Reading Comprehension	19	–0.17	0.46	–1.17	0.63
Literary Response and Analysis	17	0.02	0.55	–0.98	0.92
Written Conventions	9	–0.57	0.70	–1.61	1.04
Writing Strategies	22	–0.26	0.54	–1.45	0.75
All operational items	75	–0.28	0.61	–1.73	1.04
Field-test items	60	0.11	0.86	–1.79	3.46

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	–0.29	0.94	–1.84	1.00
Late Antiquity and the Middle Ages	14	–0.04	0.56	–1.31	1.10
Renaissance/Reformation	10	0.24	0.49	–0.44	1.25
U.S. Constitution and the Early Republic	22	–0.11	0.47	–1.07	0.56
Civil War and Its Aftermath	13	–0.15	0.41	–0.74	0.90
All operational items	75	–0.09	0.63	–1.84	1.25
Field-test items	30	0.47	0.99	–1.52	2.73

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	–0.33	0.63	–1.37	1.27
Industrial Expansion and Imperialism	10	–0.33	0.24	–0.70	0.10
Causes and Effects of the First World War	14	–0.26	0.47	–1.47	0.22
Causes and Effects of the Second World War	13	–0.18	0.68	–1.27	0.67
International Developments in the Post-WW II Era	10	–0.13	0.73	–1.76	1.18
All operational items	60	–0.25	0.59	–1.76	1.27
Field-test items	30	0.46	0.85	–1.45	2.15

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	–0.14	0.76	–1.14	1.55
Industrialization and the U.S. Role as a World Power	13	–0.38	0.70	–1.63	0.76
United States Between the World Wars	12	–0.32	0.47	–1.25	0.55
World War II and Foreign Affairs	12	–0.19	0.51	–1.26	0.91
Post-World War II Domestic Issues	13	–0.30	0.73	–2.07	0.79
All operational items	60	–0.27	0.65	–2.07	1.55
Field-test items	30	0.29	0.90	–1.42	2.10

Table 8.D.24 IRT *b*-values for Mathematics, Grade Two

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Addition, and Subtraction	15	–0.76	0.85	–1.80	1.25
Multiplication, Division, and Fractions	23	–0.94	0.79	–1.98	0.35
Algebra and Functions	6	–0.86	0.90	–2.05	0.43
Measurement and Geometry	14	–0.95	0.87	–2.33	0.82
Statistics, Data Analysis, and Probability	7	–0.97	1.23	–2.55	0.54
All operational items	65	–0.90	0.89	–2.55	1.25
Field-test items	60	–0.78	1.17	–2.87	1.56

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	–0.78	1.25	–2.60	2.00
Addition, Subtraction, Multiplication, Division	16	–0.55	1.09	–2.09	1.60
Algebra and Functions	12	–0.39	0.80	–1.67	0.61
Measurement and Geometry	16	–0.97	0.87	–2.28	0.66
Statistics, Data Analysis, and Probability	5	–1.24	0.86	–2.16	–0.16
All operational items	65	–0.73	1.05	–2.60	2.00
Field-test items	60	–0.27	1.50	–2.83	3.44

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	–0.90	0.70	–1.97	0.28
Operations and Factoring	14	–0.42	0.62	–1.63	0.42
Algebra and Functions	18	–0.95	0.62	–1.68	0.67
Measurement and Geometry	12	–0.03	0.91	–1.67	1.33
Statistics, Data Analysis, and Probability	4	–0.68	1.12	–2.04	0.49
All operational items	65	–0.64	0.82	–2.04	1.33
Field-test items	60	0.26	1.08	–2.16	3.30

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	–0.13	0.98	–2.24	1.09
Operations with Fractions and Decimals	17	–0.04	0.58	–0.92	1.31
Algebra and Functions	17	–0.41	1.11	–2.77	1.61
Measurement and Geometry	15	0.04	1.20	–2.68	2.18
Statistics, Data Analysis, and Probability	4	–1.18	0.42	–1.67	–0.51
All operational items	65	–0.20	1.01	–2.77	2.18
Field-test items	60	0.43	1.04	–2.14	3.15

Table 8.D.28 IRT *b*-values for Mathematics, Grade Six

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Ratios, Proportions, Percentages, Neg. Fractions	15	–0.21	0.84	–2.09	0.98
Operations and Problem Solving with Fractions	10	–0.58	0.63	–2.20	0.30
Algebra and Functions	19	–0.52	0.65	–1.84	1.37
Measurement and Geometry	10	–0.02	0.65	–1.03	0.83
Statistics, Data Analysis, and Probability	11	–0.05	0.80	–1.11	1.44
All operational items	65	–0.30	0.76	–2.20	1.44
Field-test items	60	0.24	0.87	–1.57	2.66

Table 8.D.29 IRT *b*-values for Mathematics, Grade Seven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.08	0.69	–1.29	1.22
Exponents, Powers, and Roots	8	0.12	0.34	–0.59	0.53
Quant. Relationships and Evaluating Expressions	10	–0.16	0.88	–2.12	1.19
Multistep Problems, Graphing, and Functions	15	–0.10	0.79	–1.34	1.42
Measurement and Geometry	13	0.13	0.83	–1.33	1.34
Statistics, Data Analysis, and Probability	5	–0.33	0.55	–1.07	0.42
All operational items	65	–0.02	0.75	–2.12	1.42
Field-test items	60	0.69	0.85	–1.10	2.89

Table 8.D.30 IRT *b*-values for General Mathematics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.24	0.66	–0.93	1.01
Exponents, Powers, and Roots	10	0.29	0.38	–0.44	0.87
Quant. Relationships and Evaluating Expressions	11	–0.20	0.49	–1.37	0.49
Multistep Problems, Graphing, and Functions	10	0.13	0.67	–1.11	1.48
Measurement and Geometry	11	0.55	0.35	–0.13	1.10
Statistics, Data Analysis, and Probability	9	–0.07	0.66	–1.04	0.92
All operational items	65	0.17	0.60	–1.37	1.48
Field-test items	6	1.15	0.69	0.15	2.50

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	–0.63	0.71	–2.59	0.44
Graphing and Systems of Linear Equations	14	–0.06	0.41	–0.94	0.46
Quadratics and Polynomials	21	0.04	0.57	–1.25	1.10
Functions and Rational Expressions	13	0.42	0.60	–0.40	1.45
All operational items	65	–0.08	0.69	–2.59	1.45
Field-test items	30	0.36	0.63	–0.79	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	–0.89	0.63	–2.28	0.40
Volume and Area Formulas	11	–0.51	0.57	–1.28	0.56
Angle Relationships, Constructions, and Lines	16	–0.69	0.82	–1.94	0.66
Trigonometry	15	–0.79	0.67	–2.15	0.36
All operational items	65	–0.75	0.70	–2.28	0.66
Field-test items	30	–0.23	1.00	–2.34	2.15

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	0.82	–2.12	0.49
Quadratics, Conics, and Complex Numbers	16	–0.21	0.56	–1.44	0.74
Exponents and Logarithms	16	–0.47	0.56	–1.16	1.08
Series, Combinatorics, Probability and Statistics	14	–0.19	0.76	–1.51	0.86
All operational items	65	–0.44	0.73	–2.12	1.08
Field-test items	30	0.27	0.84	–1.32	1.91

Table 8.D.34 IRT *b*-values for Summative High School Mathematics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Algebra I	18	–1.16	0.74	–2.52	0.18
Geometry	19	–0.85	0.64	–1.93	0.23
Algebra II	23	–0.65	0.71	–1.85	0.85
Probability and Statistics	5	–0.08	0.30	–0.40	0.33
All operational items	65	–0.81	0.74	–2.52	0.85
Field-test items	30	–0.07	1.12	–2.29	1.90

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	–0.75	0.68	–2.29	0.06
Graphing	9	0.04	0.45	–0.75	0.57
Quadratics and Polynomials	14	0.24	0.55	–0.76	0.97
Functions and Rational Expressions	7	0.36	0.58	–0.44	1.19
Geometry	20	0.57	0.48	–0.20	1.64
All operational items	65	0.10	0.74	–2.29	1.64
Field-test items	6	0.11	0.74	–0.63	1.65

Table 8.D.36 IRT *b*-values for Integrated Mathematics 2

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Algebra I	20	–0.38	0.74	–1.72	1.23
Logic and Geometric Proofs	22	–0.24	0.52	–1.44	0.95
Angle Relationships, Constructions, and Lines	8	–0.44	0.74	–1.24	1.10
Trigonometry	10	–0.00	0.61	–1.12	0.89
Algebra II: Probability and Statistics	5	0.44	0.79	–0.96	1.22
All operational items	65	–0.22	0.70	–1.72	1.23
Field-test items	6	0.18	1.01	–1.73	1.30

Table 8.D.37 IRT *b*-values for Integrated Mathematics 3

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Geometry	5	–1.15	0.55	–1.97	–0.35
Polynomials and Rational Expressions	19	–0.09	0.74	–1.41	0.88
Quadratics, Conics, and Complex Numbers	16	0.09	0.54	–0.87	0.97
Exponents and Logarithms	16	–0.22	0.54	–0.90	1.21
Series, Combinatorics, Probability and Statistics	9	0.20	0.72	–0.79	1.36
All operational items	65	–0.12	0.71	–1.97	1.36
Field-test items	6	0.71	0.73	–0.13	1.71

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	–0.60	0.49	–1.31	0.52
Physical Science 4	8	–0.54	0.50	–1.16	0.13
Life Science 5	13	–0.75	0.48	–1.62	0.11
Life Science 4	9	–0.63	0.57	–1.56	0.30
Earth Science 5	11	–0.67	0.64	–1.51	0.61
Earth Science 4	8	–0.61	0.45	–1.33	–0.10
All operational items	60	–0.64	0.53	–1.62	0.61
Field-test items	84	0.27	1.00	–2.41	2.70

Table 8.D.39 IRT *b*-values for Science, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion	8	–0.05	0.86	–1.32	1.36
Forces, Density, and Buoyancy	13	–0.70	0.47	–1.42	–0.09
Structure of Matter and Periodic Table	16	–0.20	0.63	–1.30	0.72
Earth in the Solar system	7	–0.60	0.85	–1.57	0.70
Reactions and the Chemistry of Living Systems	10	–0.24	0.53	–1.25	0.75
Investigation and Experimentation	6	–0.96	0.46	–1.48	–0.34
All operational items	60	–0.42	0.70	–1.57	1.36
Field-test items	84	0.41	0.76	–1.22	2.21

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	0.08	0.78	–0.96	1.44
Genetics	12	0.04	0.63	–0.96	1.03
Physiology	10	–0.53	0.61	–1.34	0.66
Ecology	11	–0.42	0.74	–1.66	0.56
Evolution	11	–0.36	0.54	–1.05	0.71
Investigation and Experimentation	6	–0.99	0.49	–1.57	–0.03
All operational items	60	–0.31	0.73	–1.66	1.44
Field-test items	84	0.35	0.98	–1.26	2.59

Table 8.D.41 IRT *b*-values for Biology

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Cell Biology	9	–0.07	0.58	–1.31	0.64
Genetics	18	–0.39	0.70	–1.95	0.73
Ecology and Evolution	16	–0.33	0.47	–1.51	0.40
Physiology	11	–0.76	0.46	–1.50	0.10
Investigation and Experimentation	6	–0.35	0.73	–1.20	1.04
All operational items	60	–0.39	0.62	–1.95	1.04
Field-test items	83	0.24	0.73	–2.28	2.14

Table 8.D.42 IRT *b*-values for Chemistry

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Atomic and Molecular Structure	8	–0.43	0.54	–1.62	0.17
Chemical Bonds, Biochemistry	9	–0.70	0.50	–1.84	–0.02
Kinetics, Thermodynamics	14	–0.39	0.26	–0.79	0.32
Chemical Reactions	13	–0.08	0.48	–0.68	1.06
Conservation of Matter and Stoichiometry	10	–0.38	0.38	–0.96	0.21
Investigation and Experimentation	6	–0.63	0.31	–0.99	–0.29
All operational items	60	–0.40	0.47	–1.84	1.06
Field-test items	84	0.24	0.79	–1.45	2.48

Table 8.D.43 IRT *b*-values for Earth Science

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Astronomy and Cosmology	12	0.15	0.52	–0.50	1.06
Solid Earth	14	–0.08	0.49	–0.87	0.84
The Earth's Energy	28	0.08	0.41	–0.63	1.04
Investigation and Experimentation	6	–0.36	0.43	–0.88	0.33
All operational items	60	0.01	0.48	–0.88	1.06
Field-test items	84	0.48	0.59	–1.03	1.98

Table 8.D.44 IRT *b*-values for Physics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion and Forces	12	–0.07	0.61	–1.05	0.74
Conservation of Energy and Momentum	12	–0.13	0.30	–0.51	0.63
Heat and Thermodynamics	9	–0.28	0.61	–1.31	0.54
Waves	10	–0.43	0.52	–1.08	0.56
Electric and Magnetic Phenomena	11	0.02	0.50	–0.90	0.75
Investigation and Experimentation	6	–0.11	0.71	–0.94	1.21
All operational items	60	–0.16	0.56	–1.31	1.21
Field-test items	84	0.79	1.02	–1.44	3.16

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			1	4		2		
1.0 – < 1.5	3	1	5	5	7	6	3	4	2	1
0.5 – < 1.0	12	4	10	8	10	17	11	12	2	7
0.0 – < 0.5	15	14	19	19	14	15	14	15	19	18
–0.5 – < 0.0	10	17	16	18	18	14	22	21	23	24
–1.0 – < –0.5	17	12	15	16	15	12	16	13	13	16
–1.5 – < –1.0	6	10	8	5	7	7	6	7	12	7
–2.0 – < –1.5	1	6	1	4	3		2	1	4	2
–2.5 – < –2.0	1		1							
–3.0 – < –2.5										
–3.5 – < –3.0										
< –3.5										
Total	65	65	75	75	75	75	74	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
1.0 – < 1.5	3	2	
0.5 – < 1.0	10	3	7
0.0 – < 0.5	20	15	8
–0.5 – < 0.0	24	22	21
–1.0 – < –0.5	12	11	17
–1.5 – < –1.0	3	6	4
–2.0 – < –1.5	3	1	1
–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		2		2		
1.0 – < 1.5	1		2	3	2	6
0.5 – < 1.0	4	10	2	9	8	11
0.0 – < 0.5	8	7	12	13	12	16
–0.5 – < 0.0	8	8	13	13	18	15
–1.0 – < –0.5	11	8	14	11	15	9
–1.5 – < –1.0	13	11	8	6	7	7
–2.0 – < –1.5	16	11	13	4	1	
–2.5 – < –2.0	3	7	1	1	2	1
–3.0 – < –2.5	1	1		2		
–3.5 – < –3.0						
< –3.5						
Total	65	65	65	65	65	65

Table 8.D.48 Distribution of IRT *b*-values for Mathematics End-of-Course CSTs

IRT *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		
1.0 – < 1.5	4	4		1		5	5	3
0.5 – < 1.0	16	7	2	5	2	14	5	9
0.0 – < 0.5	19	21	10	15	8	20	12	17
–0.5 – < 0.0	17	20	8	14	16	14	16	13
–1.0 – < –0.5	6	7	20	16	14	6	20	17
–1.5 – < –1.0	3	4	17	8	15	2	5	4
–2.0 – < –1.5		1	6	4	7	2	2	2
–2.5 – < –2.0			2	2	2	1		
–3.0 – < –2.5		1			1			
–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							
1.0 – < 1.5		1	2	1	1	2	1
0.5 – < 1.0	2	6	10	3	1	5	9
0.0 – < 0.5	5	8	7	13	9	24	11
–0.5 – < 0.0	17	19	16	19	26	21	24
–1.0 – < –0.5	17	12	14	15	21	8	10
–1.5 – < –1.0	16	13	8	5			5
–2.0 – < –1.5	3	1	3	4	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										1
2.5 – < 3.0			2			3		1	1	
2.0 – < 2.5				1	2	6	1	2		
1.5 – < 2.0	1	2	9	2	7	8	1	3	4	4
1.0 – < 1.5	5	5	10	10	13	12	7	8	6	4
0.5 – < 1.0	10	3	12	12	8	7	12	11	10	5
0.0 – < 0.5	17	7	13	13	14	13	13	14	11	16
–0.5 – < 0.0	13	15	13	9	10	5	16	12	19	21
–1.0 – < –0.5	9	17		4	2	1	8	7	5	5
–1.5 – < –1.0	4	4	1	4	1	3	1		4	2
–2.0 – < –1.5	1	4		4	1	1				2
–2.5 – < –2.0		1								
–3.0 – < –2.5		2								
–3.5 – < –3.0										
< –3.5										
Total	60	60	60	59	58	59	59	58	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	2	2	1
1.5 – < 2.0		3	3
1.0 – < 1.5	4	2	3
0.5 – < 1.0	7	6	5
0.0 – < 0.5	7	9	5
–0.5 – < 0.0	4	6	6
–1.0 – < –0.5	3		5
–1.5 – < –1.0	1	2	2
–2.0 – < –1.5	1		
–2.5 – < –2.0			
–3.0 – < –2.5			
–3.5 – < –3.0			
< –3.5			
Total	30	30	30

Table 8.D.52 Distribution of IRT *b*-values for Mathematics, Grades Two through Seven (field-test items)

IRT *b*–value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
>=3.5						
3.0 – < 3.5		1	1	1		
2.5 – < 3.0				1	1	1
2.0 – < 2.5		4	3	3		2
1.5 – < 2.0	1	3	3	2	1	11
1.0 – < 1.5	5	6	7	10	12	5
0.5 – < 1.0	5	6	7	9	10	14
0.0 – < 0.5	3	7	16	15	10	13
–0.5 – < 0.0	10	7	7	8	12	10
–1.0 – < –0.5	10	4	9	7	11	2
–1.5 – < –1.0	7	4	5	2	2	2
–2.0 – < –1.5	9	9	1	1	1	
–2.5 – < –2.0	5	6	1	1		
–3.0 – < –2.5	5	3				
–3.5 – < –3.0						
< –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					
1.5 – < 2.0		1		3	2	1		2
1.0 – < 1.5	3	4	1	4	3		1	
0.5 – < 1.0	1	9	3	3	6		2	1
0.0 – < 0.5	1	4	10	8	5	2	1	2
–0.5 – < 0.0		9	3	5	5	2	1	1
–1.0 – < –0.5		3	6	6	1	1		
–1.5 – < –1.0			3	1	4			
–2.0 – < –1.5			1		2		1	
–2.5 – < –2.0			2		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							1
2.5 – < 3.0	2		1				2
2.0 – < 2.5	2	3	3	1	1		8
1.5 – < 2.0	4	4	13		2	3	10
1.0 – < 1.5	10	12	7	8	14	14	16
0.5 – < 1.0	17	16	9	28	12	25	14
0.0 – < 0.5	21	23	13	18	25	25	15
–0.5 – < 0.0	11	17	20	14	17	13	8
–1.0 – < –0.5	7	7	14	9	6	3	6
–1.5 – < –1.0	5	2	4	4	7	1	4
–2.0 – < –1.5	3						
–2.5 – < –2.0	2			1			
–3.0 – < –2.5							
–3.5 – < –3.0							
< –3.5							
Total	84	84	84	83	84	84	84

Scaling and Post-Equating Results

Table 8.D.55 New Conversions for ELA, Grades Two and Three

Grade 2								Grade 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	8.0009	150	**41**	0.4196	333.3486	333	**0**	N/A	–12.3991	150	**41**	0.1717	319.0249	319
1	–4.6019	77.2918	150	**42**	0.4942	337.1047	337	**1**	–4.8362	49.3334	150	**42**	0.2461	322.9506	323
2	–3.8842	115.1271	150	**43**	0.5701	341.0443	341	**2**	–4.1196	87.5789	150	**43**	0.3218	327.3137	327
3	–3.4538	138.0921	150	**44**	0.6476	344.9683	345	**3**	–3.6903	111.7762	150	**44**	0.3991	331.2401	331
4	–3.1410	153.9248	154	**45**	0.7268	348.8610	349	**4**	–3.3784	128.9954	150	**45**	0.4782	335.5090	336
5	–2.8926	166.4797	166	**46**	0.8080	352.7525	353	**5**	–3.1307	142.5005	150	**46**	0.5593	339.9592	340
6	–2.6848	177.1583	177	**47**	0.8916	357.1258	357	**6**	–2.9236	153.7145	154	**47**	0.6427	344.1098	344
7	–2.5050	186.3546	186	**48**	0.9778	361.4683	361	**7**	–2.7443	163.3184	163	**48**	0.7288	348.8250	349
8	–2.3456	194.3340	194	**49**	1.0670	365.9124	366	**8**	–2.5853	171.7227	172	**49**	0.8180	353.7941	354
9	–2.2016	201.5043	202	**50**	1.1597	370.6984	371	**9**	–2.4418	179.4042	179	**50**	0.9107	358.7490	359
10	–2.0699	208.1243	208	**51**	1.2565	375.4592	375	**10**	–2.3105	186.5251	187	**51**	1.0076	363.9511	364
11	–1.9479	214.2749	214	**52**	1.3581	380.3970	380	**11**	–2.1888	193.0805	193	**52**	1.1092	369.1772	369
12	–1.8339	220.0972	220	**53**	1.4652	385.8143	386	**12**	–2.0751	199.1038	199	**53**	1.2164	374.9085	375
13	–1.7265	225.5588	226	**54**	1.5789	391.6651	392	**13**	–1.9680	204.7762	205	**54**	1.3305	381.1290	381
14	–1.6248	230.5732	231	**55**	1.7006	397.7861	398	**14**	–1.8665	210.2117	210	**55**	1.4525	387.5593	388
15	–1.5278	235.5189	236	**56**	1.8321	404.2818	404	**15**	–1.7698	215.3910	215	**56**	1.5843	394.5184	395
16	–1.4350	240.0777	240	**57**	1.9756	411.4706	411	**16**	–1.6771	220.6018	221	**57**	1.7284	402.2015	402
17	–1.3456	244.8820	245	**58**	2.1347	419.5113	420	**17**	–1.5879	225.3914	225	**58**	1.8880	410.8514	411
18	–1.2593	248.9506	249	**59**	2.3141	428.6693	429	**18**	–1.5018	230.0483	230	**59**	2.0681	420.4206	420
19	–1.1756	253.1451	253	**60**	2.5214	439.1170	439	**19**	–1.4184	234.2457	234	**60**	2.2762	431.5724	432
20	–1.0943	257.4002	257	**61**	2.7692	451.8280	452	**20**	–1.3372	238.5560	239	**61**	2.5250	445.1442	445
21	–1.0150	261.1656	261	**62**	3.0814	468.0537	468	**21**	–1.2581	242.8166	243	**62**	2.8381	462.1315	462
22	–0.9374	265.2377	265	**63**	3.5109	491.2059	491	**22**	–1.1808	246.8159	247	**63**	3.2691	485.3668	485
23	–0.8614	269.1001	269	**64**	4.2278	526.5936	527	**23**	–1.1050	250.9827	251	**64**	3.9875	524.3201	524
24	–0.7868	272.8293	273	**65**	N/A	578.9992	600	**24**	–1.0305	254.8264	255	**65**	N/A	594.9791	600
25	–0.7133	276.5347	277					**25**	–0.9572	258.9177	259				
26	–0.6407	280.2298	280					**26**	–0.8849	262.7047	263				
27	–0.5690	283.8958	284					**27**	–0.8134	266.3942	266				
28	–0.4980	287.1850	287					**28**	–0.7426	270.3448	270				
29	–0.4276	290.7496	291					**29**	–0.6724	274.3095	274				
30	–0.3575	294.3977	294					**30**	–0.6026	278.0931	278				
31	–0.2878	298.0317	298					**31**	–0.5331	281.4129	281				
32	–0.2182	301.2551	301					**32**	–0.4638	285.0859	285				
33	–0.1487	304.7529	305					**33**	–0.3946	288.8689	289				
34	–0.0792	308.3383	308					**34**	–0.3253	292.6653	293				
35	–0.0094	311.9055	312					**35**	–0.2558	296.4744	296				
36	0.0606	315.4538	315					**36**	–0.1860	300.2956	300				
37	0.1310	318.9821	319					**37**	–0.1159	303.6348	304				
38	0.2020	322.4893	322					**38**	–0.0451	307.4407	307				
39	0.2737	325.9747	326					**39**	0.0263	311.2932	311				
40	0.3461	329.6340	330					**40**	0.0985	315.1547	315				

Note: Performance-level cut scores are highlighted.

Table 8.D.56 New Conversion for ELA, Grade Four

Grade 4							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	0.0014	150	**41**	0.0799	323.2263	323
1	–4.7056	72.5617	150	**42**	0.1404	326.0972	326
2	–3.9903	114.5515	150	**43**	0.2013	329.0706	329
3	–3.5625	138.8083	150	**44**	0.2627	332.2398	332
4	–3.2523	155.4344	155	**45**	0.3245	335.4070	335
5	–3.0065	168.1445	168	**46**	0.3870	338.5718	339
6	–2.8015	178.3246	178	**47**	0.4502	341.7332	342
7	–2.6245	187.2729	187	**48**	0.5141	344.8906	345
8	–2.4681	195.1268	195	**49**	0.5791	348.0449	348
9	–2.3272	202.1260	202	**50**	0.6450	351.6414	352
10	–2.1987	208.5771	209	**51**	0.7122	354.8349	355
11	–2.0800	214.7169	215	**52**	0.7807	358.1666	358
12	–1.9695	220.1052	220	**53**	0.8507	361.8896	362
13	–1.8658	225.2855	225	**54**	0.9224	365.2887	365
14	–1.7678	230.2729	230	**55**	0.9961	369.0157	369
15	–1.6747	235.0319	235	**56**	1.0719	373.1227	373
16	–1.5859	239.4187	239	**57**	1.1502	376.8932	377
17	–1.5008	243.5701	244	**58**	1.2312	380.9554	381
18	–1.4189	247.7237	248	**59**	1.3155	385.2592	385
19	–1.3398	251.7872	252	**60**	1.4033	389.5464	390
20	–1.2633	255.5707	256	**61**	1.4953	394.1127	394
21	–1.1889	259.5651	260	**62**	1.5922	398.9372	399
22	–1.1165	263.1966	263	**63**	1.6947	404.2491	404
23	–1.0459	266.3817	266	**64**	1.8039	409.7450	410
24	–0.9769	270.0250	270	**65**	1.9212	415.7447	416
25	–0.9092	273.4523	273	**66**	2.0484	421.9958	422
26	–0.8428	276.5902	277	**67**	2.1876	428.9584	429
27	–0.7775	280.0557	280	**68**	2.3424	436.9258	437
28	–0.7131	283.2873	283	**69**	2.5176	445.8079	446
29	–0.6496	286.3998	286	**70**	2.7207	455.9153	456
30	–0.5869	289.5212	290	**71**	2.9645	468.1068	468
31	–0.5248	292.6511	293	**72**	3.2725	484.1637	484
32	–0.4632	295.7880	296	**73**	3.6979	506.5550	507
33	–0.4021	298.9312	299	**74**	4.4108	543.3233	543
34	–0.3414	302.0268	302	**75**	N/A	607.4990	600
35	–0.2810	304.9157	305				
36	–0.2208	307.8936	308				
37	–0.1607	311.0562	311				
38	–0.1007	314.1512	314				
39	–0.0406	317.0546	317				
40	0.0195	320.0594	320				

Note: Performance-level cut scores are highlighted.

No essay was administered in 2010.

Table 8.D.57 New Conversions for ELA, Grades Five and Six

Grade 5								Grade 6							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	25.0010	150	**41**	0.0441	322.0730	322	**0**	N/A	0.0011	150	**41**	0.1230	323.0812	323
1	–4.7234	79.4540	150	**42**	0.1045	325.1643	325	**1**	–4.7032	73.5557	150	**42**	0.1852	326.1669	326
2	–4.0090	115.4010	150	**43**	0.1652	328.2624	328	**2**	–3.9876	112.4586	150	**43**	0.2477	329.3704	329
3	–3.5819	138.9677	150	**44**	0.2264	331.3650	331	**3**	–3.5594	135.2026	150	**44**	0.3106	332.7917	333
4	–3.2725	155.3360	155	**45**	0.2881	334.4735	334	**4**	–3.2488	150.9451	151	**45**	0.3741	335.8980	336
5	–3.0274	168.0795	168	**46**	0.3504	337.5871	338	**5**	–3.0026	163.9128	164	**46**	0.4382	339.1905	339
6	–2.8231	178.4060	178	**47**	0.4134	340.7055	341	**6**	–2.7970	174.2866	174	**47**	0.5031	342.4469	342
7	–2.6467	187.3345	187	**48**	0.4773	343.8291	344	**7**	–2.6194	183.4966	183	**48**	0.5688	345.8157	346
8	–2.4909	195.1984	195	**49**	0.5421	347.0324	347	**8**	–2.4623	191.4371	191	**49**	0.6355	348.9626	349
9	–2.3506	202.1837	202	**50**	0.6080	350.5891	351	**9**	–2.3208	198.5310	199	**50**	0.7032	352.4801	352
10	–2.2226	208.6685	209	**51**	0.6751	353.7918	354	**10**	–2.1915	205.0757	205	**51**	0.7722	356.0332	356
11	–2.1045	214.7155	215	**52**	0.7436	357.2318	357	**11**	–2.0721	211.2073	211	**52**	0.8426	359.7722	360
12	–1.9945	220.1965	220	**53**	0.8136	360.6655	361	**12**	–1.9608	216.8603	217	**53**	0.9145	363.4725	363
13	–1.8912	225.3838	225	**54**	0.8854	364.3879	364	**13**	–1.8562	222.3312	222	**54**	0.9881	367.2264	367
14	–1.7937	230.3737	230	**55**	0.9591	368.1682	368	**14**	–1.7574	227.3207	227	**55**	1.0637	370.8018	371
15	–1.7011	234.9309	235	**56**	1.0350	371.9521	372	**15**	–1.6634	232.1290	232	**56**	1.1416	374.7968	375
16	–1.6128	239.2183	239	**57**	1.1133	375.7392	376	**16**	–1.5737	236.8417	237	**57**	1.2219	379.0843	379
17	–1.5281	243.6017	244	**58**	1.1945	379.8268	380	**17**	–1.4876	241.1250	241	**58**	1.3050	383.1479	383
18	–1.4466	247.7414	248	**59**	1.2789	384.2080	384	**18**	–1.4047	245.2143	245	**59**	1.3913	387.6888	388
19	–1.3680	251.5636	252	**60**	1.3670	388.6377	389	**19**	–1.3246	249.2921	249	**60**	1.4813	392.3397	392
20	–1.2919	255.2768	255	**61**	1.4592	393.0689	393	**20**	–1.2470	253.3582	253	**61**	1.5756	396.9129	397
21	–1.2179	258.9299	259	**62**	1.5564	397.7841	398	**21**	–1.1716	257.1066	257	**62**	1.6747	401.9882	402
22	–1.1460	262.5187	263	**63**	1.6592	402.9306	403	**22**	–1.0982	260.8383	261	**63**	1.7795	407.4961	407
23	–1.0758	266.2116	266	**64**	1.7688	408.4643	408	**23**	–1.0265	264.6038	265	**64**	1.8911	413.2359	413
24	–1.0071	269.4832	269	**65**	1.8864	414.3997	414	**24**	–0.9563	268.1888	268	**65**	2.0108	419.2407	419
25	–0.9399	273.0153	273	**66**	2.0139	420.6781	421	**25**	–0.8875	271.5945	272	**66**	2.1404	425.9199	426
26	–0.8738	276.1739	276	**67**	2.1538	427.9269	428	**26**	–0.8199	275.0912	275	**67**	2.2823	433.2504	433
27	–0.8089	279.4369	279	**68**	2.3091	435.6101	436	**27**	–0.7534	278.6501	279	**68**	2.4397	441.2281	441
28	–0.7449	282.7986	283	**69**	2.4849	444.2930	444	**28**	–0.6879	282.0325	282	**69**	2.6176	450.3311	450
29	–0.6818	285.9828	286	**70**	2.6886	454.5502	455	**29**	–0.6231	285.3160	285	**70**	2.8235	460.9954	461
30	–0.6194	289.0164	289	**71**	2.9331	466.8625	467	**30**	–0.5591	288.5862	289	**71**	3.0702	473.7862	474
31	–0.5576	292.0283	292	**72**	3.2418	482.5285	483	**31**	–0.4957	291.7990	292	**72**	3.3812	490.3627	490
32	–0.4964	295.0488	295	**73**	3.6680	505.1764	505	**32**	–0.4329	294.8144	295	**73**	3.8097	514.1266	514
33	–0.4356	298.0771	298	**74**	4.3818	542.7915	543	**33**	–0.3705	297.8048	298	**74**	4.5259	549.8006	550
34	–0.3752	301.1135	301	**75**	N/A	611.4990	600	**34**	–0.3084	301.0190	301	**75**	N/A	602.2691	600
35	–0.3151	304.1578	304					**35**	–0.2466	304.2183	304				
36	–0.2552	307.2096	307					**36**	–0.1850	307.4024	307				
37	–0.1954	310.2686	310					**37**	–0.1235	310.5709	311				
38	–0.1356	313.3347	313					**38**	–0.0620	313.7233	314				
39	–0.0758	316.4076	316					**39**	–0.0005	316.8593	317				
40	–0.0159	319.4276	319					**40**	0.0612	319.9789	320				

Note: Performance-level cut scores are highlighted.

Table 8.D.58 New Conversions for ELA, Grade Seven (with and without essay)

Grade 7								Grade 7 (without essay)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	–40.1188	150	**41**	0.0282	303.0434	303	**0**	N/A	0.0006	150	**41**	0.3487	318.9342	319
1	–4.6822	35.3090	150	**42**	0.0863	306.4520	306	**1**	–4.4483	46.1449	150	**42**	0.4105	322.6068	323
2	–3.9814	76.0621	150	**43**	0.1444	309.8535	310	**2**	–3.7343	89.5086	150	**43**	0.4726	326.1671	326
3	–3.5659	100.1080	150	**44**	0.2026	313.2433	313	**3**	–3.3077	113.3286	150	**44**	0.5352	329.5770	330
4	–3.2660	116.8797	150	**45**	0.2608	316.6194	317	**4**	–2.9985	130.7802	150	**45**	0.5983	333.2660	333
5	–3.0287	130.7180	150	**46**	0.3193	319.9837	320	**5**	–2.7537	144.4308	150	**46**	0.6620	336.8588	337
6	–2.8306	141.8734	150	**47**	0.3781	323.3355	323	**6**	–2.5494	155.8900	156	**47**	0.7265	340.4229	340
7	–2.6592	151.3455	151	**48**	0.4372	326.6746	327	**7**	–2.3731	165.9460	166	**48**	0.7918	344.0509	344
8	–2.5071	159.9416	160	**49**	0.4967	330.0009	330	**8**	–2.2172	174.6385	175	**49**	0.8581	347.8641	348
9	–2.3697	167.9213	168	**50**	0.5566	333.3143	333	**9**	–2.0768	182.6224	183	**50**	0.9255	351.6974	352
10	–2.2436	174.9702	175	**51**	0.6171	336.6147	337	**10**	–1.9486	189.6761	190	**51**	0.9941	355.5014	356
11	–2.1267	181.4025	181	**52**	0.6782	339.9943	340	**11**	–1.8301	196.5777	197	**52**	1.0640	359.2762	359
12	–2.0174	187.7480	188	**53**	0.7400	343.6637	344	**12**	–1.7198	202.7592	203	**53**	1.1355	363.1582	363
13	–1.9143	193.5203	194	**54**	0.8026	347.1394	347	**13**	–1.6161	208.4866	208	**54**	1.2087	367.4376	367
14	–1.8166	198.8649	199	**55**	0.8661	350.8384	351	**14**	–1.5181	214.0102	214	**55**	1.2839	371.7327	372
15	–1.7234	204.0677	204	**56**	0.9305	354.3553	354	**15**	–1.4250	219.3251	219	**56**	1.3613	375.9965	376
16	–1.6342	209.1751	209	**57**	0.9961	358.2186	358	**16**	–1.3360	224.2676	224	**57**	1.4411	380.5223	381
17	–1.5486	213.9606	214	**58**	1.0629	362.0634	362	**17**	–1.2507	229.2429	229	**58**	1.5238	385.2894	385
18	–1.4660	218.7590	219	**59**	1.1311	365.8897	366	**18**	–1.1685	233.8629	234	**59**	1.6097	390.0260	390
19	–1.3861	223.1100	223	**60**	1.2007	369.6968	370	**19**	–1.0891	238.3093	238	**60**	1.6992	395.1033	395
20	–1.3088	227.5809	228	**61**	1.2721	373.6989	374	**20**	–1.0121	242.6951	243	**61**	1.7929	400.3248	400
21	–1.2336	231.8332	232	**62**	1.3454	377.7803	378	**21**	–0.9373	246.7613	247	**62**	1.8915	405.9130	406
22	–1.1604	236.0386	236	**63**	1.4207	381.8438	382	**22**	–0.8645	250.7134	251	**63**	1.9958	411.6027	412
23	–1.0890	239.9805	240	**64**	1.4984	386.1867	386	**23**	–0.7933	254.8336	255	**64**	2.1069	417.6638	418
24	–1.0192	243.8989	244	**65**	1.5788	390.5063	391	**24**	–0.7237	258.8139	259	**65**	2.2261	424.6084	425
25	–0.9509	247.8456	248	**66**	1.6621	394.8953	395	**25**	–0.6554	262.7344	263	**66**	2.3551	431.7771	432
26	–0.8839	251.6467	252	**67**	1.7488	399.4444	399	**26**	–0.5883	266.4757	266	**67**	2.4963	439.6232	440
27	–0.8181	255.3314	255	**68**	1.8393	404.1451	404	**27**	–0.5222	270.0764	270	**68**	2.6531	448.4154	448
28	–0.7535	258.8623	259	**69**	1.9342	409.0819	409	**28**	–0.4571	273.6646	274	**69**	2.8303	458.4300	458
29	–0.6898	262.3908	262	**70**	2.0341	414.1791	414	**29**	–0.3928	277.2380	277	**70**	3.0356	470.1035	470
30	–0.6269	265.9155	266	**71**	2.1400	419.6043	420	**30**	–0.3292	280.7974	281	**71**	3.2815	484.2616	484
31	–0.5649	269.4359	269	**72**	2.2529	425.4135	425	**31**	–0.2663	284.3428	284	**72**	3.5917	502.2723	502
32	–0.5036	272.9489	273	**73**	2.3741	431.5215	432	**32**	–0.2038	287.8738	288	**73**	4.0195	527.3974	527
33	–0.4429	276.4548	276	**74**	2.5054	438.3698	438	**33**	–0.1418	291.3899	291	**74**	4.7343	566.0709	566
34	–0.3828	279.9531	280	**75**	2.6492	445.8087	446	**34**	–0.0801	294.8907	295	**75**	N/A	625.1589	600
35	–0.3232	283.4363	283	**76**	2.8088	454.1413	454	**35**	–0.0187	298.3764	298				
36	–0.2639	286.5854	287	**77**	2.9893	464.0232	464	**36**	0.0426	301.8451	302				
37	–0.2050	289.8327	290	**78**	3.1980	475.7946	476	**37**	0.1037	305.2978	305				
38	–0.1465	293.2890	293	**79**	3.4478	490.0544	490	**38**	0.1648	308.7335	309				
39	–0.0881	296.7368	297	**80**	3.7622	508.0329	508	**39**	0.2259	312.1518	312				
40	–0.0299	299.8672	300	**81**	4.1948	534.5394	535	**40**	0.2872	315.5522	316				
				82	4.9144	573.6781	574								
				83	N/A	628.5192	600								

Note: Performance-level cut scores are highlighted.

Table 8.D.59 New Conversions for ELA, Grades Eight and Nine

Grade 8								Grade 9							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	**41**	0.0583	320.0890	320	**0**	N/A	0.0007	150	**41**	0.1355	325.6476	326
1	–4.7050	50.1751	150	**42**	0.1191	323.5760	324	**1**	–4.6285	52.3418	150	**42**	0.1960	329.0534	329
2	–3.9906	91.4715	150	**43**	0.1802	327.2932	327	**2**	–3.9147	94.1455	150	**43**	0.2569	332.4450	332
3	–3.5637	116.5677	150	**44**	0.2418	330.6091	331	**3**	–3.4881	119.1976	150	**44**	0.3183	335.8221	336
4	–3.2544	134.1983	150	**45**	0.3040	334.0246	334	**4**	–3.1792	137.3903	150	**45**	0.3802	339.2618	339
5	–3.0095	148.1105	150	**46**	0.3669	337.6947	338	**5**	–2.9346	151.4617	151	**46**	0.4427	342.8907	343
6	–2.8053	159.4279	159	**47**	0.4307	341.0881	341	**6**	–2.7306	162.9332	163	**47**	0.5059	346.4336	346
7	–2.6292	169.4058	169	**48**	0.4953	344.6006	345	**7**	–2.5546	173.0821	173	**48**	0.5700	349.9217	350
8	–2.4735	178.1701	178	**49**	0.5611	348.4666	348	**8**	–2.3991	181.9037	182	**49**	0.6351	353.7879	354
9	–2.3335	186.0101	186	**50**	0.6280	352.1230	352	**9**	–2.2591	189.7519	190	**50**	0.7013	357.5177	358
10	–2.2057	193.2904	193	**51**	0.6963	355.8179	356	**10**	–2.1313	197.0013	197	**51**	0.7687	361.0948	361
11	–2.0878	199.7730	200	**52**	0.7661	359.8918	360	**11**	–2.0134	203.8277	204	**52**	0.8375	364.9976	365
12	–1.9780	206.0255	206	**53**	0.8376	364.1290	364	**12**	–1.9036	210.1628	210	**53**	0.9078	369.0062	369
13	–1.8750	211.7438	212	**54**	0.9110	368.0940	368	**13**	–1.8006	215.8157	216	**54**	0.9799	373.1634	373
14	–1.7778	217.2792	217	**55**	0.9866	372.2831	372	**14**	–1.7033	221.3873	221	**55**	1.0540	377.3385	377
15	–1.6854	222.5945	223	**56**	1.0647	376.8019	377	**15**	–1.6108	226.6246	227	**56**	1.1303	381.6845	382
16	–1.5973	227.3990	227	**57**	1.1456	381.3103	381	**16**	–1.5226	231.7629	232	**57**	1.2090	386.1117	386
17	–1.5128	232.1427	232	**58**	1.2297	385.9658	386	**17**	–1.4380	236.5572	237	**58**	1.2907	390.7940	391
18	–1.4316	236.7130	237	**59**	1.3174	390.9569	391	**18**	–1.3566	241.0031	241	**59**	1.3755	395.7821	396
19	–1.3532	241.0071	241	**60**	1.4094	396.0757	396	**19**	–1.2780	245.4348	245	**60**	1.4640	400.8025	401
20	–1.2773	245.2851	245	**61**	1.5062	401.4875	401	**20**	–1.2020	249.8530	250	**61**	1.5567	406.1045	406
21	–1.2036	249.4593	249	**62**	1.6086	407.1698	407	**21**	–1.1281	254.1500	254	**62**	1.6544	411.6186	412
22	–1.1318	253.4383	253	**63**	1.7179	413.3089	413	**22**	–1.0562	258.0369	258	**63**	1.7578	417.3086	417
23	–1.0618	257.2481	257	**64**	1.8352	420.1171	420	**23**	–0.9860	262.1090	262	**64**	1.8679	423.5966	424
24	–0.9933	261.1139	261	**65**	1.9623	427.0838	427	**24**	–0.9173	265.8303	266	**65**	1.9862	430.3223	430
25	–0.9262	265.0424	265	**66**	2.1017	434.7667	435	**25**	–0.8500	269.9106	270	**66**	2.1145	437.6128	438
26	–0.8603	268.8006	269	**67**	2.2567	443.6900	444	**26**	–0.7840	273.5467	274	**67**	2.2549	445.7690	446
27	–0.7955	272.4719	272	**68**	2.4320	453.5073	454	**27**	–0.7190	277.1455	277	**68**	2.4110	454.7419	455
28	–0.7316	275.9383	276	**69**	2.6354	464.9501	465	**28**	–0.6550	280.7330	281	**69**	2.5876	464.8592	465
29	–0.6686	279.3938	279	**70**	2.8794	478.7937	479	**29**	–0.5918	284.3078	284	**70**	2.7922	476.6628	477
30	–0.6063	282.8381	283	**71**	3.1877	496.5191	497	**30**	–0.5293	287.8698	288	**71**	3.0376	490.8251	491
31	–0.5445	286.2719	286	**72**	3.6135	520.9589	521	**31**	–0.4675	291.4198	291	**72**	3.3473	508.7341	509
32	–0.4834	289.6954	290	**73**	4.3268	561.6282	562	**32**	–0.4062	294.9576	295	**73**	3.7746	534.0785	534
33	–0.4226	293.1087	293	**74**	N/A	633.1989	600	**33**	–0.3454	298.4655	298	**74**	4.4895	574.5470	575
34	–0.3622	296.5121	297					**34**	–0.2849	301.8105	302	**75**	N/A	639.4489	600
35	–0.3020	299.9059	300					**35**	–0.2246	304.9254	305				
36	–0.2420	303.2902	303					**36**	–0.1646	308.4124	308				
37	–0.1821	306.6653	307					**37**	–0.1047	311.8860	312				
38	–0.1222	310.0314	310					**38**	–0.0448	315.3460	315				
39	–0.0622	313.3886	313					**39**	0.0152	318.7939	319				
40	–0.0020	316.7371	317					**40**	0.0752	322.2277	322				

Note: Performance-level cut scores are highlighted.

Table 8.D.60 New Conversions for ELA, Grades Ten and Eleven

Grade 10								Grade 11							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.4011	150	**41**	–0.1330	309.8780	310	**0**	N/A	0.0003	150	**41**	–0.0704	307.9056	308
1	–4.8494	57.6794	150	**42**	–0.0736	312.6228	313	**1**	–4.7580	25.7360	150	**42**	–0.0120	311.3537	311
2	–4.1372	96.5787	150	**43**	–0.0138	315.7665	316	**2**	–4.0460	65.9717	150	**43**	0.0468	315.1583	315
3	–3.7123	122.0865	150	**44**	0.0464	318.9487	319	**3**	–3.6213	93.2626	150	**44**	0.1060	318.8298	319
4	–3.4049	139.3085	150	**45**	0.1071	322.1348	322	**4**	–3.3142	112.1254	150	**45**	0.1658	322.3211	322
5	–3.1618	151.7175	152	**46**	0.1685	325.3230	325	**5**	–3.0714	126.8917	150	**46**	0.2261	325.7842	326
6	–2.9593	162.2138	162	**47**	0.2306	328.5142	329	**6**	–2.8693	139.5044	150	**47**	0.2872	329.4298	329
7	–2.7848	171.4369	171	**48**	0.2935	331.7459	332	**7**	–2.6952	150.1859	150	**48**	0.3491	333.2382	333
8	–2.6307	179.6628	180	**49**	0.3573	335.1709	335	**8**	–2.5415	159.2882	159	**49**	0.4119	337.1318	337
9	–2.4921	187.0826	187	**50**	0.4222	338.6254	339	**9**	–2.4034	167.7232	168	**50**	0.4759	340.8623	341
10	–2.3657	193.4997	193	**51**	0.4883	342.0076	342	**10**	–2.2775	175.2369	175	**51**	0.5410	344.8568	345
11	–2.2491	199.5042	200	**52**	0.5558	345.4866	345	**11**	–2.1615	182.2528	182	**52**	0.6074	348.5997	349
12	–2.1406	205.1725	205	**53**	0.6249	349.0948	349	**12**	–2.0535	188.7461	189	**53**	0.6754	352.6834	353
13	–2.0388	210.5448	211	**54**	0.6956	352.8767	353	**13**	–1.9524	195.2183	195	**54**	0.7451	356.9233	357
14	–1.9427	215.6492	216	**55**	0.7683	356.3345	356	**14**	–1.8569	200.5613	201	**55**	0.8168	361.1793	361
15	–1.8514	220.4854	220	**56**	0.8432	360.2968	360	**15**	–1.7663	205.9613	206	**56**	0.8906	365.8415	366
16	–1.7644	224.8088	225	**57**	0.9206	364.5044	365	**16**	–1.6799	211.3911	211	**57**	0.9669	370.3369	370
17	–1.6810	229.0572	229	**58**	1.0007	368.4334	368	**17**	–1.5972	216.2501	216	**58**	1.0459	375.2513	375
18	–1.6007	233.3035	233	**59**	1.0841	372.7670	373	**18**	–1.5177	221.0166	221	**59**	1.1282	379.7126	380
19	–1.5233	237.5236	238	**60**	1.1711	377.2854	377	**19**	–1.4410	225.8097	226	**60**	1.2141	384.9915	385
20	–1.4483	241.5172	242	**61**	1.2624	382.1000	382	**20**	–1.3668	230.2701	230	**61**	1.3042	390.5760	391
21	–1.3755	245.1907	245	**62**	1.3585	387.2444	387	**21**	–1.2948	234.4961	234	**62**	1.3991	396.1588	396
22	–1.3047	248.8744	249	**63**	1.4603	392.4531	392	**22**	–1.2248	238.7135	239	**63**	1.4997	402.2652	402
23	–1.2355	252.5683	253	**64**	1.5689	398.2494	398	**23**	–1.1565	242.9208	243	**64**	1.6071	408.8441	409
24	–1.1680	256.0462	256	**65**	1.6856	404.1474	404	**24**	–1.0897	247.1099	247	**65**	1.7225	415.6293	416
25	–1.1017	259.5116	260	**66**	1.8121	410.6798	411	**25**	–1.0243	250.7686	251	**66**	1.8478	422.9676	423
26	–1.0367	262.7692	263	**67**	1.9509	417.9184	418	**26**	–0.9602	254.7860	255	**67**	1.9852	431.3304	431
27	–0.9728	266.0353	266	**68**	2.1054	425.8902	426	**27**	–0.8971	258.3477	258	**68**	2.1382	440.7165	441
28	–0.9098	269.3981	269	**69**	2.2802	435.2698	435	**28**	–0.8350	262.1222	262	**69**	2.3117	451.0633	451
29	–0.8476	272.6555	273	**70**	2.4831	445.9227	446	**29**	–0.7738	265.8284	266	**70**	2.5130	463.4266	463
30	–0.7862	275.7793	276	**71**	2.7267	458.7095	459	**30**	–0.7132	269.4181	269	**71**	2.7549	477.8155	478
31	–0.7254	278.9085	279	**72**	3.0347	474.7279	475	**31**	–0.6533	273.1728	273	**72**	3.0613	496.4846	496
32	–0.6651	282.0431	282	**73**	3.4602	497.9337	498	**32**	–0.5940	276.8782	277	**73**	3.4851	523.3870	523
33	–0.6053	285.1829	285	**74**	4.1733	537.1100	537	**33**	–0.5351	280.3315	280	**74**	4.1963	569.1787	569
34	–0.5459	288.3268	288	**75**	N/A	608.7990	600	**34**	–0.4766	283.7821	284	**75**	N/A	661.7838	600
35	–0.4867	291.4754	291					**35**	–0.4183	287.2306	287				
36	–0.4277	294.5596	295					**36**	–0.3603	290.6774	291				
37	–0.3688	297.3535	297					**37**	–0.3024	294.1232	294				
38	–0.3100	300.4269	300					**38**	–0.2445	297.5683	298				
39	–0.2511	303.5919	304					**39**	–0.1866	301.0135	301				
40	–0.1922	306.7606	307					**40**	–0.1286	304.4591	304				

Note: Performance-level cut scores are highlighted.

Table 8.D.61 New Conversions for History–Social Science, Grade Eight and World History

Grade 8								World History							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	**41**	0.1152	321.7498	322	**0**	N/A	0.0003	150	**41**	0.5735	348.7754	349
1	–4.6090	34.5081	150	**42**	0.1739	325.4234	325	**1**	–4.5011	34.0725	150	**42**	0.6570	353.9498	354
2	–3.8944	65.8779	150	**43**	0.2328	329.1115	329	**2**	–3.7841	66.4623	150	**43**	0.7430	359.7782	360
3	–3.4674	93.0377	150	**44**	0.2922	332.8138	333	**3**	–3.3544	95.8656	150	**44**	0.8320	365.2933	365
4	–3.1580	114.8880	150	**45**	0.3520	336.5299	337	**4**	–3.0422	115.7847	150	**45**	0.9244	371.3904	371
5	–2.9132	130.3625	150	**46**	0.4125	340.4979	340	**5**	–2.7944	132.4969	150	**46**	1.0208	377.5575	378
6	–2.7092	143.5449	150	**47**	0.4737	344.5634	345	**6**	–2.5871	146.0974	150	**47**	1.1220	383.7944	384
7	–2.5332	154.9949	155	**48**	0.5356	348.3882	348	**7**	–2.4078	157.1777	157	**48**	1.2286	390.8814	391
8	–2.3779	164.9922	165	**49**	0.5986	352.2348	352	**8**	–2.2488	167.4622	167	**49**	1.3419	398.0572	398
9	–2.2382	173.6441	174	**50**	0.6625	356.4220	356	**9**	–2.1053	177.0819	177	**50**	1.4631	405.7728	406
10	–2.1108	181.5929	182	**51**	0.7277	360.3630	360	**10**	–1.9739	185.5572	186	**51**	1.5941	414.5531	415
11	–1.9934	189.0865	189	**52**	0.7942	364.4945	364	**11**	–1.8523	193.1471	193	**52**	1.7371	423.6000	424
12	–1.8842	196.1041	196	**53**	0.8622	368.8404	369	**12**	–1.7386	200.2587	200	**53**	1.8956	433.4809	433
13	–1.7818	202.6386	203	**54**	0.9319	373.2187	373	**13**	–1.6316	207.1404	207	**54**	2.0746	444.9607	445
14	–1.6852	208.7367	209	**55**	1.0035	377.6078	378	**14**	–1.5301	213.6755	214	**55**	2.2814	458.5097	459
15	–1.5936	214.5502	215	**56**	1.0774	382.0991	382	**15**	–1.4333	219.8961	220	**56**	2.5288	474.4444	474
16	–1.5062	220.0218	220	**57**	1.1536	386.9541	387	**16**	–1.3405	225.8231	226	**57**	2.8403	494.2542	494
17	–1.4226	225.2257	225	**58**	1.2326	391.9676	392	**17**	–1.2512	231.6158	232	**58**	3.2698	522.5306	523
18	–1.3422	230.3167	230	**59**	1.3149	397.3073	397	**18**	–1.1649	237.4188	237	**59**	3.9864	571.2513	571
19	–1.2647	235.3287	235	**60**	1.4007	402.8724	403	**19**	–1.0811	242.8449	243	**60**	N/A	666.7195	600
20	–1.1897	240.1589	240	**61**	1.4907	408.4518	408	**20**	–0.9996	247.8203	248				
21	–1.1170	244.6777	245	**62**	1.5856	414.2074	414	**21**	–0.9200	252.8496	253				
22	–1.0462	248.9306	249	**63**	1.6861	420.4789	420	**22**	–0.8420	257.9502	258				
23	–0.9773	253.2124	253	**64**	1.7934	427.3353	427	**23**	–0.7655	262.8127	263				
24	–0.9099	257.5224	258	**65**	1.9087	434.6511	435	**24**	–0.6902	267.7319	268				
25	–0.8440	261.6232	262	**66**	2.0339	442.4303	442	**25**	–0.6159	272.6414	273				
26	–0.7793	265.5282	266	**67**	2.1712	451.2811	451	**26**	–0.5423	277.0029	277				
27	–0.7158	269.4310	269	**68**	2.3240	460.8677	461	**27**	–0.4695	281.8646	282				
28	–0.6532	273.3576	273	**69**	2.4973	471.7757	472	**28**	–0.3971	286.6834	287				
29	–0.5915	277.3049	277	**70**	2.6985	484.6011	485	**29**	–0.3250	291.0536	291				
30	–0.5306	281.2744	281	**71**	2.9403	499.9936	500	**30**	–0.2531	295.5683	296				
31	–0.4703	285.1278	285	**72**	3.2464	519.5557	520	**31**	–0.1811	300.6097	301				
32	–0.4106	288.8381	289	**73**	3.6699	548.5412	549	**32**	–0.1091	305.1562	305				
33	–0.3514	292.6585	293	**74**	4.3810	594.7783	595	**33**	–0.0368	309.7621	310				
34	–0.2925	296.4673	296	**75**	N/A	661.2691	600	**34**	0.0360	314.4276	314				
35	–0.2340	300.0303	300					**35**	0.1094	319.1529	319				
36	–0.1757	303.6102	304					**36**	0.1836	323.9383	324				
37	–0.1175	307.2066	307					**37**	0.2588	328.7840	329				
38	–0.0594	310.8194	311					**38**	0.3351	333.6901	334				
39	–0.0013	314.4480	314					**39**	0.4128	338.6564	339				
40	0.0569	318.0910	318					**40**	0.4922	343.6860	344				

Note: Performance-level cut scores are highlighted.

Table 8.D.62 New Conversion for History–Social Science, Grade Eleven

Grade 11							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	0.0003	150	**41**	0.5576	357.5216	358
1	–4.5558	36.8948	150	**42**	0.6423	362.7065	363
2	–3.8372	72.3226	150	**43**	0.7295	368.3531	368
3	–3.4061	102.7805	150	**44**	0.8197	374.1518	374
4	–3.0926	124.2248	150	**45**	0.9134	380.1347	380
5	–2.8436	139.5246	150	**46**	1.0111	386.5090	387
6	–2.6352	152.8540	153	**47**	1.1136	392.7629	393
7	–2.4548	164.5785	165	**48**	1.2216	399.8989	400
8	–2.2949	175.0126	175	**49**	1.3362	407.3841	407
9	–2.1504	184.2867	184	**50**	1.4589	414.9300	415
10	–2.0181	192.6914	193	**51**	1.5913	423.3854	423
11	–1.8956	200.3734	200	**52**	1.7359	432.7571	433
12	–1.7811	207.8276	208	**53**	1.8959	443.0487	443
13	–1.6732	215.0382	215	**54**	2.0765	454.7766	455
14	–1.5709	221.5026	222	**55**	2.2850	467.6880	468
15	–1.4733	227.5563	228	**56**	2.5342	484.1775	484
16	–1.3797	233.6769	234	**57**	2.8477	504.4122	504
17	–1.2896	239.4080	239	**58**	3.2791	532.8908	533
18	–1.2025	245.0953	245	**59**	3.9978	580.3217	580
19	–1.1180	250.5234	251	**60**	N/A	667.4795	600
20	–1.0356	255.7532	256				
21	–0.9552	260.8308	261				
22	–0.8765	265.7417	266				
23	–0.7991	271.0183	271				
24	–0.7229	275.7791	276				
25	–0.6477	280.1269	280				
26	–0.5734	285.0765	285				
27	–0.4996	290.0517	290				
28	–0.4263	294.4702	294				
29	–0.3533	298.9456	299				
30	–0.2804	304.0781	304				
31	–0.2076	308.6271	309				
32	–0.1346	313.2192	313				
33	–0.0612	317.8541	318				
34	0.0125	322.5309	323				
35	0.0870	327.2509	327				
36	0.1622	332.0121	332				
37	0.2384	336.8145	337				
38	0.3159	341.9228	342				
39	0.3947	347.1801	347				
40	0.4752	352.1044	352				

Note: Performance-level cut scores are highlighted.

Table 8.D.63 New Conversions for Mathematics, Grades Two and Three

Grade 2								Grade 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	**41**	–0.2857	312.6573	313	**0**	N/A	0.0000	150	**41**	–0.0874	317.0370	317
1	–5.3878	2.2277	150	**42**	–0.2071	317.7202	318	**1**	–5.3417	5.1105	150	**42**	–0.0044	322.0348	322
2	–4.6703	39.2214	150	**43**	–0.1271	322.7901	323	**2**	–4.6214	45.7997	150	**43**	0.0801	327.3091	327
3	–4.2399	66.3583	150	**44**	–0.0454	327.8633	328	**3**	–4.1881	72.2973	150	**44**	0.1662	332.4710	332
4	–3.9269	86.0230	150	**45**	0.0381	332.9390	333	**4**	–3.8723	91.4341	150	**45**	0.2541	337.7065	338
5	–3.6781	101.8062	150	**46**	0.1237	338.0718	338	**5**	–3.6206	106.8411	150	**46**	0.3442	342.8765	343
6	–3.4697	114.6551	150	**47**	0.2118	343.6971	344	**6**	–3.4093	119.3794	150	**47**	0.4368	348.3725	348
7	–3.2893	126.0768	150	**48**	0.3026	349.4047	349	**7**	–3.2257	130.5696	150	**48**	0.5321	354.1716	354
8	–3.1290	135.7970	150	**49**	0.3967	355.2560	355	**8**	–3.0624	140.1112	150	**49**	0.6306	359.9423	360
9	–2.9842	144.8535	150	**50**	0.4943	361.4572	361	**9**	–2.9144	148.9307	150	**50**	0.7328	366.0375	366
10	–2.8514	153.1445	153	**51**	0.5962	367.7791	368	**10**	–2.7784	157.1908	157	**51**	0.8392	372.5670	373
11	–2.7283	160.5225	161	**52**	0.7029	374.2860	374	**11**	–2.6520	164.4494	164	**52**	0.9506	379.2168	379
12	–2.6131	167.7877	168	**53**	0.8153	381.2633	381	**12**	–2.5335	171.4704	171	**53**	1.0677	386.1900	386
13	–2.5044	174.7466	175	**54**	0.9345	388.8473	389	**13**	–2.4214	178.4849	178	**54**	1.1918	393.7569	394
14	–2.4013	180.9950	181	**55**	1.0618	396.8696	397	**14**	–2.3148	184.6948	185	**55**	1.3242	401.7388	402
15	–2.3028	187.0259	187	**56**	1.1989	405.2176	405	**15**	–2.2128	190.6055	191	**56**	1.4667	410.1764	410
16	–2.2083	193.0559	193	**57**	1.3484	414.5760	415	**16**	–2.1147	196.4947	196	**57**	1.6218	419.3647	419
17	–2.1173	198.9530	199	**58**	1.5134	424.7826	425	**17**	–2.0201	202.4008	202	**58**	1.7928	429.5952	430
18	–2.0292	204.4198	204	**59**	1.6989	436.7506	437	**18**	–1.9283	207.9506	208	**59**	1.9847	441.1635	441
19	–1.9437	209.5276	210	**60**	1.9125	450.4597	450	**19**	–1.8390	212.9501	213	**60**	2.2054	454.6976	455
20	–1.8605	214.7008	215	**61**	2.1669	466.9907	467	**20**	–1.7519	218.0980	218	**61**	2.4674	470.8650	471
21	–1.7792	219.7162	220	**62**	2.4856	487.7418	488	**21**	–1.6667	223.0945	223	**62**	2.7947	491.1496	491
22	–1.6995	224.5679	225	**63**	2.9221	516.9051	517	**22**	–1.5831	228.2631	228	**63**	3.2408	519.7420	520
23	–1.6213	229.4278	229	**64**	3.6458	561.8616	562	**23**	–1.5009	233.2920	233	**64**	3.9756	564.1149	564
24	–1.5444	234.2977	234	**65**	N/A	632.1190	600	**24**	–1.4199	238.1271	238	**65**	N/A	633.7990	600
25	–1.4685	239.1776	239					**25**	–1.3400	242.5934	243				
26	–1.3936	244.0689	244					**26**	–1.2609	247.2123	247				
27	–1.3194	248.5021	249					**27**	–1.1824	252.0456	252				
28	–1.2457	253.2739	253					**28**	–1.1046	256.5264	257				
29	–1.1726	257.7293	258					**29**	–1.0271	261.1940	261				
30	–1.0998	262.0603	262					**30**	–0.9500	265.6575	266				
31	–1.0271	266.3937	266					**31**	–0.8731	270.3573	270				
32	–0.9546	271.2001	271					**32**	–0.7962	274.8168	275				
33	–0.8821	275.7064	276					**33**	–0.7193	279.5475	280				
34	–0.8093	280.0786	280					**34**	–0.6422	283.9978	284				
35	–0.7364	284.9230	285					**35**	–0.5648	288.7558	289				
36	–0.6630	289.4574	289					**36**	–0.4870	293.1978	293				
37	–0.5891	293.8548	294					**37**	–0.4086	297.9760	298				
38	–0.5146	298.2585	298					**38**	–0.3297	302.8743	303				
39	–0.4393	303.1703	303					**39**	–0.2499	307.3435	307				
40	–0.3631	307.7058	308					**40**	–0.1692	312.1235	312				

Note: Performance-level cut scores are highlighted.

Table 8.D.64 New Conversions for Mathematics, Grades Four and Five

Grade 4								Grade 5							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	2.3408	150	**41**	–0.0154	323.5734	324	**0**	N/A	0.0000	150	**41**	0.4534	350.2595	350
1	–5.0764	64.3761	150	**42**	0.0616	327.2359	327	**1**	–4.8750	3.6729	150	**42**	0.5328	355.8377	356
2	–4.3598	100.7106	150	**43**	0.1400	331.3306	331	**2**	–4.1405	38.4619	150	**43**	0.6136	361.1760	361
3	–3.9303	123.0758	150	**44**	0.2199	335.4490	335	**3**	–3.6946	70.2239	150	**44**	0.6960	366.4879	366
4	–3.6183	139.5119	150	**45**	0.3017	339.5527	340	**4**	–3.3672	93.0148	150	**45**	0.7801	372.1235	372
5	–3.3704	152.3129	152	**46**	0.3856	343.6738	344	**5**	–3.1051	111.1582	150	**46**	0.8664	377.8568	378
6	–3.1630	162.7144	163	**47**	0.4718	348.2423	348	**6**	–2.8844	126.2385	150	**47**	0.9551	383.9356	384
7	–2.9834	171.9166	172	**48**	0.5608	352.8061	353	**7**	–2.6925	139.3390	150	**48**	1.0465	390.2669	390
8	–2.8240	180.1975	180	**49**	0.6529	357.3495	357	**8**	–2.5217	150.9341	151	**49**	1.1412	396.5908	397
9	–2.6800	187.7645	188	**50**	0.7486	361.8836	362	**9**	–2.3670	161.4162	161	**50**	1.2394	403.0629	403
10	–2.5481	194.4881	194	**51**	0.8484	367.3531	367	**10**	–2.2251	170.8566	171	**51**	1.3419	409.8820	410
11	–2.4258	200.6273	201	**52**	0.9531	372.3611	372	**11**	–2.0934	179.7382	180	**52**	1.4493	417.0577	417
12	–2.3114	206.4055	206	**53**	1.0634	377.7908	378	**12**	–1.9703	188.0494	188	**53**	1.5625	424.5624	425
13	–2.2036	211.9548	212	**54**	1.1805	384.0574	384	**13**	–1.8542	195.7768	196	**54**	1.6826	432.4150	432
14	–2.1013	217.2226	217	**55**	1.3056	390.4253	390	**14**	–1.7441	202.9210	203	**55**	1.8109	441.0318	441
15	–2.0036	222.2437	222	**56**	1.4407	397.1499	397	**15**	–1.6391	210.0977	210	**56**	1.9493	450.4090	450
16	–1.9100	226.9976	227	**57**	1.5879	404.6341	405	**16**	–1.5386	217.2885	217	**57**	2.1000	460.4665	460
17	–1.8198	231.6973	232	**58**	1.7508	412.9553	413	**17**	–1.4419	223.2830	223	**58**	2.2667	471.6138	472
18	–1.7326	236.1831	236	**59**	1.9341	422.1312	422	**18**	–1.3485	229.8417	230	**59**	2.4541	484.2635	484
19	–1.6479	240.4213	240	**60**	2.1456	432.8603	433	**19**	–1.2580	235.8668	236	**60**	2.6699	498.9207	499
20	–1.5655	244.6117	245	**61**	2.3977	445.8619	446	**20**	–1.1700	241.8512	242	**61**	2.9266	516.3434	516
21	–1.4851	248.8060	249	**62**	2.7143	462.2814	462	**21**	–1.0844	247.2762	247	**62**	3.2484	538.2826	538
22	–1.4064	252.7420	253	**63**	3.1487	485.3820	485	**22**	–1.0006	253.2343	253	**63**	3.6881	569.1211	569
23	–1.3291	256.7315	257	**64**	3.8699	520.9578	521	**23**	–0.9186	258.6929	259	**64**	4.4159	617.1260	600
24	–1.2531	260.6135	261	**65**	N/A	575.5792	600	**24**	–0.8381	264.1019	264	**65**	N/A	691.2489	600
25	–1.1782	264.3263	264					**25**	–0.7589	269.4977	269				
26	–1.1043	268.3194	268					**26**	–0.6809	274.3650	274				
27	–1.0311	272.1817	272					**27**	–0.6038	279.7164	280				
28	–0.9585	275.8874	276					**28**	–0.5274	284.6231	285				
29	–0.8864	279.5722	280					**29**	–0.4518	289.9983	290				
30	–0.8147	282.8940	283					**30**	–0.3767	294.8655	295				
31	–0.7432	286.4406	286					**31**	–0.3019	299.7870	300				
32	–0.6719	290.1128	290					**32**	–0.2274	305.1909	305				
33	–0.6005	293.7915	294					**33**	–0.1530	310.0704	310				
34	–0.5291	297.4683	297					**34**	–0.0786	314.9378	315				
35	–0.4574	301.1419	301					**35**	–0.0041	319.8152	320				
36	–0.3854	304.8115	305					**36**	0.0707	324.7109	325				
37	–0.3129	308.4760	308					**37**	0.1459	329.7982	330				
38	–0.2398	312.1344	312					**38**	0.2216	335.1719	335				
39	–0.1659	315.8113	316					**39**	0.2980	340.0823	340				
40	–0.0912	319.8908	320					**40**	0.3752	345.0309	345				

Note: Performance-level cut scores are highlighted.

Table 8.D.65 New Conversions for Mathematics, Grades Six and Seven

Grade 6								Grade 7							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	**41**	0.3042	342.3473	342	**0**	N/A	0.0007	150	**41**	0.6023	355.4675	355
1	–4.7359	54.4887	150	**42**	0.3790	346.6518	347	**1**	–4.4581	50.7933	150	**42**	0.6767	359.9250	360
2	–4.0159	94.4653	150	**43**	0.4552	351.0187	351	**2**	–3.7372	92.0963	150	**43**	0.7525	364.4800	364
3	–3.5834	119.5436	150	**44**	0.5330	355.4072	355	**3**	–3.3040	119.1440	150	**44**	0.8298	368.9391	369
4	–3.2687	137.4959	150	**45**	0.6126	360.0405	360	**4**	–2.9886	138.4540	150	**45**	0.9089	373.6723	374
5	–3.0186	151.8642	152	**46**	0.6942	364.7542	365	**5**	–2.7377	153.8425	154	**46**	0.9899	378.6131	379
6	–2.8092	163.9439	164	**47**	0.7782	369.6663	370	**6**	–2.5276	166.6552	167	**47**	1.0732	383.7219	384
7	–2.6280	174.3309	174	**48**	0.8649	374.6087	375	**7**	–2.3457	177.4976	177	**48**	1.1592	388.6175	389
8	–2.4673	183.5322	184	**49**	0.9548	379.6196	380	**8**	–2.1842	187.2635	187	**49**	1.2481	393.9918	394
9	–2.3222	192.0643	192	**50**	1.0482	384.9326	385	**9**	–2.0385	196.3272	196	**50**	1.3406	399.7756	400
10	–2.1895	199.6692	200	**51**	1.1457	390.5414	391	**10**	–1.9050	204.5079	205	**51**	1.4371	405.5531	406
11	–2.0666	206.5933	207	**52**	1.2481	396.4375	396	**11**	–1.7813	211.9190	212	**52**	1.5384	411.4978	411
12	–1.9519	213.3396	213	**53**	1.3561	402.6490	403	**12**	–1.6658	218.7240	219	**53**	1.6452	418.1594	418
13	–1.8439	219.3441	219	**54**	1.4709	409.1265	409	**13**	–1.5571	225.0819	225	**54**	1.7586	424.6038	425
14	–1.7416	225.3740	225	**55**	1.5937	416.0236	416	**14**	–1.4540	231.3101	231	**55**	1.8800	431.8775	432
15	–1.6442	230.8445	231	**56**	1.7263	423.5934	424	**15**	–1.3558	237.3646	237	**56**	2.0110	440.0723	440
16	–1.5509	236.3136	236	**57**	1.8712	432.1025	432	**16**	–1.2618	243.1192	243	**57**	2.1543	448.5180	449
17	–1.4612	241.2680	241	**58**	2.0316	441.4049	441	**17**	–1.1714	248.5468	249	**58**	2.3130	458.0509	458
18	–1.3746	246.1634	246	**59**	2.2125	451.7448	452	**18**	–1.0841	253.6738	254	**59**	2.4919	469.0355	469
19	–1.2908	250.9257	251	**60**	2.4214	463.4205	463	**19**	–0.9995	258.7159	259	**60**	2.6988	481.4700	481
20	–1.2093	255.7916	256	**61**	2.6709	477.7613	478	**20**	–0.9173	263.7652	264	**61**	2.9462	496.5584	497
21	–1.1299	260.5823	261	**62**	2.9848	495.7150	496	**21**	–0.8373	268.8200	269	**62**	3.2578	515.8197	516
22	–1.0523	264.8463	265	**63**	3.4163	520.6487	521	**22**	–0.7590	273.5533	274	**63**	3.6869	542.4164	542
23	–0.9763	269.1041	269	**64**	4.1352	561.6739	562	**23**	–0.6823	278.0225	278	**64**	4.4033	584.3330	584
24	–0.9017	273.4020	273	**65**	N/A	630.3291	600	**24**	–0.6071	282.4518	282	**65**	N/A	648.9990	600
25	–0.8282	277.6473	278					**25**	–0.5330	286.8815	287				
26	–0.7557	281.9368	282					**26**	–0.4600	291.3076	291				
27	–0.6841	285.9374	286					**27**	–0.3879	295.7306	296				
28	–0.6132	289.9415	290					**28**	–0.3165	300.1492	300				
29	–0.5428	293.9490	294					**29**	–0.2458	304.4932	304				
30	–0.4729	297.9599	298					**30**	–0.1754	308.5214	309				
31	–0.4032	301.9741	302					**31**	–0.1055	312.7666	313				
32	–0.3338	305.9915	306					**32**	–0.0357	317.0240	317				
33	–0.2643	310.0121	310					**33**	0.0339	321.0653	321				
34	–0.1948	314.0358	314					**34**	0.1036	325.3000	325				
35	–0.1252	318.0625	318					**35**	0.1734	329.6561	330				
36	–0.0552	322.0923	322					**36**	0.2435	333.9973	334				
37	0.0153	326.1243	326					**37**	0.3139	338.1210	338				
38	0.0863	330.1607	330					**38**	0.3849	342.1267	342				
39	0.1580	334.1992	334					**39**	0.4565	346.5460	347				
40	0.2306	338.2405	338					**40**	0.5289	351.1327	351				

Note: Performance-level cut scores are highlighted.

Table 8.D.66 New Conversions for General Mathematics and Algebra I

General Mathematics								Algebra I							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0003	150	**41**	0.7558	350.2091	350	**0**	N/A	–68.2504	150	**41**	0.5200	365.9166	366
1	–4.1732	51.3770	150	**42**	0.8276	354.4252	354	**1**	–4.5186	12.6971	150	**42**	0.5929	370.7500	371
2	–3.4576	93.6083	150	**43**	0.9007	358.6453	359	**2**	–3.7919	63.3481	150	**43**	0.6672	375.8103	376
3	–3.0293	119.8437	150	**44**	0.9754	363.4497	363	**3**	–3.3541	94.6760	150	**44**	0.7430	381.3606	381
4	–2.7185	138.6676	150	**45**	1.0518	367.6645	368	**4**	–3.0352	117.0949	150	**45**	0.8206	386.7226	387
5	–2.4720	153.7781	154	**46**	1.1302	372.4683	372	**5**	–2.7818	135.0569	150	**46**	0.9002	392.0082	392
6	–2.2662	166.4846	166	**47**	1.2108	377.2764	377	**6**	–2.5698	150.1310	150	**47**	0.9822	398.1085	398
7	–2.0883	176.9018	177	**48**	1.2941	382.6650	383	**7**	–2.3865	163.0429	163	**48**	1.0668	403.9282	404
8	–1.9309	186.4873	186	**49**	1.3804	387.4654	387	**8**	–2.2242	174.4720	174	**49**	1.1545	410.0666	410
9	–1.7889	195.5085	196	**50**	1.4703	392.8601	393	**9**	–2.0780	184.4862	184	**50**	1.2457	416.1463	416
10	–1.6591	203.4771	203	**51**	1.5641	398.8440	399	**10**	–1.9443	193.7095	194	**51**	1.3410	423.0306	423
11	–1.5391	210.7561	211	**52**	1.6627	404.8249	405	**11**	–1.8208	202.2159	202	**52**	1.4411	429.6810	430
12	–1.4271	217.4541	217	**53**	1.7668	410.8039	411	**12**	–1.7057	210.6371	211	**53**	1.5468	437.0897	437
13	–1.3218	223.5667	224	**54**	1.8775	417.9756	418	**13**	–1.5975	217.7766	218	**54**	1.6592	445.2673	445
14	–1.2222	229.5667	230	**55**	1.9962	424.5501	425	**14**	–1.4952	225.3971	225	**55**	1.7796	453.9370	454
15	–1.1273	235.5758	236	**56**	2.1246	432.3120	432	**15**	–1.3979	231.8142	232	**56**	1.9098	462.9583	463
16	–1.0365	241.1133	241	**57**	2.2651	441.2648	441	**16**	–1.3049	238.6988	239	**57**	2.0522	472.7823	473
17	–0.9493	246.5352	247	**58**	2.4210	450.2353	450	**17**	–1.2156	245.0261	245	**58**	2.2100	483.7881	484
18	–0.8652	251.4782	251	**59**	2.5973	460.9745	461	**18**	–1.1296	250.6537	251	**59**	2.3883	496.3893	496
19	–0.7838	256.3077	256	**60**	2.8013	473.5145	474	**19**	–1.0463	256.1835	256	**60**	2.5945	511.0559	511
20	–0.7047	261.1414	261	**61**	3.0460	487.8766	488	**20**	–0.9655	262.2883	262	**61**	2.8412	528.1450	528
21	–0.6276	265.9788	266	**62**	3.3548	507.0007	507	**21**	–0.8869	267.9112	268	**62**	3.1525	550.4010	550
22	–0.5524	270.8193	271	**63**	3.7809	532.1657	532	**22**	–0.8101	272.8495	273	**63**	3.5812	580.9216	581
23	–0.4788	275.1546	275	**64**	4.4945	575.3591	575	**23**	–0.7350	278.1978	278	**64**	4.2972	631.4069	600
24	–0.4064	279.3950	279	**65**	N/A	648.9995	600	**24**	–0.6614	283.1498	283	**65**	N/A	721.0744	600
25	–0.3353	283.6357	284					**25**	–0.5889	288.4531	288				
26	–0.2652	287.8777	288					**26**	–0.5175	293.4257	293				
27	–0.1960	292.1205	292					**27**	–0.4471	298.2059	298				
28	–0.1275	296.3637	296					**28**	–0.3774	302.9828	303				
29	–0.0595	300.6068	301					**29**	–0.3083	307.7572	308				
30	0.0080	304.8497	305					**30**	–0.2396	312.5301	313				
31	0.0752	308.5356	309					**31**	–0.1713	317.3025	317				
32	0.1422	312.7325	313					**32**	–0.1033	322.0753	322				
33	0.2090	316.9721	317					**33**	–0.0353	326.8490	327				
34	0.2760	320.6372	321					**34**	0.0327	331.6255	332				
35	0.3430	324.8461	325					**35**	0.1008	336.4066	336				
36	0.4104	329.0800	329					**36**	0.1692	341.1912	341				
37	0.4781	333.3115	333					**37**	0.2380	345.9813	346				
38	0.5464	337.5403	338					**38**	0.3074	350.7779	351				
39	0.6154	341.1712	341					**39**	0.3774	355.5818	356				
40	0.6851	345.3894	345					**40**	0.4482	360.6422	361				

Note: Performance-level cut scores are highlighted.

Table 8.D.67 New Conversions for Geometry and Algebra II

Geometry								Algebra II							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	–44.9995	150	**41**	–0.1586	338.6488	339	**0**	N/A	–54.8295	150	**41**	0.1766	348.1255	348
1	–5.1421	38.1318	150	**42**	–0.0846	343.1517	343	**1**	–4.8715	16.5620	150	**42**	0.2512	352.8422	353
2	–4.4257	82.4443	150	**43**	–0.0091	347.6580	348	**2**	–4.1524	62.1363	150	**43**	0.3270	357.5838	358
3	–3.9966	108.7418	150	**44**	0.0679	352.1711	352	**3**	–3.7206	91.6936	150	**44**	0.4043	362.9469	363
4	–3.6850	127.7105	150	**45**	0.1467	356.7267	357	**4**	–3.4064	113.1108	150	**45**	0.4834	367.7374	368
5	–3.4377	142.5791	150	**46**	0.2275	361.8201	362	**5**	–3.1565	129.7271	150	**46**	0.5645	373.1514	373
6	–3.2310	155.4134	155	**47**	0.3107	366.9237	367	**6**	–2.9473	143.4147	150	**47**	0.6479	378.5714	379
7	–3.0522	165.9826	166	**48**	0.3967	372.0449	372	**7**	–2.7662	155.5268	156	**48**	0.7339	384.1143	384
8	–2.8938	175.5588	176	**49**	0.4856	377.1793	377	**8**	–2.6054	166.1949	166	**49**	0.8229	390.0880	390
9	–2.7509	183.8903	184	**50**	0.5782	382.8131	383	**9**	–2.4602	175.7837	176	**50**	0.9155	395.8491	396
10	–2.6201	191.9844	192	**51**	0.6749	388.5608	389	**10**	–2.3272	184.3593	184	**51**	1.0121	402.4737	402
11	–2.4992	199.3423	199	**52**	0.7763	394.3345	394	**11**	–2.2040	192.3956	192	**52**	1.1134	408.8184	409
12	–2.3862	205.9875	206	**53**	0.8834	400.5512	401	**12**	–2.0889	199.9050	200	**53**	1.2202	415.8790	416
13	–2.2798	212.1566	212	**54**	0.9971	407.3679	407	**13**	–1.9805	207.4503	207	**54**	1.3338	423.4054	423
14	–2.1791	218.2778	218	**55**	1.1188	414.7992	415	**14**	–1.8778	213.7786	214	**55**	1.4552	431.2304	431
15	–2.0831	224.1172	224	**56**	1.2504	422.4923	422	**15**	–1.7798	220.1249	220	**56**	1.5864	439.7850	440
16	–1.9912	229.5472	230	**57**	1.3941	430.9890	431	**16**	–1.6861	226.4983	226	**57**	1.7298	449.0742	449
17	–1.9029	234.7042	235	**58**	1.5533	440.7608	441	**17**	–1.5958	232.3313	232	**58**	1.8885	459.4815	459
18	–1.8176	239.7048	240	**59**	1.7328	451.4691	451	**18**	–1.5087	238.1124	238	**59**	2.0676	471.3667	471
19	–1.7349	244.8107	245	**60**	1.9403	463.7132	464	**19**	–1.4243	243.3762	243	**60**	2.2746	484.7336	485
20	–1.6546	249.5255	250	**61**	2.1884	478.8563	479	**20**	–1.3423	249.0783	249	**61**	2.5222	501.0552	501
21	–1.5763	254.2170	254	**62**	2.5007	497.9247	498	**21**	–1.2624	254.4004	254	**62**	2.8338	521.6157	522
22	–1.4997	258.8868	259	**63**	2.9306	523.7529	524	**22**	–1.1842	259.0949	259	**63**	3.2632	550.0969	550
23	–1.4247	263.3695	263	**64**	3.6475	567.8347	568	**23**	–1.1077	264.1713	264	**64**	3.9798	597.9766	598
24	–1.3510	267.5681	268	**65**	N/A	645.5995	600	**24**	–1.0325	269.4072	269	**65**	N/A	681.5695	600
25	–1.2785	272.0591	272					**25**	–0.9586	274.1534	274				
26	–1.2070	276.1797	276					**26**	–0.8856	278.7574	279				
27	–1.1362	280.6927	281					**27**	–0.8135	283.3728	283				
28	–1.0661	284.6915	285					**28**	–0.7422	287.9966	288				
29	–0.9966	288.6911	289					**29**	–0.6715	292.6295	293				
30	–0.9275	293.2380	293					**30**	–0.6012	297.2710	297				
31	–0.8586	297.2281	297					**31**	–0.5312	301.9207	302				
32	–0.7899	301.1904	301					**32**	–0.4615	306.5781	307				
33	–0.7213	305.1457	305					**33**	–0.3919	310.7014	311				
34	–0.6525	309.5382	310					**34**	–0.3222	315.2570	315				
35	–0.5836	313.6411	314					**35**	–0.2524	319.9352	320				
36	–0.5144	317.5825	318					**36**	–0.1823	324.6196	325				
37	–0.4446	321.8527	322					**37**	–0.1118	329.3098	329				
38	–0.3744	326.0569	326					**38**	–0.0408	334.0057	334				
39	–0.3034	330.2496	330					**39**	0.0308	338.7071	339				
40	–0.2315	334.5300	335					**40**	0.1032	343.4137	343				

Note: Performance-level cut scores are highlighted.

Table 8.D.68 New Conversions for Summative High School Mathematics and Integrated Mathematics 1

Summative High School Mathematics							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	–87.7995	150	**41**	–0.1908	315.4216	315
1	–5.2353	1.4841	150	**42**	–0.1162	319.9797	320
2	–4.5158	47.7920	150	**43**	–0.0403	324.5348	325
3	–4.0837	75.2869	150	**44**	0.0372	329.0883	329
4	–3.7694	94.9412	150	**45**	0.1165	334.1641	334
5	–3.5194	110.6956	150	**46**	0.1977	339.2874	339
6	–3.3101	123.2840	150	**47**	0.2813	344.4128	344
7	–3.1289	134.3700	150	**48**	0.3676	349.5457	350
8	–2.9682	144.5104	150	**49**	0.4569	355.0060	355
9	–2.8230	153.2890	153	**50**	0.5498	360.7241	361
10	–2.6901	161.4919	161	**51**	0.6467	366.6814	367
11	–2.5671	169.0213	169	**52**	0.7484	373.0002	373
12	–2.4521	176.3639	176	**53**	0.8557	379.4761	379
13	–2.3439	182.9716	183	**54**	0.9697	386.5109	387
14	–2.2413	189.4331	189	**55**	1.0917	394.1157	394
15	–2.1436	195.2632	195	**56**	1.2235	402.3101	402
16	–2.0500	201.0392	201	**57**	1.3674	411.1171	411
17	–1.9600	206.6199	207	**58**	1.5268	420.5655	421
18	–1.8731	211.8230	212	**59**	1.7066	431.7717	432
19	–1.7889	217.2942	217	**60**	1.9143	444.8244	445
20	–1.7071	222.2635	222	**61**	2.1628	459.8354	460
21	–1.6274	227.0375	227	**62**	2.4755	479.0160	479
22	–1.5495	231.4772	231	**63**	2.9057	505.7134	506
23	–1.4732	236.3455	236	**64**	3.6230	550.7205	551
24	–1.3982	241.0590	241	**65**	N/A	630.7795	600
25	–1.3245	245.3744	245				
26	–1.2517	250.0734	250				
27	–1.1799	254.2973	254				
28	–1.1087	259.0016	259				
29	–1.0381	263.1266	263				
30	–0.9680	267.2340	267				
31	–0.8982	271.8772	272				
32	–0.8286	276.0210	276				
33	–0.7590	280.0834	280				
34	–0.6895	284.5654	285				
35	–0.6198	288.7899	289				
36	–0.5497	293.1625	293				
37	–0.4793	297.4552	297				
38	–0.4084	301.7155	302				
39	–0.3367	306.2908	306				
40	–0.2642	310.8590	311				

Integrated Mathematics 1							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	–77.6988	150	**41**	0.7187	365.2507	365
1	–4.3739	–5.7326	150	**42**	0.7922	370.7163	371
2	–3.6466	45.6602	150	**43**	0.8671	375.7050	376
3	–3.2078	80.4193	150	**44**	0.9435	381.8594	382
4	–2.8874	104.4853	150	**45**	1.0215	387.3519	387
5	–2.6322	123.2559	150	**46**	1.1016	392.9118	393
6	–2.4184	138.6339	150	**47**	1.1840	398.9774	399
7	–2.2331	151.8750	152	**48**	1.2689	405.0881	405
8	–2.0689	163.5862	164	**49**	1.3570	411.3066	411
9	–1.9206	174.0922	174	**50**	1.4485	418.0000	418
10	–1.7850	183.6764	184	**51**	1.5441	425.0889	425
11	–1.6595	192.7103	193	**52**	1.6444	432.1555	432
12	–1.5424	201.3095	201	**53**	1.7503	439.7395	440
13	–1.4324	209.0122	209	**54**	1.8628	447.7204	448
14	–1.3282	216.9765	217	**55**	1.9833	456.6134	457
15	–1.2291	223.7750	224	**56**	2.1135	465.8510	466
16	–1.1344	230.7775	231	**57**	2.2559	476.2393	476
17	–1.0434	237.0644	237	**58**	2.4138	487.7977	488
18	–0.9557	243.3735	243	**59**	2.5919	500.4717	500
19	–0.8709	249.7293	250	**60**	2.7980	515.1368	515
20	–0.7885	255.5584	256	**61**	3.0447	533.0782	533
21	–0.7084	261.2815	261	**62**	3.3556	556.1873	556
22	–0.6302	267.1445	267	**63**	3.7839	588.7968	589
23	–0.5538	272.5817	273	**64**	4.4997	638.7522	600
24	–0.4788	278.2287	278	**65**	N/A	714.6990	600
25	–0.4050	283.6039	284				
26	–0.3324	288.7340	289				
27	–0.2608	293.8506	294				
28	–0.1899	298.9533	299				
29	–0.1197	304.0412	304				
30	–0.0500	309.1136	309				
31	0.0193	314.1707	314				
32	0.0883	319.2098	319				
33	0.1572	324.2329	324				
34	0.2261	329.2387	329				
35	0.2951	334.2272	334				
36	0.3644	339.3711	339				
37	0.4340	344.7450	345				
38	0.5040	349.7858	350				
39	0.5748	354.7027	355				
40	0.6463	359.7394	360				

Note: Performance-level cut scores are highlighted.

Table 8.D.69 New Conversions for Integrated Mathematics 2 and Integrated Mathematics 3

Integrated Mathematics 2							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	–60.2788	150	**41**	0.3782	373.4376	373
1	–4.6112	32.9380	150	**42**	0.4526	378.3567	378
2	–3.8948	85.0084	150	**43**	0.5285	383.4070	383
3	–3.4656	116.1889	150	**44**	0.6060	388.4318	388
4	–3.1539	137.8127	150	**45**	0.6853	393.8813	394
5	–2.9066	154.8466	155	**46**	0.7667	399.4715	399
6	–2.6999	169.0542	169	**47**	0.8505	405.0399	405
7	–2.5211	181.1860	181	**48**	0.9370	410.8519	411
8	–2.3626	191.8421	192	**49**	1.0266	416.9638	417
9	–2.2197	201.5037	202	**50**	1.1199	423.0532	423
10	–2.0889	210.0830	210	**51**	1.2173	429.2921	429
11	–1.9678	217.8609	218	**52**	1.3195	436.4367	436
12	–1.8548	225.5536	226	**53**	1.4275	443.7146	444
13	–1.7484	232.7363	233	**54**	1.5421	451.3116	451
14	–1.6476	239.5465	240	**55**	1.6648	459.3702	459
15	–1.5516	245.8202	246	**56**	1.7974	468.2665	468
16	–1.4596	251.7654	252	**57**	1.9422	478.1155	478
17	–1.3712	257.6634	258	**58**	2.1026	488.9563	489
18	–1.2858	263.5163	264	**59**	2.2834	501.1082	501
19	–1.2030	269.1745	269	**60**	2.4923	515.7787	516
20	–1.1226	274.3096	274	**61**	2.7417	533.0692	533
21	–1.0442	279.3191	279	**62**	3.0557	554.5063	555
22	–0.9675	284.2940	284	**63**	3.4871	586.5248	587
23	–0.8923	289.2342	289	**64**	4.2060	634.7452	600
24	–0.8185	294.1393	294	**65**	N/A	699.9591	600
25	–0.7459	299.0134	299				
26	–0.6741	303.8581	304				
27	–0.6032	308.6719	309				
28	–0.5330	313.4568	313				
29	–0.4632	317.8891	318				
30	–0.3939	322.3350	322				
31	–0.3249	326.9666	327				
32	–0.2559	331.6434	332				
33	–0.1870	336.2956	336				
34	–0.1181	340.9215	341				
35	–0.0488	345.5225	346				
36	0.0207	350.0988	350				
37	0.0907	354.6539	355				
38	0.1613	359.1843	359				
39	0.2327	363.8716	364				
40	0.3049	368.7122	369				

Integrated Mathematics 3							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	–100.7238	150	**41**	0.4661	373.2310	373
1	–4.6616	–21.3382	150	**42**	0.5428	378.9984	379
2	–3.9379	31.9937	150	**43**	0.6209	385.1460	385
3	–3.5021	67.6134	150	**44**	0.7005	391.0072	391
4	–3.1845	93.2585	150	**45**	0.7819	397.2454	397
5	–2.9315	113.1706	150	**46**	0.8653	403.7316	404
6	–2.7196	129.5758	150	**47**	0.9511	410.5060	411
7	–2.5359	143.9435	150	**48**	1.0395	417.0390	417
8	–2.3729	156.6336	157	**49**	1.1311	424.0954	424
9	–2.2256	167.9383	168	**50**	1.2261	431.4560	431
10	–2.0907	178.4551	178	**51**	1.3253	438.8763	439
11	–1.9657	188.0500	188	**52**	1.4292	446.9119	447
12	–1.8489	196.7622	197	**53**	1.5388	455.3808	455
13	–1.7388	205.4099	205	**54**	1.6550	464.3331	464
14	–1.6344	213.6499	214	**55**	1.7793	473.9114	474
15	–1.5349	221.0785	221	**56**	1.9133	484.2480	484
16	–1.4396	228.5826	229	**57**	2.0594	495.4948	495
17	–1.3479	235.3056	235	**58**	2.2212	507.7598	508
18	–1.2593	242.2888	242	**59**	2.4033	521.6991	522
19	–1.1734	248.8109	249	**60**	2.6133	538.4042	538
20	–1.0899	255.3093	255	**61**	2.8638	558.3594	558
21	–1.0084	261.4521	261	**62**	3.1789	583.8909	584
22	–0.9288	267.2212	267	**63**	3.6113	620.2292	600
23	–0.8507	273.0056	273	**64**	4.3311	674.2854	600
24	–0.7740	278.8036	279	**65**	N/A	753.3237	600
25	–0.6985	284.6111	285				
26	–0.6240	290.4271	290				
27	–0.5503	296.2490	296				
28	–0.4773	301.9903	302				
29	–0.4049	307.1200	307				
30	–0.3329	312.7673	313				
31	–0.2612	317.9800	318				
32	–0.1897	323.5312	324				
33	–0.1182	328.8485	329				
34	–0.0467	334.6066	335				
35	0.0250	340.0112	340				
36	0.0970	345.3729	345				
37	0.1694	350.6866	351				
38	0.2424	356.1482	356				
39	0.3161	361.8651	362				
40	0.3906	367.5594	368				

Note: Performance-level cut scores are highlighted.

Table 8.D.70 New Conversions for Science, Grade Five and Grade Eight

Grade 5								Grade 8							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	47.3185	150	**41**	0.1679	345.3562	345	**0**	N/A	–96.6361	150	**41**	0.4358	359.3155	359
1	–4.8561	68.9433	150	**42**	0.2509	350.1357	350	**1**	–4.7030	–55.5259	150	**42**	0.5221	366.5621	367
2	–4.1421	93.5582	150	**43**	0.3364	355.0715	355	**2**	–3.9865	–15.4197	150	**43**	0.6111	374.0173	374
3	–3.7153	121.3657	150	**44**	0.4248	360.1775	360	**3**	–3.5571	22.0203	150	**44**	0.7030	381.7218	382
4	–3.4058	138.2692	150	**45**	0.5166	365.4755	365	**4**	–3.2451	48.8497	150	**45**	0.7984	389.7323	390
5	–3.1605	152.8431	153	**46**	0.6125	370.9999	371	**5**	–2.9972	70.9808	150	**46**	0.8978	398.0822	398
6	–2.9556	165.1456	165	**47**	0.7130	376.7873	377	**6**	–2.7898	88.1734	150	**47**	1.0020	406.8245	407
7	–2.7786	175.1713	175	**48**	0.8190	382.9139	383	**7**	–2.6101	103.3073	150	**48**	1.1117	416.0184	416
8	–2.6217	184.2352	184	**49**	0.9315	389.4152	389	**8**	–2.4507	117.0455	150	**49**	1.2280	425.7728	426
9	–2.4803	192.5306	193	**50**	1.0519	396.3589	396	**9**	–2.3066	129.0776	150	**50**	1.3524	436.2327	436
10	–2.3508	200.0383	200	**51**	1.1821	403.8464	404	**10**	–2.1745	140.1157	150	**51**	1.4864	447.4700	447
11	–2.2310	206.8915	207	**52**	1.3243	412.0894	412	**11**	–2.0520	150.5033	151	**52**	1.6326	459.7265	460
12	–2.1190	213.3720	213	**53**	1.4819	421.1809	421	**12**	–1.9374	160.2213	160	**53**	1.7943	473.3480	473
13	–2.0136	219.5089	220	**54**	1.6598	431.4239	431	**13**	–1.8293	169.1997	169	**54**	1.9763	488.5634	489
14	–1.9137	225.2765	225	**55**	1.8654	443.3701	443	**14**	–1.7266	177.8195	178	**55**	2.1863	506.3094	506
15	–1.8183	230.7487	231	**56**	2.1117	457.4900	457	**15**	–1.6285	186.0973	186	**56**	2.4369	527.3112	527
16	–1.7269	236.0251	236	**57**	2.4221	475.6943	476	**16**	–1.5344	194.0381	194	**57**	2.7518	554.0088	554
17	–1.6389	241.1222	241	**58**	2.8497	500.2448	500	**17**	–1.4437	201.6071	202	**58**	3.1843	590.3297	590
18	–1.5538	246.0571	246	**59**	3.5650	544.4915	544	**18**	–1.3558	208.9711	209	**59**	3.9042	654.7935	600
19	–1.4712	250.8045	251	**60**	N/A	624.0193	600	**19**	–1.2704	216.1454	216	**60**	N/A	742.1487	600
20	–1.3908	255.4332	255					**20**	–1.1872	223.1473	223				
21	–1.3123	259.9630	260					**21**	–1.1058	230.0042	230				
22	–1.2353	264.4059	264					**22**	–1.0260	236.6753	237				
23	–1.1597	268.7747	269					**23**	–0.9476	243.2474	243				
24	–1.0853	273.0751	273					**24**	–0.8702	249.7334	250				
25	–1.0118	277.3188	277					**25**	–0.7939	256.1457	256				
26	–0.9390	281.5046	282					**26**	–0.7182	262.4976	262				
27	–0.8669	285.6652	286					**27**	–0.6431	268.7967	269				
28	–0.7952	289.7988	290					**28**	–0.5685	275.0600	275				
29	–0.7238	293.9165	294					**29**	–0.4941	281.3067	281				
30	–0.6526	298.0285	298					**30**	–0.4198	287.5408	288				
31	–0.5813	302.1382	302					**31**	–0.3455	293.7741	294				
32	–0.5099	306.2595	306					**32**	–0.2710	300.0273	300				
33	–0.4381	310.3994	310					**33**	–0.1962	306.2985	306				
34	–0.3659	314.5646	315					**34**	–0.1208	312.6210	313				
35	–0.2930	318.7702	319					**35**	–0.0448	318.9950	319				
36	–0.2193	323.0195	323					**36**	0.0320	325.4469	325				
37	–0.1447	327.3259	327					**37**	0.1099	331.9732	332				
38	–0.0689	331.6993	332					**38**	0.1890	338.6096	339				
39	0.0083	336.1500	336					**39**	0.2695	345.3634	345				
40	0.0872	340.6987	341					**40**	0.3516	352.2562	352				

Note: Performance-level cut scores are highlighted.

Table 8.D.71 New Conversion for Life Science (Grade 10)

Grade 10 Life Science							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	44.7476	150	**41**	0.5456	353.9741	354
1	–4.6288	72.6889	150	**42**	0.6328	358.8294	359
2	–3.9111	102.1771	150	**43**	0.7225	363.8426	364
3	–3.4807	128.5319	150	**44**	0.8153	369.0157	369
4	–3.1676	146.8425	150	**45**	0.9115	374.3883	374
5	–2.9187	160.4760	160	**46**	1.0117	379.9833	380
6	–2.7103	172.1017	172	**47**	1.1166	385.8380	386
7	–2.5296	182.2722	182	**48**	1.2271	391.9977	392
8	–2.3692	191.3229	191	**49**	1.3442	398.5248	399
9	–2.2242	199.5047	200	**50**	1.4693	405.4819	405
10	–2.0912	206.8933	207	**51**	1.6041	413.0241	413
11	–1.9678	213.7513	214	**52**	1.7510	421.2493	421
12	–1.8522	220.1948	220	**53**	1.9134	430.3323	430
13	–1.7432	226.2871	226	**54**	2.0962	440.5425	441
14	–1.6397	232.0783	232	**55**	2.3069	452.2664	452
15	–1.5407	237.6099	238	**56**	2.5582	466.2517	466
16	–1.4457	242.9257	243	**57**	2.8736	484.2001	484
17	–1.3541	248.0397	248	**58**	3.3069	509.0739	509
18	–1.2654	252.9783	253	**59**	4.0273	550.9699	551
19	–1.1792	257.7791	258	**60**	N/A	602.3473	600
20	–1.0951	262.4665	262				
21	–1.0128	267.0543	267				
22	–0.9322	271.5527	272				
23	–0.8529	275.9767	276				
24	–0.7747	280.3386	280				
25	–0.6975	284.6474	285				
26	–0.6210	288.9133	289				
27	–0.5451	293.1464	293				
28	–0.4696	297.3564	297				
29	–0.3944	301.5512	302				
30	–0.3192	305.7419	306				
31	–0.2441	309.9351	310				
32	–0.1687	314.1391	314				
33	–0.0930	318.3593	318				
34	–0.0169	322.6077	323				
35	0.0600	326.8977	327				
36	0.1377	331.2291	331				
37	0.2164	335.6158	336				
38	0.2963	340.0748	340				
39	0.3776	344.6096	345				
40	0.4607	349.2391	349				

Note: Performance-level cut scores are highlighted.

Table 8.D.72 New Conversions for Biology (paper-and-pencil version and braille version)

Biology (paper-and-pencil)								Biology (braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0007	150	**41**	0.4537	356.5270	357	**0**	N/A	0.0007	150	**41**	0.5104	359.2398	359
1	–4.6609	90.7603	150	**42**	0.5378	360.6390	361	**1**	–4.6488	91.8401	150	**42**	0.5978	363.6604	364
2	–3.9424	135.0679	150	**43**	0.6244	364.9854	365	**2**	–3.9299	135.7714	150	**43**	0.6881	368.1056	368
3	–3.5114	158.2356	158	**44**	0.7140	369.3556	369	**3**	–3.4983	158.8803	159	**44**	0.7818	372.8967	373
4	–3.1979	174.5479	175	**45**	0.8070	374.2177	374	**4**	–3.1843	175.2010	175	**45**	0.8795	377.5678	378
5	–2.9487	187.5418	188	**46**	0.9039	378.6861	379	**5**	–2.9346	188.1934	188	**46**	0.9818	382.5316	383
6	–2.7401	198.0086	198	**47**	1.0055	383.7551	384	**6**	–2.7256	198.8070	199	**47**	1.0895	388.1522	388
7	–2.5595	206.6505	207	**48**	1.1126	389.3306	389	**7**	–2.5444	207.4111	207	**48**	1.2038	393.8512	394
8	–2.3993	214.5479	215	**49**	1.2262	394.9312	395	**8**	–2.3837	215.3462	215	**49**	1.3260	399.7370	400
9	–2.2546	221.7989	222	**50**	1.3478	400.8177	401	**9**	–2.2384	222.6131	223	**50**	1.4579	406.2967	406
10	–2.1221	228.5526	229	**51**	1.4791	407.3573	407	**10**	–2.1053	229.4173	229	**51**	1.6017	413.5380	414
11	–1.9993	234.8842	235	**52**	1.6224	414.5584	415	**11**	–1.9819	235.7243	236	**52**	1.7610	421.4659	421
12	–1.8845	240.5547	241	**53**	1.7810	422.4259	422	**12**	–1.8665	241.4167	241	**53**	1.9405	430.5550	431
13	–1.7763	245.8741	246	**54**	1.9600	431.5296	432	**13**	–1.7577	246.8252	247	**54**	2.1480	440.6861	441
14	–1.6737	251.2357	251	**55**	2.1669	441.7104	442	**14**	–1.6544	252.2320	252	**55**	2.3959	453.4154	453
15	–1.5759	255.8660	256	**56**	2.4142	454.3491	454	**15**	–1.5559	256.8136	257	**56**	2.7079	469.1209	469
16	–1.4820	260.4039	260	**57**	2.7257	470.0217	470	**16**	–1.4614	261.4322	261	**57**	3.1375	491.2053	491
17	–1.3917	264.9766	265	**58**	3.1548	492.0352	492	**17**	–1.3703	266.0878	266	**58**	3.8542	528.0304	528
18	–1.3043	269.3257	269	**59**	3.8710	528.7123	529	**18**	–1.2822	270.4022	270	**59**	N/A	595.4996	600
19	–1.2196	273.5039	274	**60**	N/A	595.4996	600	**19**	–1.1967	274.6587	275				
20	–1.1371	277.7127	278					**20**	–1.1133	278.9478	279				
21	–1.0565	281.7913	282					**21**	–1.0319	282.9622	283				
22	–0.9776	285.5882	286					**22**	–0.9521	286.8338	287				
23	–0.9001	289.4123	289					**23**	–0.8737	290.7341	291				
24	–0.8238	293.2637	293					**24**	–0.7965	294.6632	295				
25	–0.7485	297.0619	297					**25**	–0.7202	298.3558	298				
26	–0.6741	300.5478	301					**26**	–0.6447	302.1073	302				
27	–0.6003	304.4205	304					**27**	–0.5698	305.8570	306				
28	–0.5270	307.8852	308					**28**	–0.4954	309.3950	309				
29	–0.4541	311.4269	311					**29**	–0.4212	313.2376	313				
30	–0.3813	315.3854	315					**30**	–0.3471	317.0454	317				
31	–0.3085	318.9206	319					**31**	–0.2729	320.6575	321				
32	–0.2357	322.4791	322					**32**	–0.1986	324.2939	324				
33	–0.1625	326.0607	326					**33**	–0.1238	327.9545	328				
34	–0.0889	329.6652	330					**34**	–0.0486	331.6391	332				
35	–0.0147	333.2919	333					**35**	0.0274	335.3475	335				
36	0.0603	336.9428	337					**36**	0.1044	339.0795	339				
37	0.1362	340.7747	341					**37**	0.1824	343.3113	343				
38	0.2133	344.8103	345					**38**	0.2617	347.1132	347				
39	0.2917	348.5271	349					**39**	0.3427	350.9731	351				
40	0.3717	352.5175	353					**40**	0.4254	355.2386	355				

Note: Performance-level cut scores are highlighted.

Table 8.D.73 New Conversion for Chemistry

Chemistry							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	51.9904	150	**41**	0.4120	346.7127	347
1	–4.5852	101.8840	150	**42**	0.4938	350.8292	351
2	–3.8703	135.5428	150	**43**	0.5780	355.0198	355
3	–3.4427	157.6968	158	**44**	0.6653	359.2491	359
4	–3.1327	173.3506	173	**45**	0.7559	363.6265	364
5	–2.8869	185.8527	186	**46**	0.8506	368.3179	368
6	–2.6818	195.8040	196	**47**	0.9500	373.0923	373
7	–2.5046	204.6408	205	**48**	1.0549	378.3157	378
8	–2.3477	212.3495	212	**49**	1.1664	383.6457	384
9	–2.2063	219.0193	219	**50**	1.2858	389.6615	390
10	–2.0770	225.4104	225	**51**	1.4150	395.8954	396
11	–1.9574	231.4357	231	**52**	1.5562	402.8384	403
12	–1.8458	236.8845	237	**53**	1.7130	410.5312	411
13	–1.7408	241.9846	242	**54**	1.8900	419.2469	419
14	–1.6414	246.7516	247	**55**	2.0950	429.0894	429
15	–1.5466	251.5399	252	**56**	2.3406	441.1606	441
16	–1.4559	255.9463	256	**57**	2.6504	456.3356	456
17	–1.3685	259.9866	260	**58**	3.0779	478.0025	478
18	–1.2842	263.9595	264	**59**	3.7921	514.8695	515
19	–1.2024	267.9522	268	**60**	N/A	584.6196	600
20	–1.1228	271.9646	272				
21	–1.0452	275.8261	276				
22	–0.9692	279.4307	279				
23	–0.8945	283.0551	283				
24	–0.8211	286.7000	287				
25	–0.7486	290.3367	290				
26	–0.6770	293.5643	294				
27	–0.6059	297.2756	297				
28	–0.5354	300.5683	301				
29	–0.4651	303.8567	304				
30	–0.3950	307.5709	308				
31	–0.3249	310.9900	311				
32	–0.2547	314.3463	314				
33	–0.1841	317.7267	318				
34	–0.1131	321.1319	321				
35	–0.0415	324.5627	325				
36	0.0309	328.0200	328				
37	0.1043	331.8851	332				
38	0.1789	335.5071	336				
39	0.2549	339.0485	339				
40	0.3325	343.0479	343				

Note: Performance-level cut scores are highlighted.

Table 8.D.74 New Conversions for Earth Science (paper-and-pencil version and braille version)

Earth Science (paper-and-pencil)								Earth Science (braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	51.0104	150	**41**	0.8243	354.1376	354	**0**	N/A	51.0104	150	**41**	0.8818	356.9883	357
1	–4.1675	107.8396	150	**42**	0.9060	358.1709	358	**1**	–4.1519	108.7145	150	**42**	0.9668	361.0923	361
2	–3.4540	142.1162	150	**43**	0.9904	362.2053	362	**2**	–3.4379	143.1395	150	**43**	1.0547	365.3925	365
3	–3.0276	163.4913	163	**44**	1.0776	366.5665	367	**3**	–3.0112	164.4260	164	**44**	1.1460	370.0093	370
4	–2.7186	178.8046	179	**45**	1.1682	371.1053	371	**4**	–2.7018	179.7084	180	**45**	1.2412	374.6236	375
5	–2.4738	191.0422	191	**46**	1.2628	375.6439	376	**5**	–2.4565	191.9590	192	**46**	1.3411	379.5033	380
6	–2.2695	201.3295	201	**47**	1.3621	380.5494	381	**6**	–2.2517	202.2597	202	**47**	1.4464	384.6263	385
7	–2.0930	209.8577	210	**48**	1.4668	385.5871	386	**7**	–2.0748	210.7422	211	**48**	1.5582	390.0535	390
8	–1.9368	217.5206	218	**49**	1.5781	391.0172	391	**8**	–1.9180	218.4785	218	**49**	1.6779	396.0080	396
9	–1.7959	224.4732	224	**50**	1.6972	396.9583	397	**9**	–1.7766	225.4225	225	**50**	1.8072	402.4867	402
10	–1.6671	230.8016	231	**51**	1.8260	403.4076	403	**10**	–1.6473	231.7880	232	**51**	1.9485	409.4851	409
11	–1.5479	236.6939	237	**52**	1.9668	410.3608	410	**11**	–1.5276	237.7025	238	**52**	2.1053	417.0049	417
12	–1.4366	242.3729	242	**53**	2.1231	417.8208	418	**12**	–1.4157	243.4809	243	**53**	2.2822	425.8508	426
13	–1.3318	247.6468	248	**54**	2.2996	426.6842	427	**13**	–1.3103	248.6540	249	**54**	2.4870	435.8282	436
14	–1.2325	252.4068	252	**55**	2.5039	436.5942	437	**14**	–1.2105	253.4988	253	**55**	2.7322	448.1479	448
15	–1.1379	257.1810	257	**56**	2.7486	448.9075	449	**15**	–1.1152	258.3589	258	**56**	3.0416	463.0419	463
16	–1.0472	261.7963	262	**57**	3.0576	463.7205	464	**16**	–1.0239	262.9346	263	**57**	3.4684	484.2262	484
17	–0.9599	265.9555	266	**58**	3.4840	484.8690	485	**17**	–0.9359	267.0375	267	**58**	4.1823	519.2384	519
18	–0.8756	269.9640	270	**59**	4.1975	519.7645	520	**18**	–0.8509	271.2609	271	**59**	N/A	579.7196	600
19	–0.7938	274.1640	274	**60**	N/A	579.7196	600	**19**	–0.7684	275.3883	275				
20	–0.7141	278.0402	278					**20**	–0.6880	279.3366	279				
21	–0.6364	281.9275	282					**21**	–0.6094	283.2966	283				
22	–0.5602	285.6900	286					**22**	–0.5325	286.9526	287				
23	–0.4855	289.2450	289					**23**	–0.4569	290.7606	291				
24	–0.4119	293.0297	293					**24**	–0.3824	294.4207	294				
25	–0.3393	296.4677	296					**25**	–0.3088	297.9238	298				
26	–0.2674	300.0522	300					**26**	–0.2360	301.7908	302				
27	–0.1962	303.8593	304					**27**	–0.1637	305.4461	305				
28	–0.1254	307.3221	307					**28**	–0.0918	308.9745	309				
29	–0.0550	310.7924	311					**29**	–0.0202	312.5106	313				
30	0.0153	314.2699	314					**30**	0.0513	316.0538	316				
31	0.0856	317.7532	318					**31**	0.1230	319.6038	320				
32	0.1561	321.2448	321					**32**	0.1948	323.1602	323				
33	0.2269	324.7415	325					**33**	0.2671	326.7224	327				
34	0.2981	328.2436	328					**34**	0.3399	330.2899	330				
35	0.3699	331.7508	332					**35**	0.4135	333.8623	334				
36	0.4425	335.2626	335					**36**	0.4879	337.4388	337				
37	0.5161	338.7783	339					**37**	0.5635	341.0787	341				
38	0.5908	342.5399	343					**38**	0.6405	345.0934	345				
39	0.6669	346.3111	346					**39**	0.7190	348.7841	349				
40	0.7447	350.1061	350					**40**	0.7993	352.8853	353				

Note: Performance-level cut scores are highlighted.

Table 8.D.75 New Conversion for Physics

Physics							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	51.4129	150	**41**	0.6799	361.4314	361
1	–4.3774	112.9468	150	**42**	0.7634	365.7092	366
2	–3.6621	148.3553	150	**43**	0.8494	370.0403	370
3	–3.2340	169.4189	169	**44**	0.9384	374.3591	374
4	–2.9233	184.6260	185	**45**	1.0308	378.6647	379
5	–2.6768	196.8528	197	**46**	1.1272	383.3401	383
6	–2.4708	207.0797	207	**47**	1.2282	388.4620	388
7	–2.2926	215.7057	216	**48**	1.3347	393.6710	394
8	–2.1346	223.2852	223	**49**	1.4479	399.1992	399
9	–1.9921	230.4550	230	**50**	1.5689	405.1567	405
10	–1.8616	236.7868	237	**51**	1.6996	411.5356	412
11	–1.7407	242.5895	243	**52**	1.8423	418.6077	419
12	–1.6278	248.1104	248	**53**	2.0005	426.5236	427
13	–1.5214	253.3672	253	**54**	2.1790	435.2624	435
14	–1.4205	258.3733	258	**55**	2.3853	445.4019	445
15	–1.3242	263.0912	263	**56**	2.6322	457.7543	458
16	–1.2319	267.5866	268	**57**	2.9433	473.1681	473
17	–1.1430	272.0775	272	**58**	3.3718	494.6774	495
18	–1.0571	276.2470	276	**59**	4.0876	529.0194	529
19	–0.9736	280.2311	280	**60**	N/A	582.7871	600
20	–0.8924	284.2117	284				
21	–0.8131	288.1886	288				
22	–0.7353	292.1627	292				
23	–0.6590	295.7672	296				
24	–0.5838	299.6108	300				
25	–0.5096	303.1924	303				
26	–0.4362	306.6565	307				
27	–0.3634	310.5126	311				
28	–0.2910	314.0620	314				
29	–0.2190	317.5155	318				
30	–0.1470	320.9651	321				
31	–0.0751	324.4106	324				
32	–0.0031	327.8518	328				
33	0.0693	331.7135	332				
34	0.1421	335.2074	335				
35	0.2156	338.6337	339				
36	0.2898	342.4854	342				
37	0.3650	345.9564	346				
38	0.4414	349.7948	350				
39	0.5192	353.6827	354				
40	0.5986	357.5615	358				

Note: Performance-level cut scores are highlighted.

Table 8.D.76 New Conversions for Integrated/Coordinated Science 1 (paper-and-pencil version and braille version)

Integrated/Coordinated Science 1 (paper-and-pencil)								Integrated/Coordinated Science 1 (braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	**41**	0.5329	353.6640	354	**0**	N/A	0.0000	150	**41**	0.5910	353.9815	354
1	–4.4747	106.8912	150	**42**	0.6078	357.3549	357	**1**	–4.4640	110.4368	150	**42**	0.6761	358.0836	358
2	–3.7593	142.1462	150	**43**	0.6835	361.0859	361	**2**	–3.7482	144.9253	150	**43**	0.7642	362.3256	362
3	–3.3315	163.2303	163	**44**	0.7603	364.8724	365	**3**	–3.3199	165.5598	166	**44**	0.8556	366.7307	367
4	–3.0212	178.5200	179	**45**	0.8387	368.7324	369	**4**	–3.0092	180.5300	181	**45**	0.9510	371.3260	371
5	–2.7752	190.6410	191	**46**	0.9189	372.6869	373	**5**	–2.7628	192.4026	192	**46**	1.0510	376.1448	376
6	–2.5698	200.7631	201	**47**	1.0016	376.7614	377	**6**	–2.5569	202.3216	202	**47**	1.1449	380.6704	381
7	–2.3923	209.5106	210	**48**	1.0873	380.9874	381	**7**	–2.3789	210.8972	211	**48**	1.2432	385.4030	385
8	–2.2351	217.2567	217	**49**	1.1770	385.4039	385	**8**	–2.2212	218.4944	218	**49**	1.3468	390.3963	390
9	–2.0934	224.2422	224	**50**	1.2715	390.0612	390	**9**	–2.0789	225.3486	225	**50**	1.4877	397.1837	397
10	–1.9637	230.6318	231	**51**	1.4030	396.5449	397	**10**	–1.9487	231.6210	232	**51**	1.6265	403.8714	404
11	–1.8438	236.5434	237	**52**	1.5483	403.7030	404	**11**	–1.8282	237.4268	237	**52**	1.7986	412.1614	412
12	–1.7317	242.0642	242	**53**	1.7107	411.7066	412	**12**	–1.7156	242.8514	243	**53**	1.9741	420.6197	421
13	–1.6263	247.2608	247	**54**	1.8953	420.8050	421	**13**	–1.6096	247.9598	248	**54**	2.1993	431.4664	431
14	–1.5264	252.1850	252	**55**	2.1100	431.3827	431	**14**	–1.5091	252.8029	253	**55**	2.4450	443.3054	443
15	–1.4311	256.8785	257	**56**	2.3676	444.0803	444	**15**	–1.4132	257.4213	257	**56**	2.7550	458.2412	458
16	–1.3399	261.3748	261	**57**	2.6926	460.0925	460	**16**	–1.3213	261.8480	262	**57**	3.1826	478.8406	479
17	–1.2521	265.7018	266	**58**	3.1389	482.0877	482	**17**	–1.2329	266.1104	266	**58**	3.8977	513.2933	513
18	–1.1672	269.8828	270	**59**	3.8784	518.5322	519	**18**	–1.1473	270.2313	270	**59**	N/A	1289.0845	600
19	–1.0849	273.9378	274	**60**	N/A	1312.9985	600	**19**	–1.0750	273.7175	274				
20	–1.0149	277.3885	277					**20**	–1.0032	277.1764	277				
21	–0.9267	281.7356	282					**21**	–0.9046	281.9275	282				
22	–0.8502	285.5065	286					**22**	–0.8272	285.6534	286				
23	–0.7751	289.2082	289					**23**	–0.7513	289.3135	289				
24	–0.7012	292.8513	293					**24**	–0.6765	292.9183	293				
25	–0.6282	296.4456	296					**25**	–0.6026	296.4774	296				
26	–0.5561	300.0000	300					**26**	–0.5295	300.0000	300				
27	–0.4846	303.5230	304					**27**	–0.4524	303.7146	304				
28	–0.4136	307.0226	307					**28**	–0.3848	306.9688	307				
29	–0.3429	310.5065	311					**29**	–0.3098	310.5816	311				
30	–0.2724	313.9821	314					**30**	–0.2412	313.8883	314				
31	–0.2018	317.4570	317					**31**	–0.1694	317.3487	317				
32	–0.1312	320.9384	321					**32**	–0.0973	320.8198	321				
33	–0.0603	324.4339	324					**33**	–0.0249	324.3093	324				
34	0.0111	327.9512	328					**34**	0.0481	327.8253	328				
35	0.0831	331.4984	331					**35**	0.1218	331.3764	331				
36	0.1558	335.0837	335					**36**	0.1964	334.9714	335				
37	0.2296	338.7164	339					**37**	0.2721	338.6202	339				
38	0.3044	342.4060	342					**38**	0.3492	342.3332	342				
39	0.3807	346.1633	346					**39**	0.4279	346.1221	346				
40	0.4585	350.0000	350					**40**	0.5083	350.0000	350				

Note: Performance-level cut scores are highlighted.

Table 8.D.77 New Conversions for Integrated/Coordinated Science 2 (paper-and-pencil version and braille version)

Integrated/Coordinated Science 2 (paper-and-pencil)								Integrated/Coordinated Science 2 (braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	**41**	0.6052	357.7942	358	**0**	N/A	0.0000	150	**41**	0.6428	361.6344	362
1	–4.4264	109.1543	150	**42**	0.6872	361.8440	362	**1**	–4.4094	96.9990	150	**42**	0.7180	365.5704	366
2	–3.7100	144.5548	150	**43**	0.7716	366.0179	366	**2**	–3.6928	134.5382	150	**43**	0.7942	369.5606	370
3	–3.2812	165.7443	166	**44**	0.8504	369.9111	370	**3**	–3.1005	165.5625	166	**44**	0.8717	373.6240	374
4	–2.9700	181.1222	181	**45**	0.9308	373.8818	374	**4**	–2.8045	181.0644	181	**45**	0.9511	377.7828	378
5	–2.7232	193.3213	193	**46**	1.0132	377.9521	378	**5**	–2.5696	193.3662	193	**46**	1.0329	382.0639	382
6	–2.5169	203.5145	204	**47**	1.0981	382.1486	382	**6**	–2.3733	203.6492	204	**47**	1.1176	386.5002	387
7	–2.3385	212.3278	212	**48**	1.1862	386.5038	387	**7**	–2.2035	212.5437	213	**48**	1.2060	391.1329	391
8	–2.1805	220.1354	220	**49**	1.2784	391.0586	391	**8**	–2.0530	220.4265	220	**49**	1.3138	396.7793	397
9	–2.0380	227.1786	227	**50**	1.4052	397.3272	397	**9**	–1.9172	227.5406	228	**50**	1.4462	403.7121	404
10	–1.9076	233.6228	234	**51**	1.5437	404.1712	404	**10**	–1.7929	234.0526	234	**51**	1.5922	411.3596	411
11	–1.7869	239.5860	240	**52**	1.6965	411.7195	412	**11**	–1.6778	240.0814	240	**52**	1.7553	419.9036	420
12	–1.6742	245.1557	245	**53**	1.8671	420.1518	420	**12**	–1.5868	244.8493	245	**53**	1.9406	429.6090	430
13	–1.5681	250.3988	250	**54**	2.0610	429.7299	430	**13**	–1.4844	250.2111	250	**54**	2.1558	440.8842	441
14	–1.4676	255.3673	255	**55**	2.2862	440.8579	441	**14**	–1.3873	255.2946	255	**55**	2.3889	453.0929	453
15	–1.3717	260.1028	260	**56**	2.5310	452.9587	453	**15**	–1.2948	260.1424	260	**56**	2.6830	468.4978	468
16	–1.2799	264.6392	265	**57**	2.8402	468.2341	468	**16**	–1.2061	264.7889	265	**57**	3.0562	488.0469	488
17	–1.1916	269.0045	269	**58**	3.2668	489.3168	489	**17**	–1.1323	268.6512	269	**58**	3.7676	525.3075	525
18	–1.1062	273.2221	273	**59**	3.9809	524.6062	525	**18**	–1.0489	273.0212	273	**59**	N/A	1375.5529	600
19	–1.0132	277.8177	278	**60**	N/A	1316.1949	600	**19**	–0.9580	277.7841	278				
20	–0.9429	281.2913	281					**20**	–0.8891	281.3897	281				
21	–0.8643	285.1751	285					**21**	–0.8205	284.9829	285				
22	–0.7874	288.9765	289					**22**	–0.7520	288.5748	289				
23	–0.7119	292.7076	293					**23**	–0.6764	292.5334	293				
24	–0.6376	296.3788	296					**24**	–0.6081	296.1131	296				
25	–0.5643	300.0000	300					**25**	–0.5338	300.0000	300				
26	–0.4919	303.5803	304					**26**	–0.4604	303.8462	304				
27	–0.4201	307.1281	307					**27**	–0.3876	307.6609	308				
28	–0.3488	310.6516	311					**28**	–0.3152	311.4528	311				
29	–0.2778	314.1584	314					**29**	–0.2431	315.2306	315				
30	–0.2070	317.6561	318					**30**	–0.1711	319.0024	319				
31	–0.1363	321.1521	321					**31**	–0.0990	322.7767	323				
32	–0.0654	324.6539	325					**32**	–0.0267	326.5616	327				
33	0.0057	328.1690	328					**33**	0.0459	330.3658	330				
34	0.0773	331.7051	332					**34**	0.1190	334.1979	334				
35	0.1494	335.2702	335					**35**	0.1929	338.0673	338				
36	0.2223	338.8729	339					**36**	0.2677	341.9835	342				
37	0.2962	342.5221	343					**37**	0.3435	345.9573	346				
38	0.3712	346.2276	346					**38**	0.4207	350.0000	350				
39	0.4475	350.0000	350					**39**	0.4945	353.8627	354				
40	0.5254	353.8511	354					**40**	0.5684	357.7366	358				

Note: Performance-level cut scores are highlighted.

Table 8.D.78 New Conversions for Integrated/Coordinated Science 3 and Integrated/Coordinated Science 4

Integrated/Coordinated Science 3							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	0.0000	150	**41**	0.6662	361.6446	362
1	–4.3312	112.6027	150	**42**	0.7481	365.7251	366
2	–3.6167	148.2061	150	**43**	0.8325	369.9322	370
3	–3.1898	169.4814	169	**44**	0.9199	374.2860	374
4	–2.8804	184.8995	185	**45**	1.0006	378.3065	378
5	–2.6353	197.1153	197	**46**	1.0833	382.4312	382
6	–2.4307	207.3119	207	**47**	1.1687	386.6871	387
7	–2.2539	216.1204	216	**48**	1.2574	391.1077	391
8	–2.0975	223.9181	224	**49**	1.3787	397.1513	397
9	–1.9564	230.9485	231	**50**	1.5100	403.6930	404
10	–1.8274	237.3782	237	**51**	1.6532	410.8321	411
11	–1.7080	243.3261	243	**52**	1.8112	418.7022	419
12	–1.5966	248.8805	249	**53**	1.9678	426.5094	427
13	–1.4917	254.1085	254	**54**	2.1448	435.3295	435
14	–1.3922	259.0626	259	**55**	2.3497	445.5401	446
15	–1.2975	263.7848	264	**56**	2.5952	457.7727	458
16	–1.2067	268.3089	268	**57**	2.9049	473.2107	473
17	–1.1193	272.6631	273	**58**	3.3323	494.5095	495
18	–1.0452	276.3553	276	**59**	4.0473	530.1403	530
19	–0.9530	280.9526	281	**60**	N/A	1325.1337	600
20	–0.8733	284.9251	285				
21	–0.7955	288.8035	289				
22	–0.7192	292.6011	293				
23	–0.6444	296.3297	296				
24	–0.5708	300.0000	300				
25	–0.4981	303.6219	304				
26	–0.4262	307.2043	307				
27	–0.3549	310.7558	311				
28	–0.2841	314.2844	314				
29	–0.2136	317.7979	318				
30	–0.1433	321.3038	321				
31	–0.0729	324.8096	325				
32	–0.0024	328.3227	328				
33	0.0684	331.8508	332				
34	0.1396	335.4015	335				
35	0.2115	338.9829	339				
36	0.2841	342.6036	343				
37	0.3578	346.2727	346				
38	0.4325	350.0000	350				
39	0.5087	353.7962	354				
40	0.5865	357.6733	358				

Integrated/Coordinated Science 4							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	0.0000	150	**41**	0.5576	354.1966	354
1	–4.5388	111.1279	150	**42**	0.6496	358.5802	359
2	–3.8221	145.3106	150	**43**	0.7458	363.1710	363
3	–3.3929	165.7797	166	**44**	0.8469	367.9926	368
4	–3.0813	180.6419	181	**45**	0.9534	373.0732	373
5	–2.8339	192.4386	192	**46**	1.0661	378.4462	378
6	–2.6271	202.3018	202	**47**	1.1857	384.1523	384
7	–2.4482	210.8360	211	**48**	1.3134	390.2418	390
8	–2.2896	218.4022	218	**49**	1.4504	396.7773	397
9	–2.1463	225.2336	225	**50**	1.5694	402.4530	402
10	–2.0152	231.4897	231	**51**	1.6964	408.5081	409
11	–1.8937	237.2845	237	**52**	1.8336	415.0495	415
12	–1.7801	242.7026	243	**53**	1.9841	422.2273	422
13	–1.6730	247.8083	248	**54**	2.1525	430.2622	430
14	–1.5714	252.6521	253	**55**	2.3461	439.4967	439
15	–1.4745	257.2741	257	**56**	2.5770	450.5074	451
16	–1.3816	261.7069	262	**57**	2.8679	464.3799	464
17	–1.3050	265.3613	265	**58**	3.2701	483.5632	484
18	–1.2295	268.9588	269	**59**	3.9883	517.8171	518
19	–1.1550	272.5151	273	**60**	N/A	1281.4764	600
20	–1.0810	276.0437	276				
21	–0.9881	280.4719	280				
22	–0.8985	284.7458	285				
23	–0.8119	288.8790	289				
24	–0.7279	292.8840	293				
25	–0.6529	296.4603	296				
26	–0.5787	300.0000	300				
27	–0.5051	303.5113	304				
28	–0.4319	307.0019	307				
29	–0.3590	310.4793	310				
30	–0.2862	313.9508	314				
31	–0.2134	317.4236	317				
32	–0.1404	320.9047	321				
33	–0.0671	324.4016	324				
34	0.0067	327.9217	328				
35	0.0812	331.4726	331				
36	0.1565	335.0627	335				
37	0.2327	338.7006	339				
38	0.3102	342.3957	342				
39	0.3891	346.1584	346				
40	0.4697	350.0000	350				

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**	**Non-Disabled-Disabled**
ELA Grade 2	CSL10030.OSA	60	A+	A+	C+	B+	C+	C+	A+	A+	A+	A-
ELA Grade 2	CSL10034.OSA	68	A+	A+	C+	B+	C+	B+	A+	A+	A+	A+
ELA Grade 3	CSR10278.OSA	3	A+	A+	C+	B+	C+	C+	A+	A+	A+	A-
ELA Grade 3	CSL10867.096	62	A+	A+	C+	A+	C+	C+	A+	A+	A+	A-
ELA Grade 4	CSR60555.229	6	A+	A-	C-	A-	B-	B-	A-	A-	A-	A-
ELA Grade 4	CSL10195.028	40	A+	A-	C-	A-	B-	C-	A-	A-	A-	A-
ELA Grade 4	CSL20900.014	47	A+	A+	C+	B+	C+	C+	A+	B+	A+	A-
ELA Grade 4	CSL20901.014	48	A+	A+	C+	C+	C+	C+	A+	C+	A+	A-
ELA Grade 5	CSR50018.112	19	A-	A-	B-	A-	C-	B-	A-	A-	A-	A-
ELA Grade 5	CSL40447.022	56	B+	A+	C+	C+	C+	C+	B+	C+	A+	A-
ELA Grade 5	CSL40141.007	57	B+	A+	B+	B+	C+	B+	A+	B+	A+	A-
ELA Grade 5	CSL50012.046	68	A+	A+	C+	C+	C+	C+	A+	A+	A+	A-
ELA Grade 5	CSL12160.162	79	A+	A+	C+	B+	C+	C+	B+	B+	A+	A-
ELA Grade 6	CSL40241.013	52	A-	A-	C-	B-	B-	C-	B-	A-	A-	A+
ELA Grade 6	CSL00172.OSA	78	C+	A+	B+	A+	B+	B+	A+	A+	A+	A-
ELA Grade 7	CSR01939.268	14	A-	A+	C-	A-	C-	C-	B-	A+	A-	A+
ELA Grade 7	CSL20918.091	49	A+	A+	C+	A+	B+	B+	A+	A+	A+	A-
ELA Grade 7	CSL20969.059	62	A+	A+	C+	B+	C+	C+	A+	A+	A+	A-
ELA Grade 7	CSW30023.005	essay	A+	A-	A+	A+	A+	A+	A-	A-	A-	C-
ELA Grade 8	CSL11006.111	50	A+	A+	C+	B+	C+	C+	A+	A+	A-	A-
ELA Grade 8	CSL00215.OSA	75	A+	A+	B+	A+	C+	B+	A+	A+	A-	A-
ELA Grade 8	CSL40104.OSA	81	A+	A-	C-	A-	C-	C-	A-	A-	A-	A-
ELA Grade 9	CSR12644.418	1	A+	A+	A-	A-	C-	A-	A-	A-	A+	A+
ELA Grade 9	CSR10565.141	7	C-	A-	A-	B-	B-	B-	B-	A-	A-	A+
ELA Grade 9	CSL20623.016	46	A+	A-	C-	A-	C-	C-	A-	A-	A-	A-
ELA Grade 9	CSR20713.177	77	A+	A+	B+	B+	C+	B+	A+	A+	A+	A-
ELA Grade 10	CSR30061.002	32	B-	A-	C-	B-	A-	B-	B-	B-	B-	A-
ELA Grade 10	CSL30051.002	57	A+	A+	C+	C+	C+	C+	A+	A+	A+	A-
ELA Grade 10	CSL60195.OSA	78	C+	A+	B+	A+	A+	B+	A+	A+	A+	A+
ELA Grade 11	CSL11912.OSA	71	A+	A+	C+	A+	B+	B+	A+	A+	A+	A-
History-SS Grade 11	CSV50022	23	A-	A-	A+	A+	C+	A+	A+	A+	A+	A+
History-SS Grade 11	CSH10537	58	A-	A+	B+	A+	C+	B+	A+	A+	A+	A-
Math Grade 3	CSM02171	11	B+	A+	A+	C+	B+	A+	B+	A+	B+	A-
General Math	CSM01383	8	C-	A-	A-	B-	B-	A-	A-	B-	A-	A+
Integrated Math 3	CSG50016	1	A-	‡	‡	‡	‡	C-	B-	‡	‡	‡
Integrated Math 3	CSG20185	5	A+	‡	‡	‡	‡	C-	A-	‡	‡	‡
Integrated Math 3	CST40006	17	A+	‡	‡	‡	‡	C+	C+	‡	‡	‡
Physics	CSP60150	24	A-	A-	C-	A-	B-	B-	A-	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	Non-Disabled-Disabled
Int/Coord Science 1	CSY20158	24	A+	A+	A+	C+	A+	A+	A+	A+	A+	A-
Int/Coord Science 2	CSB10025	3	A-	‡	C-	‡	A-	B-	A-	A-	A-	A-
Int/Coord Science 2	CSC20739	11	A-	‡	B+	‡	C-	A-	A-	A+	A-	A+
Int/Coord Science 2	CSY60030	18	A+	‡	C-	‡	A-	B-	A-	A-	A+	A+
Int/Coord Science 2	CSY10074	19	B-	‡	B-	‡	B-	C-	B-	B-	A-	A+
Int/Coord Science 2	CSP70141	31	A-	‡	C-	‡	A-	B-	A-	B-	A+	A+
Int/Coord Science 2	CSB00179	34	A+	‡	A-	‡	C-	A-	A-	A-	A+	A+
Int/Coord Science 3	CSY60092	26	C-	‡	‡	‡	‡	‡	A-	‡	A-	‡

* Items exhibiting significant DIF are those flagged as C+ or C- for any of the subgroups in the DIF analyses.

‡ Minimum sample size for DIF analysis was not met.

Table 8.E.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	English Only-English Learner
ELA Grade 2	CSR70618.OSA	8	61	A+	A-	C-	A-	B-	B-	A-	A-	C-	A-
ELA Grade 3	CSR70395.288	3	43	A+	A-	C+	B+	B+	B+	A+	A+	A+	A-
ELA Grade 3	CSL70439.OSA	8	66	A+	A-	C-	B-	C-	C-	A+	B-	A+	A-
ELA Grade 4	CSR70337.291	2	33	A-	B-	A-	C-	C-	B-	A-	C-	A-	A+
ELA Grade 5	CSL70422.OSA	1	75	A+	A-	C+	A+	B+	C+	A+	A-	B+	A+
ELA Grade 5	CSR70512.261	2	42	C-	A+	A+	A+	A+	A+	A-	A-	A-	A+
ELA Grade 5	CSL70455.OSA	2	75	A+	A+	C+	B+	C+	C+	A+	B+	A+	A-
ELA Grade 5	CSL70253.099	6	39	A+	A+	B+	A+	C+	B+	A+	A+	A+	A-
ELA Grade 5	CSL70421.OSA	7	75	A+	A+	C+	A+	B+	B+	A+	A+	A+	A+
ELA Grade 5	CSL70256.093	8	38	A+	A-	A-	A-	C-	A-	A-	A-	A-	A+
ELA Grade 5	CSL70259.093	9	38	B+	A+	C+	B+	C+	C+	A+	B+	A+	A-
ELA Grade 5	CSL70395.OSA	10	75	A+	A+	C+	B+	C+	C+	A+	A+	A+	A-
ELA Grade 6	CSR70648.OSA	2	75	C-	A-	A-	A-	A-	A-	B-	A-	B-	A+
ELA Grade 6	CSL70091.085	8	35	A+	A+	C+	A+	C+	C+	A+	A+	A+	B-
ELA Grade 6	CSL70416.OSA	10	75	A+	A-	C+	B+	C+	C+	A+	A+	A-	A-
ELA Grade 7	CSL70079.095	7	36	B-	A-	A-	A-	C-	B-	B-	B-	A-	A+
ELA Grade 8	CSR60770.210	5	46	A+	A+	C-	B-	C-	C-	A-	A+	A-	A-
ELA Grade 8	CSR60767.210	5	47	C-	A-	A+	A-	A+	A+	A+	A-	A-	A+
ELA Grade 8	CSL70328.OSA	5	78	A+	A-	C+	B+	C+	C+	A+	A+	A-	B-
ELA Grade 8	CSL70341.OSA	6	78	A+	A-	C+	A+	B+	B+	A+	A+	A+	A-
ELA Grade 8	CSL70178.106	7	47	A+	A-	C-	B-	B-	C-	B-	B-	B-	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	English Only-English Learner
ELA Grade 8	CSL70171.106	8	46	A+	A+	B+	A+	C+	B+	A-	A+	A-	A-
ELA Grade 9	CSR70617.OSA	3	80	C-	A+	A-	B-	A+	A-	A-	A-	A-	A+
ELA Grade 9	CSR70606.OSA	5	80	A+	A-	C-	B-	B-	C-	C-	A-	A-	A+
ELA Grade 9	CSL70207.089	8	39	A-	A+	C+	A-	C+	C+	A-	A-	A+	A-
ELA Grade 9	CSL60489.082	10	37	A-	A-	A-	B-	C-	A-	B-	A-	A-	A+
ELA Grade 10	CSL70343.OSA	3	79	A+	A-	C-	B-	C-	C-	A-	A-	A-	A-
ELA Grade 10	CSL70374.OSA	5	79	A+	A-	B+	B+	C+	C+	A+	A+	A-	A-
ELA Grade 10	CSR60788.215	8	42	B-	A-	C-	C-	C-	C-	C-	B-	B-	A+
ELA Grade 11	CSR70597.OSA	3	80	A+	A+	A+	A-	A-	A+	C+	A-	B+	A-
ELA Grade 11	CSR70593.OSA	6	80	C-	A-	A+	A-	A-	A+	A-	A-	A+	A+
ELA Grade 11	CSL70228.094	8	42	A-	B-	C-	C-	C-	C-	C-	A-	B-	A-
World History	CSV70164	4	42	C-	A-	A-	A+	A-	A-	A-	A-	A+	A+
History-SS Grade 11	CSV70196	1	39	C-	A-	A+	A+	A+	A+	A-	A-	A-	A+
History-SS Grade 11	CSV70075	1	53	A+	A-	B-	B-	B-	B-	A-	A-	C-	A-
History-SS Grade 11	CSV70022	2	38	A+	A+	A+	C+	B+	A+	A-	B+	B-	A-
Math Grade 2	CSM70533	5	64	A+	A+	A+	B+	C+	B+	A+	A+	A+	A-
Math Grade 3	CSM70254	3	49	A-	A+	A+	C+	B+	A+	A+	A+	A+	A-
Math Grade 4	CSM70761	7	67	A+	A-	A-	B-	B-	A-	B-	B-	C-	A-
Math Grade 5	CSM70078	1	32	B-	A-	A-	B-	B-	A-	B-	C-	A-	A+
Math Grade 5	CSM70202	2	30	A+	A+	A+	A+	C+	A+	A+	B+	A+	A-
Math Grade 5	CSM70207	3	30	A-	A-	A-	C-	A+	A-	A-	B-	A-	A+
Math Grade 6	CSM70018	4	59	A-	A-	A-	C-	A-	A-	A-	B-	A-	A+
Math Grade 6	CSM70265	7	27	C-	A-	A-	B-	A-	A-	A-	B-	A-	A+
Math Grade 7	CSM70363	2	24	B-	A-	A-	B-	A-	A-	B-	C-	A-	A+
Geometry	CSG70002	3	25	A-	A-	B-	A-	B-	B-	B-	A-	C-	A-
Summative H.S. Math	CST70014	1	65	A+	‡	C+	A+	A+	B+	A+	A+	C+	A-
Summative H.S. Math	CSG70020	2	40	A+	‡	B-	A-	A-	B-	A-	A-	C-	A-
Science Grade 8	CSZ80407	12	47	A+	A-	C+	A+	A+	B+	A+	A+	A+	A+
Science Grade 8	CSZ80337	14	12	A+	A-	C+	A+	A+	B+	A-	A-	A-	A-
Science Grade 8	CSZ80288	14	27	A+	A-	C+	A+	A+	C+	A+	A-	A+	A-
Life Science Grade 10	CSZ80155	11	16	B-	A-	C-	C-	A-	C-	A-	A-	B-	A+
Life Science Grade 10	CSZ80196	14	39	B-	C+	B-	B-	A-	B-	A-	A-	B-	A-
Chemistry	CSC80141	3	53	A-	‡	A-	‡	A+	A-	A-	A-	C-	A-
Chemistry	CSC80073	7	9	A-	‡	C-	‡	C-	C-	B-	B-	C-	A-
Chemistry	CSC80006	9	9	C-	‡	A-	‡	A-	A-	A-	B-	B-	B+
Physics	CSP80022	3	17	C-	‡	A-	‡	B-	A-	A-	C-	A-	‡
Physics	CSP80162	6	47	A-	‡	B-	‡	B-	B-	A-	B-	C-	‡
Int/Coord Science 2	CSB80116	1	43	A-	‡	C-	‡	A-	B-	A-	A+	A-	A-

* Items exhibiting significant DIF are those flagged as C+ or C- for any of the subgroups in the DIF analyses.

‡ Minimum sample size for DIF analysis was not met.

Table 8.E.3 DIF Classifications for ELA, Grade Two Operational 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	1	2	4	6	1	2	0	0	0	0	0	0	0	0	4	6
A-	32	49	33	51	32	49	29	45	24	37	29	45	32	49	34	52	35	54	31	48	32	49
A+	33	51	32	49	30	46	31	48	33	51	32	49	33	51	30	46	30	46	34	52	25	38
B+	0	0	0	0	1	2	4	6	2	3	2	3	0	0	1	2	0	0	0	0	2	3
C+	0	0	0	0	2	3	0	0	2	3	1	2	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	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-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-	2	3	0	0	2	3	1	2	3	5	2	3	1	2	1	2	0	0	0	0	5	8
A-	27	42	31	48	26	40	29	45	29	45	29	45	27	42	29	45	31	48	35	54	28	43
A+	36	55	34	52	31	48	34	52	26	40	30	46	36	55	35	54	34	52	30	46	23	35
B+	0	0	0	0	4	6	1	2	5	8	2	3	1	2	0	0	0	0	0	0	7	11
C+	0	0	0	0	2	3	0	0	2	3	2	3	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	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-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	2	3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	3
B-	2	3	0	0	3	4	1	1	5	7	4	5	1	1	0	0	1	1	0	0	6	8
A-	30	40	34	45	31	41	33	44	30	40	32	43	32	43	39	52	31	41	35	47	28	37
A+	43	57	41	55	35	47	39	52	33	44	35	47	42	56	34	45	43	57	40	53	31	41
B+	0	0	0	0	2	3	1	1	5	7	1	1	0	0	1	1	0	0	0	0	6	8
C+	0	0	0	0	2	3	1	1	2	3	2	3	0	0	1	1	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.6 DIF Classifications for ELA, Grade Five Operational 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	1	1	0	0	0	0	0	0	0	0	0	0	1	1
B-	2	3	0	0	5	7	1	1	3	4	5	7	2	3	1	1	2	3	0	0	8	11
A-	35	47	34	45	35	47	37	49	35	47	33	44	31	41	36	48	29	39	35	47	32	43
A+	34	45	41	55	27	36	33	44	28	37	30	40	40	53	35	47	44	59	40	53	24	32
B+	4	5	0	0	5	7	2	3	4	5	4	5	2	3	2	3	0	0	0	0	6	8
C+	0	0	0	0	3	4	2	3	4	5	3	4	0	0	1	1	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-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	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
B-	1	1	0	0	1	1	1	1	3	4	0	0	1	1	1	1	1	1	0	0	5	7
A-	35	47	38	51	36	48	35	47	32	43	35	47	34	45	36	48	36	48	39	52	31	41
A+	37	49	37	49	36	48	39	52	38	51	38	51	40	53	38	51	38	51	36	48	35	47
B+	1	1	0	0	1	1	0	0	2	3	1	1	0	0	0	0	0	0	0	0	2	3
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.8 DIF Classifications for ELA, Grade Seven Operational 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	1	1	0	0	1	1	1	1	0	0	0	0	0	0	1	1	2	3
B-	2	3	0	0	3	4	1	1	3	4	1	1	1	1	1	1	1	1	0	0	8	11
A-	35	46	41	54	34	45	34	45	31	41	34	45	29	38	33	43	35	46	42	55	25	33
A+	37	49	35	46	32	42	40	53	34	45	36	47	46	61	42	55	40	53	33	43	30	39
B+	2	3	0	0	4	5	1	1	6	8	3	4	0	0	0	0	0	0	0	0	9	12
C+	0	0	0	0	2	3	0	0	1	1	1	1	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100

Table 8.E.9 DIF Classifications for ELA, Grade Eight Operational Items

DIF	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	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1
B-	0	0	0	0	5	7	0	0	2	3	3	4	2	3	0	0	0	0	0	0	6	8
A-	37	50	37	50	27	36	37	50	29	39	30	41	27	36	37	50	36	49	35	47	27	36
A+	36	49	37	50	37	50	36	49	38	51	36	49	44	59	37	50	37	50	39	53	34	46
B+	1	1	0	0	3	4	1	1	2	3	3	4	1	1	0	0	1	1	0	0	4	5
C+	0	0	0	0	1	1	0	0	2	3	1	1	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	74	100	74	100	74	100	74	100	74	100	74	100	74	100	74	100	74	100	74	100	74	100

Table 8.E.10 DIF Classifications for ELA, Grade Nine Operational 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	2	3	1	1	0	0	0	0	0	0	0	0	3	4
B-	0	0	0	0	4	5	1	1	3	4	2	3	2	3	0	0	0	0	0	0	5	7
A-	34	45	35	47	27	36	33	44	27	36	28	37	34	45	37	49	34	45	35	47	27	36
A+	40	53	40	53	40	53	39	52	40	53	41	55	39	52	38	51	41	55	40	53	36	48
B+	0	0	0	0	3	4	2	3	2	3	3	4	0	0	0	0	0	0	0	0	3	4
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.11 DIF Classifications for ELA, Grade Ten Operational 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	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	3	4	0	0	3	4
A-	38	51	35	47	38	51	36	48	36	48	37	49	39	52	35	47	32	43	37	49	34	45
A+	35	47	40	53	34	45	37	49	36	48	35	47	35	47	39	52	40	53	38	51	34	45
B+	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1
C+	1	1	0	0	1	1	1	1	1	1	1	1	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	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-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	0	0	4	5	0	0	3	4	4	5	1	1	0	0	1	1	0	0	7	9
A-	35	47	38	51	30	40	33	44	34	45	31	41	35	47	37	49	31	41	31	41	30	40
A+	39	52	37	49	38	51	42	56	36	48	37	49	39	52	38	51	43	57	44	59	35	47
B+	0	0	0	0	2	3	0	0	2	3	3	4	0	0	0	0	0	0	0	0	2	3
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.13 DIF Classifications for History–Social Science, Grade Eight Operational 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-	2	3	0	0	2	3	1	1	1	1	2	3	0	0	2	3	0	0	0	0	6	8
A-	35	47	40	53	33	44	39	52	43	57	35	47	38	51	31	41	34	45	36	48	31	41
A+	37	49	35	47	37	49	35	47	30	40	36	48	36	48	40	53	41	55	39	52	31	41
B+	1	1	0	0	3	4	0	0	1	1	2	3	1	1	2	3	0	0	0	0	7	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	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-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	2	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	3	5
A-	28	47	30	50	30	50	28	47	30	50	29	48	25	42	24	40	27	45	26	43	24	40
A+	30	50	30	50	29	48	32	53	30	50	30	50	35	58	34	57	33	55	34	57	31	52
B+	1	2	0	0	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.15 DIF Classifications for History–Social Science Grade Eleven Operational 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-	2	3	0	0	2	3	1	2	2	3	1	2	1	2	1	2	0	0	0	0	5	8
A-	29	48	34	57	23	38	30	50	23	38	22	37	25	42	30	50	28	47	30	50	24	40
A+	27	45	25	42	34	57	29	48	33	55	36	60	34	57	28	47	32	53	30	50	25	42
B+	2	3	1	2	1	2	0	0	0	0	1	2	0	0	1	2	0	0	0	0	4	7
C+	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	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-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	1	2	2	3	0	0	1	2	1	2	1	2	0	0	3	5
A-	28	43	33	51	31	48	27	42	27	42	31	48	26	40	26	40	28	43	32	49	23	35
A+	37	57	32	49	33	51	36	55	34	52	33	51	37	57	38	58	36	55	33	51	37	57
B+	0	0	0	0	1	2	1	2	2	3	1	2	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.17 DIF Classifications for Mathematics, Grade Three Operational 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-	2	3	0	0	0	0	2	3	3	5	0	0	3	5	3	5	0	0	0	0	6	9
A-	27	42	27	42	33	51	27	42	26	40	29	45	27	42	29	45	29	45	36	55	27	42
A+	35	54	38	58	32	49	33	51	33	51	36	55	34	52	30	46	35	54	29	45	26	40
B+	1	2	0	0	0	0	2	3	3	5	0	0	1	2	3	5	1	2	0	0	5	8
C+	0	0	0	0	0	0	1	2	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	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-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-	3	5	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	4	6
A-	25	38	30	46	34	52	34	52	32	49	35	54	28	43	27	42	29	45	35	54	27	42
A+	36	55	35	54	31	48	29	45	32	49	30	46	37	57	36	55	36	55	30	46	31	48
B+	1	2	0	0	0	0	2	3	1	2	0	0	0	0	1	2	0	0	0	0	3	5
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 8.E.19 DIF Classifications for Mathematics, Grade Five Operational 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-	2	3	0	0	0	0	1	2	1	2	0	0	1	2	1	2	0	0	0	0	3	5
A-	25	38	30	46	34	52	32	49	33	51	37	57	27	42	32	49	32	49	33	51	29	45
A+	38	58	35	54	31	48	31	48	31	48	28	43	37	57	31	48	33	51	32	49	31	48
B+	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 8.E.20 DIF Classifications for Mathematics, Grade Six Operational 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-	3	5	0	0	2	3	0	0	1	2	2	3	0	0	3	5	0	0	0	0	4	6
A-	26	40	30	46	27	42	29	45	29	45	29	45	26	40	25	38	30	46	35	54	25	38
A+	35	54	35	54	36	55	36	55	34	52	34	52	39	60	37	57	35	54	30	46	34	52
B+	1	2	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 8.E.21 DIF Classifications for Mathematics, Grade Seven Operational 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-	4	6	0	0	0	0	1	2	3	5	0	0	0	0	1	2	0	0	0	0	6	9
A-	21	32	29	45	27	42	29	45	24	37	29	45	26	40	33	51	32	49	34	52	20	31
A+	40	62	36	55	38	58	35	54	38	58	36	55	39	60	31	48	33	51	31	48	39	60
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.22 DIF Classifications for General Mathematics Operational 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	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	1	2	1	2	4	6	1	2	0	0	1	2	0	0	0	0	4	6
A-	26	40	30	46	33	51	29	45	28	43	30	46	29	45	34	52	28	43	30	46	26	40
A+	35	54	35	54	29	45	35	54	33	51	34	52	36	55	30	46	37	57	35	54	31	48
B+	1	2	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 8.E.23 DIF Classifications for Algebra I Operational 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	2	3	0	0	2	3
A-	28	43	31	48	29	45	28	43	31	48	33	51	26	40	27	42	18	28	25	38	22	34
A+	37	57	34	52	36	55	37	57	34	52	32	49	39	60	38	58	45	69	40	62	41	63
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-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	1	2	0	0	1	2
A-	34	52	30	46	27	42	27	42	29	45	30	46	30	46	30	46	25	38	30	46	26	40
A+	31	48	35	54	38	58	38	58	36	55	35	54	35	54	35	54	39	60	35	54	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.25 DIF Classifications for Algebra II Operational 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	2	0	0	0	0	1	2	1	2	0	0	3	5	0	0	3	5
A-	29	45	28	43	22	34	32	49	26	40	22	34	30	46	28	43	23	35	23	35	27	42
A+	36	55	37	57	42	65	33	51	39	60	42	65	34	52	37	57	39	60	42	65	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.26 DIF Classifications for Summative High School Mathematics Operational 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	2	1	2	1	2	1	2	3	5	1	2	2	3	0	0	3	5	0	0	7	11
A-	28	43	30	46	25	38	27	42	26	40	25	38	28	43	33	51	27	42	31	48	23	35
A+	35	54	34	52	39	60	35	54	36	55	39	60	33	51	31	48	32	49	34	52	27	42
B+	1	2	0	0	0	0	2	3	0	0	0	0	2	3	1	2	3	5	0	0	8	12
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	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	3
A-	27	42	0	0	25	38	0	0	32	49	32	49	33	51	32	49	24	37	27	42	30	46
A+	38	58	0	0	38	58	0	0	32	49	33	51	32	49	33	51	41	63	37	57	31	48
B+	0	0	0	0	1	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	65	100	0	0	65	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 8.E.28 DIF Classifications for Integrated Mathematics 2 Operational Items

DIF	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	2	3	0	0	0	0	2	3	0	0	2	3	2	3	2	3	9	14
A-	28	43	0	0	30	46	0	0	0	0	28	43	31	48	31	48	25	38	31	48	23	35
A+	35	54	0	0	30	46	0	0	0	0	34	52	34	52	32	49	38	58	30	46	28	43
B+	0	0	0	0	3	5	0	0	0	0	1	2	0	0	0	0	0	0	2	3	5	8
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	65	100	0	0	65	100	65	100	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	2	3	0	0	0	0	0	0	0	0	2	3
B-	2	3	0	0	0	0	0	0	0	0	2	3	4	6	0	0	0	0	0	0	6	9
A-	30	46	0	0	0	0	0	0	0	0	29	45	28	43	0	0	0	0	0	0	26	40
A+	31	48	0	0	0	0	0	0	0	0	27	42	28	43	0	0	0	0	0	0	21	32
B+	2	3	0	0	0	0	0	0	0	0	4	6	4	6	0	0	0	0	0	0	9	14
C+	0	0	0	0	0	0	0	0	0	0	1	2	1	2	0	0	0	0	0	0	1	2
Small N	0	0	65	100	65	100	65	100	65	100	0	0	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-	33	55	34	57	29	48	29	48	31	52	34	57	28	47	31	52	30	50	24	40	28	47
A+	26	43	26	43	29	48	31	52	29	48	24	40	32	53	29	48	29	48	36	60	28	47
B+	1	2	0	0	2	3	0	0	0	0	2	3	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.31 DIF Classifications for Science, Grade Eight Operational 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-	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	8
A-	19	32	29	48	29	48	29	48	28	47	28	47	25	42	23	38	23	38	30	50	25	42
A+	37	62	31	52	27	45	31	52	32	53	31	52	35	58	37	62	35	58	30	50	26	43
B+	1	2	0	0	4	7	0	0	0	0	1	2	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.32 DIF Classifications for Grade Ten Life Science Operational 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	2	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	3
A-	28	47	27	45	28	47	28	47	25	42	29	48	26	43	30	50	32	53	31	52	27	45
A+	29	48	33	55	29	48	32	53	35	58	30	50	34	57	30	50	28	47	29	48	28	47
B+	3	5	0	0	1	2	0	0	0	0	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.33 DIF Classifications for Biology Operational 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	3	5	2	3	2	3	2	3	1	2	1	2	0	0	0	0	3	5
A-	24	40	29	48	24	40	21	35	28	47	25	42	31	52	25	42	30	50	29	48	24	40
A+	35	58	31	52	33	55	36	60	30	50	33	55	28	47	34	57	29	48	31	52	30	50
B+	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	2	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.34 DIF Classifications for Chemistry Operational 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-	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	5
A-	28	47	30	50	24	40	28	47	21	35	24	40	31	52	27	45	28	47	32	53	21	35
A+	30	50	30	50	36	60	32	53	39	65	36	60	29	48	32	53	32	53	28	47	36	60
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.35 DIF Classifications for Earth Science Operational Items

DIF	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-	2	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5
A-	27	45	30	50	27	45	30	50	32	53	28	47	27	45	27	45	34	57	33	55	24	40
A+	30	50	30	50	32	53	30	50	28	47	32	53	33	55	33	55	26	43	27	45	32	53
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-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	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
B-	2	3	0	0	1	2	0	0	2	3	2	3	0	0	1	2	1	2	0	0	4	7
A-	25	42	30	50	24	40	26	43	30	50	26	43	28	47	26	43	27	45	30	50	23	38
A+	32	53	30	50	34	57	33	55	27	45	32	53	32	53	33	55	32	53	30	50	29	48
B+	1	2	0	0	0	0	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.37 DIF Classifications for Integrated/Coordinated Science 1 Operational 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	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	5
A-	28	47	32	53	27	45	30	50	30	50	28	47	30	50	28	47	31	52	32	53	26	43
A+	30	50	28	47	32	53	29	48	29	48	32	53	30	50	32	53	28	47	28	47	28	47
B+	1	2	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	1	2	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.38 DIF Classifications for Integrated/Coordinated Science 2 Operational 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	3	5	0	0	2	3	1	2	0	0	0	0	0	0	0	0	6	10
B-	4	7	0	0	4	7	0	0	3	5	4	7	3	5	5	8	0	0	3	5	13	22
A-	21	35	0	0	22	37	0	0	26	43	25	42	30	50	23	38	27	45	24	40	10	17
A+	33	55	0	0	23	38	0	0	24	40	25	42	23	38	28	47	33	55	33	55	18	30
B+	2	3	0	0	8	13	0	0	5	8	5	8	4	7	4	7	0	0	0	0	13	22
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	60	100	0	0	60	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.39 DIF Classifications for Integrated/Coordinated Science 3 Operational Items

DIF	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	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	0	0	0	0	0	0	3	5	0	0	3	5	0	0	7	12
A-	28	47	0	0	0	0	0	0	0	0	0	0	31	52	0	0	27	45	0	0	18	30
A+	26	43	0	0	0	0	0	0	0	0	0	0	21	35	0	0	28	47	0	0	25	42
B+	3	5	0	0	0	0	0	0	0	0	0	0	5	8	0	0	2	3	0	0	9	15
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	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-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	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-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	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2
B-	0	0	1	2	0	0	5	8	5	8	2	3	0	0	3	5	1	2	0	0	12	20
A-	31	52	40	67	31	52	33	55	25	42	28	47	38	63	40	67	32	53	36	60	25	42
A+	28	47	19	32	27	45	19	32	27	45	29	48	22	37	17	28	26	43	24	40	17	28
B+	1	2	0	0	1	2	3	5	3	5	1	2	0	0	0	0	0	0	0	0	5	8
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.42 DIF Classifications for ELA, Grade Three 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	1	2	0	0	1	2	1	2	0	0	0	0	0	0	0	0	1	2
B-	2	3	1	2	3	5	2	3	4	7	3	5	0	0	3	5	0	0	0	0	6	10
A-	18	30	35	58	22	37	30	50	23	38	24	40	32	53	37	62	29	48	32	53	29	48
A+	40	67	24	40	29	48	26	43	30	50	27	45	28	47	20	33	31	52	28	47	19	32
B+	0	0	0	0	4	7	2	3	2	3	5	8	0	0	0	0	0	0	0	0	4	7
C+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.43 DIF Classifications for ELA, Grade Four 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	2	1	2	0	0	0	0	1	2	0	0	0	0	1	2
B-	0	0	1	2	2	3	3	5	1	2	2	3	1	2	1	2	1	2	0	0	5	8
A-	25	42	38	63	14	23	30	50	23	38	17	28	30	50	41	68	33	55	20	33	22	37
A+	35	58	21	35	40	67	26	43	33	55	40	67	29	48	17	28	26	43	40	67	27	45
B+	0	0	0	0	4	7	0	0	2	3	1	2	0	0	0	0	0	0	0	0	5	8
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.44 DIF Classifications for ELA, 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-	1	2	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	3
B-	1	2	0	0	0	0	3	5	1	2	0	0	0	0	0	0	1	2	0	0	6	10
A-	24	41	33	56	20	34	31	53	28	47	20	34	32	54	39	66	35	59	29	49	18	31
A+	31	53	25	42	29	49	22	37	21	36	31	53	27	46	18	31	22	37	30	51	23	39
B+	2	3	1	2	5	8	3	5	4	7	4	7	0	0	2	3	1	2	0	0	4	7
C+	0	0	0	0	5	8	0	0	4	7	4	7	0	0	0	0	0	0	0	0	6	10
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-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	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
B-	0	0	2	3	1	2	3	5	1	2	0	0	2	3	0	0	3	5	1	2	7	12
A-	18	31	33	57	18	31	33	57	24	41	19	33	29	50	41	71	32	55	28	48	22	38
A+	39	67	23	40	36	62	20	34	31	53	37	64	27	47	17	29	23	40	29	50	24	41
B+	0	0	0	0	1	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	2	3	0	0	2	3	2	3	0	0	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	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.46 DIF Classifications for ELA, Grade Seven 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	1	2	0	0	0	0	0	0	0	0	0	0	1	2
B-	1	2	2	3	0	0	2	3	1	2	1	2	2	3	1	2	2	3	0	0	5	8
A-	23	39	34	58	23	39	30	51	28	47	23	39	33	56	33	56	40	68	37	63	25	42
A+	33	56	23	39	30	51	26	44	22	37	31	53	23	39	25	42	17	29	22	37	17	29
B+	2	3	0	0	6	10	1	2	7	12	4	7	1	2	0	0	0	0	0	0	11	19
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	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100

Table 8.E.47 DIF Classifications for ELA, Grade Eight Field-test Items

DIF	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	2	0	0	2	3	0	0	1	2	2	3	0	0	0	0	0	0	0	0	3	5
B-	1	2	0	0	1	2	2	3	2	3	1	2	1	2	1	2	2	3	1	2	4	7
A-	19	32	30	51	25	42	30	51	30	51	28	47	34	58	29	49	43	73	38	64	23	39
A+	35	59	29	49	27	46	25	42	21	36	24	41	23	39	29	49	13	22	20	34	19	32
B+	3	5	0	0	2	3	2	3	3	5	3	5	1	2	0	0	1	2	0	0	7	12
C+	0	0	0	0	2	3	0	0	2	3	1	2	0	0	0	0	0	0	0	0	3	5
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100	59	100

Table 8.E.48 DIF Classifications for ELA, Grade Nine Field-test Items

DIF	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	2	0	0	1	2	0	0	1	2	1	2	1	2	0	0	0	0	0	0	3	5
B-	1	2	0	0	0	0	5	9	2	3	0	0	4	7	2	3	2	3	0	0	7	12
A-	18	31	28	48	22	38	27	47	17	29	18	31	25	43	36	62	34	59	38	66	14	24
A+	36	62	30	52	31	53	26	45	35	60	36	62	28	48	20	34	22	38	20	34	28	48
B+	2	3	0	0	3	5	0	0	2	3	2	3	0	0	0	0	0	0	0	0	5	9
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	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.49 DIF Classifications for ELA, Grade Ten 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	2	3	1	2	2	3	2	3	1	2	0	0	0	0	0	0	2	3
B-	4	7	0	0	2	3	5	8	3	5	1	2	0	0	1	2	1	2	0	0	11	18
A-	23	38	37	62	26	43	34	57	29	48	26	43	37	62	42	70	43	72	37	62	30	50
A+	33	55	23	38	29	48	19	32	25	42	30	50	22	37	17	28	15	25	23	38	15	25
B+	0	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	1	2	0	0	1	2
C+	0	0	0	0	0	0	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.50 DIF Classifications for ELA, Grade Eleven 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	2	0	0	1	2	1	2	1	2	1	2	1	2	0	0	0	0	0	0	2	3
B-	1	2	1	2	0	0	3	5	1	2	0	0	1	2	1	2	2	3	0	0	4	7
A-	21	35	20	33	20	33	26	43	25	42	21	35	34	57	35	58	43	72	40	67	21	35
A+	35	58	39	65	37	62	29	48	29	48	36	60	23	38	24	40	14	23	20	33	24	40
B+	2	3	0	0	2	3	1	2	4	7	2	3	0	0	0	0	1	2	0	0	8	13
C+	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 8.E.51 DIF Classifications for History–Social Science, Grade Eight Field-test Items

DIF	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	2	7	0	0	0	0	0	0	0	0	0	0	0	0	2	7
A-	20	67	16	53	10	33	17	57	15	50	11	37	19	63	20	67	22	73	18	60	18	60
A+	10	33	14	47	19	63	11	37	15	50	18	60	11	37	10	33	8	27	12	40	9	30
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-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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	13	43	20	67	11	37	22	73	14	47	13	43	22	73	21	70	20	67	19	63	20	67
A+	16	53	10	33	19	63	8	27	16	53	17	57	8	27	9	30	10	33	11	37	9	30
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-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	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	2	7
B-	1	3	0	0	2	7	2	7	1	3	1	3	0	0	1	3	2	7	1	3	4	13
A-	16	53	19	63	11	37	17	57	12	40	12	40	21	70	16	53	20	67	13	43	14	47
A+	11	37	11	37	17	57	10	33	16	53	17	57	9	30	12	40	7	23	16	53	8	27
B+	1	3	0	0	0	0	0	0	1	3	0	0	0	0	1	3	0	0	0	0	1	3
C+	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	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	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-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	2	0	0	1	2	1	2	0	0	0	0	0	0	0	0	1	2	0	0	4	7
A-	22	37	27	45	16	27	19	32	20	33	17	28	27	45	33	55	22	37	44	73	18	30
A+	37	62	33	55	40	67	36	60	38	63	42	70	32	53	27	45	37	62	16	27	29	48
B+	0	0	0	0	3	5	4	7	1	2	1	2	1	2	0	0	0	0	0	0	8	13
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.55 DIF Classifications for Mathematics, Grade Three 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-	3	5	5	8	0	0	6	10	2	3	0	0	0	0	3	5	3	5	1	2	14	23
A-	32	53	36	60	18	30	27	45	25	42	22	37	32	53	29	48	32	53	41	68	20	33
A+	24	40	19	32	33	55	24	40	26	43	32	53	28	47	28	47	25	42	18	30	13	22
B+	1	2	0	0	9	15	2	3	7	12	6	10	0	0	0	0	0	0	0	0	12	20
C+	0	0	0	0	0	0	1	2	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.56 DIF Classifications for Mathematics, Grade Four 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	1	2	0	0	1	2
B-	2	3	1	2	0	0	4	7	1	2	0	0	1	2	2	3	1	2	0	0	7	12
A-	26	43	33	55	16	27	29	48	27	45	21	35	32	53	34	57	36	60	35	58	21	35
A+	32	53	26	43	39	65	25	42	30	50	38	63	27	45	24	40	22	37	25	42	23	38
B+	0	0	0	0	5	8	2	3	2	3	1	2	0	0	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.57 DIF Classifications for Mathematics, 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	2	0	0	0	0	0	0	1	2	0	0	0	0	2	3
B-	3	5	0	0	0	0	3	5	1	2	0	0	2	3	3	5	3	5	0	0	5	8
A-	27	45	35	58	21	35	32	53	25	42	23	38	28	47	34	57	35	58	32	53	24	40
A+	30	50	25	42	37	62	22	37	32	53	37	62	30	50	20	33	22	37	28	47	22	37
B+	0	0	0	0	2	3	2	3	1	2	0	0	0	0	2	3	0	0	0	0	6	10
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.58 DIF Classifications for Mathematics, Grade Six 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	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	2	3	5	8	3	5	2	3	0	0	5	8	4	7	0	0	10	17
A-	28	47	36	60	18	30	25	42	19	32	22	37	40	67	38	63	39	65	34	57	21	35
A+	29	48	23	38	40	67	29	48	38	63	36	60	20	33	17	28	17	28	26	43	27	45
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.59 DIF Classifications for Mathematics, Grade Seven 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	1	2	0	0	0	0	1	2
B-	4	7	0	0	0	0	3	5	1	2	0	0	1	2	4	7	0	0	0	0	9	15
A-	22	37	35	58	21	35	24	40	26	43	25	42	33	55	29	48	30	50	26	43	19	32
A+	34	57	25	42	36	60	33	55	32	53	34	57	26	43	26	43	30	50	34	57	28	47
B+	0	0	0	0	3	5	0	0	1	2	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.60 DIF Classifications for General Mathematics 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17
A-	3	50	6	100	4	67	4	67	4	67	5	83	5	83	6	100	4	67	2	33	3	50
A+	2	33	0	0	2	33	2	33	2	33	1	17	1	17	0	0	2	33	4	67	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.61 DIF Classifications for Algebra I 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-	11	37	16	53	7	23	15	50	11	37	9	30	19	63	18	60	20	67	21	70	17	57
A+	19	63	14	47	23	77	15	50	19	63	21	70	11	37	12	40	10	33	9	30	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-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	1	3	0	0	1	3
B-	0	0	0	0	1	3	0	0	1	3	1	3	1	3	0	0	1	3	0	0	1	3
A-	21	70	19	63	6	20	20	67	14	47	10	33	21	70	23	77	18	60	17	57	23	77
A+	9	30	11	37	23	77	10	33	15	50	19	63	8	27	7	23	10	33	13	43	5	17
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	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-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	1	3	0	0	1	3
A-	12	40	17	57	12	40	21	70	17	57	13	43	22	73	18	60	16	53	20	67	18	60
A+	18	60	13	43	18	60	9	30	13	43	17	57	8	27	12	40	13	43	10	33	11	37
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100	30	100

Table 8.E.64 DIF Classifications for Summative High School Mathematics 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	1	3	0	0	1	3
B-	4	13	1	3	1	3	0	0	2	7	1	3	1	3	2	7	1	3	1	3	7	23
A-	7	23	2	7	11	37	13	43	11	37	12	40	14	47	14	47	9	30	17	57	7	23
A+	19	63	3	10	17	57	17	57	17	57	16	53	15	50	14	47	17	57	11	37	13	43
B+	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	1	3	1	3	1	3
C+	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	1	3	0	0	1	3
Small N	0	0	24	80	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-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	1	17	0	0	3	50	1	17	1	17	2	33	5	83	5	83	3	50
A+	3	50	0	0	4	67	0	0	2	33	5	83	5	83	4	67	1	17	1	17	1	17
B+	0	0	0	0	1	17	0	0	1	17	0	0	0	0	0	0	0	0	0	0	2	33
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	100	0	0	6	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.66 DIF Classifications for Integrated Mathematics 2 Field-test Items

DIF	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	4	67	0	0	0	0	3	50	2	33	3	50	1	17	4	67	1	17
A+	2	33	0	0	2	33	0	0	0	0	2	33	4	67	2	33	5	83	2	33	3	50
B+	1	17	0	0	0	0	0	0	0	0	1	17	0	0	1	17	0	0	0	0	2	33
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	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.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-	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17
A-	3	50	0	0	0	0	0	0	0	0	3	50	3	50	0	0	0	0	0	0	3	50
A+	2	33	0	0	0	0	0	0	0	0	3	50	3	50	0	0	0	0	0	0	2	33
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	100	6	100	6	100	6	100	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	1	1	1	0	0	3	4	0	0	0	0	1	1	2	2	3	4	1	1	8	10
A-	46	55	52	62	25	30	47	56	39	46	30	36	51	61	47	56	54	64	44	52	44	52
A+	37	44	31	37	57	68	33	39	43	51	52	62	32	38	35	42	27	32	39	46	29	35
B+	0	0	0	0	2	2	1	1	2	2	2	2	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	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-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B-	1	1	2	2	1	1	3	4	2	2	1	1	0	0	0	0	2	2	0	0	8	10
A-	41	49	52	62	22	26	38	45	36	43	26	31	55	65	48	57	58	69	49	58	41	49
A+	40	48	30	36	51	61	42	50	46	55	53	63	29	35	36	43	24	29	35	42	24	29
B+	2	2	0	0	7	8	1	1	0	0	3	4	0	0	0	0	0	0	0	0	8	10
C+	0	0	0	0	3	4	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3	4
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	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	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1
B-	2	2	4	5	3	4	7	8	2	2	2	2	0	0	0	0	4	5	0	0	13	15
A-	44	52	44	52	36	43	45	54	48	57	41	49	62	74	59	70	58	69	51	61	45	54
A+	37	44	35	42	42	50	31	37	34	40	39	46	22	26	25	30	22	26	33	39	21	25
B+	1	1	0	0	2	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3	4
C+	0	0	1	1	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	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-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-	2	2	2	2	0	0	3	4	0	0	0	0	0	0	0	0	1	1	1	1	9	11
A-	28	34	47	57	20	24	46	55	36	43	24	29	53	64	56	67	49	59	56	67	41	49
A+	53	64	34	41	61	73	33	40	46	55	59	71	30	36	27	33	33	40	26	31	29	35
B+	0	0	0	0	2	2	1	1	1	1	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	83	100	83	100	83	100	83	100	83	100	83	100	83	100	83	100	83	100	83	100	83	100

Table 8.E 72 DIF Classifications for Chemistry 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	2	2	0	0	3	4
B-	2	2	0	0	1	1	0	0	3	4	1	1	2	2	4	5	8	10	2	2	10	12
A-	46	55	0	0	36	43	0	0	47	56	40	48	60	71	52	62	41	49	42	50	37	44
A+	35	42	0	0	45	54	0	0	33	39	42	50	22	26	28	33	32	38	38	45	31	37
B+	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2	2	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	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.73 DIF Classifications for Earth 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-	2	2	0	0	2	2	0	0	4	5	2	2	0	0	2	2	0	0	1	1	7	8
A-	37	44	38	45	36	43	0	0	28	33	39	46	43	51	52	62	53	63	46	55	37	44
A+	44	52	40	48	44	52	0	0	50	60	43	51	41	49	30	36	30	36	37	44	35	42
B+	1	1	0	0	2	2	0	0	2	2	0	0	0	0	0	0	1	1	0	0	5	6
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	7	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-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	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	2	2
B-	7	8	0	0	3	4	0	0	7	8	2	2	1	1	4	5	6	7	1	1	17	20
A-	39	46	0	0	38	45	0	0	39	46	38	45	51	61	37	44	35	42	6	7	31	37
A+	34	40	0	0	41	49	0	0	32	38	42	50	32	38	40	48	37	44	5	6	20	24
B+	3	4	0	0	2	2	0	0	6	7	2	2	0	0	2	2	5	6	0	0	14	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	84	100	0	0	84	100	0	0	0	0	0	0	0	0	0	0	72	86	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	2	33	2	33	2	33	4	67	2	33	2	33	3	50	2	33	3	50	3	50	3	50
A+	4	67	4	67	4	67	2	33	4	67	4	67	3	50	4	67	3	50	3	50	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.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	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17
B-	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0
A-	5	83	0	0	3	50	0	0	5	83	3	50	4	67	3	50	3	50	4	67	4	67
A+	1	17	0	0	2	33	0	0	1	17	2	33	2	33	3	50	3	50	1	17	0	0
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	1	17
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	100	0	0	6	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 8.E.77 DIF Classifications for Integrated/Coordinated Science 3 Field-test Items

DIF	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17
A-	2	33	0	0	0	0	0	0	0	0	0	0	3	50	0	0	2	33	0	0	3	50
A+	2	33	0	0	0	0	0	0	0	0	0	0	2	33	0	0	4	67	0	0	0	0
B+	1	17	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	2	33
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

ETS implements rigorous quality control procedures throughout the test development, administration, scoring, and reporting processes. As part of this effort, ETS maintains an Office of Testing Integrity (OTI) that resides in the ETS legal department. OTI provides quality assurance services for all testing programs administered by ETS. In addition, the Office of Professional Standards Compliance at ETS publishes and maintains the *ETS Standards for Quality and Fairness,* which supports the OTI's goals and activities. The purposes of the *ETS Standards for Quality and Fairness* are to help ETS design, develop, and deliver technically sound, fair, and useful products and services; and to help the public and auditors evaluate those products and services.

In addition, each department at ETS that is involved in the testing cycle designs and implements an independent set of procedures to ensure the quality of their products. In the next sections, these procedures are described.

Quality Control of Item Development

The item development process for the CSTs is described in detail in Chapter 3, starting on page 189. The next sections highlight elements of the process devoted specifically to quality control of item development.

Item Specifications

ETS maintains item development specifications for each CST and has developed an item utilization plan to guide the development of the items for each content area. Item writing emphasis is determined in consultation with the CDE. Adherence to the specifications ensures the maintenance of quality and consistency of the item development process.

Item Writers

The items for each CST are written by item writers that have a thorough understanding of the California content standards. The item writers are carefully screened and selected by senior ETS content staff and approved by the CDE. Only those with strong content and teaching backgrounds are invited to participate in an extensive training program for item writers.

Internal Contractor Reviews

Once items have been written, ETS assessment specialists make sure that each item goes through an intensive internal review process. Every step of this process is designed to produce items that exceed industry standards for quality. It includes three rounds of content reviews, two rounds of editorial reviews, an internal fairness review, and a high-level review and approval by a content area director. A carefully designed and monitored workflow and detailed checklists help to ensure that all items meet the specifications for the process.

Content Review

ETS assessment specialists make sure that the test items and related materials comply with ETS's written guidelines for clarity, style, accuracy, and appropriateness and with approved item specifications.

The artwork and graphics for the items are created during the internal content review period so assessment specialists can evaluate the correctness and appropriateness of the art early in the item development process. ETS selects visuals that are relevant to the item content

and that are easily understood so students do not struggle to determine the purpose or meaning of the questions.

Editorial Review

Another step in the ETS internal review process involves a team of specially trained editors who check questions for clarity, correctness of language, grade-level appropriateness of language, adherence to style guidelines, and conformity to acceptable item-writing practices. The editorial review also includes rounds of copyediting and proofreading. ETS takes pride in the typographical integrity of the items presented to our clients and strives for error-free items beginning with the initial rounds of review.

Fairness Review

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

Assessment Director Review

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

Assessment Review Panel Review

The ARPs are panels that advise the CDE and ETS on areas related to item development for the 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.

Statewide Pupil Assessment Review Panel Review

The SPAR panel is responsible for reviewing and approving a single achievement test to be used statewide for the testing of students in California public schools in grades two through eleven. The SPAR panel representatives ensure that the test items conform to the requirements of *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.

Data Review of Field-tested Items

ETS field tests newly developed items to obtain statistical information about item performance. This information is used to evaluate items that are candidates for use in operational test forms. The items and item statistics are examined carefully at data review meetings, which is where content experts discuss items that have poor statistics and do not meet the psychometric criteria for item quality. The CDE defines the criteria for acceptable or unacceptable item statistics. These criteria ensure that the item (1) has an appropriate level of difficulty for the target population; (2) discriminates well between examinees that differ in ability; and (3) conforms well to the statistical model underlying the measurement of the intended constructs. The results of analyses for differential item functioning (DIF) are used to make judgments about the appropriateness of items for various subgroups.

The panelists respond to questions such as:

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

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

Quality Control of the Item Bank

After the data review meetings, items are placed in the item bank along with their statistics and reviewers' evaluations of their quality. ETS then delivers the items to the CDE through the California electronic item bank. The item bank database is maintained by a staff of application systems programmers, led by the Item Bank Manager, at ETS. All processes are logged; all change requests—including item bank updates for item availability status—are tracked; and all output and California item bank deliveries are quality-controlled for accuracy.

Quality of the item bank and secure transfer of the California item bank to the CDE is very important. The ETS internal item bank database resides on a server within the ETS firewall; access to the SQL Server database is strictly controlled by means of system administration. The electronic item banking application includes a login/password system to authorize access to the database or designated portions of the database. In addition, only users authorized to access the specific database are able to use the item bank. Users are authorized by a designated administrator at the CDE and at ETS.

ETS has extensive experience in accurate and secure data transfer of many types including CDs, secure remote hosting, secure Web access, and secure file transfer protocol (SFTP), which is the current method used to deliver the STAR electronic item bank to the CDE. In addition, all files posted on the SFTP site by the Item Bank staff are encrypted with a password.

The measures taken for ensuring the accuracy, confidentiality, and security of electronic files are as follows:

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

Quality Control of Test Form Development

The ETS Assessment Development group is committed to providing the highest quality product to the students of California and has in place a number of quality control 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 form is then reviewed by all team members who build forms at a training specific to form planners. After trained content team members sign off on a form planner, a representative from the internal QC group reviews each file for accuracy against the specifications document. Assessment Directors review and sign off on form planners prior to processing.

As processes are refined and enhanced, ETS will implement further QC checks as appropriate.

Quality Control of Test Materials

Collecting Test Materials

Once the tests are administered, school districts return scorable and nonscorable materials within five working days after the last selected testing day of each test administration period. School districts return the CST writing booklets within two working days after the makeup day for each administration. The freight return kits provided to the districts contain color-coded labels identifying scorable and nonscorable materials and labels with bar-coded information identifying the school and district. The school districts apply the appropriate labels and number the cartons prior to returning the materials to the processing center by means of their assigned carrier. The use of the color-coded labels streamlines the return process.

All scorable materials are delivered to the Pearson scanning and scoring facilities in Iowa City, Iowa. The nonscorable materials, including test booklets, are returned to the Security Processing Department in Pearson's Cedar Rapids, Iowa, facility. ETS and Pearson closely monitor the return of materials. The STAR Technical Assistance Center (TAC) at ETS monitors returns and notifies school districts that do not return their materials in a timely manner. STAR TAC contacts the district STAR coordinators and works with them to facilitate the return of the test materials.

Processing Test Materials

Upon receipt of the test materials, Pearson uses precise inventory and test processing systems, in addition to quality assurance procedures, to maintain an up-to-date accounting of all the testing materials within their facilities. The materials are removed carefully from the shipping cartons and examined for a number of conditions, including physical damage, shipping errors, and omissions. A visual inspection to compare the number of students recorded on the School and Grade Identification (SGID) sheets with the number of answer documents in the stack is also conducted.

Pearson's image scanning process captures security information electronically and compares scorable material quantities reported on the SGIDs to actual documents scanned. School districts are contacted by phone if there are any missing shipments or the quantity of materials returned appears to be less than expected.

Quality Control of Scanning

Before any STAR documents are scanned, Pearson conducts a complete check of the scanning system. ETS and Pearson create test decks for every test and form. Each test deck consists of approximately 25 answer documents marked to cover response ranges, demographic data, blanks, double marks, and other responses. Fictitious students are created to verify that each marking possibility is processed correctly by the scanning

program. The output file generated as a result of this activity is thoroughly checked against each answer document after each stage to verify that the scanner is capturing marks correctly. When the program output is confirmed to match the expected results, a scan program release form is signed and the scan program is placed in the production environment under configuration management.

The intensity levels of each scanner are constantly monitored for quality control purposes. Intensity diagnostics sheets are run before and during each batch to verify that the scanner is working properly. In the event that a scanner fails to properly pick up items on the diagnostic sheets, the scanner is recalibrated to work properly before being allowed to continue processing student documents.

Documents received in poor condition (torn, folded, or water-stained) that could not be fed through the high-speed scanners are either scanned using a flat-bed scanner or keyed into the system manually.

Post-scanning Edits

After scanning, there are three opportunities for demographic data to be edited:

- After scanning, by Pearson online editors
- After Pearson online editing, by district STAR coordinators (demographic edit)
- After paper reporting, by district STAR coordinators

Demographic edits completed by the Pearson editors and by the district STAR coordinator online are included in the data used for the paper reporting and for the technical reports.

Quality Control of Image Editing

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

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

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

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.
- All school districts and grades are compared to the CDE County-District-School (CDS) Master File.

Any discrepancies identified in the steps outlined above are followed up by Pearson staff with the school districts for resolution.

Processing of Answer Documents

Prior to processing operational answer sheets and executing subsequent data processing programs, ETS conducts an end-to-end test. As part of this test, ETS prepares approximately 700 test cases covering all tests and many scenarios designed to exercise particular business rule logic. ETS marks answer sheets for those 700 test cases. They are then scanned, scored, and aggregated. The results at various inspection points are checked by psychometricians and Data Quality Services staff. Additionally, a post-scan test file of approximately 50,000 records is scored and aggregated to test a broader range of scoring and aggregation scenarios. These procedures assure that students and school districts get the correct scores when the actual scoring process is carried out.

Scoring and Reporting Specifications

ETS develops standardized scoring procedures and specifications so testing materials are processed and scored accurately. These documents include:

- General Reporting Specifications
- Form Planner Specifications
- Aggregation Rules
- ”What If” . . . List
- Edit Specifications
- Reporting Cluster Names and Item Numbers
- CST and CMA Matching Criteria
- Matching Criteria for Multiple-choice and Writing Answer Documents

Each of these documents is explained in detail in Chapter 7, starting on page 261. 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 Grade Seven

The multiple-choice and writing sections of the ELA grade seven test 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 the grade seven students for whom there is a multiple-choice score but no writing score and grade seven students for whom there is a writing score but no multiple-choice score.

Storing Answer Documents

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

Quality Control of Psychometric Processes

Score Key Verification Procedures

ETS and Pearson take various necessary measures to ascertain that the scoring keys are applied to the student responses as expected and the student scores are computed accurately. Scoring keys, provided in the form planners, are produced by ETS and verified thoroughly by performing multiple quality control checks. The form planners contain the information about an assembled test form; other information in the form planner includes the test name, administration year, subscore identification, and standards and statistics associated with each item. The quality control checks that are performed before keys are finalized are listed below.

1. The form planners are checked for accuracy against the Form Planner Specification document and the Score Key and Score Conversion document before the keys are loaded into the score key management system (SKM) at ETS.
2. The printed lists of the scoring keys are checked again once the keys have been loaded into the SKM system.
3. The sequence of linking items[1] in the form planners are matched with their sequence in the actual test booklets.
4. The demarcations of various sections in the actual test booklet are checked against the list of demarcations provided by test development staff.

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

5. Scoring is verified internally at Pearson. ETS independently generates scores and verifies Pearson's scoring of the data by comparing the two results. Any discrepancies are then resolved.
6. The entire scoring system is tested using a test deck that includes typical and extremely atypical responses vectors, as described earlier in "Processing of Answer Documents" on page 595.
7. Classical item analyses are run on an early sample of data to provide an additional check of the keys. Although rare, if an item is found to be problematic, a followup process is performed that will exclude it from further analyses.

Quality Control of Item Analyses, DIF, and 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 review of the current year's statistics to statistics from previous years. The results of preliminary classical item analyses that provide a check on scoring keys are also reviewed by a senior psychometrician. The items that are flagged for questionable statistical attributes are sent to test development staff for their review; their comments are reviewed by the psychometricians before items are approved to be included in the equating process.

The results of the equating process are reviewed by a psychometric manager in addition to the 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 8 starting on page 384, 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 data fit the model.

Scaling

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

- Correct-linking items are used;
- Stability analysis and subsequent removal of items from the linking set (if any) during the scaling evaluation process are implemented according to specification (see details in the "Evaluation of Scaling" section in Chapter 8, on page 387); and
- The scaling constants are correctly applied to transform the new item difficulty estimates on to the item bank scale.

Scoring Tables

Once the equating activities are complete and raw-to-scale scoring tables are generated, the psychometricians carry out quality control checks on each scoring table. Scoring tables are checked to verify the following:

- All raw scores are included in the tables;
- Scale scores increase as raw scores increase;
- The minimum reported scale score is 150 and maximum reported scale scores 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 all students in each performance level. After all quality control steps are completed and any differences are resolved, a senior psychometrician inspects the scoring tables as the final step in quality control.

Score Verification Process

Pearson utilizes the raw-to-scale scoring tables to assign scale scores for each student. ETS verifies Pearson's scale scores by following procedures such as:

- 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 "complete districts"
- Reviewing longitudinal data for reasonableness; the results of the analyses are used to look at the tendencies and trends for the complete districts
- Reviewing longitudinal data for reasonableness using over 90 percent of the entire testing population; the results are used to look at the trends for the state as well as few large districts

The results of the longitudinal analyses are provided to the CDE and jointly discussed. Any anomalies in the results are investigated further and jointly discussed. Scores are released after explanations that satisfy both CDE and ETS are obtained.

Offloads to Test Development

The statistics based on classical item analyses and the IRT analyses are obtained at two different times in the testing cycle. The first time, the statistics are obtained on the equating samples to ensure the quality of equating, and then on larger sample sizes to ensure the stability of the statistics that are to be used for future test assembly. Statistics used to generate DIF flags are also obtained from the larger samples and are provided to test development staff in specially designed Excel spreadsheets called "statistical offloads." The offloads are thoroughly checked by the psychometric staff before their release for test development review.

Quality Control of Reporting

For the quality control of various STAR student and summary reports, four general areas are evaluated, including the following:

1. Comparing report formats to input sources from the CDE-approved samples
2. Validating and verifying the report data by querying the appropriate student data
3. Evaluating the production print execution performance by comparing the number of report copies, sequence of report order, and offset characteristics to the CDE's requirements

4. Proofreading reports at the CDE, ETS, and Pearson prior to any school district mailings

All reports are required to include a single, accurate CDS code, a charter school number (if applicable), a school district name, and a school name. All elements conform to the CDE's official CDS code and naming records. From the start of processing through scoring and reporting, the CDS Master File is used to verify and confirm accurate codes and names. The CDE Master File is provided by the CDE to ETS throughout the year as updates are available.

For students who use more than one answer document, the matching process, as described on page 596, provides for the creation of individual student records from which reports are created.

After the reports are validated against the CDE's requirements, a set of reports for pilot districts are provided to the CDE and ETS for review and approval. Pearson sends paper reports on the actual report forms, folded as they are expected to look in production. The CDE and ETS review and sign off on the report package after a thorough review.

Upon the CDE's approval of the reports generated from the pilot test, Pearson proceeds with the first production batch test. The first production batch is selected to validate a subset of school districts that contain examples of key reporting characteristics representative of the state as a whole. The first production batch test incorporates client-selected school districts and provides the last check prior to generating all reports and mailing them to the districts.

Excluding Student Scores from Summary Reports

ETS provides specifications to the CDE that document when to exclude student scores from summary reports. These specifications include the logic for handling answer documents that, for example, indicate the student tested but marked no answers, 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.

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 are performed over a period of the three most recent years of administration—2008, 2009, and 2010—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 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
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 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 differ over CSTs. Reasons for these differences and other relevant information are as follows:

- Prior to 2003, the CST scale scores had a range extending below 150 and above 600. To facilitate the comparisons of results obtained in the base year of 2002 to the scores obtained in recent years, the 2002 score scale was redefined so that it ranges from 150 to 600. In cases where the scale did not extend to 600, the perfect scores were adjusted to have a scale score of 600.
- Prior to 2003, the CSTs for ELA were comprised of 90 items including 15 Stanford 9[2] items. 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.
- Prior to 2007, a history–social science test was administered to students in grade ten only. Beginning in 2007, this CST has been offered as an end-of-course test to students in grades nine through eleven; it is now called the CST for World History.
- 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

Given in Table 10.A.1 for each CST are the number of examinees assessed and the means and standard deviations of examinees' scale scores in the base year and in 2008, 2009, and 2010.

Students taking each CST are classified 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[3] on page 603. The goal is for

[2] Prior to 2003, the STAR tests were administered in conjunction with Stanford Achievement Test – 9th edition (SAT9)

[3] 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.

all students to achieve at or above the proficient level by 2014. This goal for all students is consistent with school growth targets for state accountability and the federal requirements under the Elementary and Secondary Education Act.

Table 10.A.3 through Table 10.A.16 show for each CST the distribution of scale scores observed in the base year and in 2008, 2009, and 2010. Frequency counts are provided for each scale score interval of 30. A frequency count of zero indicates that either there are no obtainable scale scores within that scale score range or there are no students obtaining a scale score within the 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 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 in which too many items being field tested have tended to be very difficult.

Table 10.B.1 and Table 10.B.2 present, respectively, the average proportion correct values and the mean equated IRT *b*-values[4] for the items in each CST. The mean proportion correct is affected by both the difficulty of the items and the abilities of the students taking them. The mean equated IRT *b*-values reflect only average item difficulty. 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 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.

[4] Comparisons of mean *b*-values should only be made within a given test. These statistics are based on the equating samples.

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, 2008, 2009, and 2010

Content Area	CST*	Number of Examinees (valid scores)				Scale Score Mean and Standard Deviation							
						Base		2008		2009		2010	
		Base	2008	2009	2010	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
English–Language Arts	2	475,958	461,134	453,531	452,078	332	56	348	60	353	63	357	65
	3	481,246	444,585	445,073	437,450	324	61	333	58	340	63	342	63
	4	475,575	444,610	434,822	436,696	339	50	358	56	367	60	370	62
	5	473,745	449,549	437,865	431,294	332	47	348	52	356	57	359	54
	6	479,861	468,113	442,791	435,708	332	52	345	53	352	54	357	54
	7	477,359	476,518	454,848	440,521	330	52	349	62	354	58	356	61
	8	456,264	480,891	462,898	450,321	324	50	341	58	348	61	357	63
	9	470,879	504,080	505,273	488,206	333	55	348	61	350	60	354	60
	10	416,277	475,930	477,089	479,925	324	52	336	61	338	60	341	61
	11	357,365	443,198	445,066	449,140	321	61	327	65	332	68	337	67
History–Social Science	8	455,348	480,113	475,142	467,683	321	46	334	60	340	66	348	70
	World History	396,419	480,695	476,774	475,350	315	56	325	67	329	73	337	76
	11	340,923	432,488	435,734	442,015	328	60	331	66	338	74	341	73
Mathematics	2	478,715	461,864	453,949	452,806	357	77	372	81	377	81	382	86
	3	484,064	446,504	447,205	439,938	344	74	379	86	388	90	395	92
	4	483,007	447,141	437,860	440,352	344	67	374	75	383	77	390	79
	5	475,808	451,039	440,207	433,919	332	74	365	87	376	92	383	92
	6	481,069	468,590	443,190	436,749	331	62	348	71	354	75	361	75
	7	482,393	438,983	425,265	408,894	325	58	339	65	345	66	352	69
	General Mathematics	448,652	286,258	256,544	219,970	302	45	315	56	316	56	315	56
	Algebra I	422,233	742,363	753,193	746,242	312	58	315	67	320	71	324	72
	Geometry	240,503	382,108	397,650	408,572	317	62	311	68	313	68	317	66
	Algebra II	148,314	239,083	250,628	264,960	318	56	316	67	318	66	324	69
	Summ. H.S. Math	70,589	115,855	123,586	130,562	329	80	350	74	355	79	359	78
	Integrated Math 1	13,897	8,772	9,854	11,260	278	45	282	53	289	55	292	51
	Integrated Math 2	9,563	4,275	4,051	3,830	324	51	316	58	318	59	322	60
	Integrated Math 3	10,029	1,480	1,370	795	301	64	305	72	335	77	327	78
Science	5	483,931	449,999	438,606	432,500	318	44	345	60	354	66	362	71
	8	478,667	479,113	462,224	450,168	331	71	355	93	364	97	375	99
	10 Life Science	461,634	463,012	465,825	465,836	327	58	337	67	343	70	348	67
	Biology	298,475	523,638	533,716	544,737	333	48	340	57	343	58	347	58
	Chemistry	144,933	232,120	247,002	256,509	328	44	331	54	333	54	337	55
	Earth Science	80,096	223,770	225,419	217,760	314	43	323	47	324	47	328	49
	Physics	41,760	64,041	67,740	72,735	321	49	341	54	347	57	349	54
	Int/Coord Science 1	61,146	75,603	69,122	63,991	298	31	300	38	304	39	310	40
	Int/Coord Science 2	25,546	7,746	4,625	5,356	298	35	303	37	309	39	311	38
	Int/Coord Science 3	10,317	1,955	1,738	1,344	298	31	298	35	301	35	310	42
	Int/Coord Science 4	1,498	429	623	365	297	39	291	40	285	39	296	31

* Numbers indicate grade-level tests.

Table 10.A.2 Percentage of Proficient and Above and Percentage of Advanced Across Base Year, 2008, 2009, and 2010

		% Proficient and Above				% Advanced			
Content Area	**CST***	**Base**	**2008**	**2009**	**2010**	**Base**	**2008**	**2009**	**2010**
English–Language Arts	**2**	37%	48%	53%	53%	12%	18%	21%	24%
	3	34%	38%	44%	43%	11%	12%	17%	18%
	4	40%	55%	61%	63%	16%	28%	33%	36%
	5	36%	48%	54%	59%	10%	18%	24%	26%
	6	36%	47%	53%	55%	13%	20%	21%	25%
	7	36%	49%	54%	55%	10%	20%	22%	23%
	8	31%	45%	48%	54%	9%	18%	22%	29%
	9	38%	48%	50%	55%	14%	23%	23%	24%
	10	34%	41%	44%	45%	11%	19%	19%	22%
	11	33%	37%	40%	43%	11%	16%	18%	21%
History–Social Science	**8**	27%	37%	42%	47%	6%	16%	20%	25%
	World History	24%	33%	37%	41%	8%	13%	17%	20%
	11	32%	38%	44%	45%	12%	16%	20%	20%
Mathematics	**2**	53%	59%	63%	62%	24%	29%	32%	36%
	3	45%	61%	64%	65%	19%	33%	37%	38%
	4	46%	61%	66%	68%	18%	32%	40%	42%
	5	35%	52%	57%	61%	10%	22%	26%	29%
	6	35%	44%	49%	52%	10%	17%	21%	23%
	7	30%	42%	43%	48%	7%	13%	16%	18%
	General Mathematics	17%	28%	27%	27%	1%	5%	5%	5%
	Algebra I	22%	25%	29%	31%	4%	7%	8%	9%
	Geometry	28%	24%	27%	27%	7%	8%	8%	8%
	Algebra II	27%	28%	28%	31%	6%	7%	8%	11%
	Summative H.S. Math	40%	47%	50%	54%	14%	16%	18%	22%
	Integrated Math 1	7%	10%	11%	13%	1%	2%	2%	2%
	Integrated Math 2	28%	25%	25%	27%	5%	6%	7%	7%
	Integrated Math 3	21%	23%	37%	37%	4%	6%	13%	10%
Science	**5**	24%	47%	49%	56%	3%	13%	18%	25%
	8	38%	52%	56%	59%	17%	28%	32%	38%
	10 Life Science	34%	40%	44%	46%	13%	18%	22%	23%
	Biology	35%	42%	42%	46%	10%	16%	20%	21%
	Chemistry	28%	32%	35%	38%	8%	12%	13%	14%
	Earth Science	21%	29%	28%	33%	4%	8%	8%	9%
	Physics	28%	43%	46%	49%	9%	16%	22%	21%
	Int/Coord Science 1	7%	11%	13%	18%	1%	2%	2%	2%
	Int/Coord Science 2	8%	12%	14%	15%	1%	2%	4%	3%
	Int/Coord Science 3	7%	9%	9%	16%	2%	1%	2%	4%
	Int/Coord Science 4	12%	8%	7%	4%	2%	2%	1%	1%

* Numbers indicate grade-level tests.

Table 10.A.3 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for ELA (Grades Two Through Four)

Observed Score Distributions	ELA Grade 2				ELA Grade 3				ELA Grade 4			
	Base	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	240	754	1,618	2,129	308	466	979	1,364	66	356	952	1,122
540 – 569	0	0	0	0	0	0	0	0	139	693	1,813	3,138
510 – 539	887	2,219	3,875	5,132	1,311	1,589	2,861	3,504	377	1,357	3,286	0
480 – 509	1,813	3,965	6,238	7,874	2,685	2,931	5,185	5,567	1,842	5,370	4,695	13,611
450 – 479	7,314	13,221	18,247	21,688	4,312	4,569	7,265	7,824	6,601	15,589	22,610	21,214
420 – 449	19,751	29,033	36,454	40,831	21,378	22,862	31,946	32,560	22,955	41,146	53,194	52,828
390 – 419	49,410	60,271	55,541	58,483	43,618	44,907	53,720	40,472	43,316	60,758	69,086	79,293
360 – 389	71,250	88,719	82,540	81,685	62,872	64,822	67,815	71,021	84,007	91,683	83,537	76,706
330 – 359	94,531	88,544	88,333	83,444	84,558	90,700	83,030	88,543	98,630	87,876	79,610	71,612
300 – 329	83,370	67,374	67,934	58,847	85,966	87,675	67,518	77,791	102,071	67,378	53,874	54,543
270 – 299	81,964	60,639	46,023	45,606	74,260	62,924	60,090	54,395	79,811	47,112	37,345	40,578
240 – 269	53,950	36,151	36,357	39,015	59,332	38,684	44,459	33,274	33,745	22,812	21,842	18,619
210 – 239	10,723	9,944	10,022	6,946	36,770	19,120	17,744	18,915	1,887	2,382	2,897	3,297
180 – 209	681	272	336	384	3,579	3,181	2,384	2,063	86	53	63	113
150 – 179	74	28	13	14	297	155	77	157	42	45	18	22

Table 10.A.4 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for ELA (Grades Five through Seven)

Observed Score Distributions	ELA Grade 5				ELA Grade 6				ELA Grade 7			
	Base	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	2	70	403	147	8	95	161	157	5	394	213	986
540 – 569	17	355	1,436	691	83	428	643	631	58	820	503	8
510 – 539	52	0	0	0	280	0	0	1,513	124	1,509	1,048	1,484
480 – 509	486	2,692	7,285	4,907	730	2,990	4,214	2,635	640	5,645	4,362	5,861
450 – 479	3,236	7,438	14,031	11,707	5,717	7,441	9,657	15,856	3,344	15,812	13,882	17,162
420 – 449	12,685	29,282	31,085	42,092	17,978	28,224	34,349	26,994	17,331	42,015	39,939	44,215
390 – 419	38,962	64,553	63,801	66,338	45,713	52,799	57,834	72,449	42,144	62,321	74,856	65,099
360 – 389	85,226	80,395	96,753	96,336	70,509	94,674	94,644	98,381	78,339	84,821	79,101	76,701
330 – 359	95,169	94,757	76,756	81,352	99,972	97,355	88,147	78,239	97,939	75,849	90,379	86,036
300 – 329	107,987	84,905	70,646	63,514	103,656	84,104	74,784	69,013	94,738	71,230	67,065	63,479
270 – 299	95,141	55,185	47,598	40,547	80,513	62,951	49,805	43,326	72,970	59,137	43,050	40,227
240 – 269	32,629	26,434	23,537	20,743	44,894	30,575	25,297	23,279	55,422	43,234	30,521	30,439
210 – 239	2,023	3,365	4,309	2,800	9,375	6,201	3,131	3,134	13,435	12,615	9,427	7,934
180 – 209	81	93	204	107	370	247	110	86	807	1,065	457	850
150 – 179	49	25	21	13	63	29	15	15	63	51	45	40

Table 10.A.5 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for ELA (Grades Eight and Nine)

Observed Score Distributions	ELA Grade 8				ELA Grade 9			
	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	2	55	197	291	12	393	383	291
540 – 569	29	306	754	1,195	0	0	0	0
510 – 539	101	817	1,537	2,684	244	2,760	2,409	724
480 – 509	670	4,491	6,647	4,595	1,303	3,075	6,393	4,358
450 – 479	3,569	9,083	18,353	23,769	3,851	17,143	11,454	17,461
420 – 449	12,529	30,934	34,811	46,629	25,959	47,159	46,697	41,812
390 – 419	29,574	53,069	52,224	63,207	44,345	55,554	71,580	80,153
360 – 389	63,374	83,427	76,091	79,036	83,004	87,743	82,261	88,278
330 – 359	101,910	92,087	91,824	75,416	81,584	87,981	90,976	82,696
300 – 329	90,505	85,860	77,730	67,544	85,135	79,301	76,600	72,615
270 – 299	85,870	65,294	55,890	46,458	73,465	67,153	61,886	56,875
240 – 269	50,819	39,471	35,683	31,616	61,789	46,304	44,360	34,188
210 – 239	15,975	14,712	10,368	7,263	9,313	9,134	9,813	8,239
180 – 209	1,263	1,240	760	547	736	330	413	447
150 – 179	74	45	29	71	139	50	48	69

Table 10.A.6 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for ELA (Grades Ten and Eleven)

Observed Score Distributions	ELA Grade 10				ELA Grade 11			
	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	4	363	217	255	7	283	678	157
540 – 569	30	0	0	0	30	0	0	797
510 – 539	101	1,272	929	1,061	127	728	1,452	1,804
480 – 509	233	2,441	1,979	2,521	956	3,711	6,583	3,041
450 – 479	2,771	9,313	8,354	10,440	2,949	12,541	11,723	17,438
420 – 449	12,778	34,057	33,283	28,083	13,930	19,518	23,811	26,734
390 – 419	31,520	54,518	57,749	63,876	36,133	42,527	47,296	53,431
360 – 389	67,587	64,393	71,586	88,260	46,449	66,849	59,196	66,445
330 – 359	75,621	84,364	93,688	83,611	64,409	63,268	74,990	70,135
300 – 329	78,075	80,842	79,827	78,847	56,885	71,416	64,609	72,744
270 – 299	73,872	71,060	55,347	51,677	49,299	58,932	62,573	50,448
240 – 269	63,352	54,274	55,096	49,247	48,982	66,959	56,036	47,703
210 – 239	9,598	17,574	17,506	20,779	32,029	32,162	30,489	33,148
180 – 209	637	1,394	1,433	1,194	4,785	4,060	5,271	4,824
150 – 179	98	65	95	74	395	244	359	291

Table 10.A.7 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 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	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	27	304	1,485	1,888	272	1,259	2,116	3,875	537	663	2,469	2,265
540 – 569	52	581	1,914	2,558	444	1,711	0	0	788	1,123	0	0
510 – 539	215	2,252	2,570	3,670	746	2,465	2,600	4,800	1,138	1,929	3,407	3,058
480 – 509	525	4,016	7,402	10,514	2,303	3,341	8,496	6,744	3,608	6,096	11,250	11,003
450 – 479	2,718	9,803	15,917	21,950	3,793	13,899	12,515	17,758	5,248	9,060	16,603	16,337
420 – 449	6,477	25,852	21,394	35,917	11,633	19,120	24,476	34,392	15,541	25,903	31,356	31,950
390 – 419	27,490	43,399	53,910	50,386	24,051	39,546	50,599	51,643	27,975	42,240	46,496	49,100
360 – 389	55,012	70,366	72,881	72,452	35,020	56,555	55,385	64,241	36,715	57,086	58,227	62,134
330 – 359	92,444	77,958	83,262	68,172	65,735	62,651	67,852	59,014	62,312	59,211	65,079	68,366
300 – 329	107,943	83,521	75,145	77,432	82,269	82,059	67,469	73,555	58,600	72,932	58,970	59,058
270 – 299	106,390	91,907	67,386	52,952	87,207	87,133	78,040	58,068	77,412	75,590	52,389	57,661
240 – 269	46,713	60,127	52,215	52,290	63,293	85,071	59,609	55,726	40,738	60,267	50,805	40,506
210 – 239	8,698	9,464	18,199	15,059	17,397	19,802	38,251	34,031	9,226	18,121	31,341	32,592
180 – 209	582	507	1,363	2,343	1,997	2,437	6,132	9,321	957	2,016	6,725	7,352
150 – 179	62	56	99	100	259	3,646	3,234	2,182	128	251	617	633

Table 10.A.8 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for Mathematics (Grades Two Through Four)

Observed Score Distributions	Mathematics Grade 2				Mathematics Grade 3				Mathematics Grade 4			
	Base	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	3,738	10,859	3,858	7,088	1,937	8,862	13,532	16,752	2,426	9,484	11,940	14,698
540 – 569	8,415	0	9,670	14,218	4,873	14,783	18,809	21,337	0	0	0	0
510 – 539	0	12,306	14,763	18,881	0	17,459	20,366	21,791	5,756	14,955	19,489	21,753
480 – 509	12,573	15,677	18,046	21,133	17,600	18,599	20,652	21,038	0	17,390	22,656	23,646
450 – 479	32,641	36,998	40,744	43,106	11,424	37,099	40,096	38,395	20,478	18,081	22,925	23,868
420 – 449	37,323	58,307	40,385	40,459	40,292	35,718	36,293	34,161	27,937	52,833	43,307	64,988
390 – 419	57,377	53,997	73,542	54,449	44,193	63,290	48,456	59,712	63,690	62,471	71,032	69,177
360 – 389	69,650	73,866	60,194	71,145	71,908	53,616	66,643	62,927	74,616	65,437	76,643	62,916
330 – 359	72,800	57,493	58,563	53,273	79,857	67,352	53,836	51,242	83,703	80,012	60,483	59,730
300 – 329	67,476	51,997	58,144	47,297	69,963	51,297	56,123	47,367	72,451	56,370	47,605	44,988
270 – 299	55,778	42,750	32,709	37,840	65,285	35,198	37,230	35,166	57,578	40,918	33,761	30,839
240 – 269	35,573	25,008	24,778	21,760	45,186	25,350	19,539	17,302	49,060	22,198	21,569	18,717
210 – 239	17,584	15,992	12,510	15,671	22,633	12,007	12,442	9,194	23,003	6,460	5,931	4,614
180 – 209	6,386	5,757	5,083	5,383	7,633	4,859	2,859	3,021	2,079	501	498	398
150 – 179	1,401	857	960	1,103	1,280	1,015	329	533	230	31	21	20

Table 10.A.9 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for Mathematics (Grades Five through Seven)

Observed Score Distributions	Mathematics Grade 5				Mathematics Grade 6				Mathematics Grade 7			
	Base	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	1,866	10,418	13,555	14,014	773	2,161	3,690	3,382	1,103	1,802	2,520	3,143
540 – 569	2,139	8,219	9,948	10,238	1,775	4,174	5,924	6,238	0	0	0	3,174
510 – 539	3,103	9,165	21,773	22,375	2,578	5,632	7,379	7,978	1,238	4,752	6,162	4,144
480 – 509	8,844	19,841	11,473	23,533	3,428	14,490	7,983	9,088	3,926	3,415	4,141	10,372
450 – 479	18,019	31,369	34,258	34,796	14,502	16,581	27,510	30,298	9,495	14,397	17,134	12,565
420 – 449	30,072	31,551	44,825	34,288	19,027	27,381	29,272	31,486	13,843	26,995	29,707	30,398
390 – 419	34,532	51,567	43,255	54,716	38,914	49,683	50,573	53,364	32,688	42,094	43,942	44,245
360 – 389	49,002	50,110	52,486	50,770	55,083	63,036	62,276	64,305	62,871	58,333	58,785	68,962
330 – 359	67,533	60,392	58,298	56,366	76,422	75,160	70,282	70,518	76,441	72,484	72,077	71,423
300 – 329	78,553	68,097	53,371	51,403	101,27	83,083	65,423	62,535	101,91	84,864	80,382	65,315
270 – 299	81,066	54,056	45,567	37,077	94,165	68,945	57,549	51,820	102,49	73,097	62,522	48,537
240 – 269	64,433	35,249	34,232	31,665	57,901	44,155	42,299	35,837	63,364	46,025	38,668	35,783
210 – 239	29,106	17,243	14,230	10,797	13,926	12,840	11,677	8,975	11,551	9,523	8,181	9,979
180 – 209	5,912	3,412	2,654	1,704	1,207	1,200	1,284	876	1,355	1,156	1,005	776
150 – 179	1,628	350	282	177	98	69	69	49	114	46	39	78

Table 10.A.10 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for General Mathematics, Algebra I, and Geometry

Observed Score Distributions	General Mathematics				Algebra I				Geometry			
	Base	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	30	93	119	72	730	3,612	5,746	6,213	502	779	734	774
540 – 569	0	0	0	0	476	2,166	2,901	3,297	0	1,633	1,543	1,671
510 – 539	34	480	205	153	1,362	5,567	7,267	7,994	642	2,360	2,320	2,349
480 – 509	190	512	960	726	2,035	7,234	9,018	10,090	2,167	2,929	2,837	2,790
450 – 479	1,040	2,936	3,308	2,594	6,303	14,102	16,540	18,998	3,431	6,888	11,559	10,942
420 – 449	2,681	8,094	6,032	5,030	10,471	24,481	29,368	32,042	7,148	12,136	14,219	13,939
390 – 419	11,868	17,281	15,343	13,307	21,071	40,593	46,691	49,689	17,911	24,034	21,716	21,754
360 – 389	33,352	30,929	31,868	23,485	33,295	63,828	70,969	74,663	24,998	28,275	37,044	40,518
330 – 359	66,928	46,663	40,545	34,614	57,900	83,965	89,190	91,325	35,697	47,161	43,557	57,447
300 – 329	104,553	53,440	47,138	45,983	93,657	134,986	112,653	115,574	44,558	58,463	60,536	68,886
270 – 299	113,647	56,432	52,089	44,098	84,289	167,136	152,771	151,235	45,494	70,909	85,763	80,200
240 – 269	86,916	48,379	42,931	36,462	77,155	138,803	159,022	127,035	38,232	80,400	71,996	77,393
210 – 239	25,178	18,937	14,630	12,289	30,552	47,889	43,677	52,908	17,584	38,038	39,667	26,321
180 – 209	2,009	1,842	1,244	1,046	2,631	7,614	6,569	4,641	1,972	7,852	3,918	3,399
150 – 179	226	240	132	111	306	387	811	538	167	251	241	189

Table 10.A.11 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for Algebra II and Summative High School Mathematics

Observed Score Distributions	Algebra II				Summative High School Mathematics			
	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	1	701	834	1,173	200	446	1,154	1,257
540 – 569	18	740	802	1,122	562	1,147	2,383	2,449
510 – 539	134	957	976	1,406	0	1,920	0	0
480 – 509	806	2,683	2,644	3,772	2,047	2,437	3,160	3,250
450 – 479	2,328	3,448	5,220	4,802	1,440	6,088	7,589	8,216
420 – 449	3,770	9,306	6,910	12,357	5,383	6,950	8,307	13,511
390 – 419	9,383	12,606	15,707	20,218	6,229	14,628	16,762	13,652
360 – 389	16,379	25,324	26,773	25,697	8,138	17,530	15,672	20,741
330 – 359	21,288	32,795	36,347	37,071	11,928	15,811	20,397	18,084
300 – 329	31,089	46,639	44,293	49,872	10,321	18,584	16,040	19,506
270 – 299	35,689	42,918	46,499	44,289	7,470	13,997	15,647	13,922
240 – 269	19,598	38,724	40,328	39,620	5,780	9,612	9,333	9,410
210 – 239	7,036	15,965	18,997	19,411	6,187	5,052	5,069	4,693
180 – 209	751	5,601	3,947	3,823	3,778	1,475	1,817	1,623
150 – 179	44	676	351	327	1,126	178	256	248

Table 10.A.12 Observed Score Distributions of CSTs across Base Year, 2008, 2009, and 2010 for Integrated Mathematics 1, 2, and 3

Observed Score Distributions	Integrated Mathematics 1				Integrated Mathematics 2				Integrated Mathematics 3			
	Base	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	11	7	24	7	4	4	9	16	10	4	13	6
540 – 569	7	2	6	4	14	3	3	9	28	3	14	1
510 – 539	15	14	36	12	16	24	20	21	27	13	13	8
480 – 509	14	20	25	15	45	31	28	24	94	12	17	16
450 – 479	40	44	55	56	103	64	47	75	137	39	62	18
420 – 449	67	75	105	120	265	117	158	105	191	35	79	50
390 – 419	170	190	229	283	615	207	223	179	494	68	102	72
360 – 389	418	358	385	637	1,087	438	383	365	749	121	149	86
330 – 359	910	716	916	941	1,638	538	650	672	1,176	187	230	96
300 – 329	1,880	1,203	1,504	2,042	2,566	885	764	793	1,474	205	213	123
270 – 299	3,258	1,990	2,488	3,003	1,973	1,048	860	836	1,959	256	192	108
240 – 269	4,729	2,289	2,443	2,674	1,075	728	671	598	2,525	258	173	111
210 – 239	2,045	1,557	1,415	1,144	154	169	225	123	936	194	102	76
180 – 209	306	254	202	285	5	18	9	14	209	74	8	20
150 – 179	27	53	21	37	3	1	1	0	20	11	3	4

Table 10.A.13 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for Science Grade Five, Grade Eight, and Grade Ten Life Science

Observed Score Distributions	Grade 5				Grade 8				Grade 10 Life Science			
	Base	2008	2009	2010	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	3	654	1,514	3,230	1,428	11,052	13,841	18,005	238	968	1,637	1,400
540 – 569	30	1,919	3,941	6,895	2,429	7,765	8,494	10,426	648	2,563	3,679	3,397
510 – 539	105	0	0	0	4,190	9,386	9,681	11,612	1,121	0	0	0
480 – 509	590	8,469	14,823	10,022	5,863	22,324	22,135	26,286	4,068	10,202	12,707	12,549
450 – 479	1,414	6,826	10,261	26,049	13,160	25,882	38,087	29,262	6,808	7,082	17,421	18,477
420 – 449	7,041	29,799	36,801	44,680	26,047	42,094	41,194	45,048	15,540	27,903	31,267	34,348
390 – 419	21,141	55,134	54,825	44,952	36,389	43,985	41,946	59,382	38,323	55,535	46,133	51,857
360 – 389	49,769	77,530	67,587	81,911	61,392	58,538	55,066	41,130	59,085	57,215	69,781	66,460
330 – 359	93,778	87,634	85,859	67,829	76,067	67,037	62,983	60,206	74,451	75,782	76,124	86,301
300 – 329	141,637	82,589	70,792	61,786	85,106	57,081	43,094	48,526	91,629	71,758	70,678	73,457
270 – 299	106,602	50,833	52,648	45,482	67,991	47,007	43,914	30,299	85,472	79,662	68,604	59,855
240 – 269	55,651	36,454	29,125	30,457	57,597	31,102	35,283	29,734	71,350	55,346	50,977	40,270
210 – 239	5,829	10,558	9,247	8,242	32,609	32,324	23,464	19,229	11,828	17,544	15,548	15,591
180 – 209	298	1,498	1,132	913	7,222	17,034	16,371	14,248	942	1,294	1,132	1,697
150 – 179	43	102	51	52	1,177	6,502	6,671	6,775	131	158	137	177

Table 10.A.14 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for Biology and Chemistry

Observed Score Distributions	Biology				Chemistry			
	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	116	1,184	1,412	1,463	58	502	414	738
540 – 569	0	0	0	0	0	0	0	0
510 – 539	296	2,858	3,111	3,601	194	1,106	1,069	1,589
480 – 509	605	4,420	4,655	5,426	343	0	1,768	0
450 – 479	4,176	12,740	12,921	15,577	1,124	4,077	2,483	5,671
420 – 449	8,273	26,757	25,927	32,657	2,962	9,708	10,888	8,014
390 – 419	23,001	47,633	56,142	54,875	8,384	17,908	20,142	27,119
360 – 389	46,191	82,148	91,664	107,146	16,327	28,548	37,102	32,888
330 – 359	63,010	107,040	104,877	110,403	32,963	45,864	47,307	56,173
300 – 329	75,800	106,263	96,745	91,438	43,117	55,086	52,193	57,075
270 – 299	56,802	76,886	93,076	73,455	31,085	40,116	48,626	41,958
240 – 269	19,192	51,134	39,764	44,746	7,878	24,409	19,970	22,271
210 – 239	931	4,343	3,282	3,726	475	4,537	4,736	2,922
180 – 209	74	198	120	199	18	250	292	84
150 – 179	8	34	20	25	5	9	12	7

Table 10.A.15 Observed Score Distributions of CSTs Across Base Year, 2008, 2009, and 2010 for Earth Science and Physics

Observed Score Distributions	Earth Science				Physics			
	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	0	31	24	41	14	94	132	108
540 – 569	0	0	0	0	0	0	0	0
510 – 539	13	146	123	164	56	165	334	328
480 – 509	44	361	310	427	87	322	557	498
450 – 479	82	634	525	818	378	1,701	1,750	1,599
420 – 449	723	4,593	4,207	5,255	1,064	2,811	3,903	3,769
390 – 419	3,236	12,750	16,109	18,123	2,796	6,808	8,171	8,905
360 – 389	9,151	28,871	30,263	30,796	4,605	10,121	12,606	14,500
330 – 359	14,570	48,008	47,769	45,336	7,444	14,125	13,352	15,633
300 – 329	17,607	52,071	50,727	50,484	9,342	12,669	11,798	14,166
270 – 299	21,654	46,065	46,885	42,583	9,552	9,955	10,889	8,861
240 – 269	12,070	26,520	24,301	20,812	6,003	4,772	3,941	4,004
210 – 239	909	3,566	4,029	2,856	400	472	294	351
180 – 209	32	138	134	53	18	23	13	11
150 – 179	5	16	13	12	1	3	0	2

Table 10.A.16 Observed Score Distributions of CSTs Across 2008, 2009, and 2010 for Integrated/Coordinated Science 1 and 2

Observed Score Distributions	Integrated/Coordinated Science 1				Integrated/Coordinated Science 2			
	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	0	7	6	3	0	0	0	0
540 – 569	0	0	0	0	0	0	0	0
510 – 539	0	12	17	15	0	1	2	2
480 – 509	0	0	14	27	0	2	3	2
450 – 479	9	68	42	39	4	6	12	12
420 – 449	31	286	259	322	38	30	45	28
390 – 419	332	983	1,369	1,139	270	139	102	119
360 – 389	1,727	3,728	4,158	5,713	997	393	268	399
330 – 359	7,452	11,007	11,179	12,755	3,294	1,135	777	915
300 – 329	18,481	20,285	19,173	17,742	6,926	2,286	1,414	1,673
270 – 299	21,017	22,549	20,049	16,176	8,906	2,413	1,247	1,459
240 – 269	11,376	13,773	11,215	8,723	4,557	1,173	713	715
210 – 239	675	2,819	1,544	1,302	543	162	42	31
180 – 209	42	82	92	30	9	5	0	1
150 – 179	4	4	5	5	2	1	0	0

Table 10.A.17 Observed Score Distributions of CSTs Across 2008, 2009, and 2010 for Integrated/Coordinated Science 3 and 4

Observed Score Distributions	Integrated/Coordinated Science 3				Integrated/Coordinated Science 4			
	Base	2008	2009	2010	Base	2008	2009	2010
570 – 600	0	0	0	1	0	0	0	0
540 – 569	0	0	0	0	0	0	0	0
510 – 539	0	0	0	1	0	0	0	0
480 – 509	4	0	0	2	0	0	1	0
450 – 479	10	0	3	8	2	1	0	0
420 – 449	23	2	0	18	5	1	0	0
390 – 419	133	10	27	28	28	5	5	2
360 – 389	298	85	72	89	66	12	20	6
330 – 359	879	266	236	201	204	60	66	40
300 – 329	2,959	552	506	397	340	86	117	125
270 – 299	4,683	580	566	390	484	121	145	107
240 – 269	1,233	423	297	197	320	108	218	77
210 – 239	90	35	28	11	43	35	47	8
180 – 209	3	2	3	1	5	0	3	0
150 – 179	2	0	0	0	1	0	1	0

Appendix 10.B—Historical Comparisons Tables

Table 10.B.1 Average Proportion Correct for Operational Test Items Across Base Year, 2008, 2009, and 2010

Content Area	CST*	Average *p*-value			
		Base	2008	2009	2010
English–Language Arts	2	0.59	0.63	0.66	0.68
	3	0.61	0.64	0.67	0.68
	4	0.56	0.63	0.67	0.70
	5	0.53	0.63	0.68	0.67
	6	0.56	0.62	0.65	0.66
	7	0.56	0.61	0.63	0.65
	8	0.55	0.62	0.62	0.66
	9	0.55	0.59	0.60	0.63
	10	0.54	0.62	0.63	0.65
	11	0.54	0.57	0.60	0.63
History–Social Science	8	0.48	0.52	0.59	0.61
	World History	0.47	0.51	0.56	0.61
	11	0.51	0.52	0.60	0.61
Mathematics	2	0.74	0.73	0.76	0.76
	3	0.68	0.75	0.77	0.78
	4	0.68	0.74	0.77	0.78
	5	0.56	0.64	0.67	0.68
	6	0.56	0.61	0.63	0.65
	7	0.52	0.56	0.58	0.60
	General Mathematics	0.45	0.49	0.50	0.50
	Algebra I	0.45	0.46	0.48	0.49
	Geometry	0.55	0.52	0.53	0.53
	Algebra II	0.51	0.52	0.52	0.54
	Summ. High School Mathematics	0.66	0.69	0.71	0.72
	Integrated Mathematics 1	0.34	0.39	0.40	0.41
	Integrated Mathematics 2	0.43	0.43	0.45	0.46
	Integrated Mathematics 3	0.45	0.45	0.50	0.50
Science	5	0.47	0.66	0.67	0.69
	8	0.50	0.65	0.65	0.68
	10 Life Science	0.51	0.59	0.60	0.63
	Biology	0.53	0.59	0.58	0.61
	Chemistry	0.53	0.60	0.60	0.61
	Earth Science	0.49	0.55	0.54	0.55
	Physics	0.51	0.58	0.60	0.61
	Integrated/Coordinated Science 1	0.41	0.45	0.45	0.48
	Integrated/Coordinated Science 2	0.43	0.45	0.46	0.47
	Integrated/Coordinated Science 3	0.36	0.42	0.41	0.45
	Integrated/Coordinated Science 4	0.41	0.43	0.40	0.42

* Numbers indicate grade-level tests.

Table 10.B.2 Overall IRT *b*-values for Operational Test Items Across Base Year, 2008, 2009, and 2010

Content Area	CST*	Mean IRT *b*-value			
		Base	2008	2009	2010
English–Language Arts	2	–0.10	–0.02	–0.15	–0.18
	3	–0.35	–0.39	–0.39	–0.44
	4	0.09	0.02	–0.06	–0.14
	5	0.07	–0.18	–0.29	–0.16
	6	–0.04	–0.10	–0.11	–0.09
	7	0.17	0.23	0.21	0.14
	8	–0.11	–0.21	–0.09	–0.18
	9	–0.02	0.02	0.03	–0.07
	10	–0.05	–0.27	–0.29	–0.34
	11	–0.09	–0.15	–0.25	–0.28
History–Social Science	8	0.18	0.18	–0.08	–0.09
	World History	0.16	0.12	–0.04	–0.25
	11	–0.01	0.01	–0.31	–0.27
Mathematics	2	–1.00	–0.79	–0.88	–0.90
	3	–0.76	–0.78	–0.74	–0.73
	4	–0.70	–0.60	–0.64	–0.64
	5	–0.24	–0.21	–0.23	–0.20
	6	–0.26	–0.27	–0.30	–0.30
	7	–0.03	–0.01	–0.02	–0.02
	General Mathematics	0.18	0.22	0.20	0.17
	Algebra I	–0.04	–0.05	–0.06	–0.08
	Geometry	–0.81	–0.80	–0.78	–0.75
	Algebra II	–0.35	–0.48	–0.42	–0.44
	Summ. H. S. Mathematics	–0.92	–0.72	–0.81	–0.81
	Integrated Mathematics 1	0.28	0.08	0.11	0.10
	Integrated Mathematics 2	–0.06	–0.18	–0.24	–0.22
	Integrated Mathematics 3	–0.24	–0.19	–0.07	–0.12
Science	5	–0.19	–0.68	–0.61	–0.64
	8	0.10	–0.42	–0.36	–0.42
	10 Life Science	–0.04	–0.29	–0.27	–0.31
	Biology	–0.18	–0.42	–0.28	–0.39
	Chemistry	–0.17	–0.45	–0.42	–0.40
	Earth Science	0.06	–0.08	–0.04	0.01
	Physics	–0.21	–0.17	–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 Average Point-Biserial Correlation for Operational Test Items Across Base Year, 2008, 2009, and 2010

Content Area	CST*	Average Point-Biserial Correlation			
		Base	2008	2009	2010
English–Language Arts	2	0.43	0.45	0.46	0.46
	3	0.44	0.42	0.43	0.43
	4	0.41	0.43	0.44	0.45
	5	0.38	0.41	0.43	0.42
	6	0.40	0.42	0.41	0.41
	7	0.38	0.43	0.41	0.42
	8	0.37	0.41	0.42	0.43
	9	0.40	0.43	0.43	0.42
	10	0.41	0.45	0.45	0.45
	11	0.41	0.43	0.44	0.44
History–Social Science	8	0.32	0.40	0.41	0.43
	World History	0.37	0.42	0.44	0.45
	11	0.39	0.42	0.44	0.44
Mathematics	2	0.42	0.44	0.44	0.45
	3	0.43	0.45	0.45	0.45
	4	0.47	0.46	0.47	0.47
	5	0.41	0.45	0.46	0.45
	6	0.41	0.44	0.45	0.45
	7	0.39	0.42	0.42	0.43
	General Mathematics	0.32	0.38	0.38	0.38
	Algebra I	0.34	0.39	0.40	0.40
	Geometry	0.39	0.43	0.43	0.42
	Algebra II	0.35	0.39	0.39	0.40
	Summative H.S. Mathematics	0.46	0.43	0.44	0.43
	Integrated Mathematics 1	0.26	0.31	0.31	0.30
	Integrated Mathematics 2	0.32	0.36	0.36	0.36
	Integrated Mathematics 3	0.35	0.37	0.39	0.40
Science	5	0.33	0.40	0.42	0.43
	8	0.35	0.43	0.44	0.44
	10 Life Science	0.41	0.45	0.46	0.44
	Biology	0.39	0.43	0.44	0.44
	Chemistry	0.36	0.42	0.42	0.42
	Earth Science	0.38	0.39	0.39	0.41
	Physics	0.41	0.42	0.44	0.42
	Integrated/Coordinated Science 1	0.28	0.34	0.35	0.35
	Integrated/Coordinated Science 2	0.31	0.33	0.34	0.33
	Integrated/Coordinated Science 3	0.27	0.31	0.31	0.36
	Integrated/Coordinated Science 4	0.32	0.33	0.32	0.28

* Numbers indicate grade-level tests.

Table 10.B.4 Score Reliabilities (Cronbach's Alpha) and SEM of CSTs Across Base Year, 2008, 2009, and 2010

Content Area	CST*	Reliability				SEM			
		Base	2008	2009	2010	Base	2008	2009	2010
English–Language Arts	2	0.93	0.94	0.94	0.94	3.5	3.3	3.3	3.3
	3	0.93	0.92	0.93	0.93	3.5	3.5	3.3	3.3
	4	0.93	0.94	0.94	0.94	3.9	3.6	3.5	3.5
	5	0.92	0.93	0.94	0.93	3.9	3.7	3.5	3.6
	6	0.93	0.93	0.93	0.93	3.7	3.8	3.7	3.6
	7	0.92	0.94	0.93	0.94	3.9	3.7	3.7	3.6
	8	0.91	0.93	0.94	0.94	4.0	3.8	3.7	3.6
	9	0.93	0.94	0.94	0.94	3.8	3.8	3.8	3.7
	10	0.93	0.95	0.95	0.95	4.0	3.6	3.7	3.6
	11	0.93	0.94	0.94	0.94	3.9	3.8	3.7	3.7
History–Social Science	8	0.88	0.93	0.93	0.94	4.0	3.9	3.8	3.7
	World History	0.89	0.92	0.93	0.93	3.6	3.5	3.4	3.3
	11	0.90	0.92	0.93	0.93	3.5	3.5	3.3	3.3
Mathematics	2	0.92	0.93	0.93	0.94	3.2	3.1	3.0	2.9
	3	0.93	0.94	0.94	0.94	3.3	2.9	2.9	2.9
	4	0.94	0.94	0.94	0.94	3.3	3.1	2.9	2.9
	5	0.92	0.94	0.94	0.94	3.5	3.3	3.2	3.2
	6	0.92	0.94	0.94	0.94	3.6	3.3	3.4	3.3
	7	0.91	0.93	0.93	0.93	3.7	3.4	3.5	3.5
	General Mathematics	0.87	0.91	0.91	0.91	3.7	3.6	3.6	3.6
	Algebra I	0.88	0.91	0.92	0.92	3.7	3.6	3.6	3.6
	Geometry	0.91	0.93	0.93	0.93	3.6	3.5	3.5	3.5
	Algebra II	0.89	0.92	0.91	0.92	3.7	3.4	3.6	3.6
	Summ. H. S. Mathematics	0.94	0.93	0.93	0.93	3.3	3.3	3.2	3.2
	Integrated Mathematics 1	0.80	0.86	0.86	0.84	3.6	3.6	3.6	3.6
	Integrated Mathematics 2	0.87	0.90	0.90	0.90	3.6	3.6	3.6	3.6
	Integrated Mathematics 3	0.89	0.90	0.92	0.92	3.7	3.7	3.6	3.6
Science	5	0.86	0.91	0.92	0.93	3.6	3.2	3.3	3.2
	8	0.88	0.92	0.93	0.93	3.5	3.4	3.3	3.2
	10 Life Science	0.92	0.93	0.93	0.93	3.4	3.4	3.3	3.3
	Biology	0.91	0.93	0.93	0.93	3.5	3.3	3.4	3.3
	Chemistry	0.89	0.92	0.92	0.92	3.5	3.4	3.4	3.4
	Earth Science	0.90	0.91	0.91	0.91	3.6	3.4	3.5	3.5
	Physics	0.92	0.92	0.93	0.92	3.5	3.3	3.4	3.4
	Int/Coord Science 1	0.81	0.87	0.88	0.88	3.6	3.6	3.6	3.6
	Int/Coord Science 2	0.85	0.87	0.87	0.87	3.5	3.5	3.6	3.6
	Int/Coord Science 3	0.80	0.84	0.85	0.88	3.5	3.6	3.5	3.5
	Int/Coord Science 4	0.85	0.87	0.86	0.81	3.6	3.5	3.5	3.5

* Numbers indicate grade-level tests.