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Acronyms and Initialisms Used in the *California Standards Tests Technical Report*

API	Academic Performance Index
ARP	Assessment Review Panel
AYP	adequate yearly progress
CAHSEE	California High School Exit Examination
CAPA	California Alternate Performance Assessment
CAT/6 Survey	California Achievement Tests, Sixth Edition Survey
CDE	California Department of Education
CMA	California Modified Assessment
CR	constructed response
CSEM	conditional standard error of measurement
CSTs	California Standards Tests
CSU	California State University
DIF	differential item functioning
EAP	Early Assessment Program
EL	English learner
ELA	English–language arts
ELD	English Language Development
EM	expectation maximization
EOC	end-of-course
ePEN™	Electronic Performance Evaluation Network™
ETS	Educational Testing Service
FIA	final item analyses
FTP	file transfer protocol
GENASYS	Generalized Analysis System
GM	General Mathematics
HSM	Summative High School Mathematics
HSS	history–social science
IEP	individualized education program
I-FEP	initially fluent English proficient
IRT	item response theory
LAUSD	Los Angeles Unified School District
MC	multiple choice
MH DIF	Mantel-Haenszel DIF
NCLB	No Child Left Behind Act of 2001
NSLP	National School Lunch Program
OTI	Office of Testing Integrity
p-value	item proportion correct
PEM	Pearson Educational Measurement
PSAA	Public School Accountability Act
Pt-Rbis	point-biserial correlations
RACF	Random Access Control Facility
R-FEP	Reclassified fluent English proficient
SBE	State Board of Education
SDAIE	specially designed academic instruction in English
SEM	standard error of measurement
SPAR	Statewide Pupil Assessment Review
STAR	Standardized Testing and Reporting
STS	Standards-based Tests in Spanish
WRMSD	weighted root mean square difference

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 were designed to guide instruction and learning for all students in the state and to bring California students to world-class levels of achievement.

In order to measure and evaluate student achievement of the content standards, the state instituted the Standardized Testing and Reporting (STAR) Program. This Program, administered annually, was authorized in 1997 by State law (Senate Bill 376). Senate Bill 1448, approved by the Legislature and the Governor in August 2004, reauthorized the STAR Program through January 1, 2011, in grades three through eleven. STAR Program testing in grade two has also been extended to the 2011 school year (spring 2011 administration) after Senate Bill 80 was passed in September 2007.

The primary goal of the STAR Program is to help measure how well students are mastering these content standards. During its 2008 administration, the STAR Program had six components:

- California Standards Tests (CSTs), produced for California public schools
- California Modified Assessment (CMA), an assessment of students' achievement of California's content standards for English–language arts, mathematics, and science, developed for students with disabilities who meet the CMA eligibility criteria approved by the SBE (In 2008, the CMA was administered to students in grades three, four, and five.)
- California Achievement Tests, Sixth Edition Survey (CAT/6 Survey), given in grades three and seven and published by CTB/McGraw-Hill
- California Alternate Performance Assessment (CAPA), produced for students with significant cognitive disabilities who are not able to take the CSTs, the CMA, or the CAT/6 Survey
- Standards-based Tests in Spanish (STS), an assessment of students' achievement of California's content standards for Spanish-speaking English learners that is administered as the STAR Program's designated primary language test (DPLT) (In 2008, the STS was administered to students in grades two through seven.)
- Aprenda: La prueba de logros en español, Tercera edición (Aprenda 3), given in grades eight through eleven and published by Harcourt Assessment Inc. (The STS replaced the Aprenda 3 as the DPLT in grades two through seven in 2008.)

Education Code *Section 60602: Legislative Intent*

The results for tests within the STAR Program are used for three primary purposes, described as follows (excerpted from *California Education Code* Section 60602, http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=60001-61000&file=60600-60603):

"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.

California Standardized Tests

A total of 38 CSTs form the cornerstone of the STAR program. These tests carry the most weight for calculating school and district Academic Performance Index (API). In addition, the CSTs for ELA and mathematics (grades two through eight) are used in determining adequate yearly progress (AYP), which applies toward meeting the requirement of the federal No Child Left Behind (NCLB) Act of 2001 to have all students score proficient or above by 2014.

The CSTs, given in English, are designed to show how well students are acheiving California's content standards. Those standards, approved by the SBE, describe what students should know and be able to do at each grade level. 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. All students in grade ten take the CST for Life Science; students in grades nine through eleven may also take the end-of-course (EOC) CST for World History 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.)

Each CST was administered to approximately 400,000 to 500,000 test-takers in 2008. The numbers were smaller for all EOC CSTs, with the exception of Algebra I, which approximately 700,000 examinees took. The details on similar statistics for each CST are presented later in this report.

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 (students in three through five), or the CAPA. This requirement includes English learners regardless of the length of time they have been in U.S. schools or their fluency in English, as well as students with disabilities who receive special education services. For students with significant cognitive disabilities, the decision to administer the CSTs, the CMA, or the CAPA is made by their individualized education program (IEP) team. Parents may submit a written request to have their child exempted from taking any or all parts of the test. For grade four and grade seven ELA tests, parents can submit a written request to have their child exempted from taking only the essay part of those tests. Only students whose parents submit a written request may be exempted from taking the tests.

This technical report addresses the characteristics of the CSTs administered in spring 2008. In 2008, the CSTs included the following tests:

• English–Language Arts (Grades 2–11)	• World History
• Mathematics (Grades 2–7)	• Science (Grades 5 and 8)
• General Mathematics (Grades 8 and 9)	• Grade 10 Life Science

• Algebra I • Geometry • Algebra II • Summative High School Mathematics • Integrated Mathematics 1 • Integrated Mathematics 2 • Integrated Mathematics 3 • History–Social Science (Grade 8) • U.S. History (Grade 11)	• Biology • Chemistry • Earth Science • Physics • Integrated Science 1 • Integrated Science 2 • Integrated Science 3 • Integrated Science 4

All CSTs contain four-option multiple-choice items. The CSTs for ELA in grades four and seven also include a writing component, the CST for Writing, that contains one essay item. The essay item is reported on an eight-point scale.

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 (and the CAT/6 Survey tests) 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. The CSTs are administered in an untimed fashion. California Department of Education (CDE) guidelines for the length of time during which most students would be expected to finish the can be found in Appendix 1.A—2008 CST Item and Time Chart. The times shown in the table include time for test examiners to distribute materials, give directions, and collect materials as well as the student working time. Multiple-choice CSTs may be administered over multiple days. If multiple parts are administered on one day, students have at least a 10-minute break between the parts.

Results of the CSTs are reported through the use of scale scores, which in 2008 ranged from 150 to 600 for each test. In addition, the CST test performance of each student falls into one of the following performance 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. For all CSTs, the minimum scale scores defining basic and proficient are 300 and 350, respectively. The minimum scale scores defining below basic and advanced vary by CST (see Table 3.A.1 through Table 3.A.23).

In addition to total scale scores, information on the CST score report includes student performance on various reporting clusters. That information is reported in terms of percent correct scores.

All CSTs include a set of six field-test items that are not counted toward students' scores. Most CSTs have several versions, each of which contains a different set of six field-test items.

Significant Developments in 2008

New Standards-Based California Modified Assessment (CMA)

The new CMA, administered for the first time in 2008, was taken by special education students with disabilities that prevented them from achieving grade-level proficiency on the CSTs with or without modifications.

Test results for students who took the CMA were excluded from the data used for the creation of this report.

Testing to Continue in Grade Two

Senate Bill 80, passed in September 2007, authorized the administration of STAR Program tests in grade two to continue through 2011. The new CMA is the only STAR Program test that was not to be administered in 2008 to students in grade two. This is due to the eligibility requirement that students must have at least one set of CST or two sets of CAPA results to be considered for the CMA.

Ethnicity for Economic Status Subgroup Summary

A new subgroup summary, Ethnicity for Economic Status, was introduced in 2008. This report, a part of the Subgroup Summary, disaggregates and reports results by cross-referencing each ethnicity with economic status—students are in the National School Lunch Program (NSLP) (economically disadvantaged), not in the NSLP (not economically disadvantaged), or their NSLP status is unknown. The subgroups of "Ethnicity for Economically Disadvantaged" students and "Ethnicity for Not Economically Disadvantaged" students were added to the subgroup summaries in this technical report. All reporting clusters were analyzed for each subgroup for reliability analyses, but the results were reported only if sufficient samples sizes were available (at least 11 students).

Overview of the Technical Report

This technical report contains nine additional chapters, as follows:

- Chapter 2 describes the procedures followed in the development of valid CST items and in the construction of the CSTs for 2008. In addition, characteristics of the constructed 2008 test forms are presented in this chapter. The test construction based on cluster information has been added to this year's report.
- Chapter 3 describes the procedures followed to equate and scale the CSTs and documents the CST score equating conversions. The new form conversions are presented for each CST.
- Chapter 4 details the procedures designed to ensure the validity aspect of CSTs.
- Chapter 5 describes the kinds of score reports that are produced at the end of each administration of the CSTs. It also summarizes the test-level analyses performed on scores obtained during the spring 2008 administration of the tests.
- Chapter 6 highlights the importance of maintaining fairness in the CSTs for various subgroups. It summarizes demographic differences in performance, describes accommodations and modifications, and summarizes analyses of differential item functioning (DIF). It also includes a section that describes the procedures that were followed by Educational Testing Service (ETS) to ensure test security.
- Chapter 7 discusses the various types of evidence collected to ensure the acceptable quality of operational and field-test items. Summaries of classical item analysis statistics, Rasch difficulty estimates, and evaluations of the Rasch model-data fit are included in Chapter 7.
- Chapter 8 summarizes the reliability analyses—including test reliability, accuracy, and consistency of the CST proficiency-level classifications—and intercorrelations of reporting cluster scores. Some of these analyses are also replicated for various subsections of the test-taking population in order to look at reliabilities at the subgroup level. Overall reliabilities are presented for end-of-course tests for the corresponding grade-specific examinees as well.
- Chapter 9 presents a comprehensive overview of the constructed response items administered in grades four and seven as a part of the English–language arts tests.
- Chapter 10 presents historical comparisons of various item- and test-level indicators over a period of three years.

Each chapter contains summary tables in the body of the text. However, extended appendixes that report technical data for the various CSTs are listed at the end of the relevant chapters.

Appendix 1.A—2008 CST Item and 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 Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time	Total No. of Items	Time
English–Language Arts	**71**	**150**	**71**	**150**	**81**	**170**	**81**	**170**	**81**	**170**	**81**	**170**	**81**	**170**	**81**	**170**	**81**	**170**	**96†**	**185**
Part 1		50		50		85		85		85		85		85		85		85		85
Part 2		50		50		85		85		85		85		85		85		85		100 †
Part 3— grades 2 & 3 only		50		50		--		--		--		--		--		--		--		--
Writing Applications					1	75‡					1	75‡								
Mathematics	**71**	**150**	**71**	**150**	**71**	**150**	**71**	**150**	**71**	**150**	**71§**	**150§**	**71**	**180**	**71**	**180**	**71**	**180**	**86†**	**195**
Part 1		50		50		75		75		75		75		90		90		90		90
Part 2		50		50		75		75		75		75		90		90		90		105 †
Part 3— grades 2 & 3 only		50		50		--		--		--		--		--		--		--		--
History–Social Science— Grade level	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**81**	**130**	**--**	**--**	**--**	**--**	**66**	**110**
Part 1														65						55
Part 2														65						55
History–Social Science— End-of-course**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**			**66**	**110**	**66**	**110**	**66**	**110**
Part 1																55		55		55
Part 2																55		55		55
Science— Grade level	**--**	**--**	**--**	**--**	**--**	**--**	**66**	**140**	**--**	**--**	**--**	**--**	**66**	**120**	**--**	**--**	**66**	**120**	**--**	**--**
Part 1								70						60				60		
Part 2								70						60				60		
Science— End-of-course††	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**66**	**120**	**66**	**120**	**66**	**120**
Part 1																60		60		60
Part 2																60		60		60

*	For grades two and three, the CDE and ETS strongly recommend that no more than one test part be administered in a day. If students are completing demographic information on the first day of testing, 15–20 minutes are added to the time in the table to allow for this.
‡	The writing tests in grades four and seven are given on separate dates and are not included in the estimated time for English–language arts.
†	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 optional 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 the EAP writing test, which is 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.
§	Item numbers and times are for the CST for Grade 7 Mathematics. To estimate test administration time for students in grade 7 taking the CST for Algebra I, see the item and time guidelines for the CSTs for mathematics for grades 8–11.
**	The CST for World History is designated as an end-of-course test. This CST may be administered to eligible students in grades 9, 10, and 11.
††	End-of-course science CSTs include Biology, Chemistry, Earth Science, Physics, and Integrated/Coordinated Science (1–4).

Chapter 2: CST Development Procedures

The CSTs are constructed to measure the students' achievement of the California's content standards as well as to meet psychometric criteria for test difficulty and reliability. The psychometric criteria are evaluated using projections based on item statistics from field testing or previous operational administrations.

Test Assembly Procedures

Test blueprints for the components of the STAR Program were proposed by ETS, reviewed and approved by the respective Assessment Review Panels (ARPs), 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. For each test, the California content standards were used as the basis for choosing items. Additional technical targets (for example, difficulty and discrimination) for test construction were established on the basis of past characteristics of the tests, with the goal of maintaining parallel forms to the greatest extent possible.

Test Specifications

Statistical Specifications

The primary statistical targets used for CST test assembly in 2008 were the test information function based on the item response theory (IRT) item parameters and an average point-biserial correlation. When using the 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 b-values consistent with the information curves were also provided to test development staff to help with the test construction process. The point-biserial correlation is a measure of how well the items discriminate among test takers and is related to the overall reliability of the test.

These specifications were developed from the analyses of test forms administered in the years 2001 through 2007; the target values and ranges for the specifications are presented in Table 2.1 on page 7. The minimum target value for an item point-biserial was set at 0.14 for each test. This value approximates a biserial correlation of 0.20. The target *b*-value range approximates a minimum proportion-correct value (*p*-value) of 0.20 and a maximum *p*-value of 0.95 for each test. Because the items included in the CSTs for General 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.

Assembly targets included the total test target, the linking block target, and (reporting) cluster score targets. The latter was used to stabilize cluster score performance across years. Because the cluster scores include fewer items than the total test, there is always more variability between the target and the constructed curve for the cluster scores.

Meeting the target for the total test was of primary importance. The linking block target consisted of a proportionally adjusted (for numbers of items) total target. To aid comparisons, the linking block curves were proportionally adjusted to the full test length and were presented with the total test curves. The graphics for the total test and linking blocks are presented in Figure 2.B.1 through Figure 2.B.4, starting on page 28, for the ELA, history–social science, mathematics, and science tests, respectively. These curves present the target test information curves in comparison with the projected test features for the total and linking block for each test. Figure 2.C.1 through Figure 2.C.30, starting on page 35, present similar information for the cluster scores for the ELA, history–social science, mathematics, and science tests, respectively.

Content Specifications

ETS developed 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 called for distributions of items at the individual standard level, for reporting purposes, the content for each CST was aggregated across standards into subcontent areas, referred to as "reporting clusters." For each CST reporting cluster, the percentage of questions correctly answered by students was reported. A description of the CST reporting clusters and the standards that compose the reporting clusters is provided in Appendix 2.A—Reporting Clusters (starting on page 15).

Table 2.1 Target Statistical Specifications for the CSTs

Subject	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**	0.18	0.53	0.20	0.95	0.33 – 0.37	0.14
	World History	0.15	0.52	0.20	0.95	0.33 – 0.37	0.14
	11	0.09	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 Math	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
	Summ. H.S. Math	–0.83	0.64	0.20	0.95	0.31 – 0.35	0.14
	Integrated Math 1	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated Math 2	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated Math 3	N/A	N/A	0.20	0.95	N/A	0.14
Science	**Grade 5 Science**	–0.70	0.57	0.20	0.95	> 0.34	0.14
	Grade 8 Science	–0.49	0.74	0.20	0.95	> 0.34	0.14
Science	**Grade 10 Life Science**	–0.48	0.72	0.20	0.95	> 0.34	0.14
	Biology	–0.45	0.61	0.20	0.95	> 0.34	0.14
	Chemistry	–0.42	0.53	0.20	0.95	> 0.34	0.14
	Earth Science	–0.27	0.47	0.20	0.95	> 0.34	0.14
	Physics	–0.21	0.51	0.20	0.95	> 0.34	0.14

Subject	CST	Target Mean b	Target SD b	Min *p*-value	Max *p*-value	Mean Point Biserial	Min Point Biserial
	Integrated Science 1	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated Science 2	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated Science 3	N/A	N/A	0.20	0.95	N/A	0.14
	Integrated Science 4	N/A	N/A	0.20	0.95	N/A	0.14

Note: The 2008 CSTs for General Mathematics, Integrated Mathematics, and Integrated/ Coordinated Science were assembled using the items from other operational CSTs on the basis of content specifications, not to statistical specifications.

Item Development

ETS maintains item specifications for each CST test and has followed the Item Utilization Plan to guide the development of the quantity of items for each subject area. Item specification documents for 2008 included the constructs to be measured and the California content standards that are included in the test blueprints.

The item specifications help ensure that the CSTs consistently match the content standards from year to year. Item writing emphasis is determined in consultation with the CDE. The item specifications also provide specific and important guidance to item writers and ensure that items are consistent in approach and written to measure students' achievement of the standards. The item specifications describe the general characteristics of the items for each content standard, indicate item types or content to be avoided, and define the content limits for the items. In summary, the specifications include the following:

- A statement of the strand or topic for the standard
- A full statement of the academic content standard, as found in each CST blueprint
- The expected cognitive level(s) of items written for the standard (Acquire, Integrate, or Extend), as defined by ETS and approved by the CDE
- The construct(s) appropriately measured by the standard
- A description of the kinds of stems appropriate for multiple-choice items for the standard
- A description of the kinds of distracters appropriate for multiple-choice items for the standard
- A description of specific kinds of items to be avoided, if any (such as no ELA items about insignificant details)
- A description of appropriate stimuli (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

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

- A list of topics to be avoided
- 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 attached to each reading passage and each writing passage

- Writing passages for grades four and seven to have a readability level appropriate to their respective grades

Item Review Process

The items selected for each CST undergo an extensive item review process that is designed to provide all California students with the best standards-based tests possible. This section summarizes the various reviews performed that ensured the validity of 2008 CST items and test forms.

Internal Reviews

After the items have been written, ETS employs a series of internal reviews. The reviews establish the criteria used to judge the content validity of the items, making sure 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 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 and the ARP and Statewide Pupil Assessment Review (SPAR) panels.

The ETS review process for the CSTs included 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 relevance of the information being assessed, its relevance to the California content standards, its match to the test and item specifications, and its appropriateness to the population being assessed. Items that are only peripherally related to the test and item specifications, that do not measure core outcomes reflected in the California content standards, or that are not developmentally appropriate are eliminated early in this rigorous review process.

1. Internal Content Review

Test items and materials undergo two reviews from 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 on the basis of the following criteria:

- Relevance of each item as the item relates 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 development
- Match of each item to the identified standard (or standards, for history–social science)
- Difficulty of the item
- Accuracy of the content of the item
- Readability of the item or passage
- Grade-level appropriateness of the item
- Appropriateness of any illustrations, graphs, figures, or other illustrations

The assessment specialists also check all items against their classification codes, both to evaluate the correctness of the classification and to ensure that a given task is of a type appropriate to the outcome it was intended to measure. The reviewers accept the item and classification as written, suggest revisions, or recommend that the item be discarded. These steps occurred 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 questions 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 it is prepared for CDE and ARP review. In addition, 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

Assessment Review Panels (ARPs)

ETS is responsible for working with ARPs as items are developed for the CSTs. The ARPs are advisory panels to 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. 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 could raise concerns related to age/grade appropriateness and gender, racial, ethnic, and socioeconomic bias.

ARP Meetings for Review of CST Items

The 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 CST
- Overview of the CST's test design specifications and blueprints
- Analysis of the CST's 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 included:

- Overall technical quality
- Match to the California content standards
- Match to the construct being assessed by the standard
- Difficulty range
- Clarity
- Correctness of the answer

- Plausibility of the distracters
- Bias and sensitivity factors

Criteria also include more global issues, including—for ELA—the appropriateness, difficulty, and readability of reading passages. The ARPs also are trained on how to make recommendations for revising items. Guidelines for reviewing items are provided by ETS and approved by the CDE. The set of guidelines for reviewing items is summarized below.

Does the item:

- Have one and only one clearly correct answer?
- Measure the content standard?
- Match the test item specifications?
- Align with the construct being measured?
- Test worthwhile concepts or information?
- Reflect good and current teaching practices?
- Have a stem that gives the student a full sense of what the item is asking?
- Avoid unnecessary wordiness?
- Use response options that relate to the stem in the same way?
- Use response options that are plausible and have reasonable misconceptions and errors?
- Avoid having one response option that is markedly different from the others?
- Avoid clues to students, such as absolutes or words repeated in both the stem and options?
- Reflect content that is free of bias against any person or group?

Is the stimulus (if any) for the item:

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

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

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

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

Statewide Pupil Assessment Review (SPAR) Panel

The SPAR panel is responsible for reviewing and approving a single achievement test to be used statewide for the testing of students in California public schools, grades two through eleven. At the SPAR panel meetings, all new items are presented in binders for review. The SPAR panel representatives ensure that the test items conform to the requirements of *Education Code* Section 60614. 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 replaced with other items and/or tasks. For the SPAR panel meeting, the item development coordinator or an ETS content specialist, requested in advance by the CDE, attends the opening session and remains in

a nearby location or near a telephone to be available to respond to any questions during the course of the meeting.

Technical Characteristics of the Assembled Tests

Technical characteristics of the assembled tests prior to the 2008 administration were estimated using Gulliksen's (1987) formula for estimating test reliability from item p-values and item point-biserial correlations:

$$r_{xx} = \left(\frac{K}{K-1}\right)\left(1 - \frac{\sum_{g=1}^{K} s_g^{\,2}}{\left(\sum_{g=1}^{K} r_{xg} s_g\right)^2}\right), \tag{2.1}$$

where,

K is the number of items in the test,

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

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

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

In addition, estimated test means are calculated by summing the item *p*-values and estimated standard deviations are calculated by summing the item reliability indices. Table 2.B.1 on page 26 presents these summary values by subject area and grade.

In general, the projected reliabilities of the CSTs were at or above the levels considered acceptable for such tests, ranging from 0.90 to 0.95. These values were also consistent with reliability for the CSTs in the past several years. The English–language arts tests had the highest reliabilities, ranging from 0.93 to 0.95 across all grades. These values were very similar to values for the previous years. Because General Mathematics, integrated mathematics and integrated science tests are built from other test components, these analyses are not applicable for those tests.

It should be noted that the projected reliabilities in Table 2.B.1 were based on item *p*-values and point-biserial correlations that, for some of the items, were based on external field-testing using samples of students that were not fully representative of the state. Chapters 7 and 8 present item *p*-values, point-biserial correlations, and test reliability estimates based on the data from the 2008 CST administration.

Table 2.B.2 on page 27 shows the mean observed statistics of the items on each CST based on field-test administration of those items. These values can be compared to the target values in Table 2.1. This generally suggests that the average difficulty of the test forms, based on field-test statistics, was in line with the target specifications. The spread of item difficulties was also in line with specifications for most of the tests. The field-test-based projected point-biserial correlation exceeded the target in all cases.

The graphics in Figure 2.B.1 through Figure 2.B.4, for the total test, and Figure 2.C.1 through Figure 2.C.30, for the cluster scores, show the comparisons of the target test information function and the projected test information function based on field test item parameter estimates for each of the CSTs. Since General Mathematics, integrated mathematics and integrated science tests are built from other test components, such analyses are not applicable for those tests.

The information function of the linking set, adjusted to mimic full test length, is also presented for each test. For almost all tests, the projected test information curve and adjusted linking set information curve were reasonably close to the target curve. Exceptions to this scenario were some of the lower- to middle-level science tests, for which constructing a test of the desired difficulty level

from the current pool of items proved to be difficult. It is anticipated that, over the next few CST administrations, field testing easier items will continue to adjust the overall difficulty of this test.

Item Writer Training

As per the 2007 Scope of Work, ETS has developed an Item Utilization Plan to continue the development of items for the CSTs, CMA, CAPA, and STS over the next five years. This plan includes strategies for continued coverage of all appropriate standards for all tests in each content area and at each grade level.

Item writer training was conducted over two days in Long Beach, California, in July 2008. An effort was made to evenly distribute the 60 participants across the four CST content areas. At this session, ETS test development specialists trained attendees in the basics of item writing. They also reviewed items that participants created during the training, offering feedback in both group and individual settings.

The development of new items during this cycle was limited to a level that would allow for the replacement of items no longer available for use on operational forms. Thus, the item writers who participated were particularly experienced in writing to the standards assessed on the CSTs. All item writers met the following minimum qualifications:

- Posession 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 was 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

Reference

Gulliksen, H. *Theory of Mental Tests*. Hillsdale, NJ: Erlbaum, 1987.

Appendix 2.A—Reporting Clusters

English–Language Arts

Grade Two English–Language Arts Standards Test

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

Grade Three English–Language Arts Standards Test

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

Grade Four English–Language Arts Standards Test

Reading	
Word Analysis and Vocabulary Development	18 items
Reading Comprehension	15 items
Literary Response and Analysis	9 items
Writing	
Writing Strategies	15 items
Written and Oral Language Conventions	18 items
Writing Applications	8 points (1 task)

Grade Five English–Language Arts Standards Test

Reading	
Word Analysis and Vocabulary Development	14 items
Reading Comprehension	16 items
Literary Response and Analysis	12 items
Writing	
Writing Strategies	16 items
Written Conventions	17 items

Grade Six English–Language Arts Standards Test

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

Writing	
Writing Strategies	17 items
Written Conventions	16 items
Grade Seven English–Language Arts Standards Test	
Reading	
Word Analysis and Vocabulary Development	11 items
Reading Comprehension	18 items
Literary Response and Analysis	13 items
Writing	
Writing Strategies	17 items
Written Conventions	16 items
Writing Applications	8 points (1 task)
Grade Eight English–Language Arts Standards Test	
Reading	
Word Analysis and Vocabulary Development	9 items
Reading Comprehension	18 items
Literary Response and Analysis	15 items
Writing	
Writing Strategies	17 items
Written Conventions	16 items
Grade Nine English–Language Arts Standards Test	
Reading	
Word Analysis and Vocabulary Development	8 items
Reading Comprehension	18 items
Literary Response and Analysis	16 items
Writing	
Writing Strategies	20 items
Written Conventions	13 items
Grade Ten English–Language Arts Standards Test	
Reading	
Word Analysis and Vocabulary Development	8 items
Reading Comprehension	18 items
Literary Response and Analysis	16 items
Writing	
Writing Strategies	20 items
Written Conventions	13 items
Grade Eleven English–Language Arts Standards Test	
Reading	
Word Analysis and Vocabulary Development	8 items
Reading Comprehension	19 items
Literary Response and Analysis	17 items

Writing	
Writing Strategies	22 items
Written Conventions	9 items

History–Social Science

Grade Eight History–Social Science Standards Test

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

Grade Eleven 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

Grade Two Mathematics Standards Test

Number Sense	
Place value, addition, and subtraction	15 items
Multiplication, division, and fractions	23 items
Algebra and Functions	6 items
Measurement and Geometry	13 items
Statistics, Data Analysis, and Probability	7 items

Grade Three Mathematics Standards Test

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

Grade Four Mathematics Standards Test

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

Grade Five Mathematics Standards Test

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

Grade Six Mathematics Standards Test

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

Grade Seven Mathematics Standards Test

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

Grades Eight/Nine 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	17 items
Graphing and Systems of Linear Equations	
Standards: 6.0–9.0	14 items
Quadratics and Polynomials	
Standards: 10.0, 11.0, 14.0, and 19.0–23.0	21 items
Functions and Rational Expressions	
Standards: 12.0, 13.0, and 15.0–18.0	13 items

(Note: Standards 24.0–25.3 are embedded within the 65 items)

Geometry Standards Test

Logic and Geometric Proofs	
Standards: 1.0–7.0	23 items
Volume and Area Formulas	
Standards: 8.0–11.0	11 items

Angle Relationships, Constructions, and Lines	
Standards: 12.0–17.0	16 items
Trigonometry	
Standards: 18.0–22.0	15 items

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 and Probability and Statistics 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

Integrated Mathematics 1 Standards Test

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

Integrated Mathematics 2 Standards Test

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

Integrated Mathematics 3 Standards Test

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

Grade Five Science Standards Test

Physical Science	
Grade Five	11 items
Grade Four	8 items
Life Science	
Grade Five	13 items
Grade Four	9 items
Earth Science	
Grade Five	11 items
Grade Four	8 items

Grade Eight Science Standards Test

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

Grade Ten Life Science Standards Test

Cell Biology	
Standards: 1 a–h	10 items
Genetics	
Standards: 2 a–g, 3 a–b, 4 a–e, 5 a–c	12 items
Physiology	
Standards: 9 a–e, 10 a–e	10 items
Ecology	
Standards: 6 a–f	11 items

Evolution	
Standards: 7 a–d, 8 a–e	11 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Biology Standards Test	
Cell Biology	
Standards: 1 a–h	9 items
Genetics	
Standards: 2 a–g, 3 a–b, 4 a–e, 5 a–c	18 items
Ecology and Evolution	
Ecology (Standards: 6 a–f) Evolution (Standards: 7 a–d, 8 a–e)	16 items
Physiology	
Standards: 9 a–e, 10 a–e	11 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Chemistry Standards Test	
Atomic and Molecular Structure	
Atomic and molecular structure (Standards: 1 a–e) Nuclear processes (Standards: 11 a–e)	8 items
Chemical Bonds, Biochemistry	
Chemical bonds (Standards: 2 a–e) Organic and biochemistry (Standards: 10 a–c)	9 items
Kinetics, Thermodynamics	
Gases and their properties (Standards: 4 a–f) Chemical thermodynamics (Standards: 7 a–d) Solutions (Standards: 6 a–d)	14 items
Chemical Reactions	
Acids and bases (Standards: 5 a–d) Reaction rates (Standards: 8 a–c) Chemical equilibrium (Standards: 9 a–b)	13 items
Conservation of Matter and Stoichiometry	
Standards: 3 a–e	10 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Earth Science Standards Test	
Astronomy and Cosmology	
Earth's place in the universe (Standards: 1 a–f, 2 a–d)	12 items
Solid Earth	
Dynamic earth processes (Standards: 3 a–e) California geology (Standards: 9 a–c)	14 items

The Earth's Energy	
Energy in the Earth system (Standards: 4 a–c, 5 a–e, 6 a–c) Structure and composition of the atmosphere (Standards: 8 a–c) Biogeochemical cycles (Standards: 7 a–c)	28 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Physics Standards Test	
Motion and Forces	
Standards: 1 a–g	12 items
Conservation of Energy and Momentum	
Standards: 2 a–g	12 items
Heat and Thermodynamics	
Standards: 3 a–e	9 items
Waves	
Standards: 4 a–f	10 items
Electric and Magnetic Phenomena	
Standards: 5 a–i	11 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Integrated/Coordinated Science 1 Standards Test	
Biology/Life Sciences	
Ecology (Standards: 6 a–f) Evolution (Standards: 8 a–b, e)	10 items
Chemistry	
Atomic and Molecular structure (Standards: 1 a–e) Chemical bonds (Standards: 2 a–c) Acids and bases (Standards: 5 a, c) Chemical thermodynamics (Standards: 7 b–c)	15 items
Earth Sciences	
Dynamic earth processes (Standards: 3 a–e) Biogeochemical cycles (Standards: 7 a–c) California geology (Standards: 9 b–c)	17 items
Physics	
Waves (Standards: 4 a–b, d–f) Electric and magnetic phenomena (Standards: 5 d–e, h–i)	12 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Integrated/Coordinated Science 2 Standards Test	
Biology/Life Sciences	
Cell biology (Standards: 1 a, c–e, h) Genetics (Standards: 2 a–c, e–g, 3 a-b, 4 a–b)	15 items

Chemistry	
Conservation of matter and stoichiometry (Standard: 3 a) Solutions (Standards: 6 a–c) Organic and biochemistry (Standards: 10 a–c)	6 items
Earth Sciences	
Earth's place in the universe (Standards: 1 a, c, f) Energy in the Earth system (Standards: 4 b, 5 a–c, e, 6 a–c)	15 items
Physics	
Motions and forces (Standards: 1 a–f) Conservation of energy and momentum (Standards: 2 a–d)	18 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Integrated/Coordinated Science 3 Standards Test	
Biology/Life Sciences	
Cell biology (Standards: 1 b, f, g) Genetics (Standards: 2 d, 4 c–e, 5 c) Evolution (Standards: 7 a–d, 8 c–d)	16 items
Chemistry	
Conservation of matter and stoichiometry (Standards: 3 b–e) Gases and their properties (Standards: 4 a–f) Solutions (Standard: 6 d) Reaction rates (Standards: 8 a–c) Chemical equilibrium (Standards: 9 a–b)	23 items
Earth Sciences	
Energy in the Earth system (Standard: 4 c) Structure and composition of the atmosphere (Standards: 8 a–c)	7 items
Physics	
Motions and forces (Standard: 1 g) Conservation of energy and momentum (Standards: 2 e–g) Electric and magnetic phenomena (Standards: 5 f–g)	8 items
Investigation and Experimentation	
Standards: 1 a–n	6 items
Integrated/Coordinated Science 4 Standards Test	
Biology/Life Sciences	
Genetics (Standards: 5 a–b) Physiology (Standards: 9 a–e, 10 a–e)	13 items
Chemistry	
Chemical bonds (Standards: 2 d–e) Acids and bases (Standards: 5 b, d) Chemical thermodynamics (Standards: 7 a–d) Nuclear processes (Standards: 11 a–e)	10 items

Earth Sciences	
Earth's place in the universe (Standards: 1 b, d–e, 2 a–d)	
Energy in the Earth system (Standards: 4 a, 5 d)	15 items
California geology (Standard: 9 a)	
Physics	
Heat and thermodynamics (Standards: 3 a–e)	
Waves (Standard: 4 c)	16 items
Electric and magnetic phenomena (Standards: 5 a–c)	
Investigation and Experimentation	
Standards: 1 a–n	6 items

Appendix 2.B—Technical Characteristics Tables and Plots

Table 2.B.1 Summary of 2008 CST Projected Technical Characteristics

Subject	CST	Number of Items	Mean Raw Score	Standard Deviation of Raw Scores	Reliability
English–Language Arts	**2**	65	39.43	13.48	0.93
	3	65	39.76	12.89	0.93
	4*	75	45.27	14.60	0.94
	5	75	45.37	14.17	0.93
	6	75	44.72	14.10	0.93
	7*	75	44.73	14.73	0.94
	8	75	44.20	14.08	0.93
	9	75	44.29	15.27	0.94
	10	75	44.11	16.30	0.95
	11	75	43.10	15.35	0.94
History–Social Science	**8**	75	37.89	13.36	0.91
	World History	60	30.23	11.66	0.91
	11	60	30.45	11.55	0.91
Mathematics	**2**	64	46.59	11.51	0.93
	3	65	47.45	12.14	0.94
	4	65	46.28	12.76	0.94
	5	65	39.69	13.28	0.93
	6	65	38.67	12.92	0.93
	7	65	36.12	12.62	0.92
	General Mathematics†	65	N/A	N/A	N/A
	Algebra I	65	34.84	12.39	0.92
	Geometry	65	41.71	11.83	0.92
	Algebra II	65	36.49	11.10	0.90
	Summ. H.S. Mathematics	65	43.88	11.89	0.92
	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	**Grade 5 Science**	60	37.41	10.71	0.90
	Grade 8 Science	60	37.51	11.46	0.91
	Grade 10 Life Science	60	34.66	12.51	0.93
	Biology	60	35.25	11.65	0.91
	Chemistry	60	36.08	10.99	0.90
	Earth Science	60	32.21	11.12	0.90
	Physics	60	34.25	11.45	0.91
	Integrated Science 1†	60	N/A	N/A	N/A
	Integrated Science 2†	60	N/A	N/A	N/A
	Integrated Science 3†	60	N/A	N/A	N/A
	Integrated Science 4†	60	N/A	N/A	N/A

* Multiple choice items

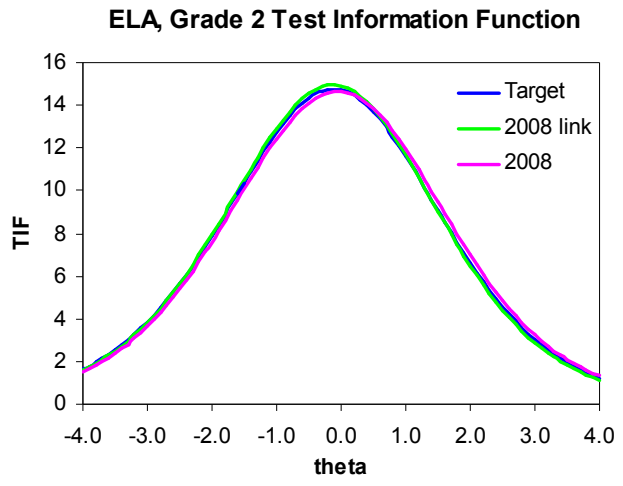
† Those tests were constructed using items from other operational CSTs; therefore, the projected mean and standard deviation of raw scores and the projected reliability are not provided for these tests.

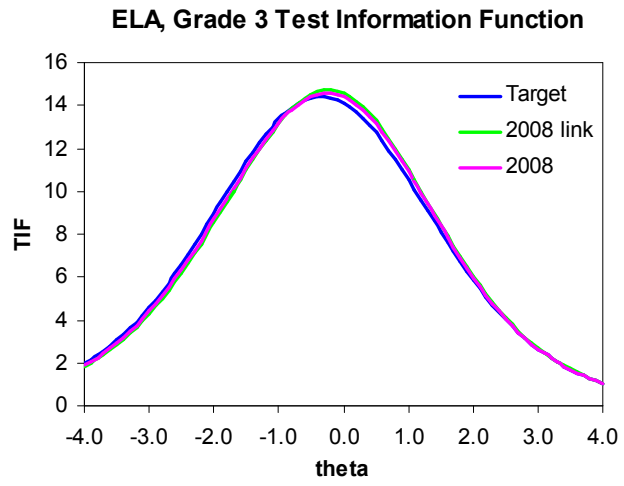
Table 2.B.2 Summary of 2008 CST Projected Statistical Attributes

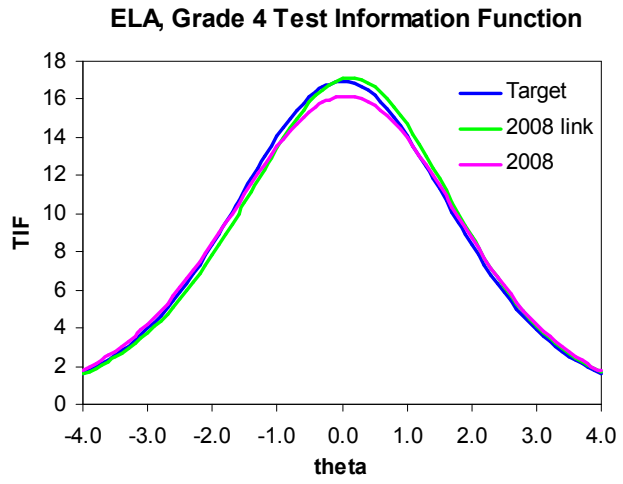
Subject	CST	Mean b	SD b	Mean *p*-value	Min *p*-value	Max *p*-value	Mean Point-Biserial	Min Point-Biserial
English–Language Arts	2	–0.07	0.69	0.61	0.23	0.86	0.44	0.20
	3	–0.30	0.70	0.61	0.32	0.88	0.42	0.24
	4	0.01	0.83	0.60	0.31	0.92	0.42	0.23
	5	–0.14	0.80	0.60	0.26	0.93	0.41	0.19
	6	–0.04	0.68	0.60	0.29	0.86	0.40	0.20
	7	0.16	0.72	0.60	0.29	0.90	0.42	0.18
	8	–0.11	0.68	0.59	0.29	0.84	0.40	0.24
	9	–0.05	0.60	0.59	0.33	0.90	0.43	0.19
	10	–0.23	0.60	0.59	0.36	0.85	0.45	0.23
	11	–0.19	0.56	0.57	0.34	0.83	0.43	0.16
History–Social Science	8	0.18	0.50	0.51	0.29	0.79	0.36	0.22
	World History	0.15	0.38	0.50	0.29	0.66	0.39	0.23
	11	0.08	0.43	0.51	0.31	0.73	0.39	0.23
Mathematics	2	–0.85	0.98	0.73	0.17	0.96	0.43	0.24
	3	–0.75	0.98	0.73	0.42	0.94	0.45	0.30
	4	–0.61	0.79	0.71	0.39	0.91	0.46	0.31
	5	–0.18	0.83	0.61	0.33	0.96	0.44	0.23
	6	–0.22	0.76	0.59	0.19	0.91	0.42	0.22
	7	–0.01	0.63	0.56	0.23	0.79	0.40	0.18
	General Mathematics*	N/A	N/A	N/A	0.23	0.77	N/A	0.19
	Algebra I	–0.05	0.68	0.54	0.23	0.81	0.40	0.22
	Geometry	–0.74	0.74	0.64	0.27	0.89	0.40	0.18
	Algebra II	–0.40	0.88	0.56	0.26	0.96	0.36	0.15
	Summ. H.S. Math	–0.73	0.75	0.68	0.35	0.91	0.41	0.26
	Integrated Mathematics 1*	N/A	N/A	N/A	0.12	0.85	N/A	–0.15
	Integrated Mathematics 2*	N/A	N/A	N/A	0.20	0.90	N/A	0.18
	Integrated Mathematics 3*	N/A	N/A	N/A	0.17	0.90	N/A	0.14
Science	Grade 5 Science	–0.69	0.66	0.62	0.23	0.85	0.38	0.20
	Grade 8 Science	–0.39	0.48	0.63	0.41	0.81	0.40	0.17
	Grade 10 Life Science	–0.31	0.57	0.58	0.30	0.81	0.43	0.26
	Biology	–0.41	0.54	0.59	0.41	0.87	0.40	0.20
	Chemistry	–0.40	0.58	0.60	0.35	0.81	0.39	0.26
	Earth Science	–0.05	0.49	0.54	0.28	0.74	0.38	0.20
	Physics	–0.21	0.71	0.57	0.21	0.87	0.40	0.21
	Integrated Science 1*	N/A	N/A	N/A	0.35	0.78	N/A	0.27
	Integrated Science 2*	N/A	N/A	N/A	0.28	0.87	N/A	0.24
	Integrated Science 3*	N/A	N/A	N/A	0.36	0.87	N/A	0.20
	Integrated Science 4*	N/A	N/A	N/A	0.21	0.84	N/A	0.20

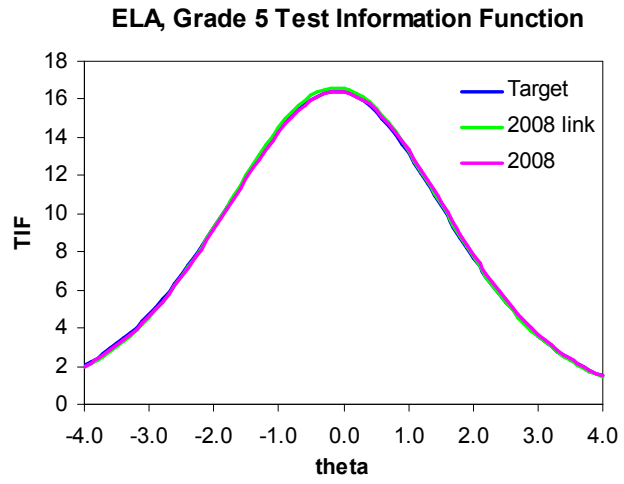
* Those tests were constructed using the items from other operational CSTs; therefore, only the minimum and maximum *p*-value, and the minimum value for point-biserial index are provided for these tests.

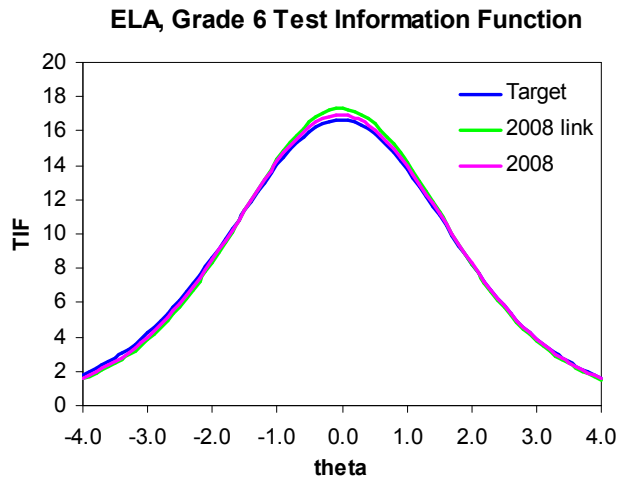
Figure 2.B.1 Comparison Plots for Target Information Function and Projected Test and Link Information for English–Language Arts

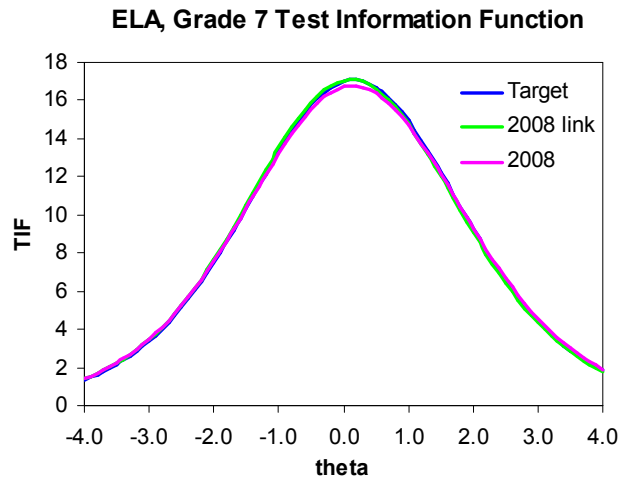


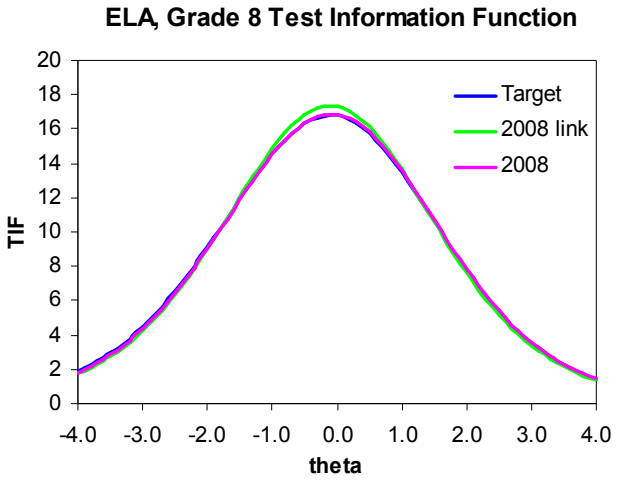


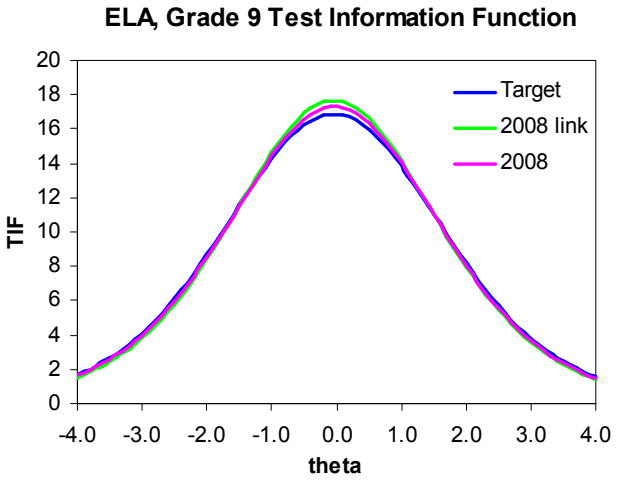









ELA, Grade 8 Test Information Function
TIF
theta
Target
2008 link
2008


ELA, Grade 9 Test Information Function
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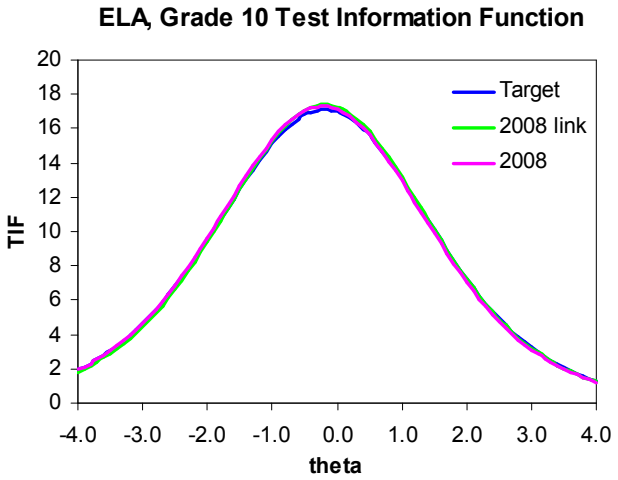
theta
Target
2008 link
2008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theta
Target
2008 link
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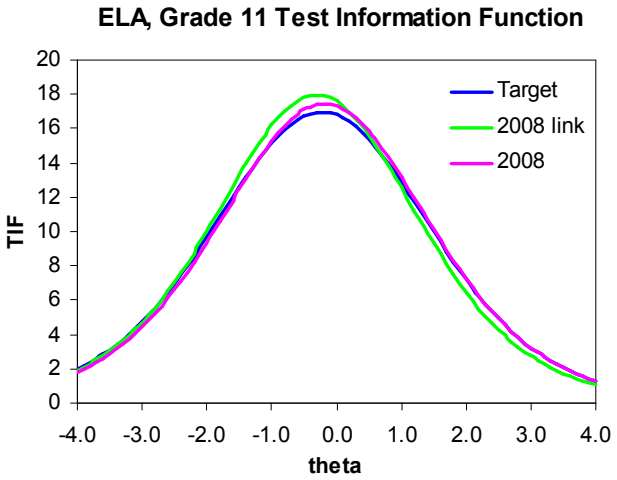
ELA, Grade 11 Test Information Function
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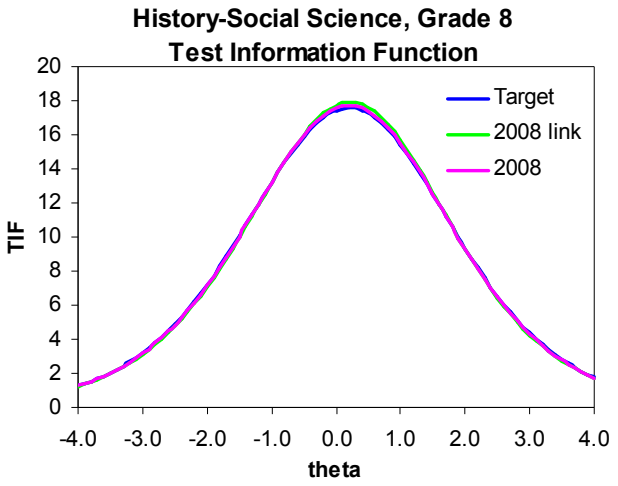
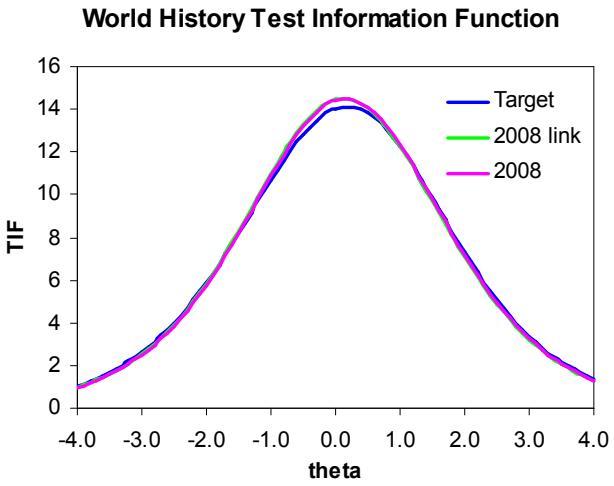
Target
2008 link
2008

Figure 2.B.2 Comparison Plots for Target Information Function and Projected Test and Link Information for History–Social Science





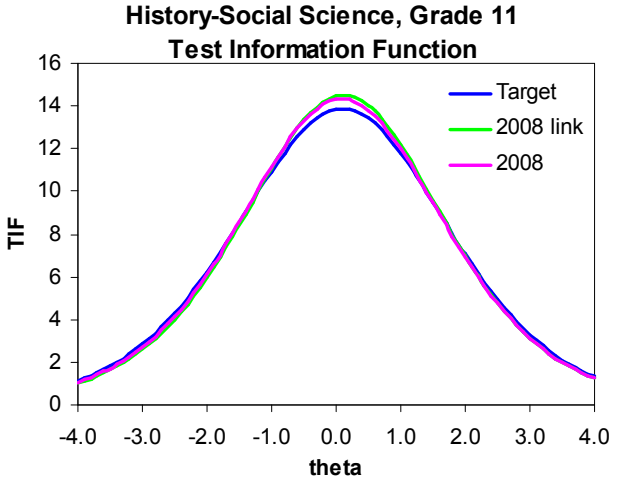
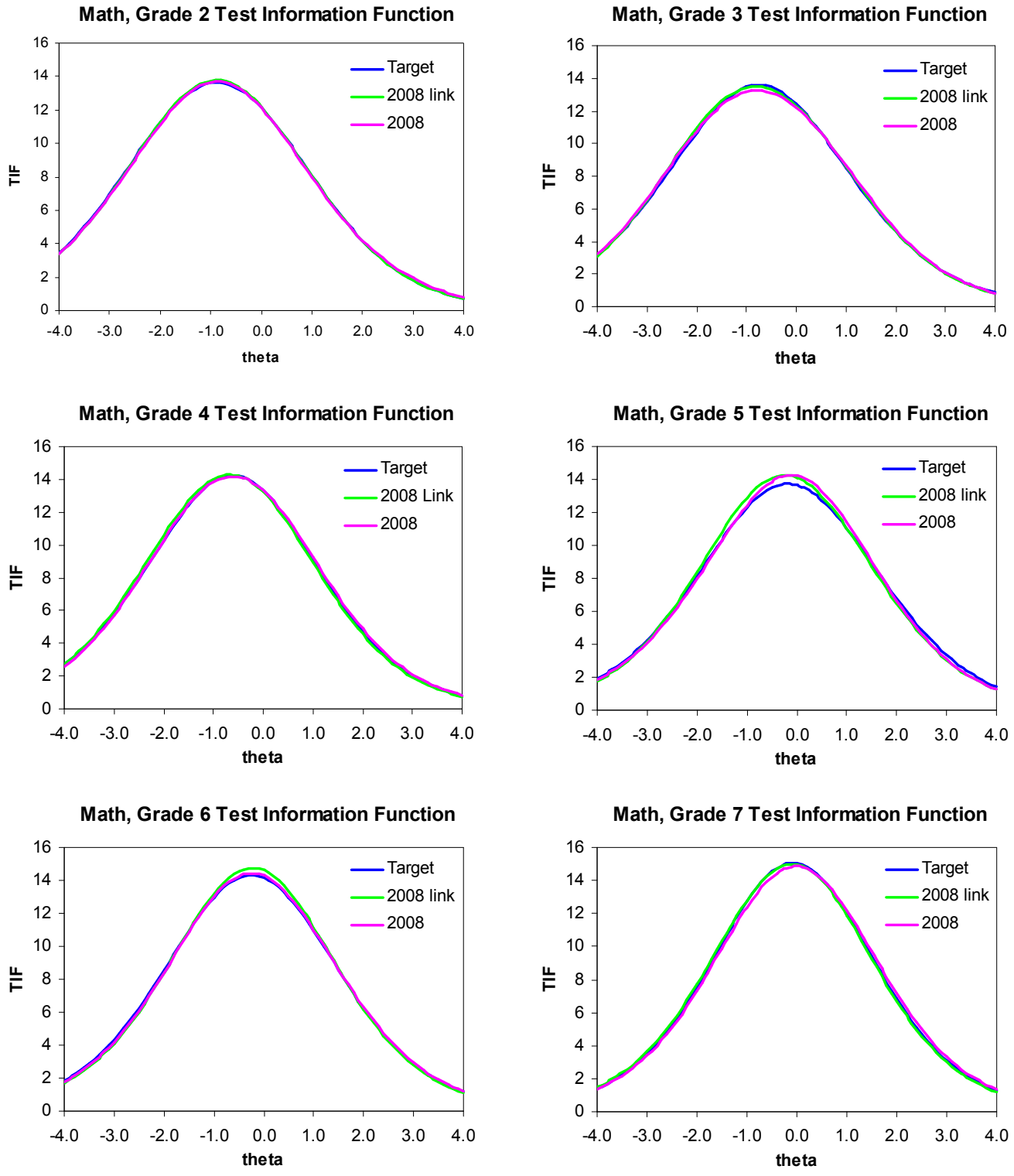
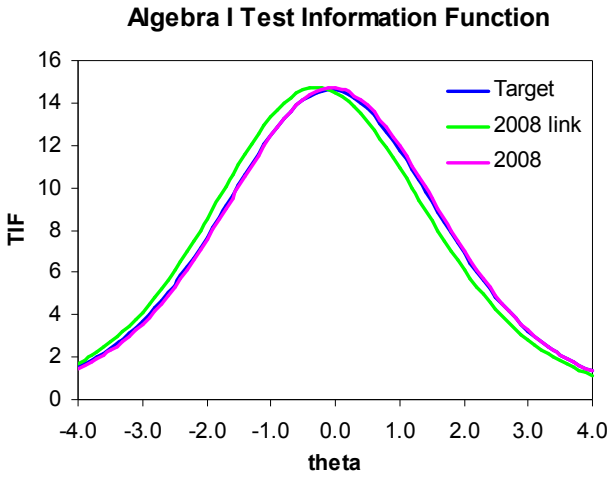


Figure 2.B.3 Comparison Plots for Target Information Function and Projected Test and Link Information for Mathematics




Algebra I Test Information Function
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theta
Target
2008 link
2008
16
14
12
10
8
6
4
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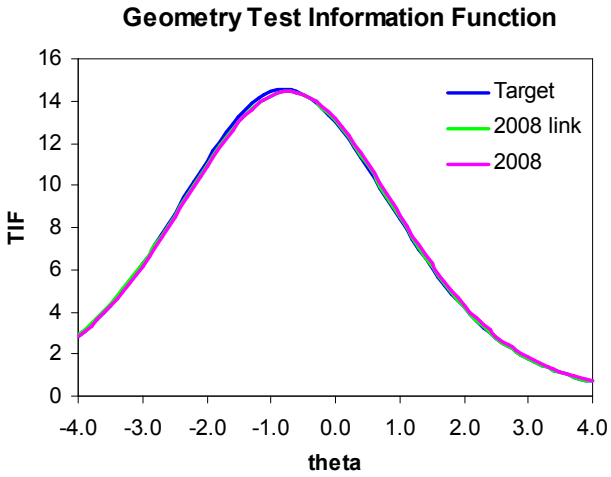
-1.0
0.0
1.0
2.0
3.0
4.0


Geometry Test Information Function
TIF
theta
Target
2008 link
2008
16
14
12
10
8
6
4
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-2.0
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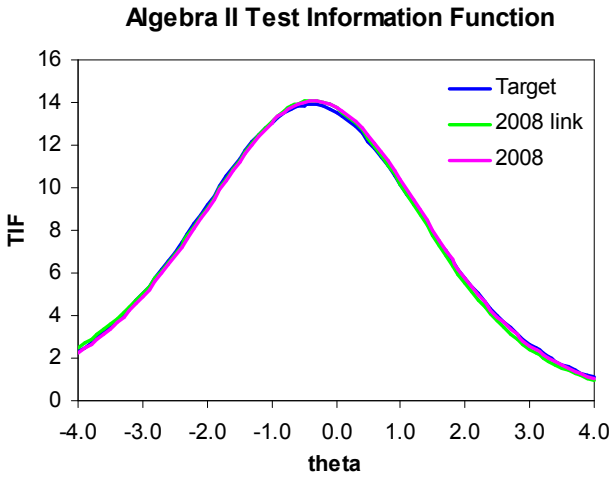
2.0
3.0
4.0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theta
Target
2008 link
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12
10
8
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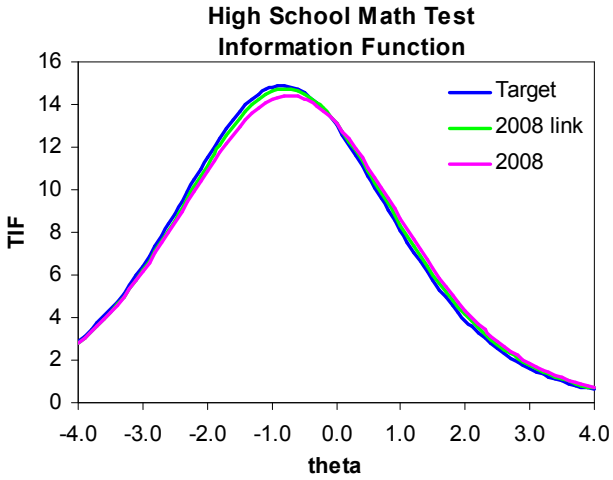
4.0


High School Math Test Information Function
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theta
Target
2008 link
2008
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14
12
10
8
6
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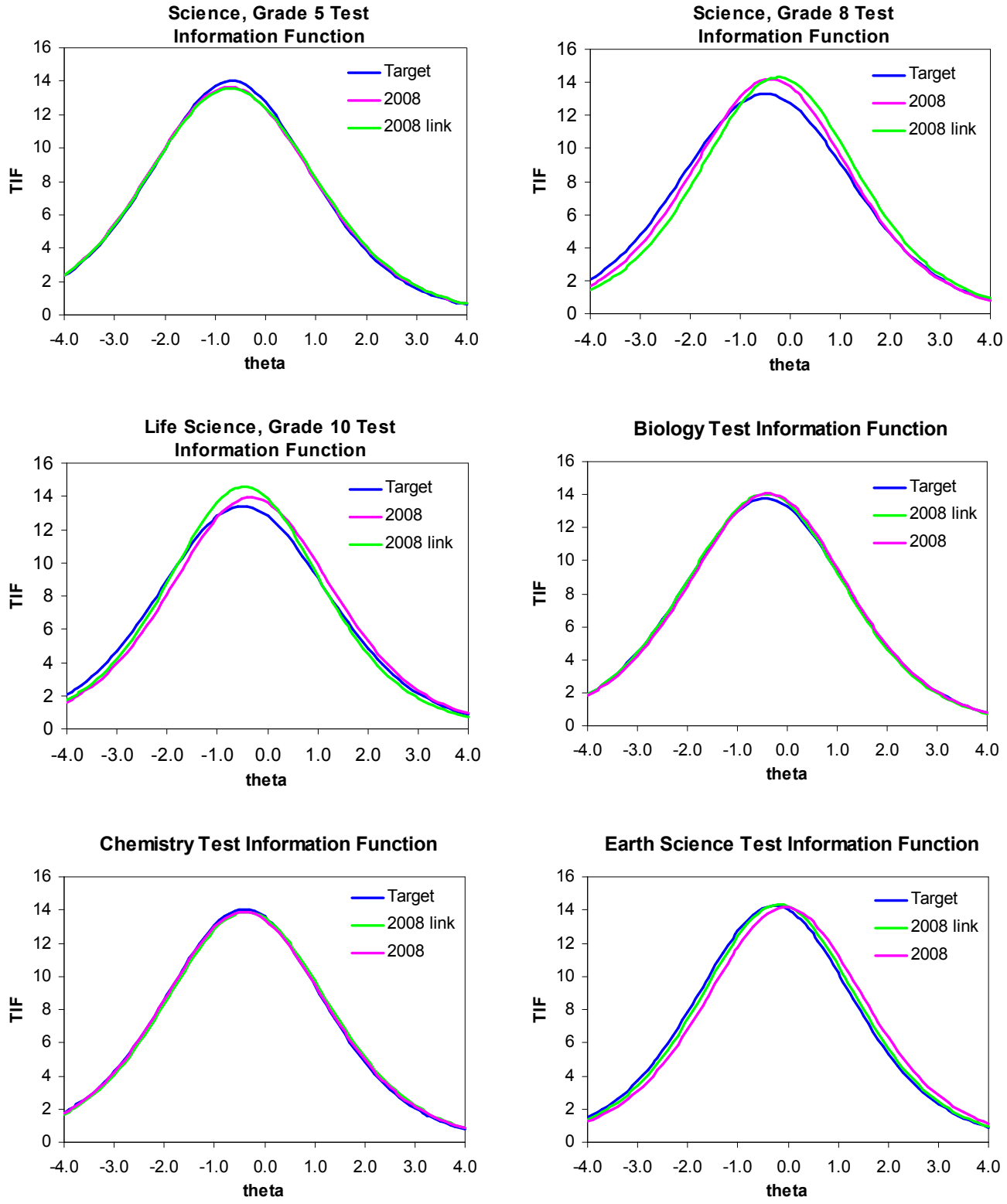
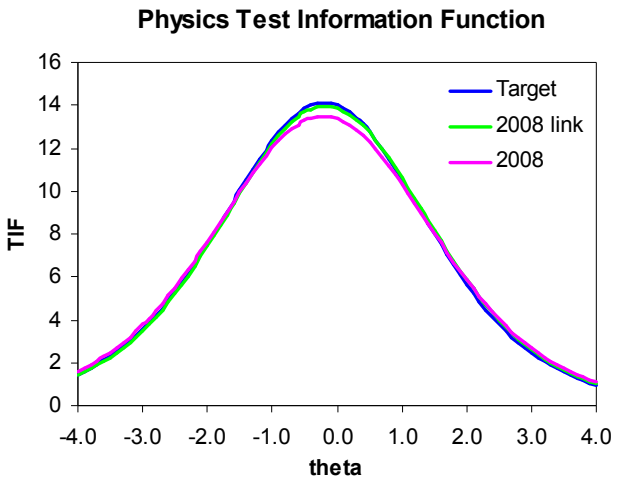
Figure 2.B.4 Comparison Plots for Target Information Function and Projected Test and Link Information for Science




Physics Test Information Function
16
14
12
10
8
6
4
2
0
TIF
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0
theta
Target
2008 link
2008

Appendix 2.C—Cluster Targets

Figure 2.C.1 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Two

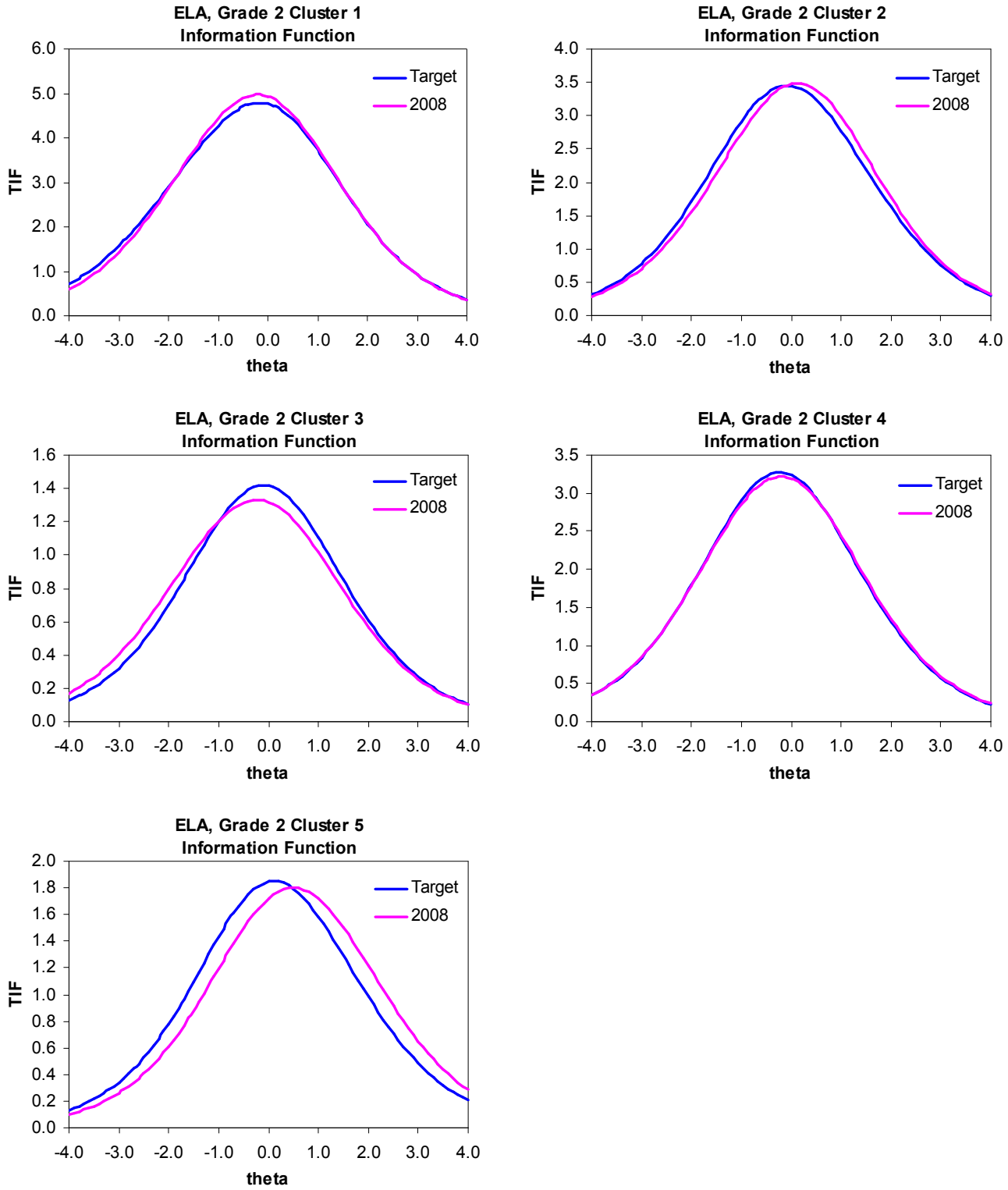


Figure 2.C.2 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Three

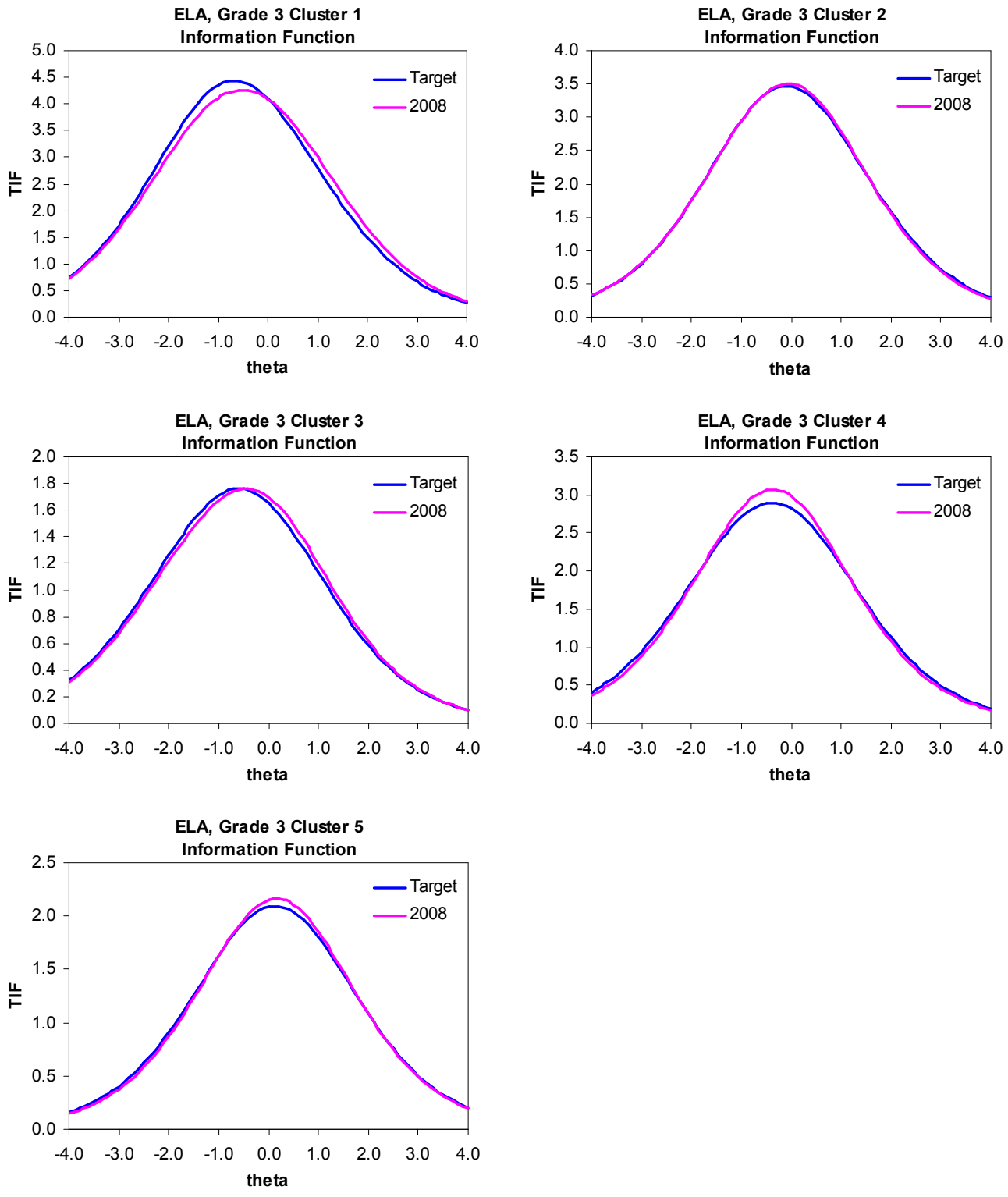


Figure 2.C. 3 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Four

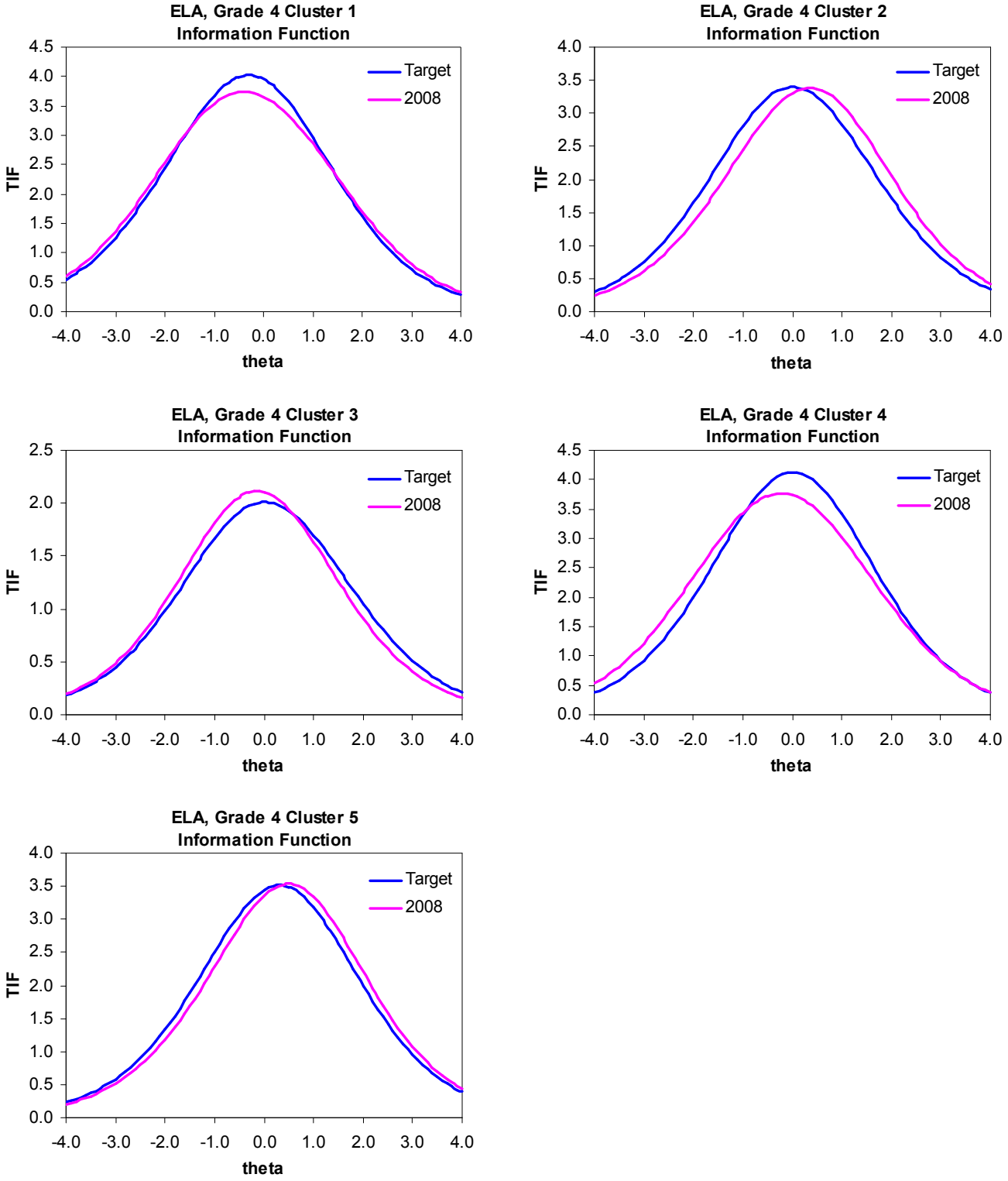


Figure 2.C.4 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Five

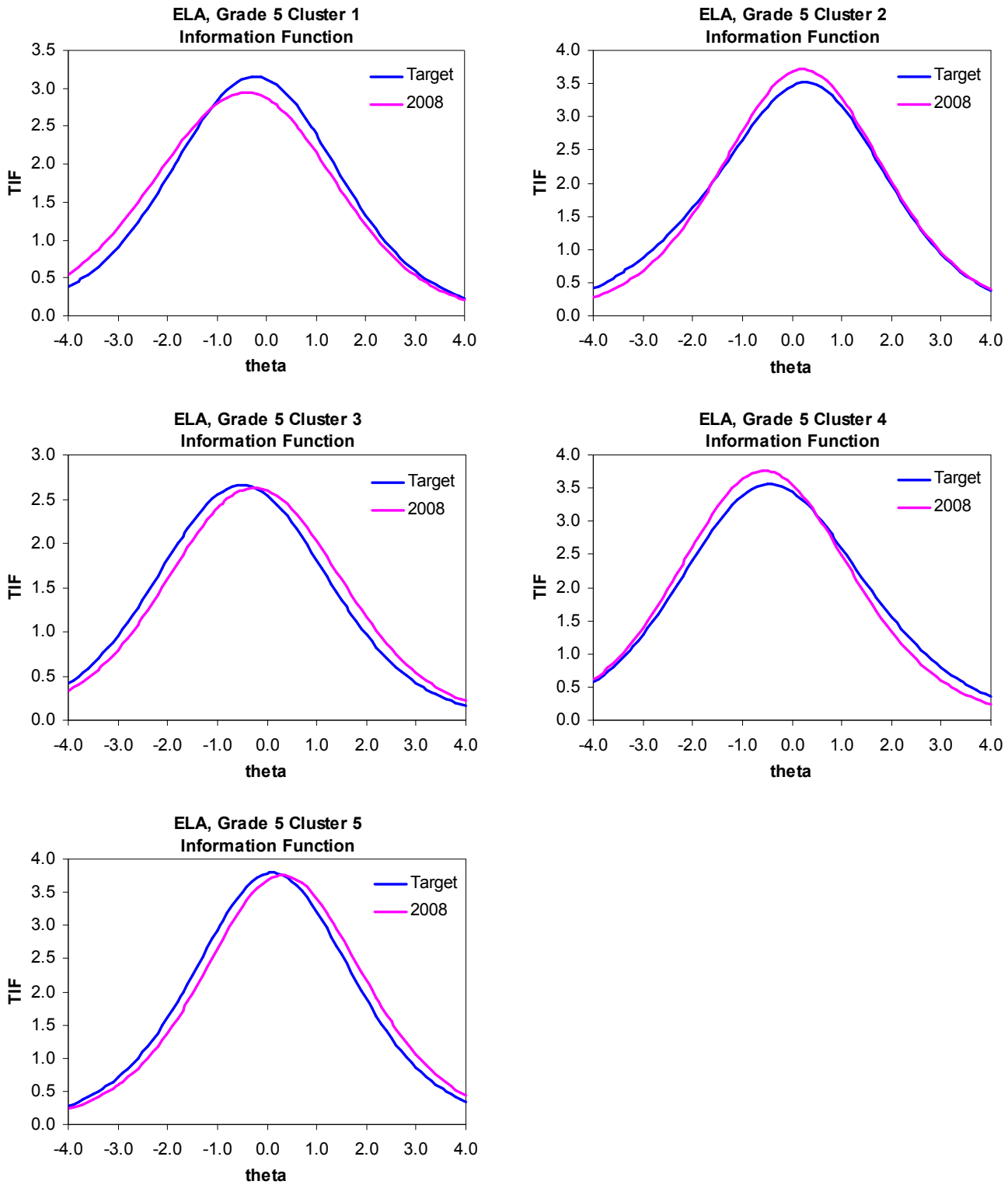


Figure 2.C.5 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Six

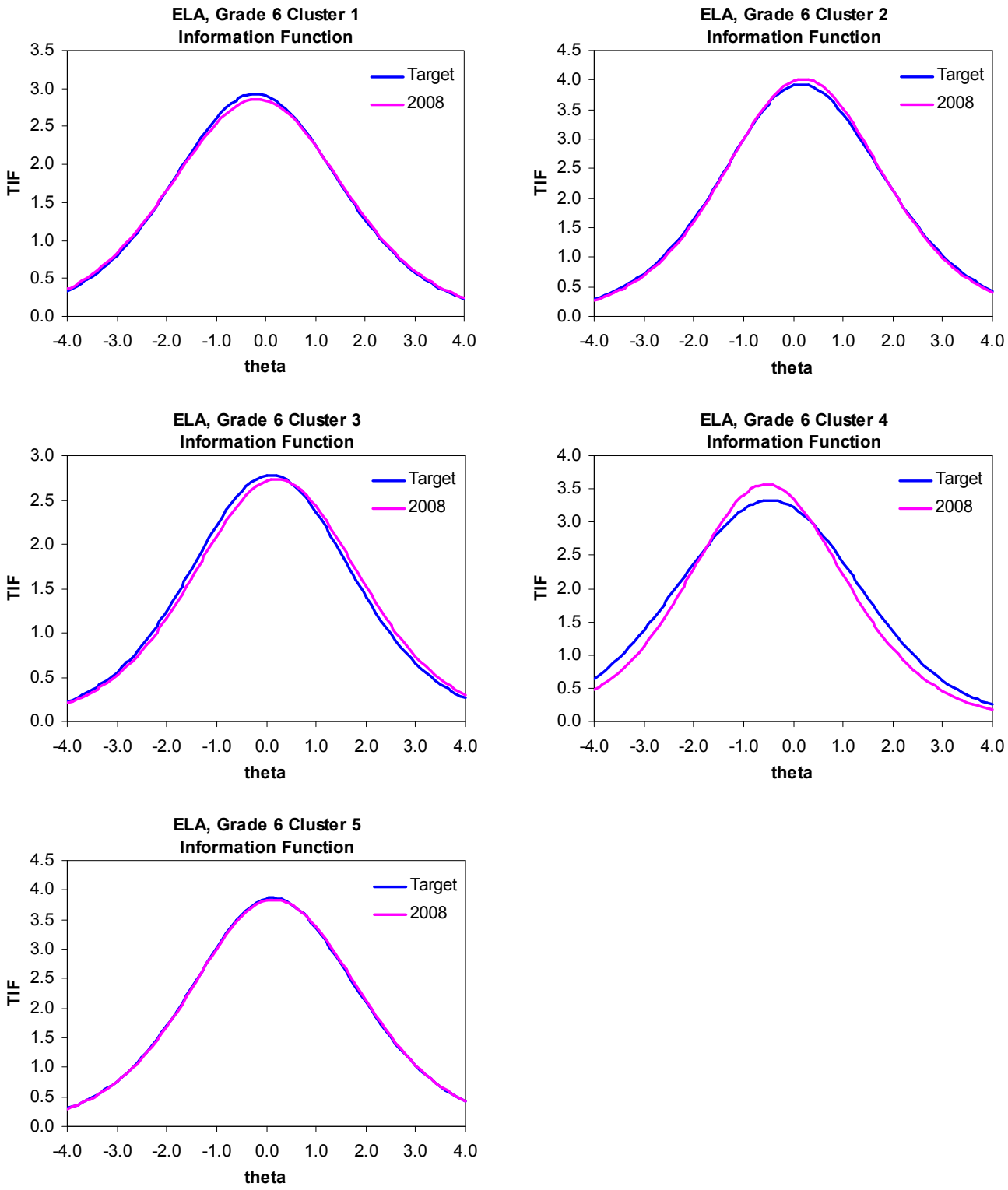


Figure 2.C.6 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Seven

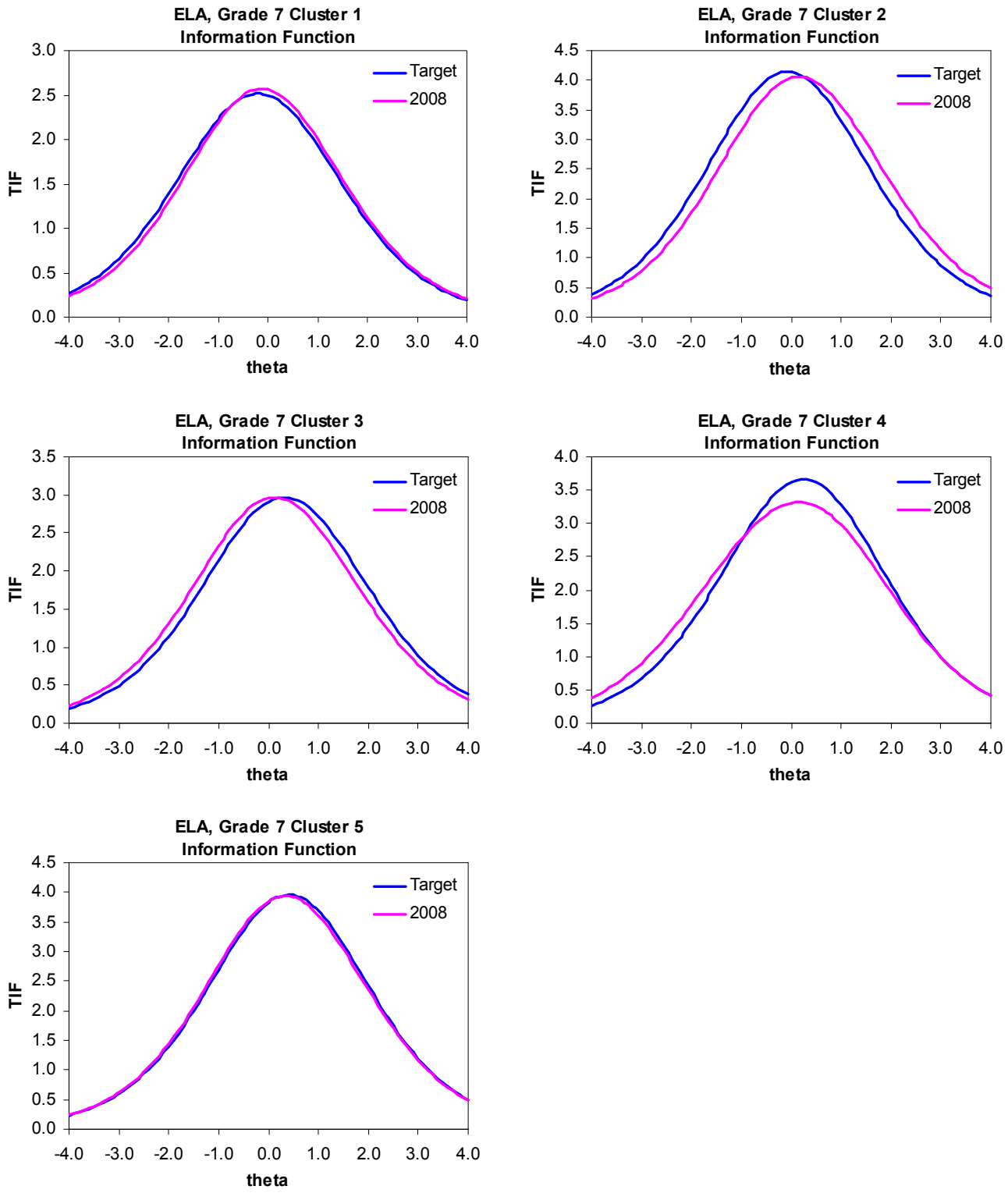


Figure 2.C.7 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Eight

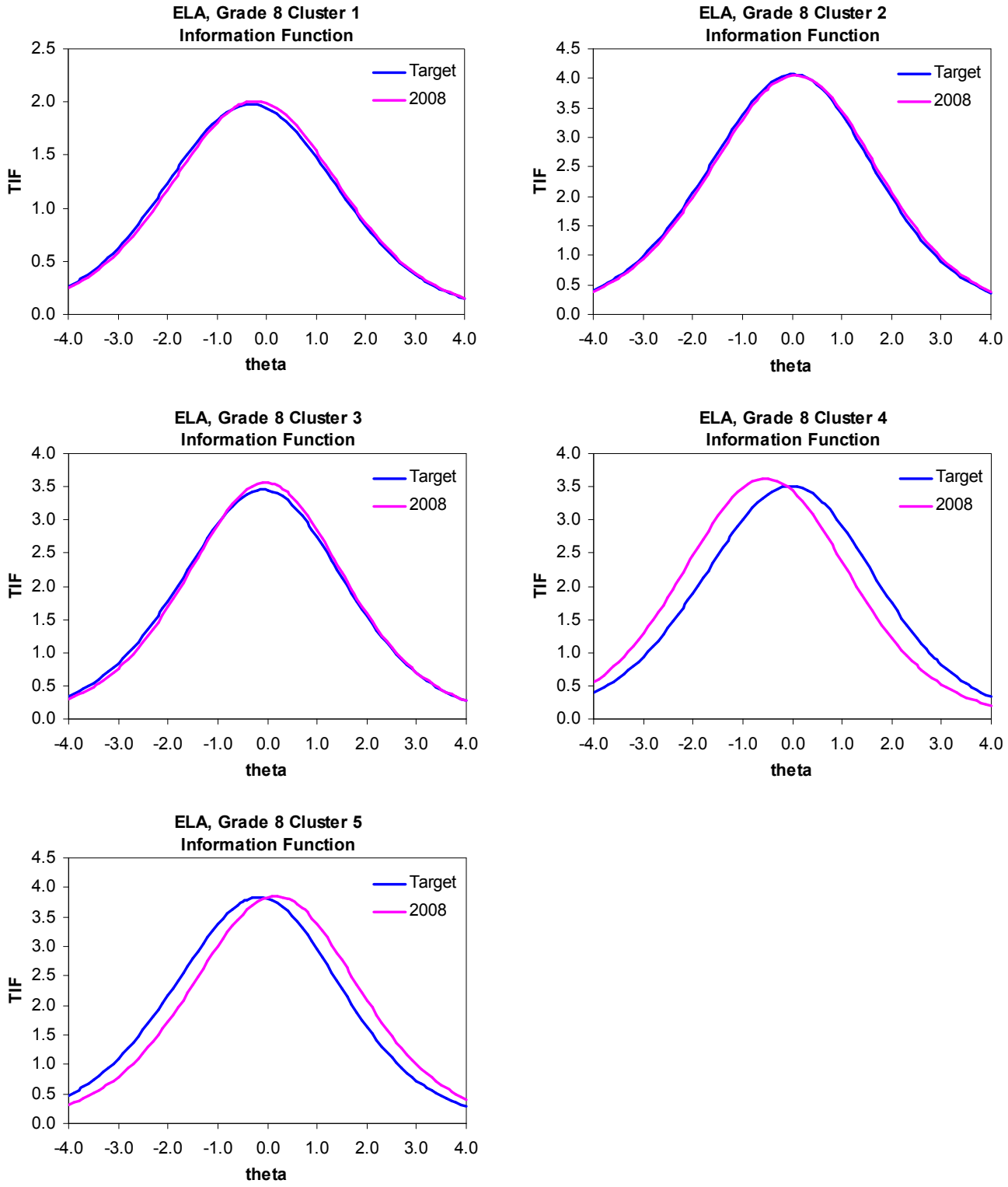


Figure 2.C.8 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Nine

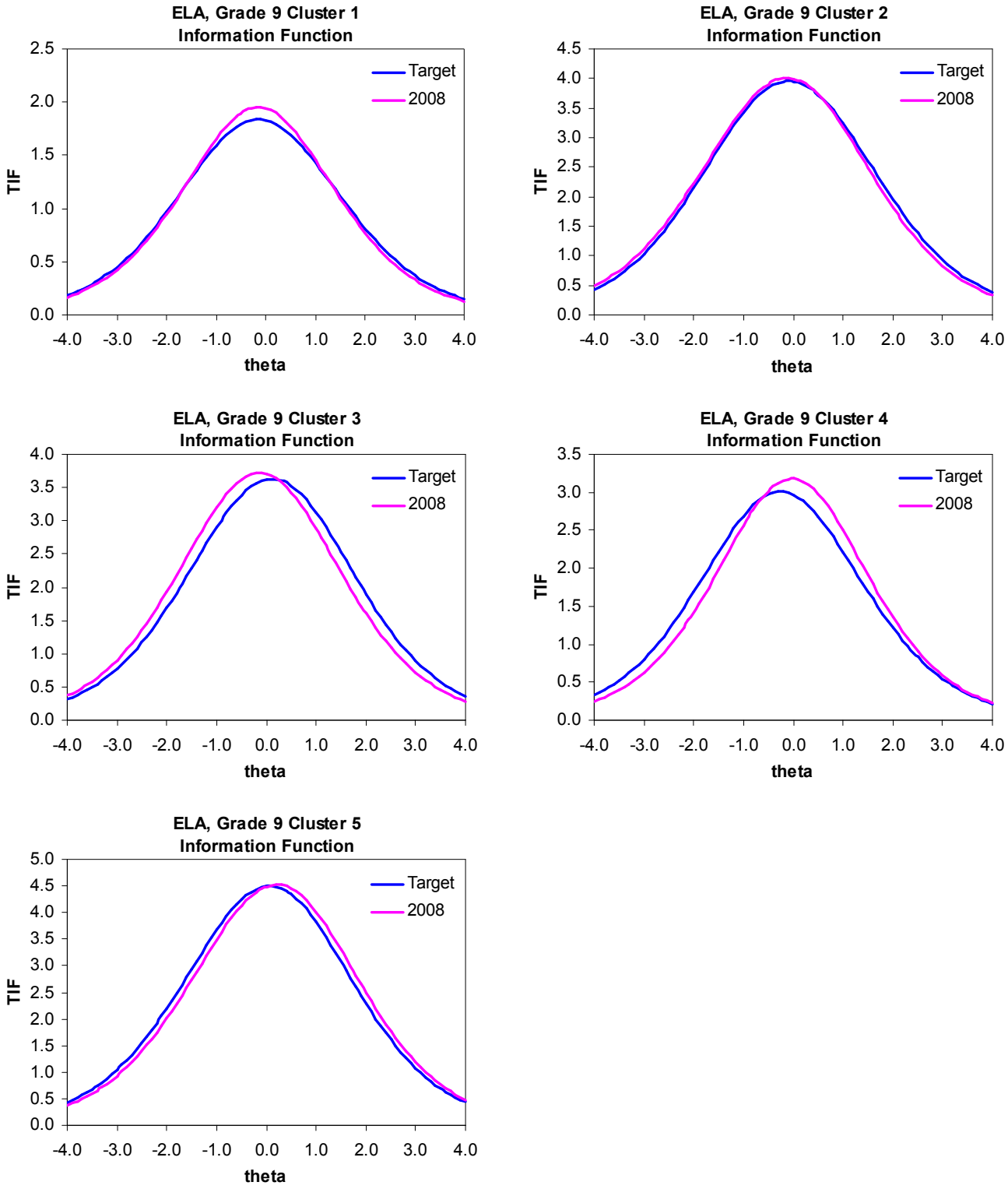


Figure 2.C.9 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Ten

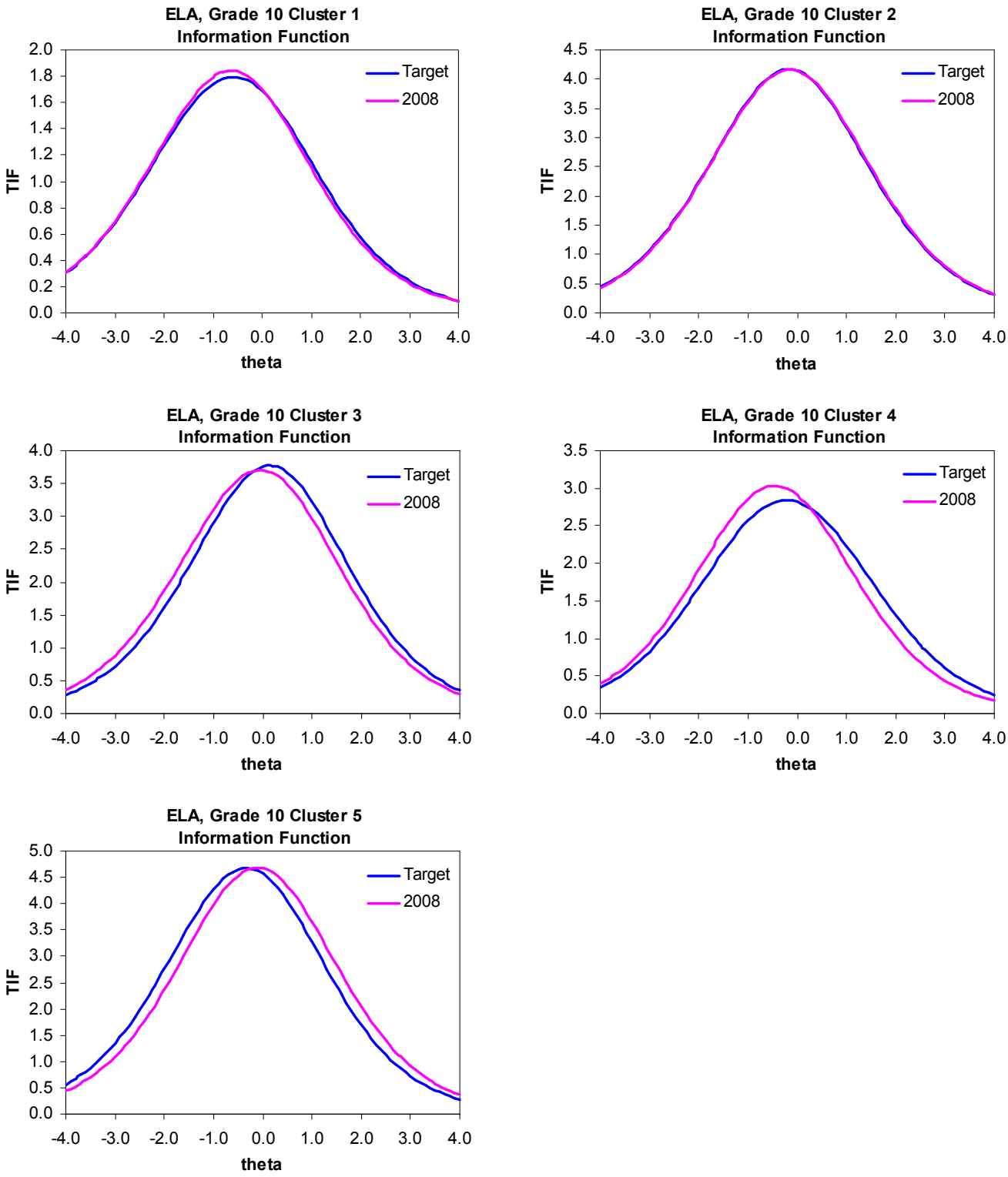


Figure 2.C.10 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for ELA, Grade Eleven

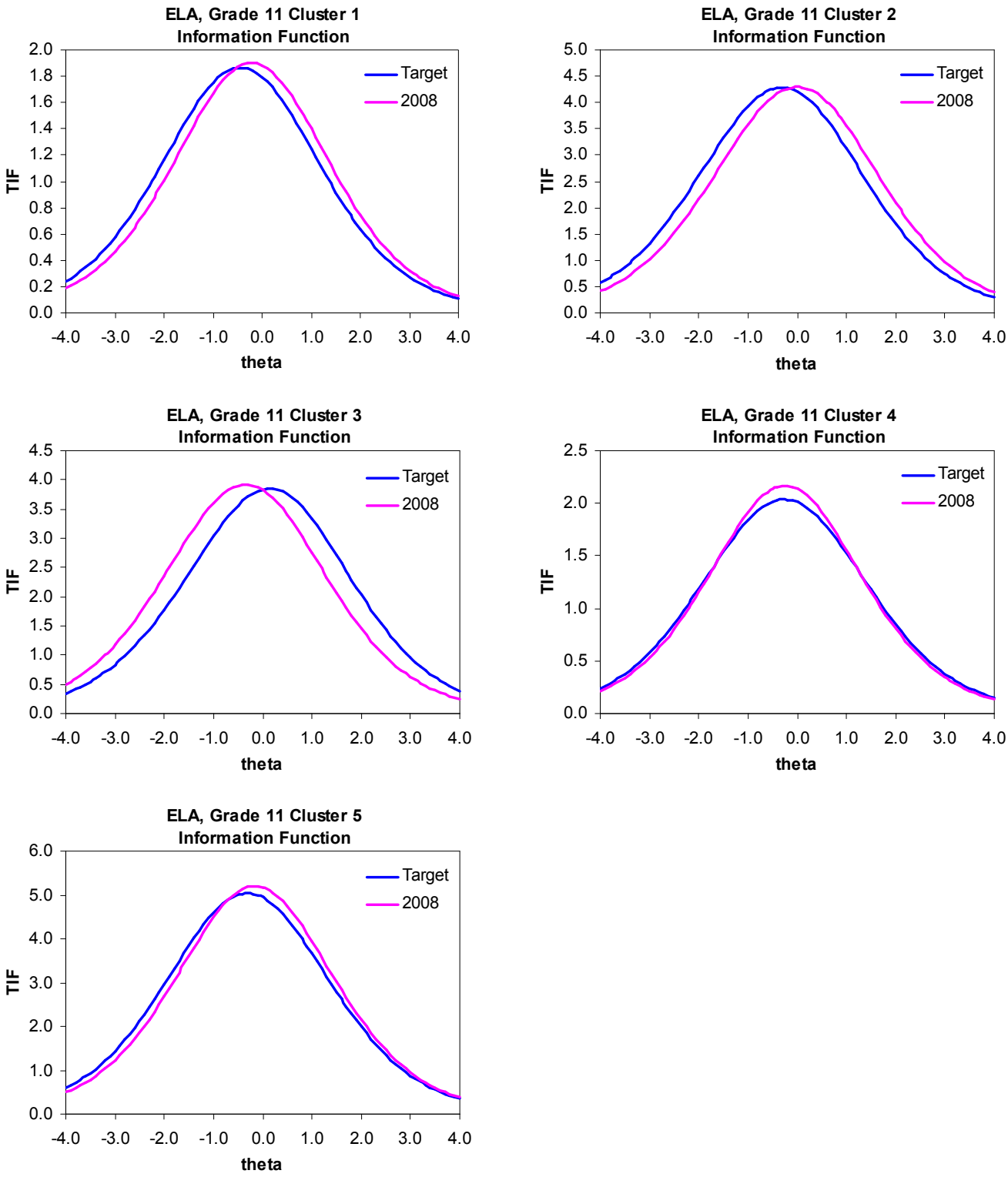
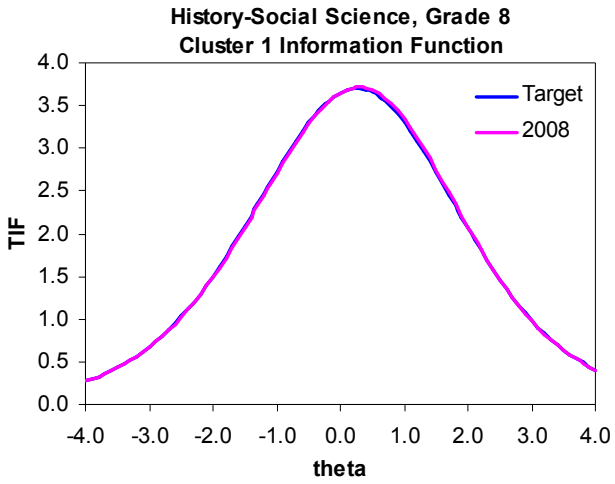
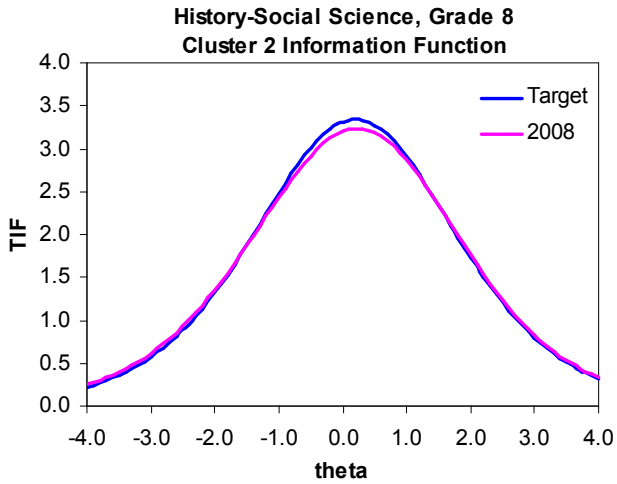
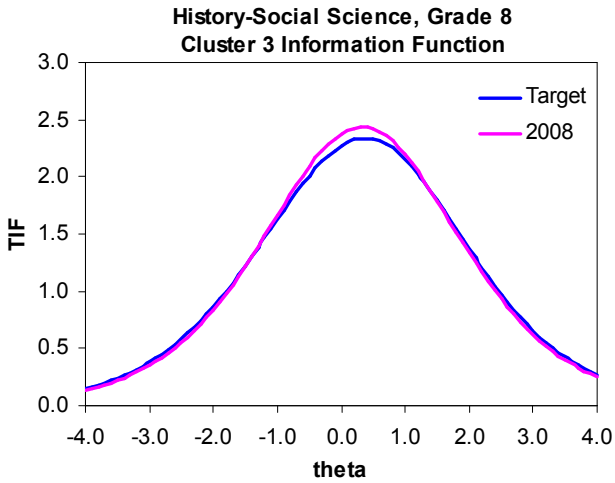
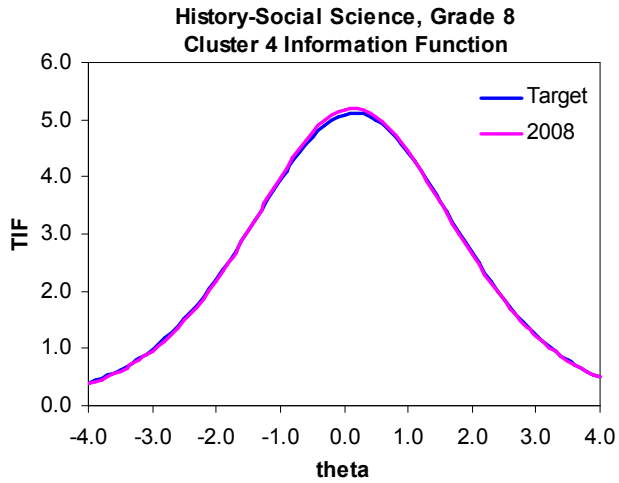


Figure 2.C.11 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for History–Social Science, Grade Eight









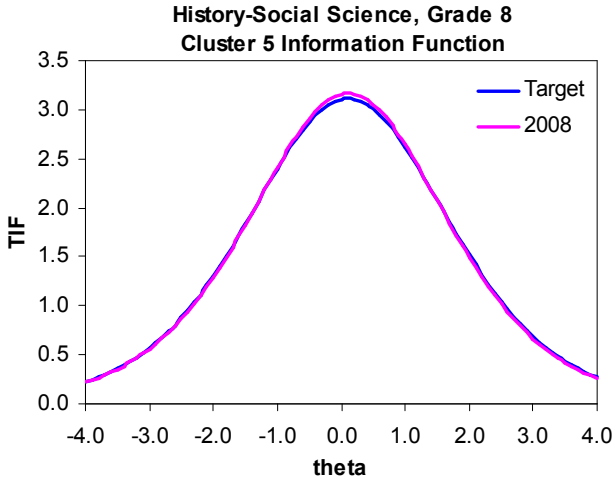


Figure 2.C.12 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for World History

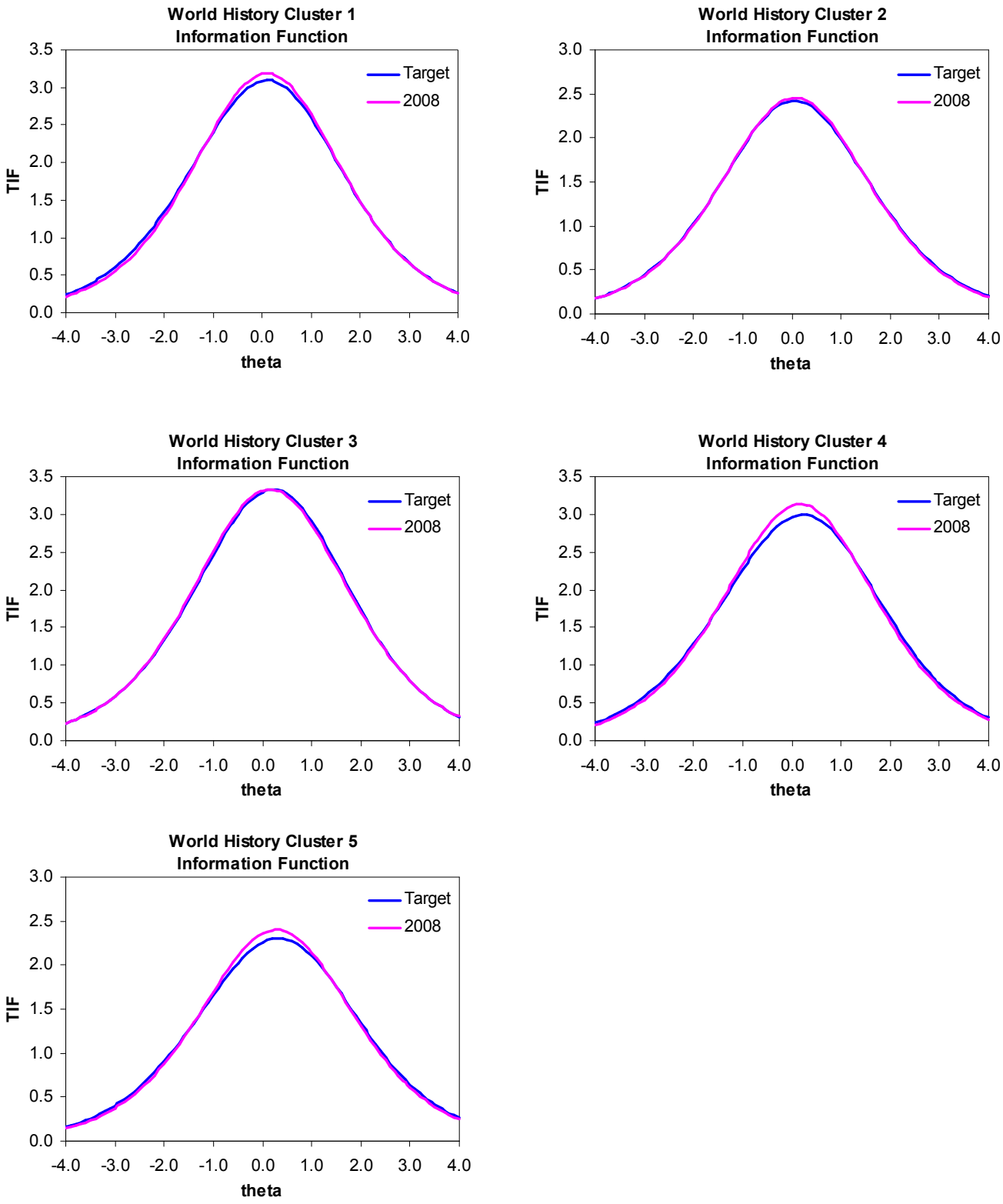
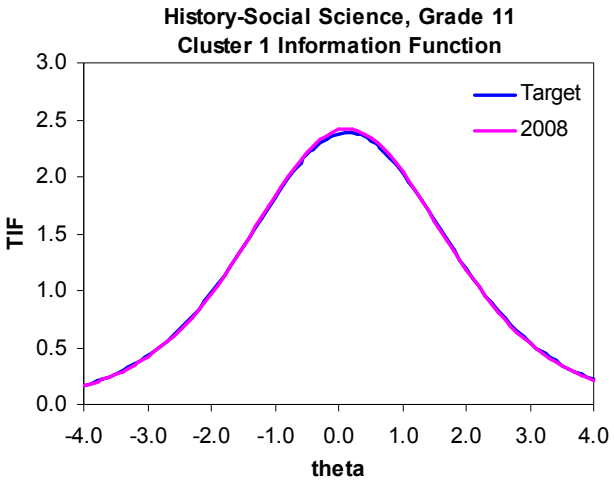
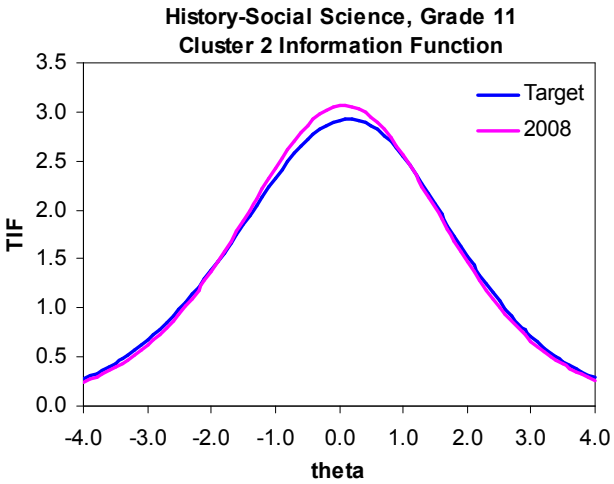
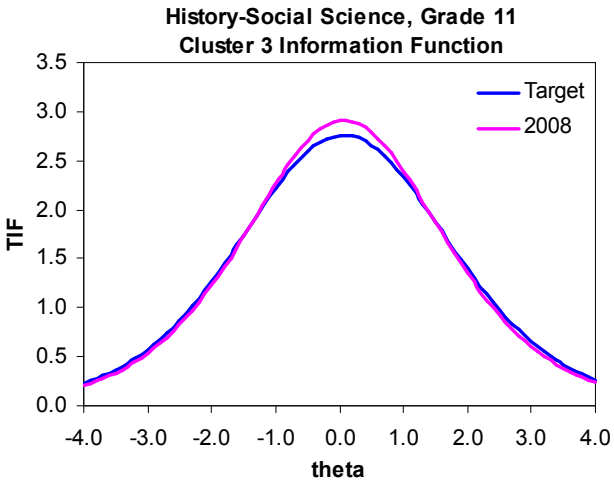
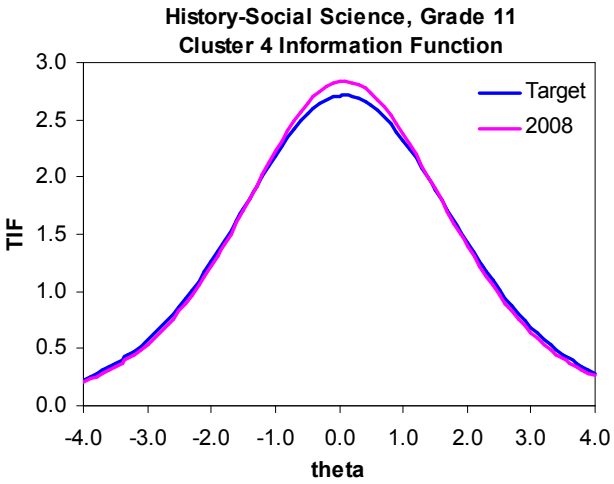


Figure 2.C.13 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for U.S. History, Grade Eleven









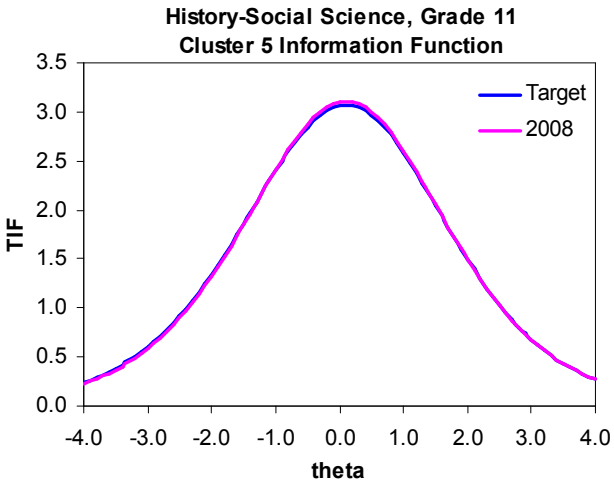


Figure 2.C.14 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Mathematics, Grade Two

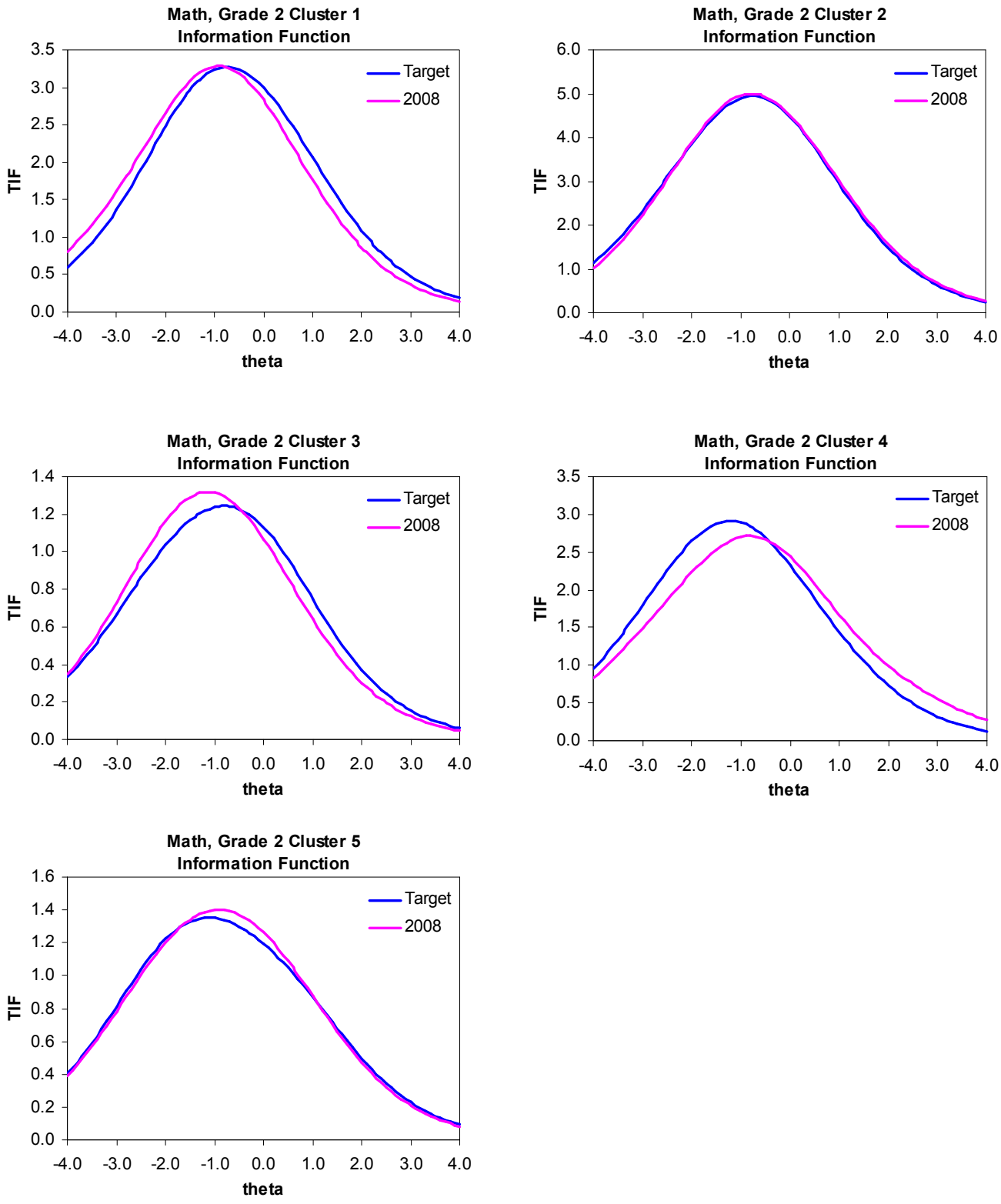


Figure 2.C.15 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Mathematics, Grade Three

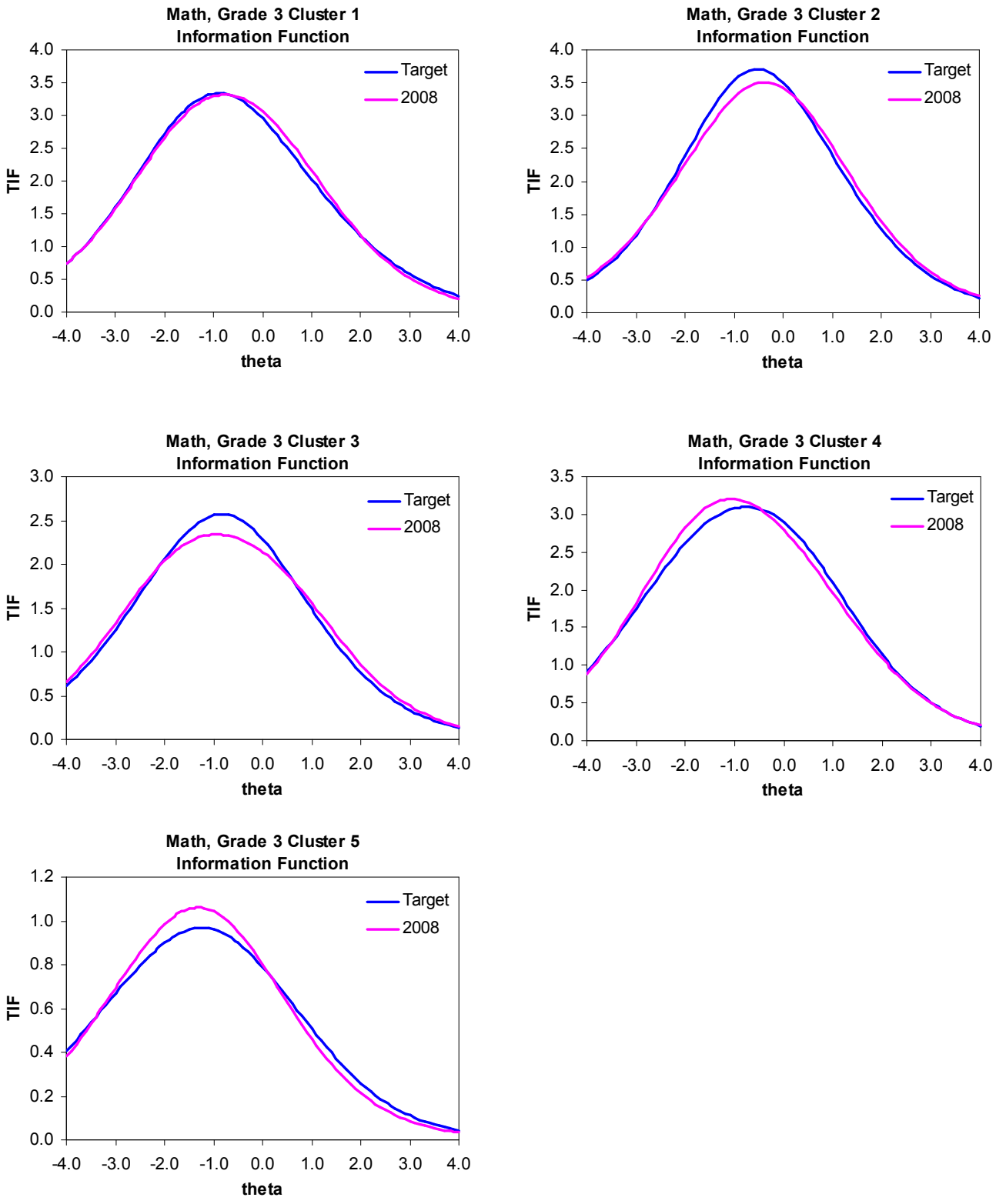


Figure 2.C.16 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Mathematics, Grade Four

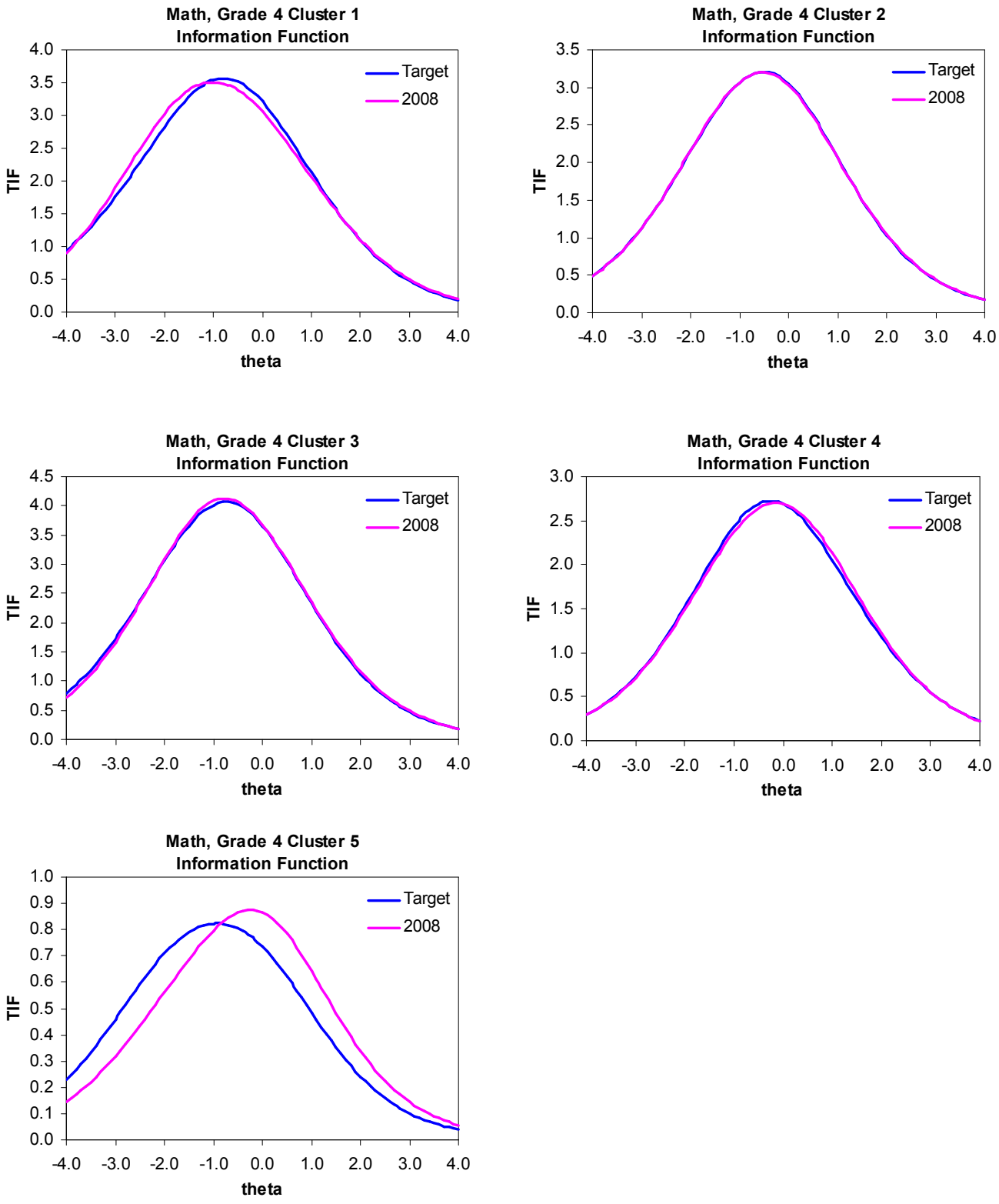
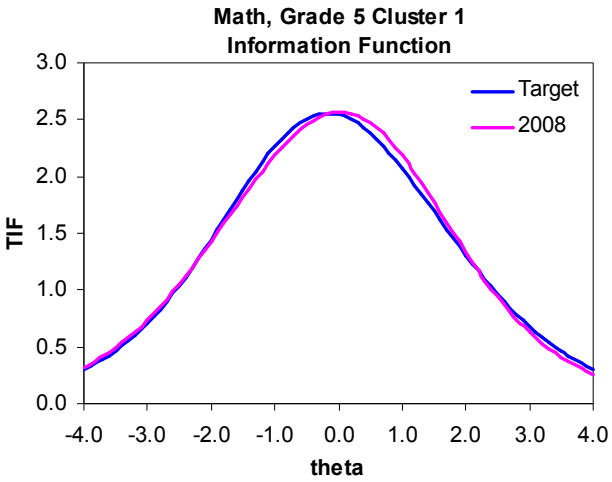
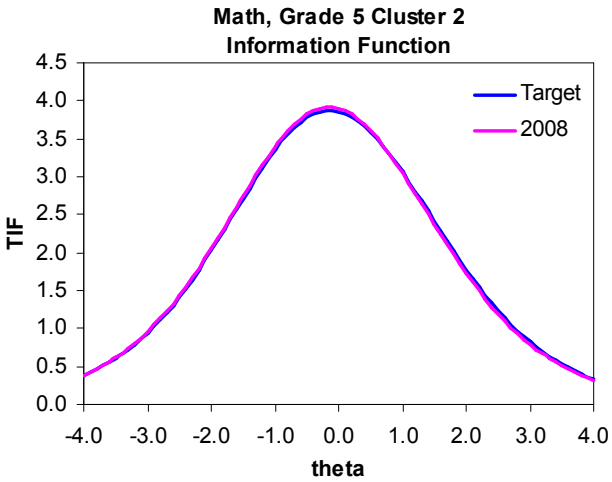
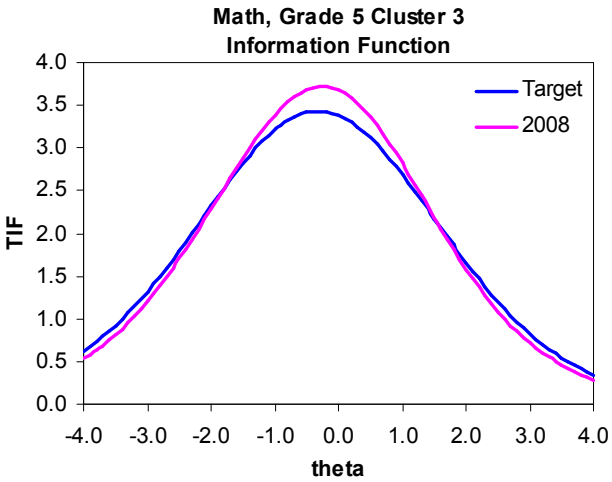
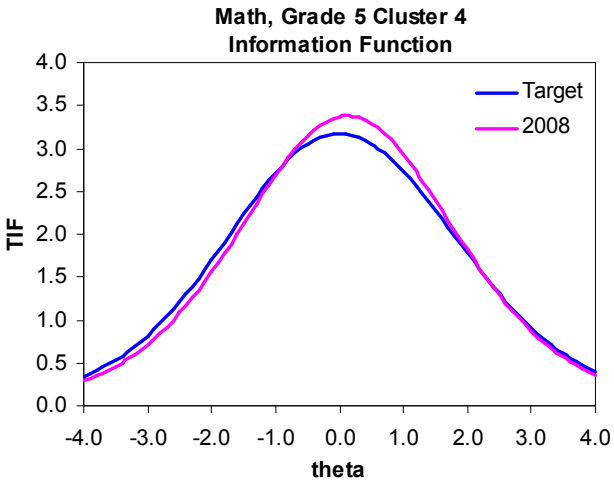


Figure 2.C.17 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Mathematics, Grade Five









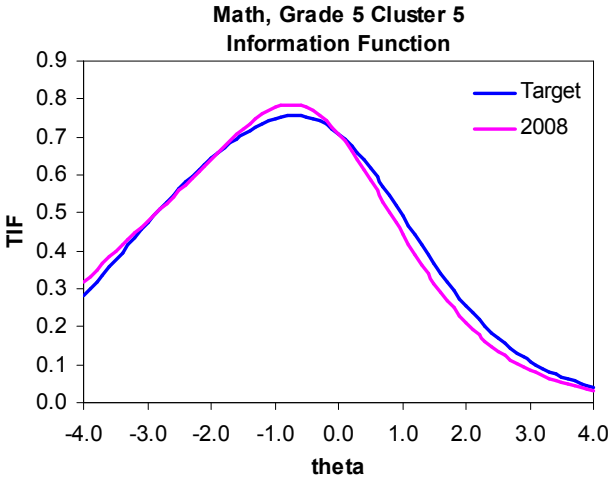


Figure 2.C.18 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Mathematics, Grade Six

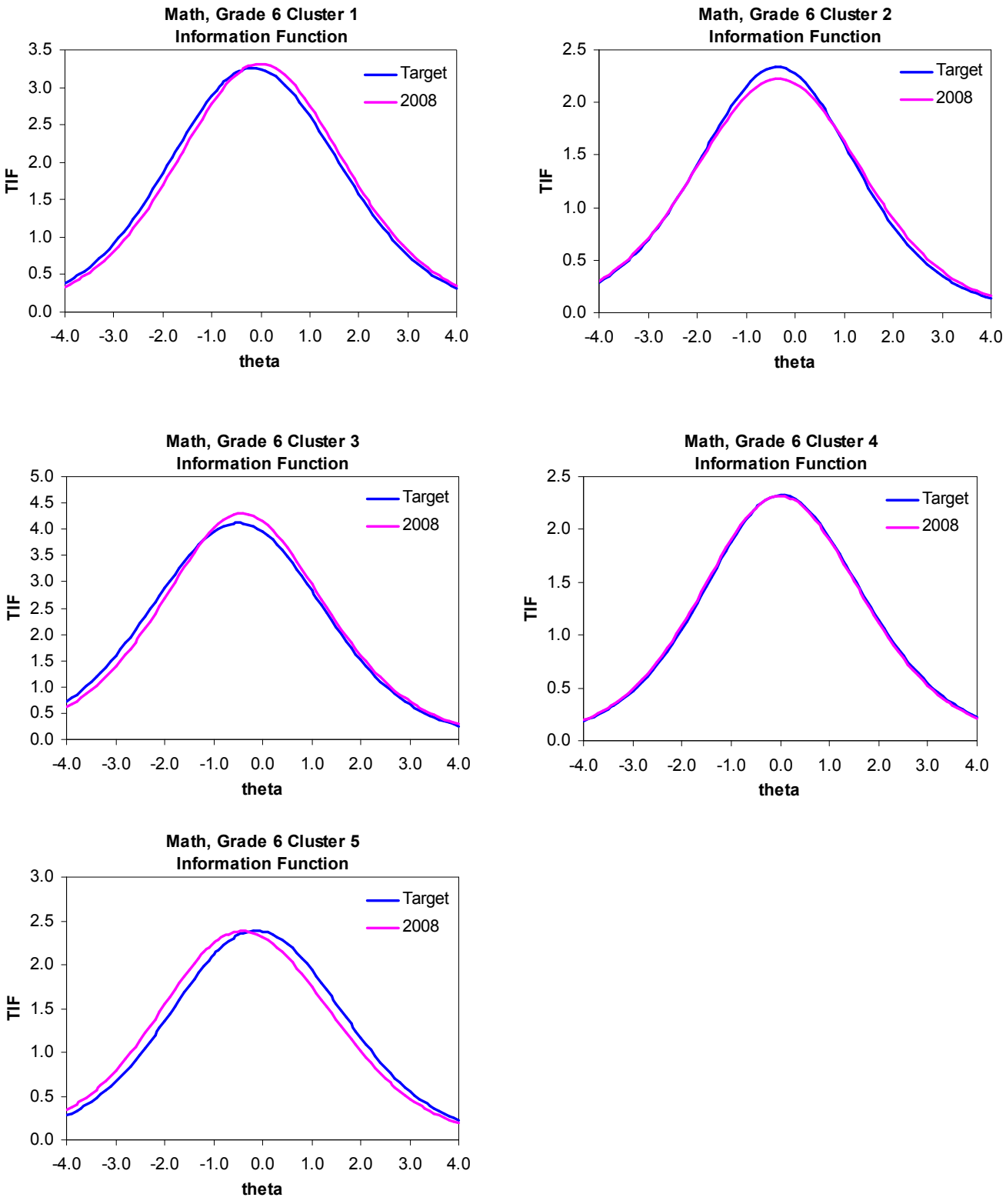


Figure 2.C.19 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Mathematics, Grade Seven

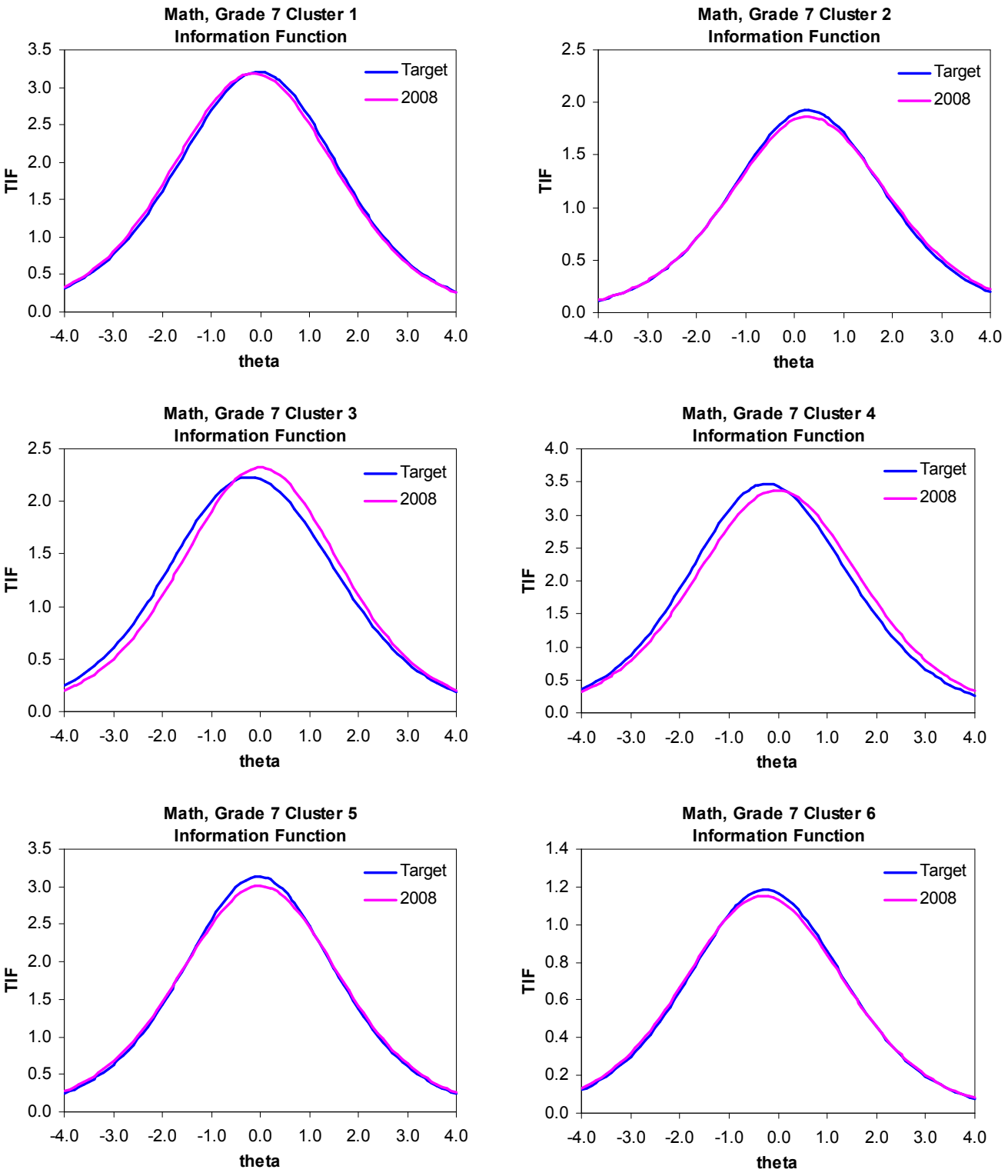


Figure 2.C.20 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Algebra I

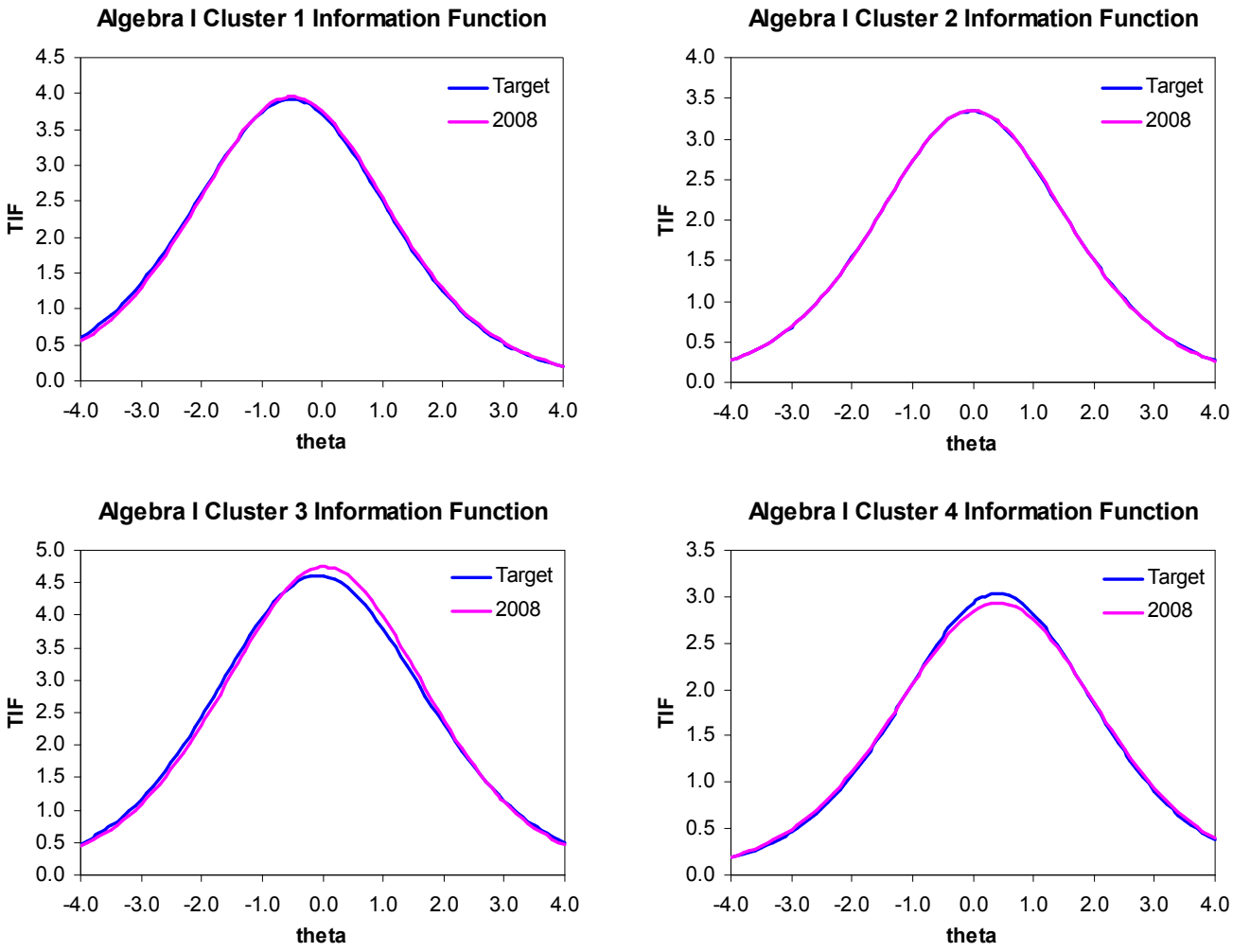


Figure 2.C.21 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Geometry

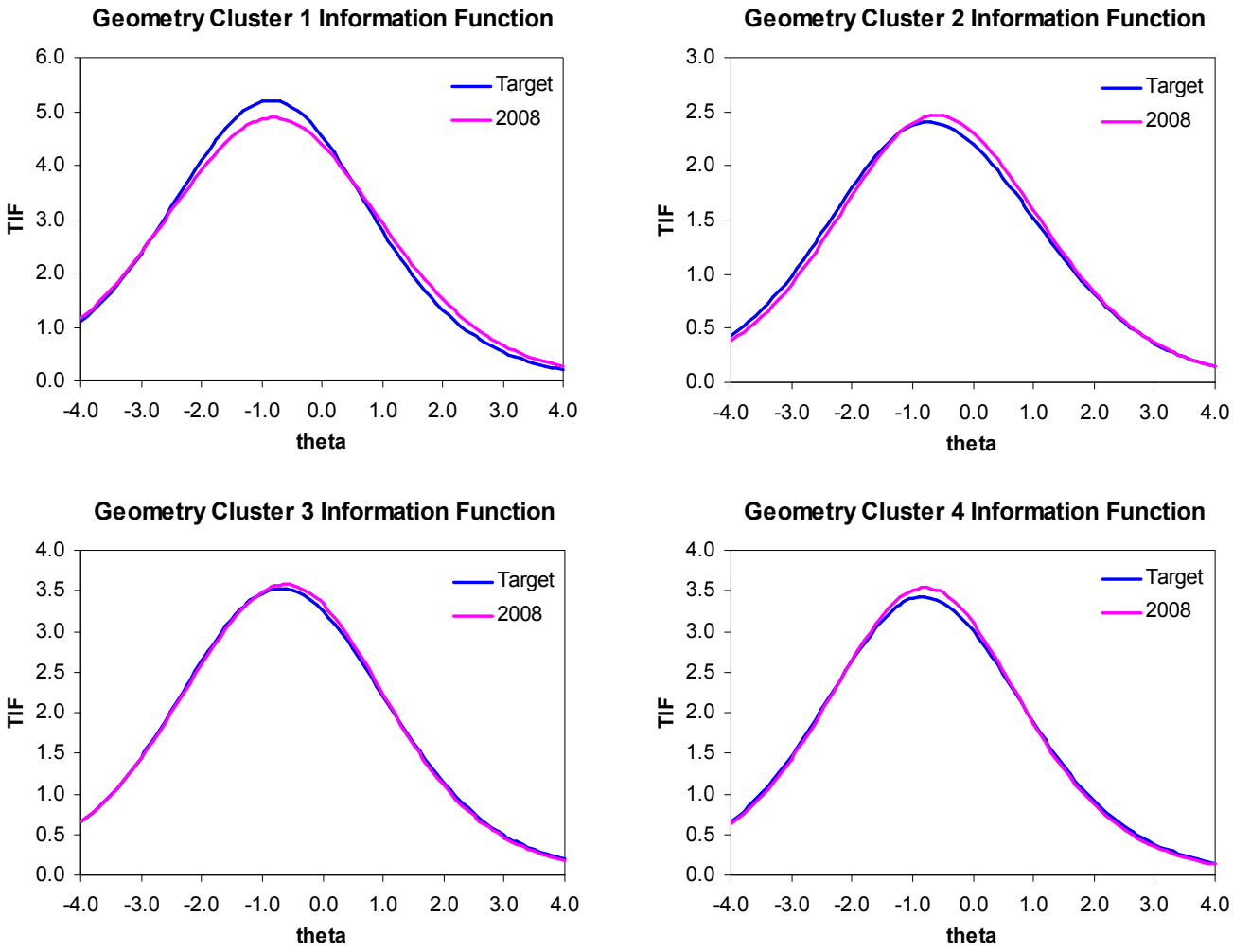


Figure 2.C.22 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Algebra II

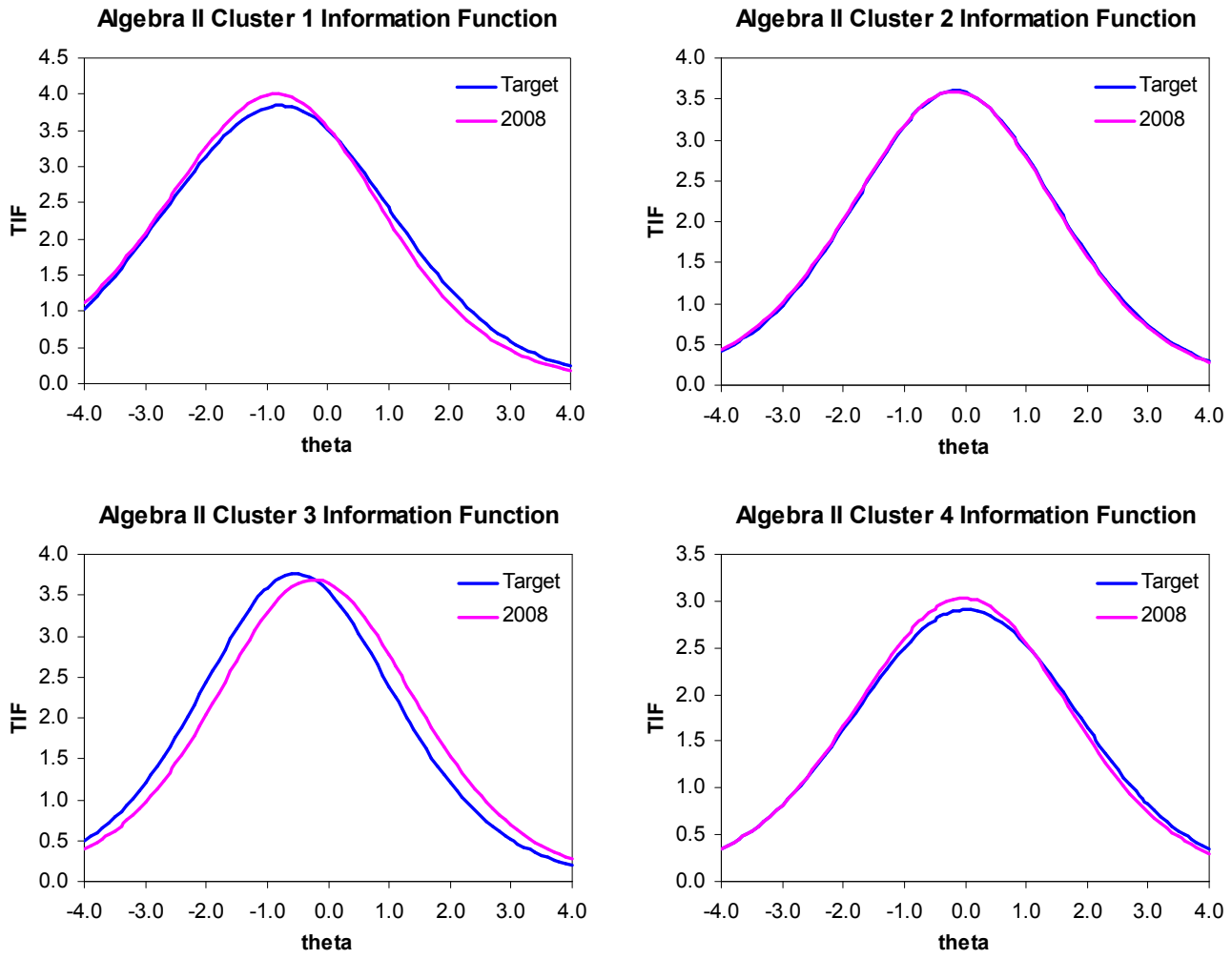


Figure 2.C.23 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Summative High School Mathematics

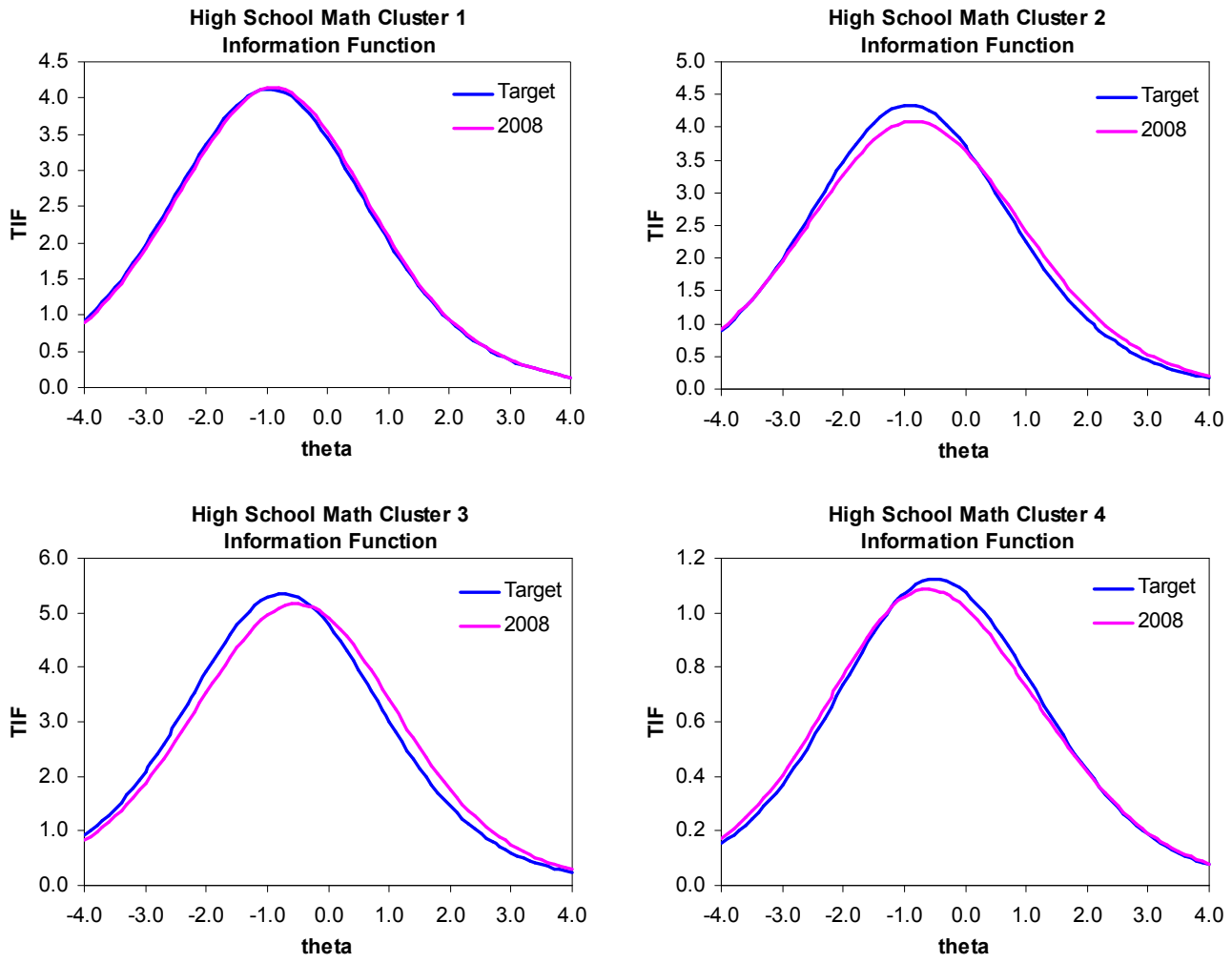


Figure 2.C.24 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Science, Grade Five

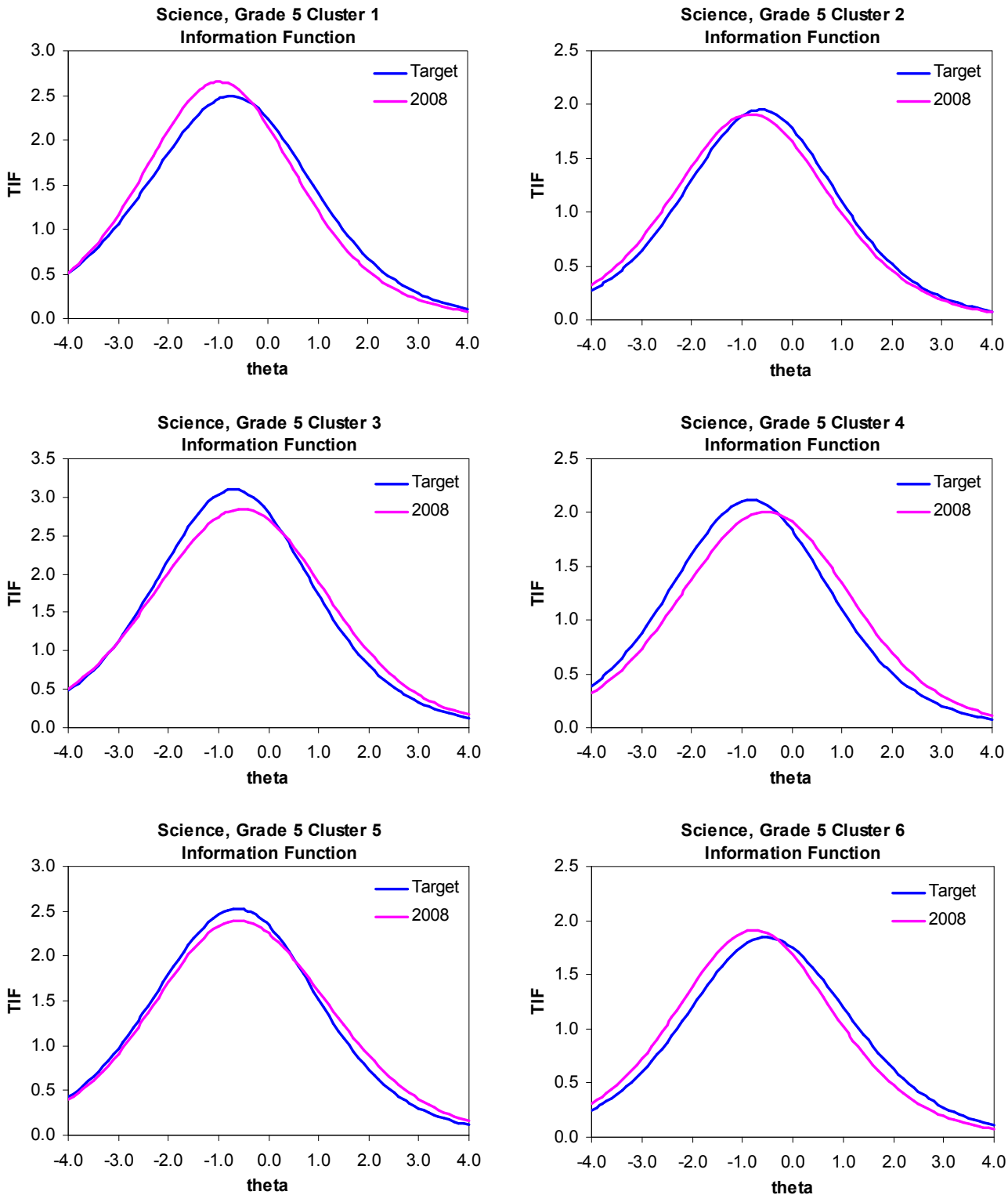


Figure 2.C.25 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Science, Grade Eight

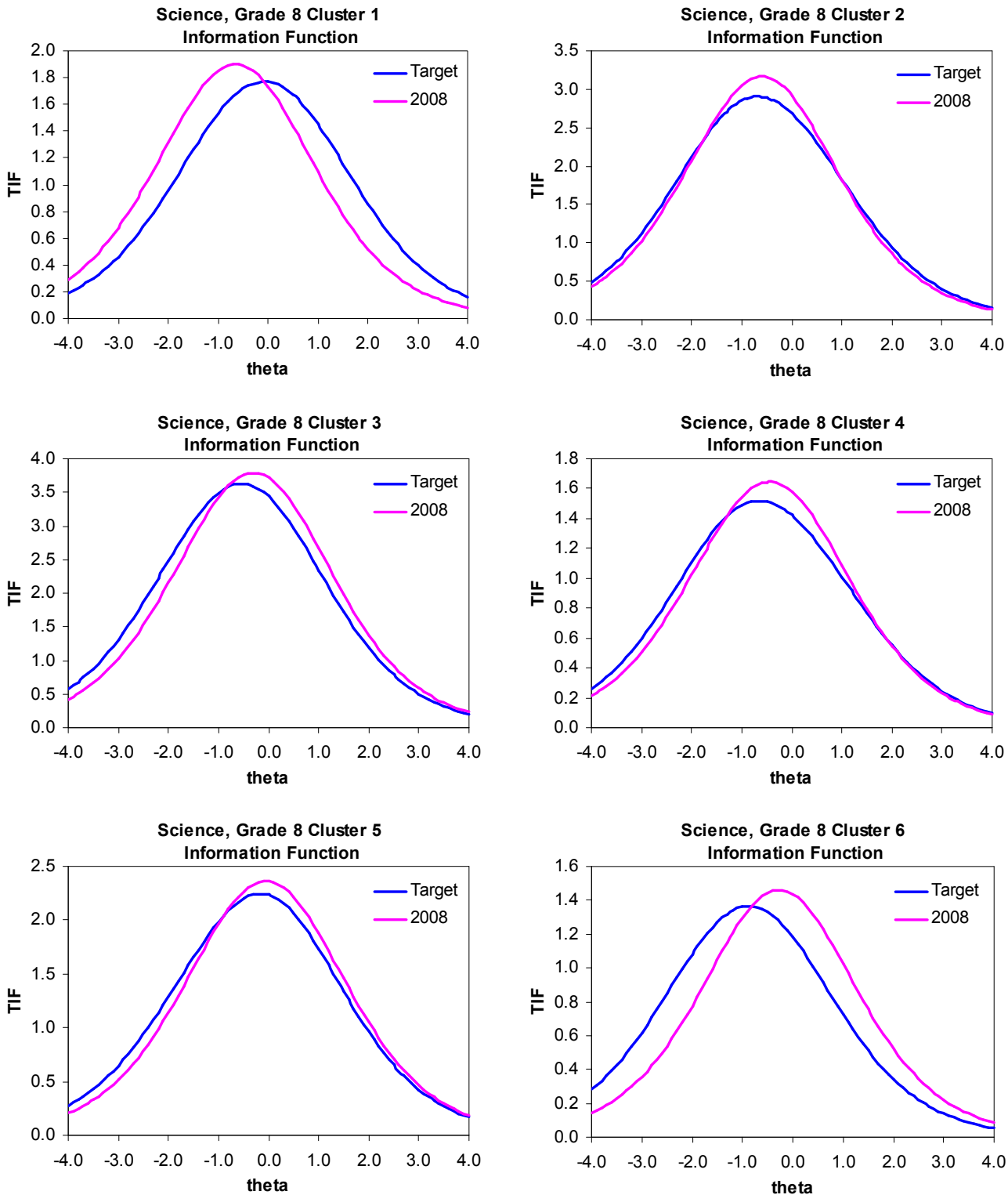


Figure 2.C.26 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Life Science, Grade Ten

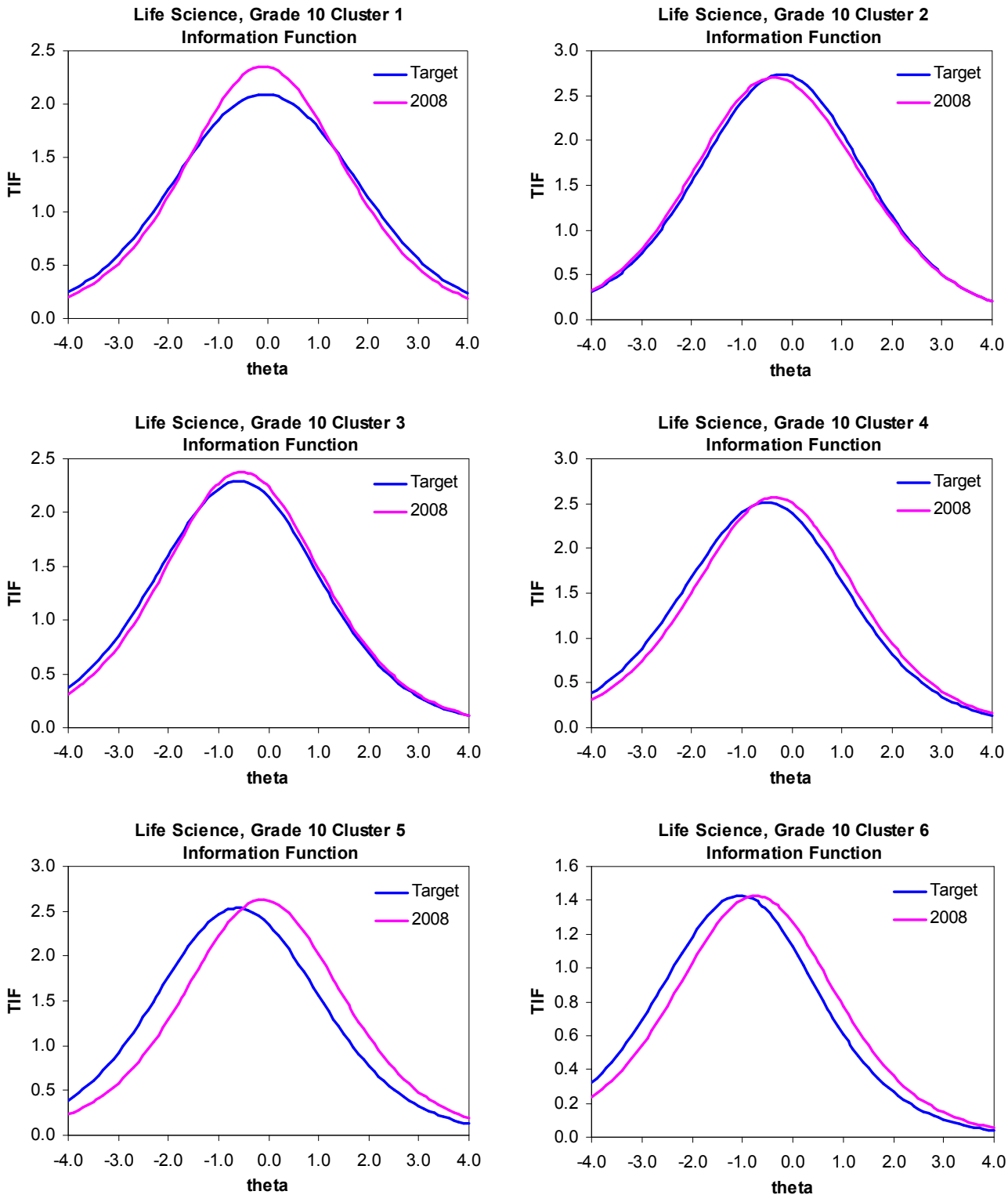


Figure 2.C.27 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Biology

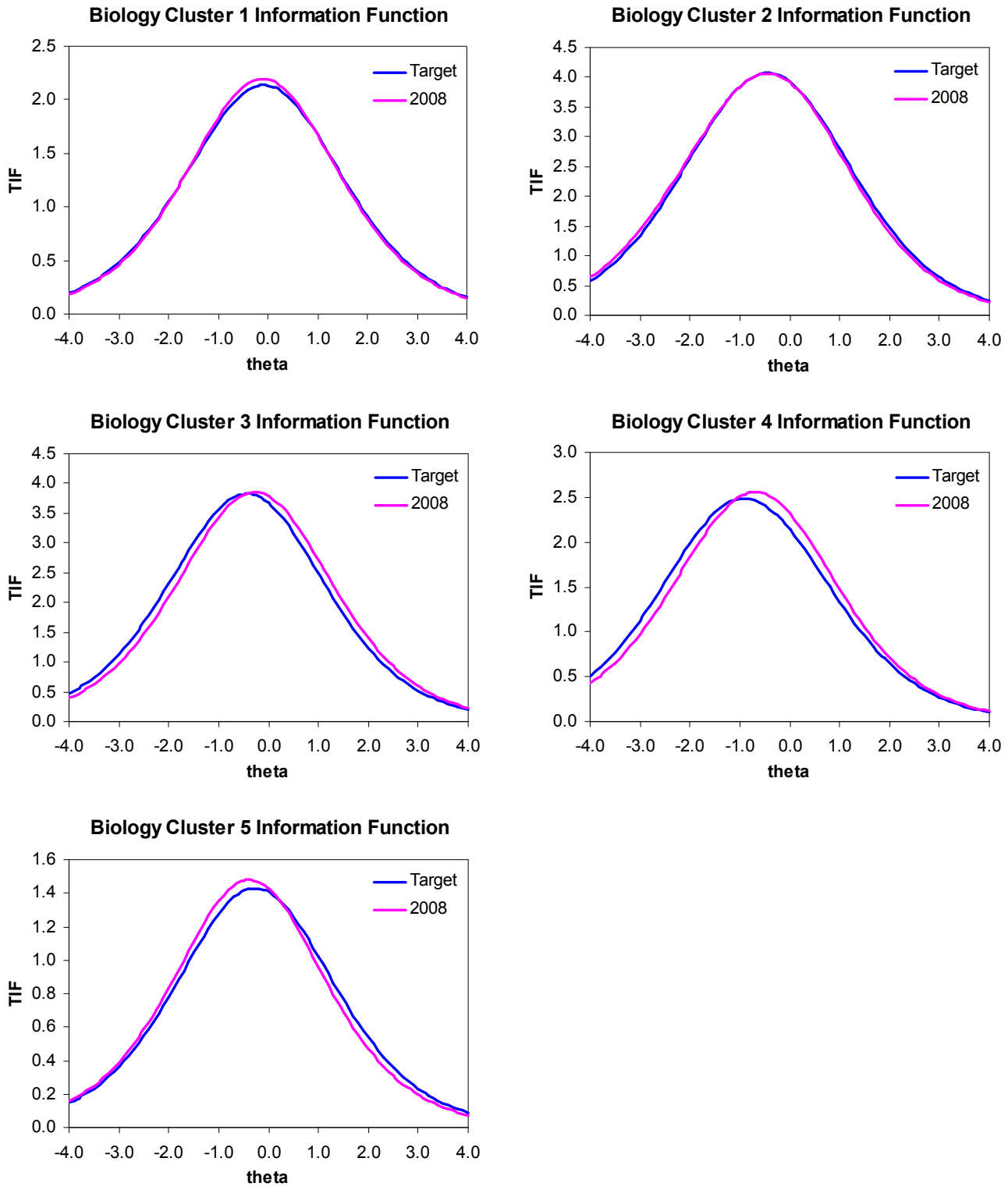


Figure 2.C.28 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Chemistry

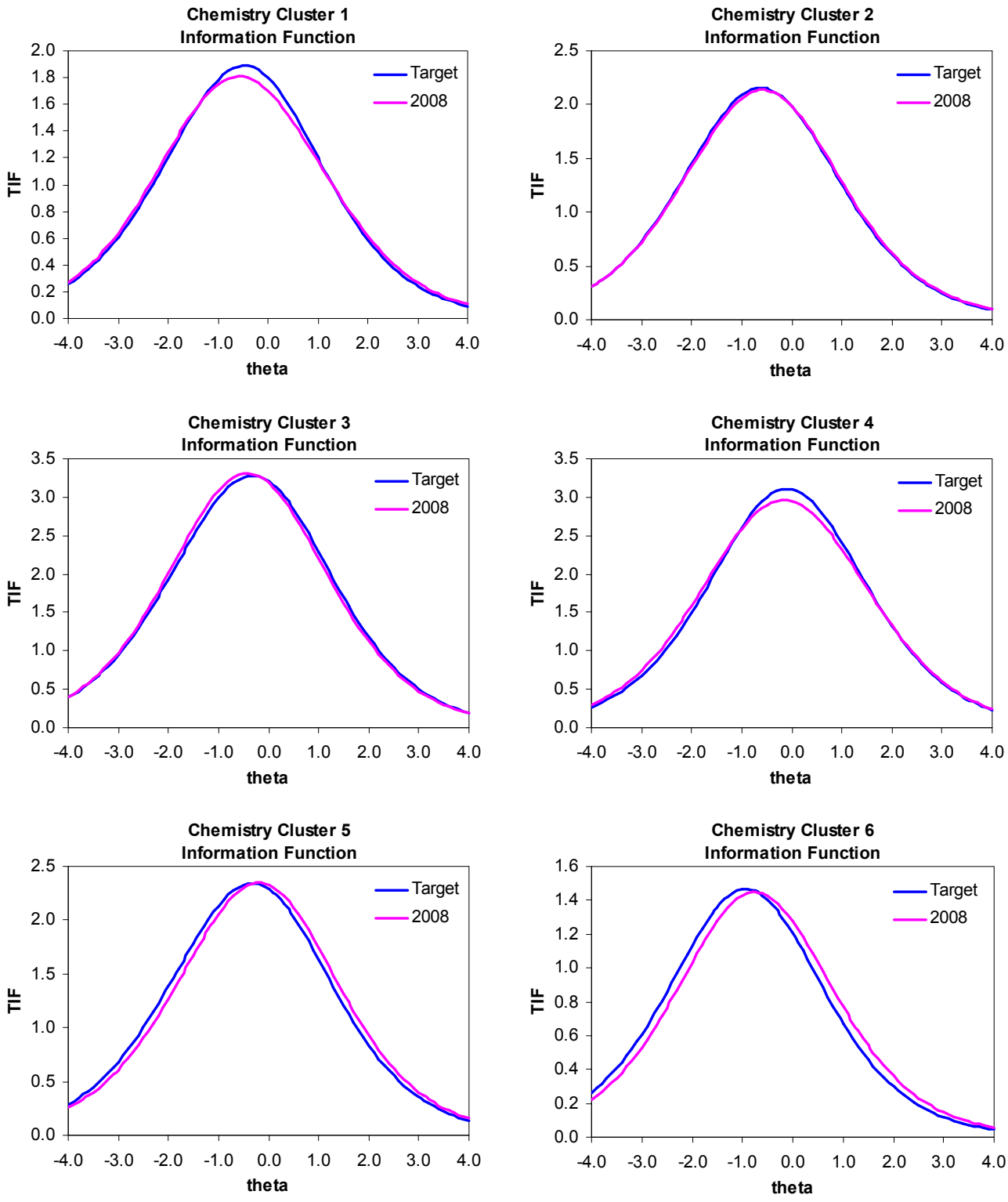


Figure 2.C.29 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Earth Science

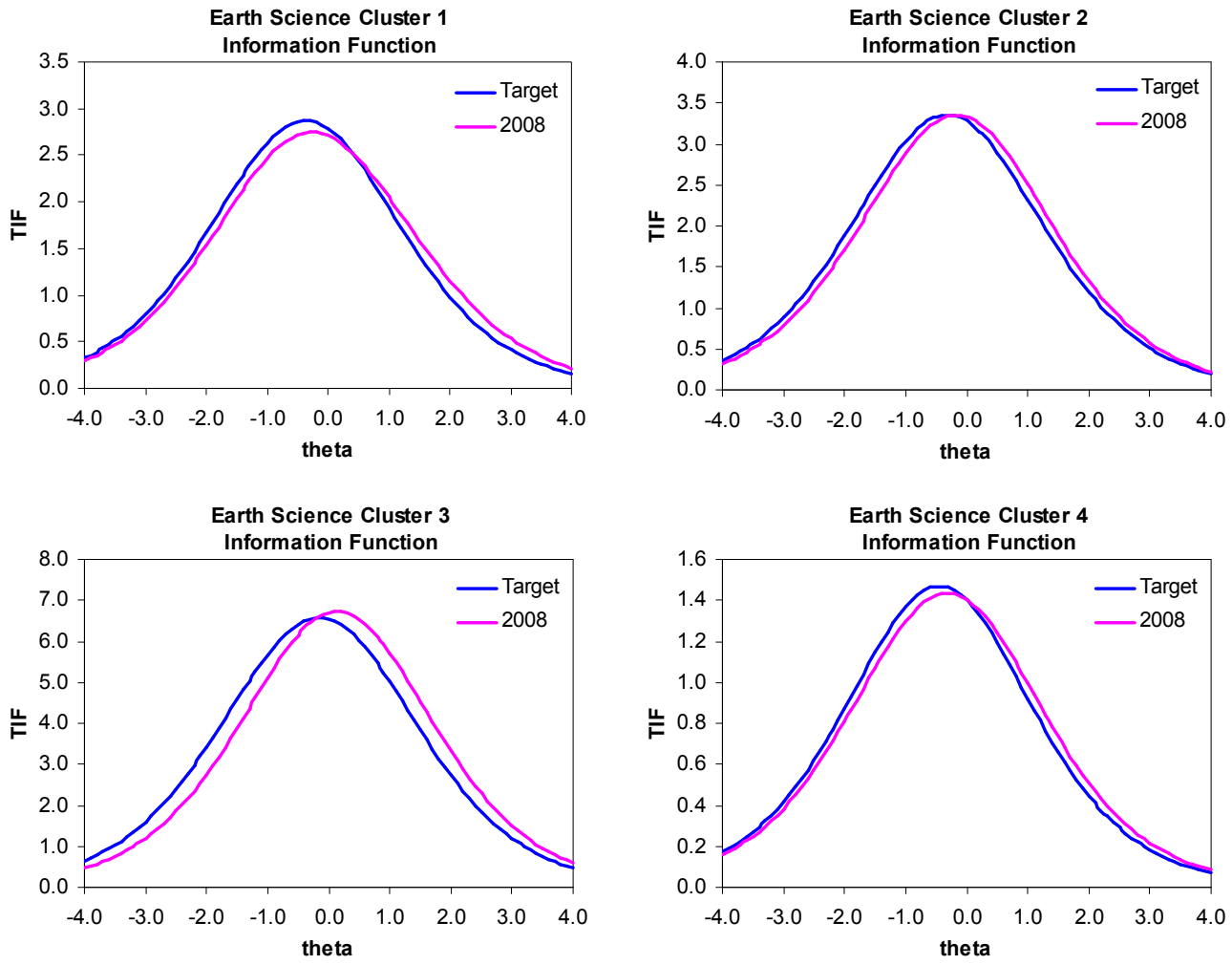
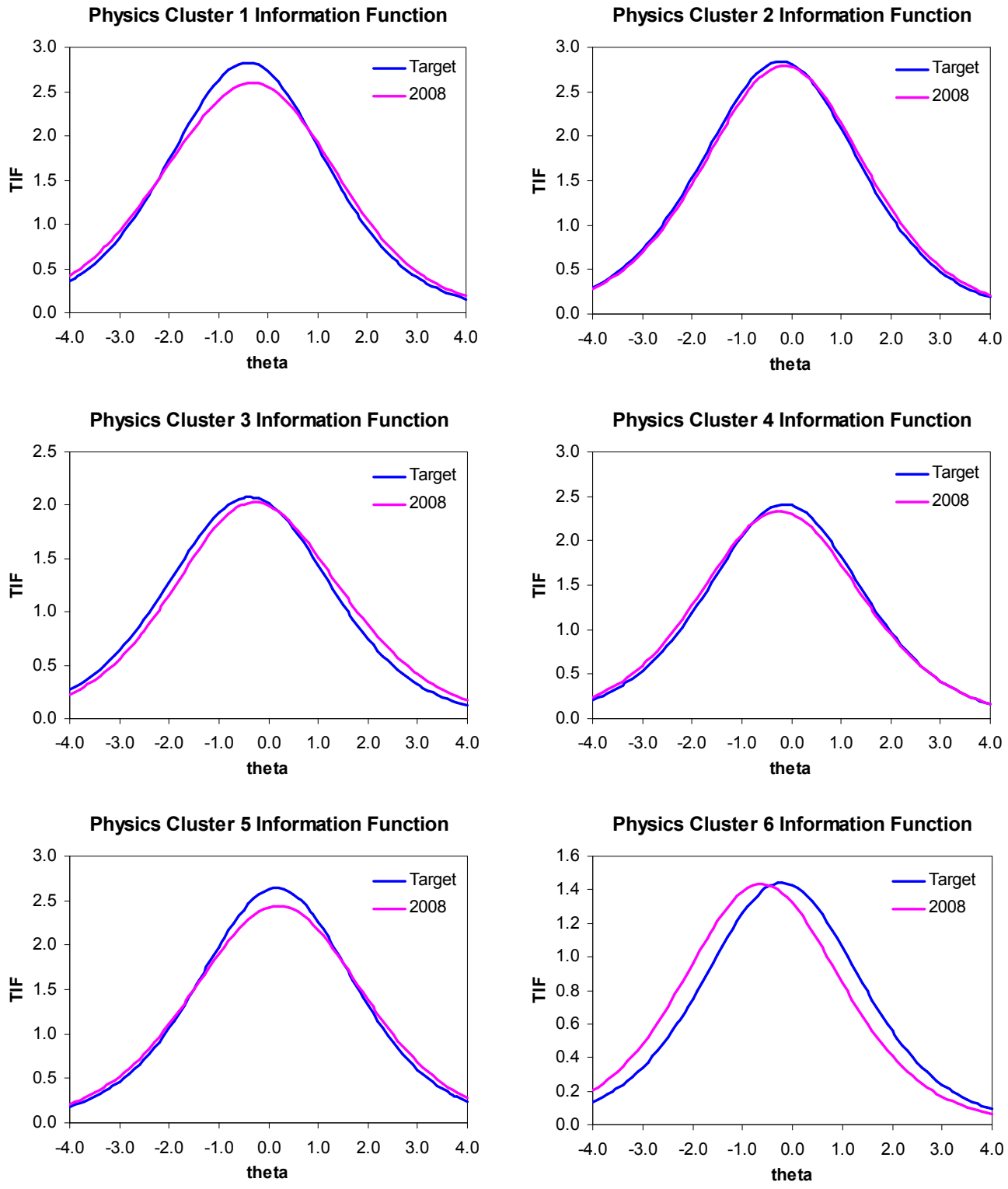


Figure 2.C.30 Comparison Plots for Target Cluster Information Function and Projected Cluster Information for Physics



Chapter 3: CST Equating Procedures

When test forms are created, two primary criteria must be simultaneously satisfied. The first is content-based; test items must be distributed according to content specifications. The second is statistical; the items must have a specified distribution of difficulty or specified average difficulty and a specified average discrimination (correlation between the item score and the test score). These criteria help ensure that all forms of a test are parallel (equally reliable and measure the same construct). However, despite the efforts taken when a test is constructed, forms of a test will still differ in difficulty to a small degree. The equating process is used to adjust for these small differences in difficulty so that test takers can be fairly compared regardless of the test form they take.

Test Construction and Review

The CSTs are assembled to content and statistical specifications. For the 2008 tests, target test information curves were specified to which the test developers assembled forms. See Figure 2.B.1 through Figure 2.B.4 in Chapter 2 for the relationship between the target and assembled forms. Each form contained some items that were the same as items used in the previous year; these items are called "linking" or "equating" items. The statistics for the linking items were obtained from the previous year's operational administration. Nonlinking item statistics were generally based on item statistics based on field-test samples or previous administrations of the same items.[1]

Post-Administration Operational Equating

The CSTs were equated to a reference form using a common-item nonequivalent groups design and methods based on item response theory. 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 2008 items were placed on scale through a set of linking items from the 2007 forms.

The procedures used for equating the CSTs involved three steps: item calibration, item parameter scaling, and true score equating. ETS uses a computer system called the Generalized Analysis System (GENASYS) for the IRT item calibration and equating work. As part of this system, a proprietary version of the PARSCALE computer program (Muraki and Bock 1995) was 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, and Julian 2002). The procedures described below were applied to all CSTs, except the four CSTs for Integrated/Coordinated Science. Special scaling procedures used for these CSTs will be described later in this section.

Calibration

For the item calibrations, the PARSCALE program was constrained by setting a common discrimination value for all items equal to 1.0 / 1.7 (or 0.588) and by setting the lower asymptote for all multiple-choice items to zero. The resulting estimation is equivalent to the Rasch model for multiple-choice items and the Rasch partial credit model for polytomously scored items (used for the essays in grades four and seven English–language arts). This is in keeping with previous CST equating and scaling procedures carried out using the WINSTEPS program (Linacre 2000). For the purpose of score 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 imposed normal constraints on the updated prior ability distribution. The estimates resulting from this first stage are used as starting values for a second

[1] For some tests, IRT parameter estimates were not available for a small number of items. In these cases, a reduced information function was used as a target. Classical statistics were used to select the remaining items.

PARSCALE run, in which the subject prior distribution is updated after each expectation maximization (EM) cycle with no constraints. For both stages, the metric of the scale is controlled by the constant discrimination parameters.

Scaling

Calibrations of the 2008 forms were scaled to the previously obtained reference scale estimates using the Stocking and Lord (1983) procedure. In the case of one-parameter model calibrations, this procedure is equivalent to setting the mean of the new item parameter estimates for the common items equal to the mean of the previously scaled estimates. As is commonly done in this approach, the linking process was carried out iteratively by inspecting differences between the transformed new and old (reference) estimates for the linking items and removing items for which the item difficulty estimates changed significantly. Items with large weighted root-mean-square differences (WRMSD) between item characteristic curves (ICCs) based on the old and new difficulty estimates were removed from the linking set. The differences were calculated using the following formula:

$$\text{WRMSD} = \sqrt{\sum_{j=1}^{61} w_j \left[P_n\left(\theta_j\right) - P_r\left(\theta_j\right)\right]^2} \quad , \tag{3.1}$$

where,

θ_j ranges from -3.0 to 3.0 by increments of 0.1,

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 level j, and

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

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

Table 3.1 presents, for each CST content area and grade level, the number of common items between the 2008 (new) and the test form to which it was linked (reference); the numbers of items removed from the common item sets; the correlation between the final set of new and reference difficulty estimates for the linking items; and the average WRMSD statistic (see equation 3.1) across the final set of common items.

The results indicate that the new and old difficulty estimates were highly correlated (.96 or higher) and similar in magnitude (average WRMSD values of 0.04 and lower).

Table 3.1 Evaluation of Common Items Between New and Reference Test Forms

Subject	CST	No. of Linking Items	Linking Items Removed	Final Correlation	WRMSD*
English–Language Arts	**2**	25		0.98	0.02
	3	29		1.00	0.01
	4	26		0.99	0.02
	5	27		0.98	0.03
	6	26		0.97	0.03
	7	25		0.98	0.03
	8	26		0.98	0.02
	9	35		0.97	0.02
	10	28		0.98	0.02
	11	24		0.96	0.02

Subject	CST	No. of Linking Items	Linking Items Removed	Final Correlation	WRMSD*
History–Social Science	**8**	34		0.98	0.02
	World History	30		0.96	0.02
	11	28		0.98	0.02
Mathematics	**2**	30		0.99	0.02
	3	31		0.99	0.03
	4	31		0.98	0.02
	5	29		0.99	0.02
	6	26		0.98	0.02
	7	26		0.99	0.02
	General Mathematics	26		0.99	0.02
	Algebra I	26		0.98	0.02
	Geometry	32		0.98	0.03
	Algebra II	30		0.99	0.02
	Summ. H.S. Mathematics	31		0.99	0.02
	Integrated Mathematics 1	30		0.98	0.03
	Integrated Mathematics 2	26		0.97	0.03
	Integrated Mathematics 3	32	3	0.98	0.06
Science	**Grade 5 Science**	29		0.98	0.03
	Grade 8 Science	27		0.98	0.02
	Grade 10 Life Science	27		0.96	0.02
	Biology	29		0.98	0.02
	Chemistry	28		0.97	0.03
	Earth Sciences	25		0.98	0.02
	Physics	26		0.98	0.02
	Integrated Science 1†	N/A	N/A	N/A	N/A
	Integrated Science 2†	N/A	N/A	N/A	N/A
	Integrated Science 3†	N/A	N/A	N/A	N/A
	Integrated Science 4†	N/A	N/A	N/A	N/A

* Average over retained items

† Special scaling procedures were utilized to determine the proficiency levels and scale scores for the CSTs for Integrated/Coordinated Science, which are discussed later in this chapter

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 reference conversions for the 2008 forms were taken from either the 2002, 2003, 2004, or 2006 forms[2] (see Table 3.3 on page 70 for specifics).

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

[2] 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 grade eight test, the mathematics grades two through seven tests, and Integrated Mathematics 1, 2, and 3 tests). The remaining equatings are based on the tests from 2002. The exceptions to this are the CST for Grade 5 Science test, which is equated to this test's first operational administration in 2004 and the CST for Grade 8 Science and CST for Grade 10 Life Science tests, which are equated to these tests' first operational administration in 2006.

$$\xi(\theta) = \sum_{i=1}^{n} P_i(\theta), \tag{3.2}$$

where,

$P_i(\theta)$ is the probability of a -response to item *i* at ability level θ (defined by the Rasch model),

$\xi(\theta)$ is the corresponding true score, and

the summation is over the *n* items in the test.

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

$$\xi(\theta) = \sum_{i=1}^{nmc} P_i(\theta) + \sum_{j=1}^{ncr} \sum_{x=1}^{m} s_x P_{xj}(\theta), \tag{3.3}$$

where,

s_x is the score value for 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 in each polytomous item, and

$P_{xj}(\theta)$ is the probability of a score in category x at ability θ (defined by the Rasch partial credit model).

For ELA, there are five possible scores: 0, 2, 4, 6, and 8. The score is determined on the basis of a single reading of an essay, by using a 4-point rubric and doubling the essay score. A score of zero is assigned only to students who refused to write to the prompt, left their essay blank, or wrote to a prompt from an earlier administration.

For each integer score ξ_n on the new form, the true-score equating procedure first solves for the corresponding ability level using equations 3.2 (for all CSTs except the CSTs for ELA in grades four and seven) or 3.3 (for the CSTs for ELA for grades four and seven). Next, the procedure uses that ability level 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 2008 CSTs are presented in Table 3.A.1 through Table 3.A.23 starting on page 75 The raw scores and corresponding unrounded converted scale scores are listed on those tables. For all the 2008 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 proficiency-level cut points are presented in Table 3.6 on page 72.

Equating the Braille Versions of the CSTs

In some cases, items contained in tests may not be braillable. Tests for which this situation occurred in 2008 included the CST for Physics (one item) and the CST for Integrated/Coordinated Science 1 (one item). To obtain a conversion for the shortened test, those items were dropped from the tests, and the shortened test was equated to the full-length test using the parameters and IRT equating methods described above. When a braille conversion was developed for the braille form, the performance levels were based on the operational raw-to-scale-score conversions for the shortened tests.

Equating Samples

This section describes characteristics of the samples used to establish the 2002 reference forms as well as the equating samples used to equate the CSTs in subsequent years. To establish the 2002 reference forms, ETS staff drew samples from the 2002 administrations 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 a case that reflects only the schools that tested early, 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 content areas being assessed, except end-of-course mathematics, 10,000 test takers were randomly sampled from the available records. For the CSTs for higher-level mathematics, samples were limited to students in particular grades, as was done in past equatings prior to 2002 (see Table 3.2, below). For the CSTs for Integrated Mathematics, all the student results that were available were sampled, which for each test was substantially fewer than 10,000.[3]

Table 3.2 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

Starting with 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 utilize these partial student samples for equating to meet score reporting deadlines. In addition, for the CSTs for Integrated Mathematics, it was necessary to sample all students with valid scores, regardless of their grades, in order to obtain sufficient sample sizes for equating. This change from the intended sampling procedures was made because of the unusually small sample sizes for these tests and was approved by the CDE. For the other end-of-course mathematics tests, grade-specific equating samples were used from 2003 to 2007. Starting in 2008, equatings of all end-of-course mathematics tests were based on sampling from the total populations rather than grade-specific populations. Only students with valid results on the CSTs were included in the equating samples.

Table 3.3, on the next page, summarizes the numbers of students, the mean raw scores, and the standard deviation of raw scores for the reference and 2008 CST equating samples.

[3] In general, the early sample means are similar, but not identical, to the means for the state as a whole. Performance similarities also differ by grade and test. Such variation is expected, given that only students from districts that completed their STAR testing early could be included in the equating samples.

Table 3.3 Summary Statistics for the Reference Form and 2008 Equating Samples

Subject	CST	Ref. form admin.	Reference Form Equating Samples				2008 Equating Samples			
			No. of Students	No. of Items/ Pts	Mean	Std Dev	No. of Students	No. of Items/ Pts	Mean	Std Dev
English–Language Arts	**2**	2003	13,418	65	38.7	13.1	47,147	65	38.7	13.3
	3	2003	13,946	65	40.3	13.0	45,913	65	40.3	12.2
	4*	2003	11,768	83	46.7	15.1	36,438	83	51.6	15.3
	5	2003	14,121	75	40.7	13.4	45,511	75	45.8	13.6
	6	2003	15,387	75	43.5	13.9	44,124	75	45.3	14.0
	7*	2003	13,594	83	47.9	13.8	39,604	83	51.1	15.6
	8	2003	15,339	75	42.4	12.9	44,621	75	45.0	14.1
	9	2003	25,591	75	43.6	14.1	62,081	75	45.3	15.3
	10	2003	23,555	75	41.7	14.8	59,169	75	46.8	16.0
	11	2003	21,742	75	41.7	14.4	55,863	75	43.8	15.6
	* The CSTs for ELA in Grades 4 and 7 include one eight-point essay item.									
History–Social Science	**8**	2003	15,314	75	37.0	11.4	44,567	75	37.8	13.9
	World History*	2002	10,000	60	27.7	10.4	59,480	60	30.9	12.4
	11	2002	10,000	60	29.9	10.8	54,736	60	31.6	12.2
	* This test was administered as Grade 10 History–Social Science in 2002.									
Mathematics	**2**	2003	13,491	65	48.5	10.9	47,187	64†	45.3	11.8
	3	2003	14,038	65	44.0	11.8	46,117	65	47.3	11.9
	4	2003	14,235	65	43.8	13.1	45,184	65	46.5	12.6
	5	2003	14,178	65	35.9	11.8	45,721	65	39.5	13.0
	6	2003	15,404	65	36.8	12.2	44,207	65	38.2	12.9
	7	2003	16,018	65	34.8	11.8	38,328	65	35.2	12.5
	General Mathematics.	2002	10,000	65	29.8	10.2	31,201	65	30.7	11.7
	Algebra I	2002	10,000	65	35.8	11.5	85,626	65	28.6	11.0
	Geometry	2002	10,000	65	43.2	10.9	45,219	65	34.5	12.7
	Algebra II	2002	10,000	65	37.5	10.8	27,204	65	34.2	11.4
	Summ. H.S. Math	2002	10,000	65	44.4	11.7	12,970	65	45.0	11.6
	Integrated Mathematics 1	2003	1,668	65	23.6	8.8	3,579	65	26.1	9.5
	Integrated Mathematics 2	2003	1,130	65	31.1	10.6	1,857	65	30.4	11.9
	Integrated Mathematics 3	2003	1,065	65	31.1	11.6	589	65	35.5	11.1
Science	**Grade 5 Science**	2004	24,963	60	26.2	8.6	45,610	60	38.0	10.5
	Grade 8 Science	2006	42,868	60	28.6	9.6	44,474	60	37.5	11.5
	Grade 10 Life Science	2006	74,981	60	30.6	12.0	57,911	60	36.1	12.9
	Biology	2002	10,000	60	32.4	11.2	61,153	60	36.5	12.3
	Chemistry	2002	10,000	60	32.3	10.4	25,920	60	36.4	11.5
	Earth Sciences	2002	10,000	60	29.1	10.9	35,150	60	34.4	11.4
	Physics	2002	10,000	60	32.9	11.7	6,646	60	36.3	11.4

† An item was pinned for the CST for Grade 2 Mathematics; the test length was reduced from 65 to 64 items.

Scaling the CSTs for Integrated/Coordinated Science

Special scaling procedures were used to determine the proficiency levels and scale scores for the CSTs for Integrated/Coordinated Science. Because these tests were restructured for 2003, it was not possible to equate them back to the 2002 CSTs. In subsequent years, the available representative samples for some of these tests were also extremely limited, making the estimation of stable item

parameters difficult. Furthermore, it was determined that the performance necessary to reach each proficiency level category should be based on the cut scores of the four content-based CSTs for science: Earth Science, Biology, Chemistry, and Physics).[4] To achieve this, the composite performance level cut scores for the CSTs for Integrated/Coordinated Science were determined through the following steps:

1. First, as with the other CSTs, each 2008 content-area CST (Biology, Chemistry, Earth Science, and Physics) was equated to a reference form. Additional equatings were then carried out in which each subset of items in each integrated test was equated to the respective full-length 2008 test. This resulted in 16 additional equatings.
2. For each equating, the equated number-correct was recorded on the subset of items that corresponded to each of the four performance-level cut points on the full content-specific test.
3. For each integrated test, these number-correct equivalents were added together across the content areas to determine the total number-correct scores that represented the "composite" cut scores between performance levels.

As an illustration, the number-correct scores defining each of the proficiency-level cut points on the 60-item, content-specific science CSTs are shown below. For example, the minimum number-correct score to achieve below basic on the CST for Biology is 20, the minimum number-correct score to achieve basic is 26, and so forth.

Table 3.4 Proficiency-Level Cut Points for Science End-of-Course CSTs

Content Cuts	Biology	Chemistry	Earth Science	Physics
Below Basic	20	23	22	19
Basic	26	29	28	25
Proficient	40	43	41	38
Advanced	50	51	50	48
Items in CST	60	60	60	60

For each content-specific test, a subset of the 60 items was also included in the CST for Integrated/Coordinated Science 1. Using just these subsets of items, equated number-correct scores were determined as shown in Table 3.5 on page 72. For example, 12 Biology items were included on the CST for Integrated/Coordinated Science 1, and on these items, the minimum number-correct score to achieve below basic was 3.9124. The last column of the table shows the sum of the cuts (truncated to achieve an integer value). These defined the proficiency-level cut scores for the 2008 CST for Integrated/ Coordinated Science 1.[5]

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

[5] 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.

Table 3.5 Computation of Proficiency-Level Cut Points on Integrated/Coordinated Science 1

Equated Cuts	Biology	Chemistry	Earth Science	Physics	Int. 1 Cut
Below Basic	3.9124	6.7321	7.4181	3.3942	21
Basic	5.1688	8.3659	9.4018	4.6836	27
Proficient	8.0853	11.9715	13.5482	7.6951	41
Advanced	10.0948	13.9062	16.2482	10.132	50
N items	12	16	19	13	

For each CST for Integrated/Coordinated Science, the proficiency-level cuts were translated to scale scores. For basic and proficient, scale scores of 300 and 350 defined these cuts. For below basic and advanced, scale scores[6] at levels similar to those for the other science CSTs were assigned on the basis of scaling functions.

Table 3.6 Scale Scores Defining the Various-Proficiency-Level Cut Points

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

[6] The arbitrary scale scores are obtained by linear interpolation of thetas corresponding to the raw scores. The source tables with thetas and unrounded scale scores have not been provided in this report for the sake of brevity. This information will be provided upon request.

Subject	CST	Far Below Basic	Below Basic	Basic	Proficient	Advanced
Science	**Science Grade 5**	150 – 267	268 – 299	300 – 349	350 – 409	410 – 600
	Science Grade 8	150 – 252	253 – 299	300 – 349	350 – 402	403 – 600
	Grade 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 Science	150 – 276	277 – 299	300 – 349	350 – 392	393 – 600
	Physics	150 – 275	276 – 299	300 – 349	350 – 392	393 – 600
	Integrated Science 1	150 – 276	277 – 299	300 – 349	350 – 389	390 – 600
	Integrated Science 2	150 – 277	278 – 299	300 – 349	350 – 390	391 – 600
	Integrated Science 3	150 – 275	276 – 299	300 – 349	350 – 390	391 – 600
	Integrated Science 4	150 – 275	276 – 299	300 – 349	350 – 396	397 – 600

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Appendix 3.A—New Form Conversion Tables

Table 3.A.1 2008 New Conversions for English–Language Arts, 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**	0.5651	340.7835	341	**0**	N/A	-12.3991	150	**41**	0.2271	321.9276	322
1	4.4338	85.6278	150	**42**	0.6387	344.5198	345	**1**	-4.7993	51.6020	150	**42**	0.3007	326.1416	326
2	-3.7158	124.2466	150	**43**	0.7136	348.2170	348	**2**	-4.0807	90.2500	150	**43**	0.3757	330.0339	330
3	-3.2851	146.7163	150	**44**	0.7901	351.8920	352	**3**	-3.6494	114.2332	150	**44**	0.4522	334.0865	334
4	-2.9721	162.4282	162	**45**	0.8684	355.9242	356	**4**	-3.3357	131.4364	150	**45**	0.5305	338.4546	338
5	-2.7234	175.1580	175	**46**	0.9487	360.0175	360	**5**	-3.0863	144.9503	150	**46**	0.6107	342.4525	342
6	-2.5154	185.8279	186	**47**	1.0315	364.1366	364	**6**	-2.8775	156.2224	156	**47**	0.6932	346.8336	347
7	-2.3353	194.8401	195	**48**	1.1169	368.5164	369	**7**	-2.6967	165.8220	166	**48**	0.7783	351.6359	352
8	-2.1758	202.8066	203	**49**	1.2055	372.9688	373	**8**	-2.5363	174.3187	174	**49**	0.8665	356.3494	356
9	-2.0318	210.0365	210	**50**	1.2977	377.4512	377	**9**	-2.3915	182.1103	182	**50**	0.9581	361.3264	361
10	-1.9000	216.7130	217	**51**	1.3940	382.2113	382	**10**	-2.2588	189.2824	189	**51**	1.0538	366.3519	366
11	-1.7780	222.9720	223	**52**	1.4952	387.3707	387	**11**	-2.1360	195.8417	196	**52**	1.1543	371.4268	371
12	-1.6642	228.6035	229	**53**	1.6021	392.8587	393	**12**	-2.0213	201.9184	202	**53**	1.2603	377.4022	377
13	-1.5570	234.0534	234	**54**	1.7158	398.5288	399	**13**	-1.9132	207.6743	208	**54**	1.3729	383.2891	383
14	-1.4555	239.0301	239	**55**	1.8377	404.5668	405	**14**	-1.8108	213.1619	213	**55**	1.4935	389.7355	390
15	-1.3589	244.1888	244	**56**	1.9694	411.1633	411	**15**	-1.7133	218.5396	219	**56**	1.6239	396.5358	397
16	-1.2663	248.6110	249	**57**	2.1136	418.4066	418	**16**	-1.6199	223.6661	224	**57**	1.7663	404.2105	404
17	-1.1774	253.0539	253	**58**	2.2734	426.6100	427	**17**	-1.5301	228.5062	229	**58**	1.9242	412.7571	413
18	-1.0916	257.5429	258	**59**	2.4539	435.6895	436	**18**	-1.4434	232.9937	233	**59**	2.1026	422.1654	422
19	-1.0085	261.4745	261	**60**	2.6627	446.2855	446	**19**	-1.3594	237.3544	237	**60**	2.3088	433.2380	433
20	-0.9278	265.7516	266	**61**	2.9124	459.2132	459	**20**	-1.2779	241.7468	242	**61**	2.5556	446.6980	447
21	-0.8492	269.7228	270	**62**	3.2268	475.7432	476	**21**	-1.1984	245.9087	246	**62**	2.8664	463.5120	464
22	-0.7724	273.5529	274	**63**	3.6592	499.0079	499	**22**	-1.1208	250.0948	250	**63**	3.2952	486.5539	487
23	-0.6971	277.3540	277	**64**	4.3797	532.5774	533	**23**	-1.0447	254.1051	254	**64**	4.0111	525.2435	525
24	-0.6233	281.1227	281	**65**	N/A	578.9992	600	**24**	-0.9701	258.1748	258	**65**	N/A	594.9791	600
25	-0.5507	284.8123	285					**25**	-0.8967	262.1000	262				
26	-0.4790	288.0741	288					**26**	-0.8244	265.8260	266				
27	-0.4083	291.7533	292					**27**	-0.7529	269.7587	270				
28	-0.3383	295.4018	295					**28**	-0.6822	273.7574	274				
29	-0.2688	298.9889	299					**29**	-0.6121	277.5844	278				
30	-0.1998	302.1058	302					**30**	-0.5424	280.9800	281				
31	-0.1312	305.6609	306					**31**	-0.4732	284.5764	285				
32	-0.0627	309.1847	309					**32**	-0.4041	288.3466	288				
33	0.0057	312.6767	313					**33**	-0.3352	292.1222	292				
34	0.0741	316.1370	316					**34**	-0.2662	295.9024	296				
35	0.1427	319.5655	320					**35**	-0.1972	299.6867	300				
36	0.2116	322.9616	323					**36**	-0.1279	303.0738	303				
37	0.2809	326.3256	326					**37**	-0.0582	306.7351	307				
38	0.3508	329.8684	330					**38**	0.0120	310.5275	311				
39	0.4213	333.4356	333					**39**	0.0829	314.3225	314				
40	0.4927	337.0309	337					**40**	0.1545	318.1181	318				

Table 3.A.2 2008 New Conversions for English–Language Arts, Grade Four (with and without essay)

Grade 4							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0014	150	**41**	-0.0153	318.8153	319
1	-4.9017	68.1731	150	**42**	0.0431	321.7550	322
2	-4.1887	106.0734	150	**43**	0.1014	324.6406	325
3	-3.7611	129.0955	150	**44**	0.1598	327.4536	327
4	-3.4496	145.3159	150	**45**	0.2182	330.3676	330
5	-3.2012	158.0790	158	**46**	0.2768	333.3929	333
6	-2.9924	168.6449	169	**47**	0.3356	336.4972	336
7	-2.8110	177.8332	178	**48**	0.3947	339.3303	339
8	-2.6496	186.0662	186	**49**	0.4542	342.2644	342
9	-2.5033	193.4646	193	**50**	0.5141	345.3537	345
10	-2.3691	200.1855	200	**51**	0.5746	348.4252	348
11	-2.2447	206.4112	206	**52**	0.6356	351.4784	351
12	-2.1285	212.2068	212	**53**	0.6973	354.5145	355
13	-2.0190	217.7493	218	**54**	0.7598	357.5316	358
14	-1.9155	223.0648	223	**55**	0.8232	360.7998	361
15	-1.8170	227.8260	228	**56**	0.8876	363.9778	364
16	-1.7229	232.8610	233	**57**	0.9531	367.3444	367
17	-1.6328	237.3413	237	**58**	1.0199	370.5123	371
18	-1.5462	241.8153	242	**59**	1.0881	373.9075	374
19	-1.4626	245.7921	246	**60**	1.1578	377.3921	377
20	-1.3819	249.9003	250	**61**	1.2293	381.1261	381
21	-1.3036	253.7506	254	**62**	1.3027	384.7571	385
22	-1.2276	257.5121	258	**63**	1.3784	388.5864	389
23	-1.1536	261.3026	261	**64**	1.4565	392.5207	393
24	-1.0815	265.0643	265	**65**	1.5374	396.5143	397
25	-1.0110	268.5443	269	**66**	1.6214	400.8732	401
26	-0.9421	272.0527	272	**67**	1.7090	405.2749	405
27	-0.8745	275.3364	275	**68**	1.8006	409.8203	410
28	-0.8082	279.0306	279	**69**	1.8970	414.6287	415
29	-0.7430	282.3380	282	**70**	1.9987	419.6675	420
30	-0.6788	285.6018	286	**71**	2.1068	425.1660	425
31	-0.6155	288.4035	288	**72**	2.2224	430.8679	431
32	-0.5531	291.6458	292	**73**	2.3469	437.0775	437
33	-0.4914	294.8869	295	**74**	2.4822	444.1992	444
34	-0.4303	297.8201	298	**75**	2.6308	451.9415	452
35	-0.3699	300.9464	301	**76**	2.7964	460.3657	460
36	-0.3099	304.0389	304	**77**	2.9841	470.4997	470
37	-0.2504	306.9026	307	**78**	3.2017	482.8183	483
38	-0.1912	309.8475	310	**79**	3.4623	498.3014	498
39	-0.1324	312.8312	313	**80**	3.7899	519.2310	519
40	-0.0737	315.7363	316	**81**	4.2386	549.4274	549
				82	4.9776	594.4322	594
				83	N/A	643.4993	600

Grade 4 (without essay)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0014	150	**41**	0.2543	331.8066	332
1	-4.5959	80.8389	150	**42**	0.3157	334.9560	335
2	-3.8773	121.3277	150	**43**	0.3774	338.0894	338
3	-3.4464	144.8640	150	**44**	0.4396	341.2062	341
4	-3.1334	161.2465	161	**45**	0.5022	344.3056	344
5	-2.8849	173.9881	174	**46**	0.5654	347.3869	347
6	-2.6774	184.5829	185	**47**	0.6294	350.7742	351
7	-2.4980	193.6655	194	**48**	0.6941	353.9912	354
8	-2.3392	201.5457	202	**49**	0.7597	357.1447	357
9	-2.1962	208.7004	209	**50**	0.8264	360.6257	361
10	-2.0656	215.3986	215	**51**	0.8943	363.9439	364
11	-1.9449	221.3166	221	**52**	0.9635	367.2933	367
12	-1.8324	226.9845	227	**53**	1.0342	371.1741	371
13	-1.7268	232.3929	232	**54**	1.1066	374.7839	375
14	-1.6271	237.4731	237	**55**	1.1809	378.3748	378
15	-1.5323	242.0220	242	**56**	1.2574	382.3128	382
16	-1.4417	246.5470	247	**57**	1.3363	386.2988	386
17	-1.3550	251.0636	251	**58**	1.4181	390.2480	390
18	-1.2715	255.1347	255	**59**	1.5030	394.4912	394
19	-1.1908	259.4703	259	**60**	1.5915	398.9027	399
20	-1.1128	263.3650	263	**61**	1.6842	403.7117	404
21	-1.0369	266.8273	267	**62**	1.7817	408.5959	409
22	-0.9632	270.7413	271	**63**	1.8849	413.9319	414
23	-0.8911	274.3405	274	**64**	1.9949	419.3046	419
24	-0.8207	277.6830	278	**65**	2.1129	425.1485	425
25	-0.7518	281.4174	281	**66**	2.2408	431.5646	432
26	-0.6841	284.7062	285	**67**	2.3808	438.8594	439
27	-0.6175	287.9937	288	**68**	2.5364	446.7083	447
28	-0.5519	291.2798	291	**69**	2.7124	455.4773	455
29	-0.4872	294.5613	295	**70**	2.9164	465.4520	465
30	-0.4233	297.8378	298	**71**	3.1610	477.9211	478
31	-0.3601	301.0844	301	**72**	3.4698	493.8673	494
32	-0.2974	304.1641	304	**73**	3.8963	515.7408	516
33	-0.2353	307.1307	307	**74**	4.6099	550.9674	551
34	-0.1735	310.3794	310	**75**	N/A	607.4990	600
35	-0.1121	313.5726	314				
36	-0.0509	316.5764	317				
37	0.0101	319.5655	320				
38	0.0711	322.7682	323				
39	0.1321	325.7294	326				
40	0.1931	328.6421	329				

Table 3.A.3 2008 New Conversions for English–Language Arts, 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**	0.0383	321.7718	322	**0**	N/A	0.0011	150	**41**	0.1143	322.6481	323
1	-4.8528	72.9448	150	**42**	0.1003	324.9499	325	**1**	-4.6188	77.8398	150	**42**	0.1740	325.6160	326
2	-4.1326	108.4894	150	**43**	0.1627	328.1320	328	**2**	-3.9052	116.9222	150	**43**	0.2340	328.5969	329
3	-3.7002	133.2070	150	**44**	0.2254	331.3151	331	**3**	-3.4791	139.2855	150	**44**	0.2945	332.0169	332
4	-3.3856	149.9837	150	**45**	0.2886	334.5007	335	**4**	-3.1706	154.9624	155	**45**	0.3555	334.9396	335
5	-3.1358	162.4287	162	**46**	0.3524	337.6874	338	**5**	-2.9266	167.7708	168	**46**	0.4171	338.1313	338
6	-2.9268	172.9561	173	**47**	0.4168	340.8749	341	**6**	-2.7232	178.0521	178	**47**	0.4795	341.2252	341
7	-2.7461	182.1519	182	**48**	0.4821	344.0637	344	**7**	-2.5478	187.1300	187	**48**	0.5426	344.5392	345
8	-2.5860	190.4221	190	**49**	0.5482	347.3728	347	**8**	-2.3929	194.9028	195	**49**	0.6068	347.5548	348
9	-2.4417	197.7932	198	**50**	0.6154	350.9386	351	**9**	-2.2536	201.9120	202	**50**	0.6720	350.8716	351
10	-2.3098	204.2476	204	**51**	0.6838	354.2348	354	**10**	-2.1266	208.3913	208	**51**	0.7385	354.2753	354
11	-2.1879	210.4779	210	**52**	0.7534	357.7042	358	**11**	-2.0095	214.3954	214	**52**	0.8063	357.8643	358
12	-2.0742	216.2057	216	**53**	0.8246	361.2364	361	**12**	-1.9004	219.9861	220	**53**	0.8757	361.4689	361
13	-1.9674	221.5266	222	**54**	0.8974	365.0137	365	**13**	-1.7982	225.3011	225	**54**	0.9468	365.1616	365
14	-1.8665	226.6215	227	**55**	0.9722	368.8300	369	**14**	-1.7016	230.1462	230	**55**	1.0198	368.6993	369
15	-1.7706	231.5139	232	**56**	1.0491	372.6433	373	**15**	-1.6100	234.9262	235	**56**	1.0950	372.3735	372
16	-1.6789	236.0344	236	**57**	1.1284	376.4533	376	**16**	-1.5226	239.4405	239	**57**	1.1728	376.5241	377
17	-1.5911	240.2873	240	**58**	1.2105	380.6517	381	**17**	-1.4388	243.5153	244	**58**	1.2533	380.5848	381
18	-1.5065	244.7665	245	**59**	1.2958	385.0712	385	**18**	-1.3582	247.5651	248	**59**	1.3370	384.8277	385
19	-1.4249	248.8074	249	**60**	1.3846	389.5026	390	**19**	-1.2805	251.5905	252	**60**	1.4244	389.4555	389
20	-1.3458	252.6407	253	**61**	1.4776	393.9707	394	**20**	-1.2053	255.5132	256	**61**	1.5160	393.9942	394
21	-1.2690	256.4042	256	**62**	1.5755	398.7489	399	**21**	-1.1322	259.0382	259	**62**	1.6125	398.7794	399
22	-1.1942	260.0964	260	**63**	1.6790	403.9440	404	**22**	-1.0611	262.8080	263	**63**	1.7147	404.0893	404
23	-1.1212	263.8150	264	**64**	1.7893	409.4889	409	**23**	-0.9918	266.4124	266	**64**	1.8237	409.8010	410
24	-1.0499	267.4348	267	**65**	1.9076	415.4644	415	**24**	-0.9240	269.8234	270	**65**	1.9407	415.6855	416
25	-0.9800	270.8892	271	**66**	2.0356	421.7054	422	**25**	-0.8576	273.0636	273	**66**	2.0676	422.0841	422
26	-0.9114	274.4038	274	**67**	2.1760	429.0640	429	**26**	-0.7923	276.5995	277	**67**	2.2067	429.3395	429
27	-0.8440	277.6428	278	**68**	2.3318	436.7487	437	**27**	-0.7282	279.9795	280	**68**	2.3614	437.1838	437
28	-0.7775	281.0678	281	**69**	2.5081	445.4693	445	**28**	-0.6650	283.1892	283	**69**	2.5366	446.0816	446
29	-0.7120	284.5093	285	**70**	2.7122	455.7156	456	**29**	-0.6027	286.3593	286	**70**	2.7397	456.6110	457
30	-0.6473	287.6683	288	**71**	2.9571	468.0084	468	**30**	-0.5411	289.5128	290	**71**	2.9835	469.3295	469
31	-0.5832	290.7738	291	**72**	3.2662	483.9151	484	**31**	-0.4801	292.5812	293	**72**	3.2916	485.7160	486
32	-0.5198	293.8902	294	**73**	3.6927	506.5035	507	**32**	-0.4196	295.4144	295	**73**	3.7172	509.4211	509
33	-0.4569	297.0153	297	**74**	4.4068	543.9197	544	**33**	-0.3596	298.3660	298	**74**	4.4303	546.1258	546
34	-0.3944	300.1487	300	**75**	N/A	611.4990	600	**34**	-0.3000	301.4551	301	**75**	N/A	602.2691	600
35	-0.3322	303.2913	303					**35**	-0.2406	304.5285	305				
36	-0.2703	306.4404	306					**36**	-0.1814	307.5864	308				
37	-0.2085	309.5962	310					**37**	-0.1223	310.6289	311				
38	-0.1469	312.7578	313					**38**	-0.0633	313.6562	314				
39	-0.0852	315.9245	316					**39**	-0.0042	316.6683	317				
40	-0.0236	319.0956	319					**40**	0.0550	319.6657	320				

Table 3.A.4 2008 New Conversions for English–Language Arts, 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**	0.1272	308.8459	309	**0**	N/A	0.0006	150	**41**	0.4341	324.0253	324
1	-4.6303	37.5809	150	**42**	0.1851	312.2286	312	**1**	-4.3357	51.2090	150	**42**	0.4957	327.4399	327
2	-3.9366	78.2722	150	**43**	0.2431	315.5932	316	**2**	-3.6228	94.9724	150	**43**	0.5576	330.8255	331
3	-3.5246	102.2227	150	**44**	0.3012	318.9401	319	**3**	-3.1972	119.1052	150	**44**	0.6201	334.5421	335
4	-3.2257	119.3286	150	**45**	0.3594	322.2692	322	**4**	-2.8892	136.6040	150	**45**	0.6831	338.0209	338
5	-2.9875	133.3206	150	**46**	0.4178	325.5809	326	**5**	-2.6453	150.3281	150	**46**	0.7468	341.5458	342
6	-2.7872	144.3647	150	**47**	0.4765	328.8753	329	**6**	-2.4421	161.8893	162	**47**	0.8113	345.1469	345
7	-2.6127	153.9456	154	**48**	0.5355	332.1524	332	**7**	-2.2667	171.8080	172	**48**	0.8766	348.9277	349
8	-2.4569	162.8722	163	**49**	0.5950	335.4125	335	**8**	-2.1118	180.5787	181	**49**	0.9430	352.6814	353
9	-2.3153	170.9064	171	**50**	0.6549	338.6557	339	**9**	-1.9723	188.3494	188	**50**	1.0105	356.4011	356
10	-2.1851	178.1335	178	**51**	0.7154	342.2648	342	**10**	-1.8450	195.6860	196	**51**	1.0793	360.1020	360
11	-2.0640	184.9991	185	**52**	0.7766	345.6350	346	**11**	-1.7274	202.3274	202	**52**	1.1495	363.9474	364
12	-1.9505	191.5332	192	**53**	0.8385	349.3120	349	**12**	-1.6179	208.3849	208	**53**	1.2214	368.1717	368
13	-1.8435	197.4095	197	**54**	0.9013	352.6816	353	**13**	-1.5151	214.1836	214	**54**	1.2950	372.3550	372
14	-1.7422	202.9957	203	**55**	0.9650	356.3966	356	**14**	-1.4180	219.7325	220	**55**	1.3707	376.5203	377
15	-1.6457	208.5508	209	**56**	1.0297	360.1659	360	**15**	-1.3256	224.8462	225	**56**	1.4486	380.9509	381
16	-1.5535	213.6791	214	**57**	1.0956	363.9136	364	**16**	-1.2375	230.0395	230	**57**	1.5292	385.5925	386
17	-1.4651	218.8056	219	**58**	1.1628	367.6394	368	**17**	-1.1529	234.7283	235	**58**	1.6126	390.1883	390
18	-1.3801	223.4467	223	**59**	1.2315	371.3422	371	**18**	-1.0714	239.3161	239	**59**	1.6994	395.1132	395
19	-1.2981	228.2106	228	**60**	1.3017	375.4447	375	**19**	-0.9928	243.8128	244	**60**	1.7899	400.1609	400
20	-1.2188	232.6721	233	**61**	1.3737	379.2315	379	**20**	-0.9165	247.8719	248	**61**	1.8848	405.5399	406
21	-1.1420	237.1152	237	**62**	1.4478	383.3740	383	**21**	-0.8424	251.9332	252	**62**	1.9847	411.0052	411
22	-1.0674	241.1418	241	**63**	1.5240	387.5814	388	**22**	-0.7703	256.2167	256	**63**	2.0904	416.7725	417
23	-0.9948	245.3393	245	**64**	1.6027	391.7592	392	**23**	-0.6997	260.1564	260	**64**	2.2032	423.3122	423
24	-0.9239	249.3796	249	**65**	1.6842	396.0518	396	**24**	-0.6307	264.1810	264	**65**	2.3242	430.0998	430
25	-0.8547	253.3069	253	**66**	1.7687	400.4835	400	**25**	-0.5631	267.8474	268	**66**	2.4554	437.3991	437
26	-0.7870	257.0246	257	**67**	1.8569	405.0482	405	**26**	-0.4966	271.4885	271	**67**	2.5990	445.4580	445
27	-0.7206	260.6755	261	**68**	1.9490	409.8540	410	**27**	-0.4311	275.1098	275	**68**	2.7585	454.4887	454
28	-0.6554	264.3115	264	**69**	2.0457	414.7528	415	**28**	-0.3666	278.7081	279	**69**	2.9387	464.7711	465
29	-0.5913	267.9316	268	**70**	2.1477	420.0059	420	**29**	-0.3028	282.2861	282	**70**	3.1475	476.8333	477
30	-0.5282	271.5350	272	**71**	2.2559	425.5652	426	**30**	-0.2397	285.8434	286	**71**	3.3973	491.4612	491
31	-0.4659	275.1217	275	**72**	2.3713	431.3828	431	**31**	-0.1773	289.3801	289	**72**	3.7119	510.2270	510
32	-0.4044	278.6897	279	**73**	2.4954	437.8349	438	**32**	-0.1153	292.8959	293	**73**	4.1448	536.1107	536
33	-0.3436	282.2393	282	**74**	2.6298	444.8321	445	**33**	-0.0537	296.3908	296	**74**	4.8650	573.1832	573
34	-0.2834	285.5436	286	**75**	2.7771	452.4739	452	**34**	0.0075	299.8648	300	**75**	N/A	625.1589	600
35	-0.2238	288.7960	289	**76**	2.9406	461.3549	461	**35**	0.0686	303.3173	303				
36	-0.1646	292.2166	292	**77**	3.1254	471.7585	472	**36**	0.1294	306.7486	307				
37	-0.1057	295.6916	296	**78**	3.3390	483.9831	484	**37**	0.1902	310.1582	310				
38	-0.0472	298.9348	299	**79**	3.5940	498.5637	499	**38**	0.2510	313.5460	314				
39	0.0111	302.1035	302	**80**	3.9141	516.3683	516	**39**	0.3118	316.9117	317				
40	0.0692	305.4450	305	**81**	4.3533	544.2288	544	**40**	0.3729	320.2940	320				
				82	5.0806	581.8315	582								
				83	N/A	628.5192	600								

Table 3.A.5 2008 New Conversions for English–Language Arts, 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**	0.0190	317.9032	318	**0**	N/A	0.0007	150	**41**	0.2233	330.5769	331
1	-4.7755	46.8170	150	**42**	0.0798	321.2857	321	**1**	-4.4833	59.4037	150	**42**	0.2820	333.8335	334
2	-4.0602	86.1868	150	**43**	0.1409	324.9478	325	**2**	-3.7698	103.3989	150	**43**	0.3412	337.0715	337
3	-3.6322	112.1609	150	**44**	0.2024	328.4921	328	**3**	-3.3439	127.7101	150	**44**	0.4007	340.4579	340
4	-3.3219	130.1515	150	**45**	0.2644	331.8157	332	**4**	-3.0357	145.7779	150	**45**	0.4608	343.9391	344
5	-3.0760	144.2143	150	**46**	0.3270	335.4038	335	**5**	-2.7919	159.5186	160	**46**	0.5215	347.2450	347
6	-2.8708	155.7682	156	**47**	0.3904	338.9521	339	**6**	-2.5888	171.0757	171	**47**	0.5830	350.6886	351
7	-2.6936	165.6936	166	**48**	0.4545	342.3334	342	**7**	-2.4139	181.0929	181	**48**	0.6452	354.3886	354
8	-2.5369	174.6206	175	**49**	0.5196	346.0619	346	**8**	-2.2594	189.7322	190	**49**	0.7085	357.8814	358
9	-2.3958	182.5307	183	**50**	0.5858	349.8344	350	**9**	-2.1206	197.6022	198	**50**	0.7728	361.3298	361
10	-2.2670	189.7896	190	**51**	0.6531	353.4542	353	**10**	-1.9941	204.9957	205	**51**	0.8383	365.0449	365
11	-2.1481	196.5652	197	**52**	0.7218	357.2602	357	**11**	-1.8775	211.5551	212	**52**	0.9053	368.8540	369
12	-2.0373	202.5682	203	**53**	0.7920	361.4978	361	**12**	-1.7690	217.6446	218	**53**	0.9737	372.8138	373
13	-1.9333	208.6692	209	**54**	0.8640	365.5753	366	**13**	-1.6673	223.3967	223	**54**	1.0439	376.7641	377
14	-1.8350	213.9172	214	**55**	0.9378	369.5035	370	**14**	-1.5713	228.9325	229	**55**	1.1161	380.8688	381
15	-1.7417	219.4531	219	**56**	1.0139	373.8800	374	**15**	-1.4803	234.1914	234	**56**	1.1904	385.0831	385
16	-1.6526	224.4606	224	**57**	1.0924	378.3666	378	**16**	-1.3935	238.9671	239	**57**	1.2672	389.3811	389
17	-1.5672	229.0165	229	**58**	1.1738	382.8380	383	**17**	-1.3104	243.5911	244	**58**	1.3470	394.1292	394
18	-1.4850	233.7928	234	**59**	1.2582	387.5464	388	**18**	-1.2306	248.1774	248	**59**	1.4298	398.8780	399
19	-1.4056	238.1225	238	**60**	1.3465	392.6044	393	**19**	-1.1535	252.7275	253	**60**	1.5164	403.7310	404
20	-1.3288	242.3705	242	**61**	1.4388	397.6713	398	**20**	-1.0790	256.7519	257	**61**	1.6072	408.9986	409
21	-1.2542	246.6101	247	**62**	1.5361	403.1525	403	**21**	-1.0067	260.9598	261	**62**	1.7028	414.2452	414
22	-1.1815	250.6958	251	**63**	1.6391	408.8608	409	**22**	-0.9363	264.7307	265	**63**	1.8042	419.8236	420
23	-1.1107	254.5983	255	**64**	1.7488	415.1036	415	**23**	-0.8677	268.8904	269	**64**	1.9124	426.1441	426
24	-1.0414	258.3510	258	**65**	1.8666	421.8885	422	**24**	-0.8007	272.6265	273	**65**	2.0286	432.6382	433
25	-0.9734	262.3061	262	**66**	1.9943	428.8795	429	**25**	-0.7350	276.2548	276	**66**	2.1549	439.8761	440
26	-0.9068	266.1373	266	**67**	2.1344	436.7032	437	**26**	-0.6706	279.8546	280	**67**	2.2933	447.9441	448
27	-0.8412	269.9105	270	**68**	2.2900	445.5855	446	**27**	-0.6073	283.4303	283	**68**	2.4474	456.7435	457
28	-0.7766	273.4918	273	**69**	2.4661	455.4295	455	**28**	-0.5449	286.9819	287	**69**	2.6219	466.7419	467
29	-0.7129	276.9614	277	**70**	2.6703	466.9174	467	**29**	-0.4834	290.5085	291	**70**	2.8243	478.4222	478
30	-0.6499	280.4224	280	**71**	2.9152	480.7776	481	**30**	-0.4226	294.0123	294	**71**	3.0677	492.4393	492
31	-0.5876	283.8745	284	**72**	3.2246	498.5329	499	**31**	-0.3624	297.4936	297	**72**	3.3754	510.1944	510
32	-0.5258	287.3180	287	**73**	3.6515	522.8861	523	**32**	-0.3028	300.8623	301	**73**	3.8004	535.3853	535
33	-0.4645	290.7527	291	**74**	4.3662	563.3219	563	**33**	-0.2436	303.8835	304	**74**	4.5133	575.5219	576
34	-0.4036	294.1785	294	**75**	N/A	633.1989	600	**34**	-0.1849	307.2359	307	**75**	N/A	639.4489	600
35	-0.3430	297.5954	298					**35**	-0.1263	310.6308	311				
36	-0.2825	301.0031	301					**36**	-0.0680	314.0040	314				
37	-0.2223	304.4018	304					**37**	-0.0098	317.3586	317				
38	-0.1620	307.7912	308					**38**	0.0483	320.6927	321				
39	-0.1018	311.1714	311					**39**	0.1065	324.0067	324				
40	-0.0415	314.5422	315					**40**	0.1648	327.3014	327				

Table 3.A.6 2008 New Conversions for English–Language Arts, 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**	-0.0715	312.7302	313	**0**	N/A	0.0003	150	**41**	0.0418	314.8282	315
1	-4.7750	62.0371	150	**42**	-0.0127	315.8264	316	**1**	-4.6466	29.1061	150	**42**	0.1009	318.5170	319
2	-4.0628	101.0597	150	**43**	0.0465	318.9548	319	**2**	-3.9350	74.5783	150	**43**	0.1605	322.0170	322
3	-3.6379	125.9252	150	**44**	0.1061	322.0827	322	**3**	-3.5107	100.7917	150	**44**	0.2206	325.4661	325
4	-3.3305	142.8289	150	**45**	0.1663	325.2083	325	**4**	-3.2039	119.1531	150	**45**	0.2812	329.0683	329
5	-3.0875	155.6787	156	**46**	0.2270	328.3325	328	**5**	-2.9615	133.8644	150	**46**	0.3425	332.8319	333
6	-2.8851	166.3284	166	**47**	0.2884	331.4827	331	**6**	-2.7597	146.5871	150	**47**	0.4046	336.6791	337
7	-2.7107	175.4185	175	**48**	0.3507	334.7995	335	**7**	-2.5859	156.6541	157	**48**	0.4676	340.3908	340
8	-2.5567	183.5508	184	**49**	0.4139	338.2162	338	**8**	-2.4326	166.0488	166	**49**	0.5316	344.2699	344
9	-2.4183	190.7550	191	**50**	0.4781	341.4556	341	**9**	-2.2948	174.2284	174	**50**	0.5967	348.0209	348
10	-2.2921	197.2700	197	**51**	0.5435	344.8775	345	**10**	-2.1692	181.8033	182	**51**	0.6631	351.9251	352
11	-2.1757	203.3521	203	**52**	0.6103	348.3075	348	**11**	-2.0535	188.7497	189	**52**	0.7310	356.0684	356
12	-2.0674	209.0644	209	**53**	0.6786	351.9736	352	**12**	-1.9458	195.6510	196	**53**	0.8004	360.2153	360
13	-1.9658	214.4463	214	**54**	0.7486	355.4329	355	**13**	-1.8449	201.2403	201	**54**	0.8716	364.6373	365
14	-1.8700	219.4884	219	**55**	0.8205	359.0746	359	**14**	-1.7496	206.9921	207	**55**	0.9449	369.0652	369
15	-1.7790	224.0663	224	**56**	0.8946	363.1141	363	**15**	-1.6593	212.7274	213	**56**	1.0204	373.6720	374
16	-1.6922	228.4737	228	**57**	0.9711	366.9571	367	**16**	-1.5731	217.6103	218	**57**	1.0986	378.1008	378
17	-1.6091	232.8513	233	**58**	1.0504	370.9960	371	**17**	-1.4905	222.7568	223	**58**	1.1795	382.8685	383
18	-1.5292	237.1994	237	**59**	1.1329	375.3266	375	**18**	-1.4111	227.6431	228	**59**	1.2638	388.1280	388
19	-1.4521	241.3309	241	**60**	1.2189	379.7154	380	**19**	-1.3346	232.1502	232	**60**	1.3519	393.3530	393
20	-1.3774	245.0932	245	**61**	1.3092	384.6288	385	**20**	-1.2604	236.5531	237	**61**	1.4443	398.8599	399
21	-1.3050	248.8580	249	**62**	1.4044	389.6242	390	**21**	-1.1885	240.9362	241	**62**	1.5416	404.8223	405
22	-1.2345	252.6225	253	**63**	1.5051	394.8698	395	**22**	-1.1185	245.2990	245	**63**	1.6448	411.1112	411
23	-1.1657	256.1624	256	**64**	1.6126	400.4857	400	**23**	-1.0502	249.3135	249	**64**	1.7548	417.4485	417
24	-1.0985	259.6817	260	**65**	1.7282	406.2551	406	**24**	-0.9834	253.3143	253	**65**	1.8731	424.4652	424
25	-1.0327	262.9700	263	**66**	1.8535	412.8872	413	**25**	-0.9180	257.1917	257	**66**	2.0014	432.3578	432
26	-0.9681	266.2811	266	**67**	1.9911	419.9494	420	**26**	-0.8537	260.9528	261	**67**	2.1421	440.9485	441
27	-0.9045	269.6845	270	**68**	2.1442	428.0193	428	**27**	-0.7905	264.8284	265	**68**	2.2985	450.2414	450
28	-0.8420	272.9418	273	**69**	2.3177	437.2608	437	**28**	-0.7283	268.5295	269	**69**	2.4756	461.1403	461
29	-0.7802	276.0843	276	**70**	2.5191	447.7883	448	**29**	-0.6668	272.2864	272	**70**	2.6808	473.5382	474
30	-0.7193	279.2266	279	**71**	2.7611	460.4311	460	**30**	-0.6061	276.1725	276	**71**	2.9270	488.4671	488
31	-0.6589	282.3689	282	**72**	3.0675	476.6407	477	**31**	-0.5459	279.6949	280	**72**	3.2377	507.6723	508
32	-0.5991	285.5105	286	**73**	3.4914	499.6939	500	**32**	-0.4863	283.2081	283	**73**	3.6661	534.2807	534
33	-0.5397	288.6509	289	**74**	4.2025	538.4931	538	**33**	-0.4271	286.7126	287	**74**	4.3824	578.7972	579
34	-0.4808	291.7906	292	**75**	N/A	608.7990	600	**34**	-0.3682	290.2092	290	**75**	N/A	661.7838	600
35	-0.4221	294.8217	295					**35**	-0.3095	293.6984	294				
36	-0.3636	297.6260	298					**36**	-0.2510	297.1804	297				
37	-0.3052	300.6838	301					**37**	-0.1926	300.6560	301				
38	-0.2469	303.8192	304					**38**	-0.1342	304.1262	304				
39	-0.1886	306.9532	307					**39**	-0.0757	307.5913	308				
40	-0.1301	310.0077	310					**40**	-0.0171	311.0514	311				

Table 3.A.7 2008 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**	0.3792	338.2087	338	**0**	N/A	0.0003	150	**41**	0.9186	371.0145	371
1	-4.2482	48.7522	150	**42**	0.4357	342.1099	342	**1**	-4.0252	54.4157	150	**42**	0.9994	376.2028	376
2	-3.5369	88.8647	150	**43**	0.4925	345.7568	346	**2**	-3.3129	99.3744	150	**43**	1.0827	381.3991	381
3	-3.1131	117.4883	150	**44**	0.5497	349.2354	349	**3**	-2.8879	126.8380	150	**44**	1.1689	386.9484	387
4	-2.8068	137.3520	150	**45**	0.6074	352.7794	353	**4**	-2.5802	146.5964	150	**45**	1.2585	392.8099	393
5	-2.5650	153.0175	153	**46**	0.6657	356.6383	357	**5**	-2.3367	161.8890	162	**46**	1.3521	398.6851	399
6	-2.3639	165.8182	166	**47**	0.7248	360.1941	360	**6**	-2.1336	175.1775	175	**47**	1.4504	404.9492	405
7	-2.1908	176.5126	177	**48**	0.7846	363.8918	364	**7**	-1.9584	186.6157	187	**48**	1.5542	411.8908	412
8	-2.0382	186.2079	186	**49**	0.8453	367.7651	368	**8**	-1.8034	196.2144	196	**49**	1.6645	419.0999	419
9	-1.9013	195.0170	195	**50**	0.9071	371.6721	372	**9**	-1.6638	205.0448	205	**50**	1.7827	426.3189	426
10	-1.7766	202.9597	203	**51**	0.9701	375.5705	376	**10**	-1.5363	213.2635	213	**51**	1.9105	434.4395	434
11	-1.6619	210.1882	210	**52**	1.0344	379.4613	379	**11**	-1.4183	220.8736	221	**52**	2.0505	443.4615	443
12	-1.5552	216.9157	217	**53**	1.1002	383.5517	384	**12**	-1.3083	227.8767	228	**53**	2.2058	453.6546	454
13	-1.4554	223.1736	223	**54**	1.1677	387.8533	388	**13**	-1.2048	234.7411	235	**54**	2.3814	464.7162	465
14	-1.3613	229.0954	229	**55**	1.2371	392.2474	392	**14**	-1.1068	241.1570	241	**55**	2.5848	478.0447	478
15	-1.2721	234.8436	235	**56**	1.3087	396.8959	397	**15**	-1.0134	246.9673	247	**56**	2.8286	493.5681	494
16	-1.1872	240.3159	240	**57**	1.3827	401.7227	402	**16**	-0.9240	252.5934	253	**57**	3.1368	513.4499	513
17	-1.1059	245.3314	245	**58**	1.4595	406.5421	407	**17**	-0.8379	258.2243	258	**58**	3.5623	540.5103	541
18	-1.0279	250.0549	250	**59**	1.5394	411.4226	411	**18**	-0.7548	263.4670	263	**59**	4.2751	586.8580	587
19	-0.9528	254.7680	255	**60**	1.6229	416.5379	417	**19**	-0.6742	268.8623	269	**60**	N/A	666.7195	600
20	-0.8801	259.3663	259	**61**	1.7106	422.0534	422	**20**	-0.5958	273.7749	274				
21	-0.8097	263.6957	264	**62**	1.8032	427.9601	428	**21**	-0.5193	278.5293	279				
22	-0.7412	267.8568	268	**63**	1.9013	434.1894	434	**22**	-0.4444	283.5622	284				
23	-0.6745	272.0082	272	**64**	2.0062	440.7386	441	**23**	-0.3708	288.2668	288				
24	-0.6094	276.1499	276	**65**	2.1192	447.9479	448	**24**	-0.2984	292.6820	293				
25	-0.5457	280.2818	280	**66**	2.2419	455.7784	456	**25**	-0.2270	297.4212	297				
26	-0.4832	284.3201	284	**67**	2.3768	464.1802	464	**26**	-0.1563	302.1715	302				
27	-0.4219	288.1435	288	**68**	2.5272	473.6817	474	**27**	-0.0863	306.6060	307				
28	-0.3615	291.9758	292	**69**	2.6980	484.5704	485	**28**	-0.0167	311.0476	311				
29	-0.3019	295.8974	296	**70**	2.8967	497.3243	497	**29**	0.0526	315.4950	315				
30	-0.2432	299.4694	299	**71**	3.1360	512.5850	513	**30**	0.1218	319.9497	320				
31	-0.1851	303.0331	303	**72**	3.4396	531.9983	532	**31**	0.1910	324.4114	324				
32	-0.1275	306.5882	307	**73**	3.8607	561.3637	561	**32**	0.2603	328.8800	329				
33	-0.0704	310.1350	310	**74**	4.5688	603.7802	600	**33**	0.3299	333.3557	333				
34	-0.0137	313.6744	314	**75**	N/A	661.2691	600	**34**	0.4000	337.8385	338				
35	0.0427	317.2027	317					**35**	0.4707	342.3283	342				
36	0.0989	320.7241	321					**36**	0.5422	346.8253	347				
37	0.1549	324.2373	324					**37**	0.6147	351.3293	351				
38	0.2109	327.7423	328					**38**	0.6884	356.1371	356				
39	0.2669	331.2391	331					**39**	0.7634	360.9994	361				
40	0.3229	334.7278	335					**40**	0.8401	365.8343	366				

Table 3.A.8 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**	0.8303	374.8198	375
1	-4.1845	52.7762	150	**42**	0.9121	380.0457	380
2	-3.4694	99.1154	150	**43**	0.9965	385.6409	386
3	-3.0416	127.1061	150	**44**	1.0837	390.8531	391
4	-2.7312	146.8473	150	**45**	1.1743	396.6925	397
5	-2.4851	162.6972	163	**46**	1.2689	403.0433	403
6	-2.2795	175.9515	176	**47**	1.3681	409.3894	409
7	-2.1019	187.3268	187	**48**	1.4728	415.8363	416
8	-1.9445	197.3571	197	**49**	1.5840	422.9063	423
9	-1.8026	206.3849	206	**50**	1.7031	430.5979	431
10	-1.6728	215.0619	215	**51**	1.8318	438.9092	439
11	-1.5528	222.6026	223	**52**	1.9725	447.9143	448
12	-1.4406	229.6593	230	**53**	2.1287	458.0985	458
13	-1.3351	236.5392	237	**54**	2.3050	469.0764	469
14	-1.2350	242.9431	243	**55**	2.5091	482.4823	482
15	-1.1397	249.1733	249	**56**	2.7537	497.9066	498
16	-1.0484	254.9309	255	**57**	3.0625	517.8322	518
17	-0.9605	260.5173	261	**58**	3.4886	545.5198	546
18	-0.8756	265.8018	266	**59**	4.2019	590.7672	591
19	-0.7932	271.3875	271	**60**	N/A	667.4795	600
20	-0.7131	276.3340	276				
21	-0.6349	280.9757	281				
22	-0.5583	286.0895	286				
23	-0.4831	291.0384	291				
24	-0.4092	295.5125	296				
25	-0.3362	300.1506	300				
26	-0.2640	305.1010	305				
27	-0.1925	309.5751	310				
28	-0.1214	314.0488	314				
29	-0.0507	318.5222	319				
30	0.0199	322.9952	323				
31	0.0904	327.4673	327				
32	0.1611	331.9388	332				
33	0.2320	336.4093	336				
34	0.3034	341.0329	341				
35	0.3754	345.9870	346				
36	0.4481	350.4538	350				
37	0.5218	355.0672	355				
38	0.5966	360.0218	360				
39	0.6728	364.6283	365				
40	0.7506	369.7252	370				

Table 3.A.9 2008 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**	-0.1374	322.1470	322	**0**	N/A	0.0000	150	**41**	-0.1179	315.2168	315
1	-5.3245	4.6048	150	**42**	-0.0568	327.1631	327	**1**	-5.3987	3.6018	150	**42**	-0.0348	320.1567	320
2	-4.5996	43.0505	150	**43**	0.0254	332.1755	332	**2**	-4.6778	42.2605	150	**43**	0.0495	325.4484	325
3	-4.1627	70.8015	150	**44**	0.1095	337.2292	337	**3**	-4.2439	68.7013	150	**44**	0.1354	330.6054	331
4	-3.8438	91.0420	150	**45**	0.1959	342.6783	343	**4**	-3.9274	87.9129	150	**45**	0.2231	335.9087	336
5	-3.5897	107.0725	150	**46**	0.2848	348.2982	348	**5**	-3.6749	103.3638	150	**46**	0.3127	341.0557	341
6	-3.3767	120.5009	150	**47**	0.3766	354.0171	354	**6**	-3.4629	116.0448	150	**47**	0.4047	346.3666	346
7	-3.1919	131.9240	150	**48**	0.4718	360.0179	360	**7**	-3.2786	127.2089	150	**48**	0.4993	352.2155	352
8	-3.0279	142.1242	150	**49**	0.5708	366.2287	366	**8**	-3.1144	136.9641	150	**49**	0.5969	357.9812	358
9	-2.8795	151.5230	152	**50**	0.6742	372.5296	373	**9**	-2.9656	145.7962	150	**50**	0.6980	363.8909	364
10	-2.7436	159.5918	160	**51**	0.7828	379.1859	379	**10**	-2.8288	154.0680	154	**51**	0.8031	370.3397	370
11	-2.6176	167.4947	167	**52**	0.8975	386.4159	386	**11**	-2.7016	161.5831	162	**52**	0.9129	377.0039	377
12	-2.4998	175.0273	175	**53**	1.0193	394.2206	394	**12**	-2.5822	168.5435	169	**53**	1.0282	383.7949	384
13	-2.3888	181.7480	182	**54**	1.1498	402.1567	402	**13**	-2.4693	175.4432	175	**54**	1.1501	391.1790	391
14	-2.2835	188.2425	188	**55**	1.2909	411.0397	411	**14**	-2.3618	182.0041	182	**55**	1.2799	399.0870	399
15	-2.1830	194.7120	195	**56**	1.4451	420.6977	421	**15**	-2.2589	187.9160	188	**56**	1.4193	407.3646	407
16	-2.0867	200.9276	201	**57**	1.6159	431.5484	432	**16**	-2.1600	193.7471	194	**57**	1.5708	416.3170	416
17	-1.9941	206.5363	207	**58**	1.8084	443.8693	444	**17**	-2.0645	199.6043	200	**58**	1.7377	426.2519	426
18	-1.9045	211.8953	212	**59**	2.0308	457.9183	458	**18**	-1.9718	205.3670	205	**59**	1.9247	437.4888	437
19	-1.8176	217.4097	217	**60**	2.2961	474.7276	475	**19**	-1.8817	210.6284	211	**60**	2.1397	450.5225	451
20	-1.7331	222.5078	223	**61**	2.6288	496.4938	496	**20**	-1.7938	215.5315	216	**61**	2.3950	466.2536	466
21	-1.6506	227.5953	228	**62**	3.0832	528.1260	528	**21**	-1.7078	220.7500	221	**62**	2.7145	485.7408	486
22	-1.5699	232.6719	233	**63**	3.8301	573.3989	573	**22**	-1.6234	225.6795	226	**63**	3.1514	512.9141	513
23	-1.4908	237.7413	238	**64**	N/A	632.1190	600	**23**	-1.5404	230.9483	231	**64**	3.8748	556.9248	557
24	-1.4129	242.8017	243					**24**	-1.4586	235.8162	236	**65**	N/A	633.7990	600
25	-1.3362	247.5215	248					**25**	-1.3779	240.5572	241				
26	-1.2604	252.3003	252					**26**	-1.2981	244.9545	245				
27	-1.1854	256.9609	257					**27**	-1.2189	249.7826	250				
28	-1.1110	261.3912	261					**28**	-1.1404	254.5402	255				
29	-1.0371	265.7985	266					**29**	-1.0623	259.0064	259				
30	-0.9635	270.6036	271					**30**	-0.9845	263.7164	264				
31	-0.8902	275.2068	275					**31**	-0.9070	268.2330	268				
32	-0.8168	279.6295	280					**32**	-0.8295	272.9264	273				
33	-0.7435	284.4512	284					**33**	-0.7521	277.4933	277				
34	-0.6699	289.0338	289					**34**	-0.6745	282.1612	282				
35	-0.5960	293.4482	293					**35**	-0.5967	286.7761	287				
36	-0.5216	297.8461	298					**36**	-0.5185	291.4155	291				
37	-0.4466	302.6943	303					**37**	-0.4398	296.0719	296				
38	-0.3709	307.2445	307					**38**	-0.3605	300.9744	301				
39	-0.2942	312.1189	312					**39**	-0.2805	305.6156	306				
40	-0.2164	317.1276	317					**40**	-0.1997	310.3116	310				

Table 3.A.10 2008 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**	0.0292	325.6839	326	**0**	N/A	0.0000	150	**41**	0.4053	346.9692	347
1	-5.1311	62.3204	150	**42**	0.1050	329.5163	330	**1**	-4.6889	10.5263	150	**42**	0.4800	352.1542	352
2	-4.4035	98.8122	150	**43**	0.1822	333.5199	334	**2**	-3.9667	49.7635	150	**43**	0.5561	357.4316	357
3	-3.9642	121.4807	150	**44**	0.2609	337.5201	338	**3**	-3.5321	81.0177	150	**44**	0.6337	362.4238	362
4	-3.6433	138.3065	150	**45**	0.3414	341.5029	342	**4**	-3.2152	103.2650	150	**45**	0.7130	367.6358	368
5	-3.3875	151.5058	152	**46**	0.4239	345.7207	346	**5**	-2.9629	120.7195	150	**46**	0.7943	373.0550	373
6	-3.1729	162.2282	162	**47**	0.5087	350.1540	350	**6**	-2.7513	135.2324	150	**47**	0.8779	378.6202	379
7	-2.9867	171.7491	172	**48**	0.5962	354.5744	355	**7**	-2.5678	147.7376	150	**48**	0.9641	384.5664	385
8	-2.8214	180.3338	180	**49**	0.6868	358.9789	359	**8**	-2.4049	158.8078	159	**49**	1.0534	390.7296	391
9	-2.6720	188.1712	188	**50**	0.7809	363.6743	364	**9**	-2.2577	168.6442	169	**50**	1.1461	396.9161	397
10	-2.5351	195.1398	195	**51**	0.8792	368.8703	369	**10**	-2.1228	177.7239	178	**51**	1.2429	403.2955	403
11	-2.4083	201.4954	201	**52**	0.9823	373.7987	374	**11**	-1.9978	186.1617	186	**52**	1.3445	410.0572	410
12	-2.2898	207.5288	208	**53**	1.0910	379.2180	379	**12**	-1.8810	193.9665	194	**53**	1.4517	417.2150	417
13	-2.1781	213.2520	213	**54**	1.2064	385.4149	385	**13**	-1.7710	201.1416	201	**54**	1.5655	424.7559	425
14	-2.0724	218.7381	219	**55**	1.3300	391.6079	392	**14**	-1.6667	208.1772	208	**55**	1.6873	432.7151	433
15	-1.9716	223.8646	224	**56**	1.4634	398.2425	398	**15**	-1.5674	215.2081	215	**56**	1.8188	441.5685	442
16	-1.8752	228.7901	229	**57**	1.6090	405.6832	406	**16**	-1.4723	221.3664	221	**57**	1.9624	451.2803	451
17	-1.7824	233.6924	234	**58**	1.7703	413.9268	414	**17**	-1.3809	227.5451	228	**58**	2.1216	461.8854	462
18	-1.6929	238.1797	238	**59**	1.9521	423.0042	423	**18**	-1.2926	233.5389	234	**59**	2.3011	473.8879	474
19	-1.6062	242.5270	243	**60**	2.1621	433.7095	434	**19**	-1.2071	239.3124	239	**60**	2.5085	487.8849	488
20	-1.5220	246.8671	247	**61**	2.4129	446.6500	447	**20**	-1.1241	244.7376	245	**61**	2.7564	504.6708	505
21	-1.4400	251.1102	251	**62**	2.7282	463.0481	463	**21**	-1.0432	250.1941	250	**62**	3.0687	525.6527	526
22	-1.3599	255.0964	255	**63**	3.1615	486.1755	486	**22**	-0.9642	255.6468	256	**63**	3.4985	554.7038	555
23	-1.2814	259.1910	259	**64**	3.8824	521.6170	522	**23**	-0.8868	260.8168	261	**64**	4.2155	603.7573	600
24	-1.2044	263.0318	263	**65**	N/A	575.5792	600	**24**	-0.8109	265.9568	266	**65**	N/A	691.2489	600
25	-1.1287	266.9604	267					**25**	-0.7362	270.8955	271				
26	-1.0541	270.9820	271					**26**	-0.6627	275.6322	276				
27	-0.9804	274.7721	275					**27**	-0.5900	280.5889	281				
28	-0.9075	278.4927	278					**28**	-0.5181	285.2924	285				
29	-0.8352	281.9594	282					**29**	-0.4468	290.3193	290				
30	-0.7634	285.4274	285					**30**	-0.3761	294.9038	295				
31	-0.6920	289.0743	289					**31**	-0.3057	299.5093	300				
32	-0.6209	292.7444	293					**32**	-0.2355	304.6579	305				
33	-0.5498	296.4022	296					**33**	-0.1655	309.2536	309				
34	-0.4788	300.0472	300					**34**	-0.0955	313.8342	314				
35	-0.4077	303.6791	304					**35**	-0.0253	318.4241	318				
36	-0.3363	307.2973	307					**36**	0.0451	323.0285	323				
37	-0.2645	310.9015	311					**37**	0.1158	327.6725	328				
38	-0.1922	314.4914	314					**38**	0.1871	332.8243	333				
39	-0.1192	318.3817	318					**39**	0.2590	337.5797	338				
40	-0.0455	322.1208	322					**40**	0.3317	342.2323	342				

Table 3.A.11 2008 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**	0.3378	344.2684	344	**0**	N/A	0.0007	150	**41**	0.5768	353.9951	354
1	-4.7229	54.9977	150	**42**	0.4125	348.6028	349	**1**	-4.3534	56.0675	150	**42**	0.6495	358.2876	358
2	-3.9990	95.3399	150	**43**	0.4886	352.8637	353	**2**	-3.6389	99.6173	150	**43**	0.7237	362.7528	363
3	-3.5632	120.6635	150	**44**	0.5663	357.3635	357	**3**	-3.2117	125.4844	150	**44**	0.7994	367.2002	367
4	-3.2457	138.8032	150	**45**	0.6459	361.9484	362	**4**	-2.9019	144.1446	150	**45**	0.8769	371.7524	372
5	-2.9931	153.3328	153	**46**	0.7275	366.6960	367	**5**	-2.6564	159.1379	159	**46**	0.9564	376.5790	377
6	-2.7817	165.5374	166	**47**	0.8116	371.6151	372	**6**	-2.4513	171.4784	171	**47**	1.0383	381.5935	382
7	-2.5987	176.0232	176	**48**	0.8984	376.4339	376	**7**	-2.2742	181.8366	182	**48**	1.1229	386.5791	387
8	-2.4365	185.3345	185	**49**	0.9883	381.5213	382	**8**	-2.1174	191.5226	192	**49**	1.2105	391.7296	392
9	-2.2902	193.9508	194	**50**	1.0819	386.8329	387	**9**	-1.9760	200.3004	200	**50**	1.3018	397.3657	397
10	-2.1564	201.5647	202	**51**	1.1796	392.4977	392	**10**	-1.8467	208.0800	208	**51**	1.3971	403.1941	403
11	-2.0327	208.5543	209	**52**	1.2823	398.3702	398	**11**	-1.7271	215.2029	215	**52**	1.4973	409.1173	409
12	-1.9172	215.3746	215	**53**	1.3906	404.6120	405	**12**	-1.6155	221.6872	222	**53**	1.6031	415.5481	416
13	-1.8087	221.3306	221	**54**	1.5058	411.0320	411	**13**	-1.5105	227.8564	228	**54**	1.7156	422.2284	422
14	-1.7059	227.5129	228	**55**	1.6290	417.9732	418	**14**	-1.4111	234.0057	234	**55**	1.8361	429.2497	429
15	-1.6081	232.8583	233	**56**	1.7622	425.5924	426	**15**	-1.3164	239.8034	240	**56**	1.9665	437.2976	437
16	-1.5146	238.4985	238	**57**	1.9076	434.1886	434	**16**	-1.2258	245.3440	245	**57**	2.1091	445.9348	446
17	-1.4247	243.2188	243	**58**	2.0688	443.4514	443	**17**	-1.1387	250.4973	250	**58**	2.2672	455.2745	455
18	-1.3380	248.3428	248	**59**	2.2504	453.8074	454	**18**	-1.0546	255.4148	255	**59**	2.4458	466.1958	466
19	-1.2540	252.9785	253	**60**	2.4602	465.4983	465	**19**	-0.9731	260.3214	260	**60**	2.6524	478.6971	479
20	-1.1725	258.1365	258	**61**	2.7107	479.9648	480	**20**	-0.8940	265.2255	265	**61**	2.8997	493.5479	494
21	-1.0931	262.7187	263	**62**	3.0258	498.0133	498	**21**	-0.8169	270.1251	270	**62**	3.2114	512.8103	513
22	-1.0156	266.7749	267	**63**	3.4586	523.1610	523	**22**	-0.7415	274.5976	275	**63**	3.6406	538.9356	539
23	-0.9397	271.3121	271	**64**	4.1790	563.9704	564	**23**	-0.6677	278.8815	279	**64**	4.3574	581.3542	581
24	-0.8651	275.4073	275	**65**	N/A	630.3291	600	**24**	-0.5951	283.1635	283	**65**	N/A	648.9990	600
25	-0.7918	279.9004	280					**25**	-0.5238	287.4414	287				
26	-0.7195	283.9563	284					**26**	-0.4534	291.7154	292				
27	-0.6480	287.9702	288					**27**	-0.3838	295.9862	296				
28	-0.5773	291.9831	292					**28**	-0.3149	300.2530	300				
29	-0.5071	295.9949	296					**29**	-0.2465	304.4510	304				
30	-0.4373	300.0059	300					**30**	-0.1785	308.3357	308				
31	-0.3679	304.0162	304					**31**	-0.1109	312.4263	312				
32	-0.2986	308.0260	308					**32**	-0.0434	316.5859	317				
33	-0.2294	312.0354	312					**33**	0.0241	320.4790	320				
34	-0.1601	316.0445	316					**34**	0.0916	324.5509	325				
35	-0.0906	320.0534	320					**35**	0.1593	328.7798	329				
36	-0.0208	324.0612	324					**36**	0.2274	333.0019	333				
37	0.0495	328.0715	328					**37**	0.2958	337.1026	337				
38	0.1203	332.0808	332					**38**	0.3649	340.9945	341				
39	0.1919	336.0903	336					**39**	0.4346	345.1415	345				
40	0.2644	340.1001	340					**40**	0.5052	349.6389	350				

Table 3.A.12 2008 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**	0.8187	353.9073	354	**0**	N/A	-68.2504	150	**41**	0.5410	367.3159	367
1	-4.1520	52.4568	150	**42**	0.8918	358.1261	358	**1**	-4.3878	21.0822	150	**42**	0.6134	372.0956	372
2	-3.4359	95.3655	150	**43**	0.9661	362.8642	363	**2**	-3.6727	72.0549	150	**43**	0.6872	377.2860	377
3	-3.0071	121.4254	150	**44**	1.0420	367.1249	367	**3**	-3.2449	102.2954	150	**44**	0.7626	382.7735	383
4	-2.6957	140.1988	150	**45**	1.1196	371.8321	372	**4**	-2.9346	124.0926	150	**45**	0.8397	387.9033	388
5	-2.4486	155.3356	155	**46**	1.1993	376.5904	377	**5**	-2.6886	141.5701	150	**46**	0.9189	393.4540	393
6	-2.2421	168.0711	168	**47**	1.2812	381.8473	382	**6**	-2.4832	156.1465	156	**47**	1.0004	399.3287	399
7	-2.0635	178.4177	178	**48**	1.3658	386.6570	387	**7**	-2.3058	168.6498	169	**48**	1.0845	405.2268	405
8	-1.9052	188.1381	188	**49**	1.4534	391.8595	392	**8**	-2.1487	179.6007	180	**49**	1.1718	411.1540	411
9	-1.7624	197.2630	197	**50**	1.5445	397.6163	398	**9**	-2.0070	189.3205	189	**50**	1.2625	417.4203	417
10	-1.6317	205.1824	205	**51**	1.6396	403.4551	403	**10**	-1.8776	198.2645	198	**51**	1.3574	424.1008	424
11	-1.5108	212.4991	212	**52**	1.7395	409.2709	409	**11**	-1.7578	206.7569	207	**52**	1.4570	430.7833	431
12	-1.3978	219.2067	219	**53**	1.8450	415.9164	416	**12**	-1.6461	214.5810	215	**53**	1.5623	438.2057	438
13	-1.2916	225.3552	225	**54**	1.9571	422.4362	422	**13**	-1.5411	221.9042	222	**54**	1.6742	446.3782	446
14	-1.1909	231.5162	232	**55**	2.0771	429.5116	430	**14**	-1.4416	228.9613	229	**55**	1.7941	454.9405	455
15	-1.0950	237.5998	238	**56**	2.2069	437.6549	438	**15**	-1.3469	235.5219	236	**56**	1.9238	463.9284	464
16	-1.0031	243.1638	243	**57**	2.3488	446.2049	446	**16**	-1.2563	242.1510	242	**57**	2.0656	473.7012	474
17	-0.9149	248.6096	249	**58**	2.5062	455.5843	456	**17**	-1.1692	248.0770	248	**58**	2.2230	484.6945	485
18	-0.8296	253.5684	254	**59**	2.6838	466.5210	467	**18**	-1.0852	253.5791	254	**59**	2.4007	497.2485	497
19	-0.7471	258.5323	259	**60**	2.8893	478.9904	479	**19**	-1.0039	259.3215	259	**60**	2.6063	511.8738	512
20	-0.6669	263.5001	264	**61**	3.1356	493.8801	494	**20**	-0.9248	265.2369	265	**61**	2.8524	528.8731	529
21	-0.5887	268.4708	268	**62**	3.4459	513.1219	513	**21**	-0.8478	270.4736	270	**62**	3.1631	551.1075	551
22	-0.5123	273.2130	273	**63**	3.8738	539.2867	539	**22**	-0.7726	275.4382	275	**63**	3.5910	581.5306	582
23	-0.4375	277.5649	278	**64**	4.5888	581.5765	582	**23**	-0.6989	280.6940	281	**64**	4.3064	631.8874	600
24	-0.3640	281.9171	282	**65**	N/A	648.9995	600	**24**	-0.6266	285.5973	286	**65**	N/A	721.0744	600
25	-0.2917	286.2676	286					**25**	-0.5554	290.8815	291				
26	-0.2205	290.6164	291					**26**	-0.4852	295.6147	296				
27	-0.1500	294.9627	295					**27**	-0.4158	300.3432	300				
28	-0.0803	299.3056	299					**28**	-0.3471	305.0680	305				
29	-0.0111	303.6445	304					**29**	-0.2790	309.7900	310				
30	0.0576	307.5809	308					**30**	-0.2113	314.5105	315				
31	0.1259	311.7053	312					**31**	-0.1438	319.2309	319				
32	0.1941	316.0264	316					**32**	-0.0766	323.9507	324				
33	0.2622	319.8916	320					**33**	-0.0094	328.6723	329				
34	0.3304	324.0459	324					**34**	0.0579	333.3966	333				
35	0.3986	328.3429	328					**35**	0.1253	338.1242	338				
36	0.4672	332.6306	333					**36**	0.1931	342.8562	343				
37	0.5362	336.9082	337					**37**	0.2613	347.5936	348				
38	0.6057	340.6646	341					**38**	0.3300	352.3373	352				
39	0.6758	344.8313	345					**39**	0.3994	357.0882	357				
40	0.7468	349.6005	350					**40**	0.4697	362.3028	362				

Table 3.A.13 2008 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**	-0.2034	336.0579	336	**0**	N/A	-54.8295	150	**41**	0.1563	346.8291	347
1	-5.2190	34.3657	150	**42**	-0.1296	340.4196	340	**1**	-5.0765	3.5575	150	**42**	0.2319	351.6312	352
2	-4.4997	78.2910	150	**43**	-0.0546	344.9519	345	**2**	-4.3390	48.5379	150	**43**	0.3088	356.4359	356
3	-4.0678	104.4473	150	**44**	0.0220	349.4934	349	**3**	-3.8915	80.4605	150	**44**	0.3870	361.7886	362
4	-3.7537	123.5543	150	**45**	0.1003	354.0460	354	**4**	-3.5636	102.9412	150	**45**	0.4671	366.7124	367
5	-3.5040	138.5131	150	**46**	0.1807	358.8881	359	**5**	-3.3018	120.6566	150	**46**	0.5491	372.1313	372
6	-3.2952	151.2895	151	**47**	0.2634	364.0407	364	**6**	-3.0821	134.6077	150	**47**	0.6333	377.6351	378
7	-3.1144	162.2140	162	**48**	0.3488	369.2155	369	**7**	-2.8916	147.1594	150	**48**	0.7202	383.1516	383
8	-2.9541	171.8908	172	**49**	0.4373	374.4116	374	**8**	-2.7224	158.3986	158	**49**	0.8100	389.3095	389
9	-2.8095	180.3911	180	**50**	0.5293	379.8148	380	**9**	-2.5696	168.5311	169	**50**	0.9033	394.9681	395
10	-2.6771	188.4679	188	**51**	0.6254	385.6488	386	**10**	-2.4297	177.7020	178	**51**	1.0006	401.7598	402
11	-2.5546	196.0039	196	**52**	0.7262	391.5191	392	**11**	-2.3003	186.0738	186	**52**	1.1026	408.1084	408
12	-2.4403	202.8602	203	**53**	0.8327	397.5729	398	**12**	-2.1795	193.9560	194	**53**	1.2101	415.1848	415
13	-2.3327	209.0514	209	**54**	0.9459	404.2631	404	**13**	-2.0658	201.4766	201	**54**	1.3243	422.7920	423
14	-2.2308	215.1017	215	**55**	1.0670	411.6096	412	**14**	-1.9582	208.8042	209	**55**	1.4463	430.6444	431
15	-2.1338	221.1167	221	**56**	1.1980	419.4952	419	**15**	-1.8558	215.1764	215	**56**	1.5780	439.2342	439
16	-2.0409	226.5881	227	**57**	1.3411	427.7780	428	**16**	-1.7578	221.5944	222	**57**	1.7218	448.5653	449
17	-1.9517	231.9428	232	**58**	1.4997	437.4321	437	**17**	-1.6638	227.9727	228	**58**	1.8810	458.9896	459
18	-1.8655	236.7738	237	**59**	1.6787	448.3090	448	**18**	-1.5731	233.8211	234	**59**	2.0606	470.9062	471
19	-1.7822	241.9730	242	**60**	1.8855	460.4892	460	**19**	-1.4853	239.6311	240	**60**	2.2679	484.3183	484
20	-1.7012	246.7792	247	**61**	2.1332	475.5168	476	**20**	-1.4002	244.9520	245	**61**	2.5158	500.6486	501
21	-1.6223	251.4512	251	**62**	2.4451	494.6914	495	**21**	-1.3173	250.8163	251	**62**	2.8277	521.2435	521
22	-1.5452	256.1045	256	**63**	2.8745	520.7113	521	**22**	-1.2364	256.0382	256	**63**	3.2573	549.7542	550
23	-1.4697	260.7402	261	**64**	3.5911	565.1232	565	**23**	-1.1573	260.7726	261	**64**	3.9740	597.6886	598
24	-1.3956	264.9652	265	**65**	N/A	645.5995	600	**24**	-1.0797	266.1074	266	**65**	N/A	681.5695	600
25	-1.3227	269.3640	269					**25**	-1.0035	271.3555	271				
26	-1.2509	273.6097	274					**26**	-0.9283	276.0521	276				
27	-1.1799	277.9310	278					**27**	-0.8542	280.7598	281				
28	-1.1096	282.2092	282					**28**	-0.7810	285.4786	285				
29	-1.0399	286.1945	286					**29**	-0.7084	290.2073	290				
30	-0.9707	290.3959	290					**30**	-0.6363	294.9454	295				
31	-0.9018	294.7409	295					**31**	-0.5647	299.6918	300				
32	-0.8330	298.7040	299					**32**	-0.4934	304.4461	304				
33	-0.7644	302.6623	303					**33**	-0.4222	308.9567	309				
34	-0.6957	306.7028	307					**34**	-0.3511	313.3177	313				
35	-0.6269	311.1650	311					**35**	-0.2799	318.0914	318				
36	-0.5578	315.1127	315					**36**	-0.2085	322.8703	323				
37	-0.4883	319.0593	319					**37**	-0.1367	327.6540	328				
38	-0.4182	323.5496	324					**38**	-0.0645	332.4421	332				
39	-0.3475	327.5527	328					**39**	0.0083	337.2339	337				
40	-0.2759	331.9755	332					**40**	0.0819	342.0300	342				

Table 3.A.14 2008 New Conversions for Summative High School Mathematics and Integrated Mathematics 1

Summative High School Mathematics								Integrated Mathematics 1							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	-87.7995	150	**41**	-0.1095	320.3859	320	**0**	N/A	-77.6988	150	**41**	0.6960	363.5090	364
1	-5.1613	5.7304	150	**42**	-0.0348	324.8609	325	**1**	-4.2745	1.6533	150	**42**	0.7692	369.0150	369
2	-4.4404	52.7027	150	**43**	0.0413	329.3268	329	**2**	-3.5577	52.8087	150	**43**	0.8438	374.1644	374
3	-4.0071	80.3797	150	**44**	0.1190	334.3251	334	**3**	-3.1283	86.0377	150	**44**	0.9199	379.9887	380
4	-3.6916	99.6791	150	**45**	0.1984	339.3319	339	**4**	-2.8165	109.3008	150	**45**	0.9977	385.6923	386
5	-3.4407	115.3740	150	**46**	0.2800	344.3314	344	**5**	-2.5690	127.5948	150	**46**	1.0777	391.2074	391
6	-3.2306	128.1218	150	**47**	0.3639	349.3277	349	**6**	-2.3622	142.8520	150	**47**	1.1599	397.2171	397
7	-3.0487	139.4739	150	**48**	0.4505	354.6007	355	**7**	-2.1833	155.6105	156	**48**	1.2448	403.3807	403
8	-2.8873	149.5256	150	**49**	0.5402	360.1429	360	**8**	-2.0248	166.7977	167	**49**	1.3329	409.5576	410
9	-2.7417	158.2439	158	**50**	0.6334	365.8339	366	**9**	-1.8819	176.8306	177	**50**	1.4244	416.1729	416
10	-2.6083	166.4810	166	**51**	0.7308	371.9284	372	**10**	-1.7512	186.0637	186	**51**	1.5201	423.3279	423
11	-2.4849	174.2323	174	**52**	0.8330	378.0433	378	**11**	-1.6303	194.8591	195	**52**	1.6205	430.5197	431
12	-2.3697	181.3692	181	**53**	0.9409	384.6979	385	**12**	-1.5174	203.0121	203	**53**	1.7266	437.9855	438
13	-2.2612	188.2226	188	**54**	1.0554	391.8674	392	**13**	-1.4112	210.6068	211	**54**	1.8393	446.0931	446
14	-2.1585	194.3611	194	**55**	1.1780	399.5378	400	**14**	-1.3106	218.1604	218	**55**	1.9600	454.8805	455
15	-2.0606	200.3737	200	**56**	1.3104	407.7233	408	**15**	-1.2148	224.8094	225	**56**	2.0905	464.2692	464
16	-1.9670	206.2204	206	**57**	1.4550	416.4247	416	**16**	-1.1231	231.5999	232	**57**	2.2332	474.6280	475
17	-1.8769	211.5698	212	**58**	1.6152	426.1805	426	**17**	-1.0350	237.6532	238	**58**	2.3914	486.1660	486
18	-1.7900	217.2270	217	**59**	1.7957	437.4986	437	**18**	-0.9499	243.7967	244	**59**	2.5700	498.8477	499
19	-1.7059	222.3385	222	**60**	2.0043	450.4300	450	**19**	-0.8676	249.9795	250	**60**	2.7765	513.5544	514
20	-1.6242	227.2144	227	**61**	2.2534	465.4448	465	**20**	-0.7876	255.6264	256	**61**	3.0236	531.4946	531
21	-1.5445	231.7923	232	**62**	2.5669	484.6702	485	**21**	-0.7096	261.1959	261	**62**	3.3351	554.6898	555
22	-1.4667	236.7600	237	**63**	2.9979	511.2660	511	**22**	-0.6334	266.9009	267	**63**	3.7639	587.3775	587
23	-1.3905	241.4977	241	**64**	3.7160	555.1688	555	**23**	-0.5588	272.2325	272	**64**	4.4803	637.7067	600
24	-1.3157	245.9500	246	**65**	N/A	630.7795	600	**24**	-0.4855	277.6961	278	**65**	N/A	714.6990	600
25	-1.2421	250.6318	251					**25**	-0.4134	283.0123	283				
26	-1.1695	254.9871	255					**26**	-0.3424	288.0285	288				
27	-1.0977	259.6412	260					**27**	-0.2721	293.0374	293				
28	-1.0267	263.7935	264					**28**	-0.2026	298.0393	298				
29	-0.9563	267.9854	268					**29**	-0.1336	303.0337	303				
30	-0.8863	272.6416	273					**30**	-0.0650	308.0202	308				
31	-0.8166	276.7207	277					**31**	0.0032	312.9982	313				
32	-0.7471	280.7784	281					**32**	0.0713	317.9676	318				
33	-0.6777	285.3471	285					**33**	0.1393	322.9280	323				
34	-0.6082	289.4547	289					**34**	0.2074	327.8792	328				
35	-0.5386	293.8934	294					**35**	0.2756	332.8208	333				
36	-0.4686	298.0632	298					**36**	0.3442	337.8569	338				
37	-0.3982	302.3689	302					**37**	0.4132	343.1253	343				
38	-0.3272	306.8931	307					**38**	0.4827	348.2863	348				
39	-0.2555	311.4032	311					**39**	0.5529	353.1876	353				
40	-0.1830	315.9004	316					**40**	0.6239	358.1652	358				

Table 3.A.15 2008 New Conversions for Integrated Mathematics 2 and Integrated Mathematics 3

Integrated Mathematics 2								Integrated Mathematics 3							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	-60.2788	150	**41**	0.3974	374.6489	375	**0**	N/A	-100.7238	150	**41**	0.4070	368.7980	369
1	-4.5582	37.8983	150	**42**	0.4698	379.5142	380	**1**	-4.7913	-30.8300	150	**42**	0.4834	374.5093	375
2	-3.8417	89.8508	150	**43**	0.5435	384.3931	384	**2**	-4.0608	20.8085	150	**43**	0.5611	380.3705	380
3	-3.4125	120.2136	150	**44**	0.6187	389.2472	389	**3**	-3.6189	57.5586	150	**44**	0.6403	386.6554	387
4	-3.1009	141.5761	150	**45**	0.6957	394.6034	395	**4**	-3.2957	84.2028	150	**45**	0.7213	392.5329	393
5	-2.8536	158.5403	159	**46**	0.7746	400.0090	400	**5**	-3.0376	104.8694	150	**46**	0.8043	398.9793	399
6	-2.6469	172.6375	173	**47**	0.8559	405.3928	405	**6**	-2.8210	121.7960	150	**47**	0.8896	405.6272	406
7	-2.4682	184.6760	185	**48**	0.9398	411.0348	411	**7**	-2.6330	136.3595	150	**48**	0.9776	412.5300	413
8	-2.3100	195.3298	195	**49**	1.0267	416.9646	417	**8**	-2.4660	149.4636	150	**49**	1.0686	419.2001	419
9	-2.1672	204.8578	205	**50**	1.1171	422.8732	423	**9**	-2.3151	161.1336	161	**50**	1.1631	426.5774	427
10	-2.0366	213.3773	213	**51**	1.2115	428.8791	429	**10**	-2.1768	171.7300	172	**51**	1.2617	434.1495	434
11	-1.9159	221.3408	221	**52**	1.3107	435.8289	436	**11**	-2.0488	181.7168	182	**52**	1.3651	441.8278	442
12	-1.8031	229.0636	229	**53**	1.4154	442.9089	443	**12**	-1.9292	190.8014	191	**53**	1.4741	450.3725	450
13	-1.6971	236.2125	236	**54**	1.5268	450.2947	450	**13**	-1.8165	199.2444	199	**54**	1.5897	459.1921	459
14	-1.5967	242.9800	243	**55**	1.6461	458.1456	458	**14**	-1.7098	207.6722	208	**55**	1.7133	468.7395	469
15	-1.5011	249.0646	249	**56**	1.7751	466.7564	467	**15**	-1.6082	215.5783	216	**56**	1.8467	478.9889	479
16	-1.4097	255.0822	255	**57**	1.9162	476.3775	476	**16**	-1.5110	222.9592	223	**57**	1.9922	490.2851	490
17	-1.3218	261.0346	261	**58**	2.0728	487.0017	487	**17**	-1.4175	230.1649	230	**58**	2.1532	502.5785	503
18	-1.2370	266.9278	267	**59**	2.2497	498.8715	499	**18**	-1.3273	236.9409	237	**59**	2.3346	516.6263	517
19	-1.1549	272.2460	272	**60**	2.4545	513.0143	513	**19**	-1.2399	243.7407	244	**60**	2.5439	533.1938	533
20	-1.0751	277.3269	277	**61**	2.6997	530.0771	530	**20**	-1.1551	250.2278	250	**61**	2.7936	553.0461	553
21	-0.9975	282.3350	282	**62**	3.0093	551.3148	551	**21**	-1.0725	256.6674	257	**62**	3.1079	578.2385	578
22	-0.9216	287.2971	287	**63**	3.4362	582.7409	583	**22**	-0.9918	262.6440	263	**63**	3.5395	613.8106	600
23	-0.8473	292.2145	292	**64**	4.1504	631.8177	600	**23**	-0.9128	268.3937	268	**64**	4.2584	668.4290	600
24	-0.7744	297.0895	297	**65**	N/A	699.9591	600	**24**	-0.8353	274.1619	274	**65**	N/A	753.3237	600
25	-0.7027	301.9219	302					**25**	-0.7591	279.9437	280				
26	-0.6320	306.7138	307					**26**	-0.6840	285.7387	286				
27	-0.5622	311.4656	311					**27**	-0.6098	291.5443	292				
28	-0.4931	316.0461	316					**28**	-0.5364	297.3467	297				
29	-0.4245	320.3415	320					**29**	-0.4636	302.9536	303				
30	-0.3565	324.8179	325					**30**	-0.3913	308.2002	308				
31	-0.2887	329.4245	329					**31**	-0.3194	313.7219	314				
32	-0.2212	333.9975	334					**32**	-0.2477	319.0560	319				
33	-0.1537	338.5389	339					**33**	-0.1762	324.4877	324				
34	-0.0862	343.0462	343					**34**	-0.1047	329.9483	330				
35	-0.0186	347.5233	348					**35**	-0.0330	335.6947	336				
36	0.0493	351.9723	352					**36**	0.0389	340.9922	341				
37	0.1176	356.3911	356					**37**	0.1112	346.4846	346				
38	0.1864	360.7823	361					**38**	0.1840	351.6990	352				
39	0.2559	365.4242	365					**39**	0.2575	357.3249	357				
40	0.3262	370.1362	370					**40**	0.3318	363.0703	363				

Table 3.A.16 2008 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**	0.1645	345.1589	345	**0**	N/A	-96.6361	150	**41**	0.4045	356.6875	357
1	-5.0062	65.9699	150	**42**	0.2521	350.2068	350	**1**	-4.6374	-52.7818	150	**42**	0.4875	363.6515	364
2	-4.2888	86.2810	150	**43**	0.3423	355.4183	355	**2**	-3.9224	-10.7440	150	**43**	0.5729	370.8216	371
3	-3.8585	110.7927	150	**44**	0.4356	360.8044	361	**3**	-3.4946	28.8151	150	**44**	0.6613	378.2359	378
4	-3.5456	130.0837	150	**45**	0.5325	366.3864	366	**4**	-3.1842	54.1012	150	**45**	0.7531	385.9395	386
5	-3.2969	145.3754	150	**46**	0.6334	372.1976	372	**5**	-2.9380	75.5838	150	**46**	0.8489	393.9679	394
6	-3.0887	156.9804	157	**47**	0.7392	378.3109	378	**6**	-2.7323	93.4940	150	**47**	0.9493	402.3855	402
7	-2.9082	167.6901	168	**48**	0.8505	384.7436	385	**7**	-2.5544	108.0504	150	**48**	1.0552	411.2795	411
8	-2.7480	177.0496	177	**49**	0.9686	391.5448	392	**8**	-2.3967	121.3957	150	**49**	1.1676	420.7240	421
9	-2.6032	185.3082	185	**50**	1.0948	398.8236	399	**9**	-2.2545	133.5771	150	**50**	1.2880	430.8163	431
10	-2.4704	193.0806	193	**51**	1.2308	406.6909	407	**10**	-2.1243	144.4158	150	**51**	1.4180	441.7084	442
11	-2.3472	200.2605	200	**52**	1.3790	415.2254	415	**11**	-2.0038	154.5006	155	**52**	1.5600	453.6673	454
12	-2.2318	206.8423	207	**53**	1.5428	424.6944	425	**12**	-1.8911	164.0212	164	**53**	1.7174	466.8502	467
13	-2.1230	213.1450	213	**54**	1.7271	435.3672	435	**13**	-1.7851	173.0232	173	**54**	1.8951	481.8048	482
14	-2.0197	219.1708	219	**55**	1.9394	447.5286	448	**14**	-1.6845	181.3842	181	**55**	2.1007	499.0565	499
15	-1.9210	224.8434	225	**56**	2.1926	462.3283	462	**15**	-1.5886	189.4193	189	**56**	2.3467	519.8073	520
16	-1.8262	230.2927	230	**57**	2.5101	480.6980	481	**16**	-1.4966	197.1584	197	**57**	2.6569	545.7402	546
17	-1.7347	235.5778	236	**58**	2.9453	506.1252	506	**17**	-1.4081	204.6312	205	**58**	3.0846	582.3464	582
18	-1.6462	240.7096	241	**59**	3.6678	550.6191	551	**18**	-1.3225	211.8004	212	**59**	3.7989	644.5864	600
19	-1.5602	245.6894	246	**60**	N/A	624.0193	600	**19**	-1.2394	218.7497	219	**60**	N/A	742.1487	600
20	-1.4763	250.5090	251					**20**	-1.1585	225.5377	226				
21	-1.3942	255.2356	255					**21**	-1.0795	232.1781	232				
22	-1.3138	259.8758	260					**22**	-1.0022	238.6810	239				
23	-1.2346	264.4441	264					**23**	-0.9262	245.0609	245				
24	-1.1566	268.9508	269					**24**	-0.8514	251.3242	251				
25	-1.0795	273.4018	273					**25**	-0.7776	257.5142	258				
26	-1.0032	277.8138	278					**26**	-0.7045	263.6410	264				
27	-0.9274	282.1829	282					**27**	-0.6321	269.7168	270				
28	-0.8520	286.5327	287					**28**	-0.5602	275.7544	276				
29	-0.7769	290.8640	291					**29**	-0.4886	281.7710	282				
30	-0.7018	295.1924	295					**30**	-0.4171	287.7718	288				
31	-0.6267	299.5251	300					**31**	-0.3456	293.7682	294				
32	-0.5513	303.8687	304					**32**	-0.2740	299.7779	300				
33	-0.4757	308.2379	308					**33**	-0.2021	305.8025	306				
34	-0.3994	312.6321	313					**34**	-0.1297	311.8735	312				
35	-0.3225	317.0703	317					**35**	-0.0567	317.9939	318				
36	-0.2447	321.5601	322					**36**	0.0170	324.1848	324				
37	-0.1658	326.1067	326					**37**	0.0918	330.4514	330				
38	-0.0857	330.7296	331					**38**	0.1676	336.8191	337				
39	-0.0041	335.4330	335					**39**	0.2449	343.2995	343				
40	0.0792	340.2386	340					**40**	0.3237	349.9141	350				

Table 3.A.17 2008 New Conversion for Grade 10 Life Science

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**	0.5354	353.4080	353
1	-4.5360	75.3545	150	**42**	0.6193	358.0870	358
2	-3.8197	107.6891	150	**43**	0.7059	362.9138	363
3	-3.3906	133.3472	150	**44**	0.7954	367.8975	368
4	-3.0790	151.3675	151	**45**	0.8883	373.0857	373
5	-2.8318	165.4851	165	**46**	0.9853	378.5024	379
6	-2.6250	177.1452	177	**47**	1.0870	384.1811	384
7	-2.4462	187.0194	187	**48**	1.1943	390.1688	390
8	-2.2877	195.8454	196	**49**	1.3082	396.5278	397
9	-2.1447	203.8403	204	**50**	1.4300	403.3256	403
10	-2.0137	211.1719	211	**51**	1.5615	410.6568	411
11	-1.8925	217.9655	218	**52**	1.7052	418.6427	419
12	-1.7792	224.3125	224	**53**	1.8643	427.5448	428
13	-1.6724	230.2914	230	**54**	2.0439	437.6164	438
14	-1.5712	235.9170	236	**55**	2.2513	449.2401	449
15	-1.4747	241.2910	241	**56**	2.4992	463.0669	463
16	-1.3822	246.4494	246	**57**	2.8114	480.4010	480
17	-1.2931	251.4188	251	**58**	3.2413	505.2519	505
18	-1.2069	256.2240	256	**59**	3.9584	547.4754	547
19	-1.1233	260.8886	261	**60**	N/A	602.3473	600
20	-1.0419	265.4344	265				
21	-0.9624	269.8743	270				
22	-0.8845	274.2204	274				
23	-0.8080	278.4917	278				
24	-0.7327	282.6952	283				
25	-0.6583	286.8397	287				
26	-0.5847	290.9397	291				
27	-0.5118	295.0082	295				
28	-0.4392	299.0503	299				
29	-0.3670	303.0787	303				
30	-0.2949	307.1001	307				
31	-0.2228	311.1235	311				
32	-0.1505	315.1556	315				
33	-0.0779	319.2021	319				
34	-0.0048	323.2794	323				
35	0.0689	327.3929	327				
36	0.1434	331.5485	332				
37	0.2190	335.7589	336				
38	0.2957	340.0408	340				
39	0.3738	344.3983	344				
40	0.4537	348.8501	349				

Table 3.A.18 2008 New Conversions for Biology and Earth Science

Biology								Earth Science							
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**	0.4184	354.9151	355	**0**	N/A	51.0104	150	**41**	0.7555	350.6618	351
1	-4.6680	90.1314	150	**42**	0.5008	358.7519	359	**1**	-4.3534	98.3612	150	**42**	0.8397	354.9066	355
2	-3.9494	134.6841	150	**43**	0.5858	363.0605	363	**2**	-3.6352	131.5292	150	**43**	0.9264	359.1563	359
3	-3.5181	157.9046	158	**44**	0.6736	367.4010	367	**3**	-3.2043	154.2565	154	**44**	1.0161	363.4093	363
4	-3.2045	174.2297	174	**45**	0.7648	371.9959	372	**4**	-2.8911	170.2773	170	**45**	1.1092	368.1682	368
5	-2.9553	187.2390	187	**46**	0.8599	376.6806	377	**5**	-2.6421	182.7817	183	**46**	1.2062	372.9539	373
6	-2.7467	197.6519	198	**47**	0.9596	381.4490	381	**6**	-2.4338	193.1807	193	**47**	1.3080	377.8371	378
7	-2.5661	206.3214	206	**48**	1.0647	386.8714	387	**7**	-2.2534	202.1701	202	**48**	1.4154	383.1487	383
8	-2.4060	214.2108	214	**49**	1.1763	392.5109	393	**8**	-2.0935	209.8365	210	**49**	1.5293	388.6326	389
9	-2.2614	221.4609	221	**50**	1.2958	398.2190	398	**9**	-1.9490	216.9040	217	**50**	1.6511	394.6759	395
10	-2.1291	228.1971	228	**51**	1.4249	404.6208	405	**10**	-1.8166	223.4641	223	**51**	1.7827	401.2717	401
11	-2.0065	234.5394	235	**52**	1.5660	411.7339	412	**11**	-1.6941	229.4754	229	**52**	1.9264	408.4116	408
12	-1.8919	240.2007	240	**53**	1.7224	419.5750	420	**12**	-1.5795	235.1509	235	**53**	2.0855	416.0905	416
13	-1.7841	245.4805	245	**54**	1.8989	428.5037	429	**13**	-1.4715	240.5497	241	**54**	2.2650	425.0154	425
14	-1.6819	250.7989	251	**55**	2.1034	438.4561	438	**14**	-1.3691	245.9247	246	**55**	2.4724	435.1617	435
15	-1.5844	255.4628	255	**56**	2.3482	450.9264	451	**15**	-1.2714	250.5111	251	**56**	2.7204	447.5994	448
16	-1.4911	259.9581	260	**57**	2.6572	466.4777	466	**16**	-1.1778	255.1401	255	**57**	3.0328	462.6639	463
17	-1.4012	264.4846	264	**58**	3.0836	488.5312	489	**17**	-1.0876	259.8095	260	**58**	3.4626	483.9866	484
18	-1.3144	268.8381	269	**59**	3.7965	525.5977	526	**18**	-1.0004	264.0914	264	**59**	4.1798	519.1501	519
19	-1.2303	272.9683	273	**60**	N/A	595.4996	600	**19**	-0.9159	267.9525	268	**60**	N/A	579.7196	600
20	-1.1484	277.1254	277					**20**	-0.8335	272.1833	272				
21	-1.0685	281.2205	281					**21**	-0.7531	276.1307	276				
22	-0.9904	284.9658	285					**22**	-0.6743	280.0181	280				
23	-0.9137	288.7355	289					**23**	-0.5970	283.9336	284				
24	-0.8382	292.5297	293					**24**	-0.5209	287.4834	287				
25	-0.7638	296.3484	296					**25**	-0.4457	291.3529	291				
26	-0.6903	299.7304	300					**26**	-0.3714	294.9386	295				
27	-0.6175	303.5602	304					**27**	-0.2978	298.4532	298				
28	-0.5452	307.0218	307					**28**	-0.2246	302.4218	302				
29	-0.4733	310.4507	310					**29**	-0.1517	306.0318	306				
30	-0.4016	314.3164	314					**30**	-0.0791	309.6040	310				
31	-0.3300	317.8756	318					**31**	-0.0064	313.1937	313				
32	-0.2583	321.3720	321					**32**	0.0664	316.8000	317				
33	-0.1864	324.8915	325					**33**	0.1395	320.4218	320				
34	-0.1140	328.4342	328					**34**	0.2130	324.0581	324				
35	-0.0412	332.0005	332					**35**	0.2872	327.7081	328				
36	0.0324	335.5907	336					**36**	0.3621	331.3705	331				
37	0.1070	339.2053	339					**37**	0.4380	335.0443	335				
38	0.1826	343.3223	343					**38**	0.5150	338.7282	339				
39	0.2595	347.0087	347					**39**	0.5935	342.6830	343				
40	0.3380	350.7264	351					**40**	0.6735	346.6143	347				

Table 3.A.19 2008 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**	0.3802	345.2770	345
1	-4.7112	96.0716	150	**42**	0.4653	349.3946	349
2	-3.9958	128.8046	150	**43**	0.5531	353.7895	354
3	-3.5676	151.9149	152	**44**	0.6438	358.2193	358
4	-3.2567	167.5912	168	**45**	0.7380	362.6877	363
5	-3.0100	179.6732	180	**46**	0.8362	367.6713	368
6	-2.8037	189.7346	190	**47**	0.9391	372.5075	373
7	-2.6252	198.4960	198	**48**	1.0476	377.9779	378
8	-2.4669	206.4888	206	**49**	1.1626	383.4633	383
9	-2.3240	213.5762	214	**50**	1.2856	389.6511	390
10	-2.1931	219.6460	220	**51**	1.4183	396.0586	396
11	-2.0718	225.6789	226	**52**	1.5632	403.1863	403
12	-1.9584	231.3900	231	**53**	1.7234	411.0428	411
13	-1.8515	236.6162	237	**54**	1.9039	419.9386	420
14	-1.7500	241.5587	242	**55**	2.1125	429.8781	430
15	-1.6532	246.1734	246	**56**	2.3615	442.2070	442
16	-1.5602	250.8367	251	**57**	2.6747	457.6142	458
17	-1.4707	255.2182	255	**58**	3.1055	479.3900	479
18	-1.3840	259.2733	259	**59**	3.8230	516.2095	516
19	-1.2999	263.2100	263	**60**	N/A	584.6196	600
20	-1.2179	267.1878	267				
21	-1.1377	271.2066	271				
22	-1.0591	275.1762	275				
23	-0.9818	278.8226	279				
24	-0.9057	282.5064	283				
25	-0.8305	286.2276	286				
26	-0.7561	289.9865	290				
27	-0.6822	293.3265	293				
28	-0.6087	297.1284	297				
29	-0.5356	300.5605	301				
30	-0.4625	303.9822	304				
31	-0.3893	307.8798	308				
32	-0.3160	311.4159	311				
33	-0.2423	314.9378	315				
34	-0.1682	318.4929	318				
35	-0.0933	322.0812	322				
36	-0.0176	325.7024	326				
37	0.0590	329.4303	329				
38	0.1369	333.5333	334				
39	0.2163	337.2524	337				
40	0.2972	341.2009	341				

Table 3.A.20 2008 New Conversions for Physics (paper-and-pencil version and braille version)

Physics (paper-and-pencil)								Physics (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	51.4129	150	**41**	0.6969	362.2591	362	**0**	N/A	51.4129	150	**41**	0.7575	365.4074	365
1	-4.5857	102.7621	150	**42**	0.7852	366.8204	367	**1**	-4.5748	103.3157	150	**42**	0.8494	370.0393	370
2	-3.8551	137.4406	150	**43**	0.8762	371.3566	371	**2**	-3.8435	138.1325	150	**43**	0.9444	374.6424	375
3	-3.4137	160.1064	160	**44**	0.9703	375.8647	376	**3**	-3.4015	160.7569	161	**44**	1.0429	379.2132	379
4	-3.0914	176.1685	176	**45**	1.0679	380.4350	380	**4**	-3.0785	176.8204	177	**45**	1.1455	384.2201	384
5	-2.8346	188.9181	189	**46**	1.1697	385.4699	385	**5**	-2.8210	189.5997	190	**46**	1.2529	389.6972	390
6	-2.6193	199.6604	200	**47**	1.2763	390.8528	391	**6**	-2.6051	200.3702	200	**47**	1.3660	395.1437	395
7	-2.4327	208.9261	209	**48**	1.3886	396.2825	396	**7**	-2.4180	209.6571	210	**48**	1.4859	401.0208	401
8	-2.2672	216.8676	217	**49**	1.5077	402.1275	402	**8**	-2.2518	217.5828	218	**49**	1.6138	407.3076	407
9	-2.1176	224.1491	224	**50**	1.6348	408.3661	408	**9**	-2.1016	224.9738	225	**50**	1.7517	413.9877	414
10	-1.9807	231.0060	231	**51**	1.7719	415.0314	415	**10**	-1.9640	231.8193	232	**51**	1.9018	421.4935	421
11	-1.8538	237.1627	237	**52**	1.9213	422.4740	422	**11**	-1.8364	238.0057	238	**52**	2.0676	429.7688	430
12	-1.7351	242.8542	243	**53**	2.0864	430.6508	431	**12**	-1.7171	243.7145	244	**53**	2.2541	438.7669	439
13	-1.6234	248.3327	248	**54**	2.2721	439.5766	440	**13**	-1.6047	249.2826	249	**54**	2.4687	449.5009	450
14	-1.5173	253.5619	254	**55**	2.4859	450.3159	450	**14**	-1.4979	254.5088	255	**55**	2.7241	462.2875	462
15	-1.4162	258.5893	259	**56**	2.7406	463.0662	463	**15**	-1.3960	259.6215	260	**56**	3.0441	478.2739	478
16	-1.3192	263.3287	263	**57**	3.0599	479.0343	479	**16**	-1.2983	264.3359	264	**57**	3.4820	501.1112	501
17	-1.2258	267.8897	268	**58**	3.4971	501.9430	502	**17**	-1.2041	268.9766	269	**58**	4.2076	535.0026	535
18	-1.1355	272.4656	272	**59**	4.2220	535.6749	536	**18**	-1.1129	273.6339	274	**59**	N/A	582.7871	600
19	-1.0478	276.6850	277	**60**	N/A	582.7871	600	**19**	-1.0243	277.7970	278				
20	-0.9624	280.7780	281					**20**	-0.9380	281.9647	282				
21	-0.8789	284.8821	285					**21**	-0.8536	286.1451	286				
22	-0.7971	288.9966	289					**22**	-0.7709	290.3354	290				
23	-0.7168	293.1196	293					**23**	-0.6895	294.3706	294				
24	-0.6377	296.7635	297					**24**	-0.6093	298.2584	298				
25	-0.5595	300.8550	301					**25**	-0.5301	302.2322	302				
26	-0.4822	304.4818	304					**26**	-0.4516	305.9286	306				
27	-0.4055	308.2220	308					**27**	-0.3736	309.9556	310				
28	-0.3292	312.2353	312					**28**	-0.2960	313.8224	314				
29	-0.2532	315.8727	316					**29**	-0.2186	317.5301	318				
30	-0.1773	319.5115	320					**30**	-0.1413	321.2393	321				
31	-0.1014	323.1507	323					**31**	-0.0639	324.9487	325				
32	-0.0254	326.7881	327					**32**	0.0138	328.7058	329				
33	0.0511	330.7273	331					**33**	0.0920	332.8501	333				
34	0.1280	334.5459	335					**34**	0.1709	336.5517	337				
35	0.2057	338.1740	338					**35**	0.2505	340.4205	340				
36	0.2842	342.1900	342					**36**	0.3311	344.4236	344				
37	0.3637	345.8973	346					**37**	0.4130	348.3530	348				
38	0.4445	349.9516	350					**38**	0.4963	352.5445	353				
39	0.5268	354.0590	354					**39**	0.5813	356.7233	357				
40	0.6108	358.1505	358					**40**	0.6683	360.8833	361				

Table 3.A.21 2008 New Conversions for Integrated/Coordinated Science 1 (paper-and-pencil version and braille version)

Integrated/Coordinated Science 1 (paper-and-pencil)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	41	0.5753	350.0000	350
1	-4.5621	108.3291	150	42	0.6603	353.9971	354
2	-3.8418	142.2095	150	43	0.7479	358.1172	358
3	-3.4093	162.5567	163	44	0.8384	362.3764	362
4	-3.0947	177.3579	177	45	0.9324	366.7978	367
5	-2.8446	189.1238	189	46	1.0304	371.4069	371
6	-2.6352	198.9717	199	47	1.1331	376.2387	376
7	-2.4539	207.4992	207	48	1.2290	380.7492	381
8	-2.2932	215.0601	215	49	1.3291	385.4603	385
9	-2.1480	221.8905	222	50	1.4347	390.4262	390
10	-2.0151	228.1449	228	51	1.5794	397.2342	397
11	-1.8919	233.9383	234	52	1.7388	404.7329	405
12	-1.7767	239.3560	239	53	1.9165	413.0930	413
13	-1.6683	244.4586	244	54	2.0970	421.5845	422
14	-1.5653	249.3002	249	55	2.3056	431.3940	431
15	-1.4672	253.9176	254	56	2.5546	443.1110	443
16	-1.3731	258.3451	258	57	2.8681	457.8553	458
17	-1.2824	262.6092	263	58	3.2990	478.1298	478
18	-1.1948	266.7328	267	59	4.0171	511.9100	512
19	-1.1209	270.2097	270	60	N/A	1263.7723	600
20	-1.0475	273.6626	274				
21	-0.9744	277.1003	277				
22	-0.8841	281.3483	281				
23	-0.7968	285.4539	285				
24	-0.7123	289.4298	289				
25	-0.6366	292.9904	293				
26	-0.5618	296.5099	297				
27	-0.4876	300.0000	300				
28	-0.4138	303.4704	303				
29	-0.3404	306.9244	307				
30	-0.2671	310.3711	310				
31	-0.1938	313.8195	314				
32	-0.1204	317.2727	317				
33	-0.0466	320.7424	321				
34	0.0275	324.2318	324				
35	0.1024	327.7536	328				
36	0.1780	331.3115	331				
37	0.2546	334.9152	335				
38	0.3324	338.5743	339				
39	0.4117	342.3020	342				
40	0.4925	346.1033	346				

Integrated/Coordinated Science 1 (braille)							
Raw Scr.	Theta	Scale Score	Rprtd Score	Raw Scr.	Theta	Scale Score	Rprtd Score
0	N/A	0.0000	150	41	0.6324	354.2744	354
1	-4.5481	95.9148	150	42	0.7206	358.6762	359
2	-3.8272	131.8702	150	43	0.8037	362.8206	363
3	-3.2074	162.7786	163	44	0.8884	367.0411	367
4	-2.9249	176.8661	177	45	0.9750	371.3605	371
5	-2.6868	188.7409	189	46	1.0641	375.8056	376
6	-2.4875	198.6827	199	47	1.1564	380.4102	380
7	-2.3148	207.2932	207	48	1.2528	385.2158	385
8	-2.1616	214.9342	215	49	1.3542	390.2738	390
9	-2.0232	221.8376	222	50	1.4939	397.2412	397
10	-1.8964	228.1625	228	51	1.6478	404.9147	405
11	-1.7788	234.0243	234	52	1.8194	413.4740	413
12	-1.6865	238.6303	239	53	2.0140	423.1800	423
13	-1.5818	243.8516	244	54	2.2396	434.4316	434
14	-1.4824	248.8075	249	55	2.5096	447.8963	448
15	-1.3876	253.5371	254	56	2.8490	464.8194	465
16	-1.2966	258.0733	258	57	3.2806	486.3443	486
17	-1.1964	263.0728	263	58	3.9997	522.2082	522
18	-1.1241	266.6745	267	59	N/A	1320.1701	600
19	-1.0635	269.6995	270				
20	-0.9816	273.7844	274				
21	-0.9199	276.8594	277				
22	-0.8399	280.8521	281				
23	-0.7612	284.7771	285				
24	-0.6836	288.6444	289				
25	-0.6010	292.7666	293				
26	-0.5259	296.5109	297				
27	-0.4559	300.0000	300				
28	-0.3811	303.7335	304				
29	-0.3064	307.4550	307				
30	-0.2319	311.1720	311				
31	-0.1573	314.8926	315				
32	-0.0824	318.6254	319				
33	-0.0072	322.3788	322				
34	0.0687	326.1615	326				
35	0.1452	329.9806	330				
36	0.2228	333.8465	334				
37	0.3014	337.7704	338				
38	0.3815	341.7620	342				
39	0.4631	345.8339	346				
40	0.5467	350.0000	350				

Table 3.A.22 2008 New Conversions for Integrated/Coordinated Science 2 and Integrated/Coordinated Science 3

Integrated/Coordinated Science 2							
Raw Scr.	**Theta**	**Scale Score**	**Rprtd Score**	**Raw Scr.**	**Theta**	**Scale Score**	**Rprtd Score**
0	N/A	0.0000	150	**41**	0.5967	353.9268	354
1	-4.5617	109.9647	150	**42**	0.6818	357.9545	358
2	-3.8396	144.1169	150	**43**	0.7696	362.1060	362
3	-3.4054	164.6520	165	**44**	0.8604	366.3977	366
4	-3.0893	179.6007	180	**45**	0.9545	370.8524	371
5	-2.8379	191.4899	191	**46**	1.0527	375.4967	375
6	-2.6274	201.4447	201	**47**	1.1557	380.3649	380
7	-2.4451	210.0665	210	**48**	1.2642	385.4968	385
8	-2.2835	217.7110	218	**49**	1.3793	390.9409	391
9	-2.1375	224.6179	225	**50**	1.5024	396.7607	397
10	-2.0038	230.9410	231	**51**	1.6352	403.0439	403
11	-1.8799	236.7987	237	**52**	1.7802	409.9017	410
12	-1.7641	242.2766	242	**53**	1.9407	417.4907	417
13	-1.6550	247.4340	247	**54**	2.1215	426.0431	426
14	-1.5516	252.3276	252	**55**	2.3304	435.9206	436
15	-1.4529	256.9942	257	**56**	2.5798	447.7178	448
16	-1.3583	261.4672	261	**57**	2.8936	462.5602	463
17	-1.2672	265.7757	266	**58**	3.3251	482.9639	483
18	-1.1792	269.9405	270	**59**	4.0436	516.9488	517
19	-1.0937	273.9798	274	**60**	N/A	1271.5936	600
20	-1.0105	277.9152	278				
21	-0.9293	281.7587	282				
22	-0.8497	285.5223	286				
23	-0.7716	289.2175	289				
24	-0.6946	292.8558	293				
25	-0.6187	296.4489	296				
26	-0.5436	300.0000	300				
27	-0.4691	303.5207	304				
28	-0.3951	307.0211	307				
29	-0.3214	310.5054	311				
30	-0.2479	313.9817	314				
31	-0.1744	317.4585	317				
32	-0.1008	320.9399	321				
33	-0.0268	324.4380	324				
34	0.0475	327.9563	328				
35	0.1226	331.5058	332				
36	0.1984	335.0919	335				
37	0.2752	338.7247	339				
38	0.3532	342.4125	342				
39	0.4326	346.1685	346				
40	0.5136	350.0000	350				

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**	0.4948	357.8057	358
1	-4.6265	112.7508	150	**42**	0.5795	361.8577	362
2	-3.9075	147.1555	150	**43**	0.6668	366.0361	366
3	-3.4760	167.8011	168	**44**	0.7495	369.9917	370
4	-3.1623	182.8127	183	**45**	0.8337	374.0231	374
5	-2.9130	194.7402	195	**46**	0.9200	378.1499	378
6	-2.7044	204.7219	205	**47**	1.0088	382.3992	382
7	-2.5238	213.3634	213	**48**	1.1008	386.8031	387
8	-2.3637	221.0256	221	**49**	1.1969	391.3982	391
9	-2.2191	227.9461	228	**50**	1.3259	397.5734	398
10	-2.0866	234.2825	234	**51**	1.4668	404.3129	404
11	-1.9639	240.1531	240	**52**	1.6220	411.7425	412
12	-1.8492	245.6423	246	**53**	1.7952	420.0312	420
13	-1.7412	250.8120	251	**54**	1.9918	429.4345	429
14	-1.6387	255.7178	256	**55**	2.2199	440.3519	440
15	-1.5409	260.3965	260	**56**	2.4684	452.2434	452
16	-1.4471	264.8837	265	**57**	2.7812	467.2112	467
17	-1.3568	269.2047	269	**58**	3.2116	487.8042	488
18	-1.2822	272.7767	273	**59**	3.9289	522.1253	522
19	-1.2085	276.3032	276	**60**	N/A	1291.1333	600
20	-1.1132	280.8592	281				
21	-1.0216	285.2453	285				
22	-0.9426	289.0240	289				
23	-0.8650	292.7362	293				
24	-0.7887	296.3910	296				
25	-0.7132	300.0000	300				
26	-0.6387	303.5680	304				
27	-0.5647	307.1071	307				
28	-0.4912	310.6258	311				
29	-0.4180	314.1267	314				
30	-0.3450	317.6221	318				
31	-0.2719	321.1189	321				
32	-0.1987	324.6204	325				
33	-0.1252	328.1383	328				
34	-0.0512	331.6768	332				
35	0.0234	335.2474	335				
36	0.0988	338.8555	339				
37	0.1752	342.5095	343				
38	0.2527	346.2202	346				
39	0.3317	350.0000	350				
40	0.4122	353.8543	354				

Table 3.A.23 2008 New Conversion for Integrated/Coordinated Science 4

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**	0.5842	350.0000	350
1	-4.5681	90.2597	150	**42**	0.6694	354.2947	354
2	-3.8466	126.6303	150	**43**	0.7572	358.7216	359
3	-3.4130	148.4895	150	**44**	0.8565	363.7254	364
4	-3.0974	164.3979	164	**45**	0.9705	369.4731	369
5	-2.8465	177.0479	177	**46**	1.0925	375.6231	376
6	-2.6364	187.6381	188	**47**	1.2235	382.2266	382
7	-2.4545	196.8095	197	**48**	1.3646	389.3444	389
8	-2.2932	204.9415	205	**49**	1.5175	397.0500	397
9	-2.1475	212.2883	212	**50**	1.6392	403.1868	403
10	-2.0140	219.0147	219	**51**	1.7692	409.7377	410
11	-1.8904	225.2459	225	**52**	1.9096	416.8164	417
12	-1.7749	231.0732	231	**53**	2.0636	424.5822	425
13	-1.6660	236.5603	237	**54**	2.2361	433.2746	433
14	-1.5627	241.7671	242	**55**	2.4343	443.2681	443
15	-1.4642	246.7324	247	**56**	2.6705	455.1786	455
16	-1.3698	251.4929	251	**57**	2.9681	470.1801	470
17	-1.2789	256.0779	256	**58**	3.3794	490.9118	491
18	-1.1909	260.5111	261	**59**	4.0720	525.8289	526
19	-1.1056	264.8106	265	**60**	N/A	1328.8063	600
20	-1.0225	269.0001	269				
21	-0.9508	272.6177	273				
22	-0.8791	276.2310	276				
23	-0.7916	280.6400	281				
24	-0.7069	284.9099	285				
25	-0.6310	288.7369	289				
26	-0.5560	292.5196	293				
27	-0.4816	296.2705	296				
28	-0.4076	300.0000	300				
29	-0.3340	303.7122	304				
30	-0.2605	307.4166	307				
31	-0.1870	311.1221	311				
32	-0.1134	314.8326	315				
33	-0.0394	318.5612	319				
34	0.0350	322.3111	322				
35	0.1100	326.0952	326				
36	0.1859	329.9184	330				
37	0.2627	333.7909	334				
38	0.3407	337.7228	338				
39	0.4201	341.7279	342				
40	0.5011	345.8129	346				

Chapter 4: Validity

This chapter summarizes evidence supporting the content and criterion validity of the CSTs. The content validity evidence is based on the spring 2008 test assembly process. The criterion validity is based on a study relating the CSTs and the CAT/6 Survey tests, using the 2004 data when a full complement of CAT/6 Survey tests was administered. Other validity studies have been conducted by the CDE and school districts throughout California. Those studies are not included here.

Validity Evidence Based on Test Content

Content validity refers to the degree to which the content of a test samples, as determined by subject-matter experts. CST items were developed to align with the content standards that are representative of the broader content domains: English–language arts, mathematics, history–social science, and science. Thus, the content-related evidence of validity concerns the extent to which the test items represent these specified content domains and cognitive dimensions.

Content validity also provides information about how well an item measures its intended construct. Such validity is determined by a critical review of the items by experts in the field. For the CSTs, these reviews are conducted by experts in their designated areas from both the CDE and ETS. For these reviews, ETS senior content staff work directly with CDE content consultants.

The CDE content consultants each have extensive experience in K–12 assessments, particularly in their subject of expertise, and many are former teachers. At minimum, each CDE content consultant holds a bachelor's degree; most have an advanced degree in their area of expertise. All ETS content and test development staff have extensive experience with K–12 assessments, experience in teaching students with a broad range of abilities, and an understanding of the California content standards. They each hold, at minimum, a bachelor's degree; most have an advanced degree within their area of expertise.

After the CST items were written by ETS-trained item writers, a series of reviews, including reviews by ETS content assessment specialists and the external ARPs, were conducted to ensure that each item was measuring the appropriate California content standard and was matched to the item specifications. A description of the CST reporting clusters and the standards associated with each reporting cluster is provided in Appendix 2.B, which begins on page 26.

The following sections present more detailed information about the expertise of those who constructed and reviewed the CSTs.

CST Assessment Review Panel

In addition to the thorough content reviews completed by ETS content-area experts and the CDE content consultants, all CST items are reviewed by a content-area ARP. The ARPs are advisory panels to ETS on areas related to item development for the CSTs.

Purpose

As described in Chapter 2, ETS is responsible for working with ARPs as items are developed for the CSTs. For the 2008 development cycle, the ARPs were responsible for reviewing all newly developed items for alignment to the California content standards. The ARPs also reviewed the items for accuracy of content, appropriate of content for the intended subject and grade-level, clarity of phrasing, and quality. ETS provided 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. The ARPs may raise concerns in their examination of test items related to age/grade appropriateness and to gender, racial/ethnic, and socioeconomic bias.

Because the ARPs are responsible for reviewing the newly developed items for alignment to the California content standards, they determine whether the items are:

- Measuring the California standards as appropriate for the CST testing population
- Free of bias
- Interesting and appropriate to students tested at any particular grade/course level

Composition

The ARPs are composed 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 the following:

- Three or more years of general teaching experience in kindergarten through grade twelve and in the content areas (English–language arts, mathematics, history–social science or science)
- Possesion of a Bachelor's or higher degree in a grade or subject area related to English–language arts, mathematics, history–social science or science
- Knowledge and experience with the California content standards for English–language arts, mathematics, history–social science, or science

School administrators, district/county content/program specialists, and 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 English–language arts, mathematics, history–social science, or science
- Posession of a Bachelor's or higher degree in a grade-specific or subject area related to English–language arts, mathematics, history–social science, or science
- Knowledge of and experience with the California content standards for English–language arts, mathematics, history–social science, 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 were recruited through an application process. Recommendations were solicited from school districts and county offices of education as well as from CDE and SBE staff. Applications were received and reviewed throughout the year. They were reviewed by the ETS Assessment Directors, who confirmed that the applicant's qualifications met the specified criteria. Applications that met the criteria were forwarded to CDE and SBE staff for further review and final approval. Upon approval, the applicant was notified that he or she had been selected to serve on the ARP committee. Table 4.1, on the next page, shows the educational qualifications, present occupation, and credentials of the current CST ARP members.

Table 4.1 CST ARP Member Qualifications, by subject and total

	ELA	Math	Science	HSS	Grand Total
Total	33	25	38	26	122
Occupation (Members may teach multiple levels).					
Teacher or Program Specialist, Elementary/Middle School	14	6	18	7	45
Teacher or Program Specialist, High School	6	7	16	12	41
Teacher or Program Specialist, K–12	3	3	0	2	8
University Personnel	3	5	9	3	20
Other District Personnel (e.g., Director of Special Services, etc.)	6	5	0	2	13
Highest Degree Earned					
Bachelor's Degree	24	15	15	19	73
Master's Degree	6	15	18	6	45
Doctorate	0	5	7	0	12
Credential (Members may hold multiple credentials.)					
Elementary Teaching (Multiple Subjects)	13	8	12	4	37
Secondary Teaching (Single Subject)	7	1	3	4	15
Special Education	0	0	0	0	0
Reading Specialist	5	0	0	1	6
English Learner (CLAD,BCLAD)	7	3	5	1	16
Administrative	11	2	5	2	20
Other	0	0	0	0	0
None (teaching at the university level)	0	0	0	2	0

Currently, there are no term limits for ARP members. While most members serve on only one panel, some members serve on more than one to encourage consistency in the decisions made among the STAR testing programs. ETS and the CDE review the ARP membership annually for active participation. Members who have not attended a meeting within the past two years are notified that their invitation to participate may be withdrawn because of their lack of attendance. In addition, ETS and the CDE regularly review concerns about members whose conduct may be unprofessional and not conducive to the purpose of the ARP. If the concerns are determined to be valid, membership is revoked immediately.

CST Item Writers

The items selected for each of the CSTs are written by special panels of item writers with expertise in the California content standards. Applicants for item writing were screened by senior ETS content staff. Only applicants with strong content and teaching backgrounds were approved. Thus, participants were particularly experienced in writing to the standards assessed on the CST. All item writers met the following minimum qualifications:

- Possession of a Bachelor's or master's degree in the specified content area being tested
- Three or more years of general education teaching experience in the content areas (English–language arts, mathematics, science, or history–social science)
- Knowledge about the capabilities of the students taking the tests
- Knowledge and experience with California content standards in English–language arts, mathematics, science, or history–social science

Participants attended a general CST item-development training session, and then were given specific subject-area training. After viewing multiple examples of previously written CST items, participants were given item writing assignments. ETS facilitators provided feedback, and peer review methods were employed.

CST Development Procedures

The CSTs were constructed to measure students' achievement of the California content standards as well as to meet psychometric criteria for difficulty and reliability. The psychometric criteria were evaluated using projections based on item statistics from field-testing or previous operational administrations.

Test Assembly

Test blueprints for the components of the STAR Program (which includes the CSTs) were proposed by ETS, reviewed and approved by the respective ARPs, further 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.) For each test, the California content standards were used as the basis for choosing items. Additional technical targets (for example, difficulty and discrimination) for test construction were established on the basis of past characteristics of the tests, with the goal of maintaining parallel forms to the greatest extent possible.

Test Specifications

Statistical Specifications

For the CSTs in 2008, the primary statistical targets used for test assembly were the test information functions based on the IRT item parameters (one-parameter model) and average point-biserial correlation. When Rasch IRT estimates are used, the target information function makes it possible to choose items to produce a test that has the desired level of difficulty. The point-biserial correlation is a measure of how well the items discriminate among test takers and is related to the overall reliability of the test.

These specifications were developed from the analyses of test forms administered in the years 2002 through 2007; the target values and ranges for the specifications are presented in Table 2.1 on page 7. The minimum target value for a proportion-correct (indicator of item difficulty) was set at 0.20, and maximum value was set at 0.95; the minimum item point-biserial was set at 0.14 for each test. The target mean and standard deviation of item *b*-values consistent with the information curves were also provided to test development staff to help with the test construction process.

Content Specifications

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

Item Development

ETS senior content staff led the item writers in the item development and review process. In addition, experienced ETS content specialists and assessment editors reviewed each item during the forms-construction process. The lead assessment specialist for each content area worked directly with the other ETS assessment specialists to carefully review and edit each item for such technical characteristics as quality (e.g., one right answer, clearly stated stem, absence of clueing, plausibility of distractors), match to standard, and conformity with California-approved item-writing practices.

ETS maintains item specifications for each of the CSTs. ETS followed the Item Utilization Plan to guide the development of the quantity of items for each subject area.

Item specification documents included the constructs to be measured and the California content standards included in the test blueprints. The item specifications help ensure that the CSTs consistently match the content standards from year to year. Item writing emphasis is determined in consultation with the CDE. The item specifications also provide specific and important guidance to item writers and ensure that items are consistent in approach and written to measure the standards. The item specifications describe the general characteristics of the items within each content standard,

indicate item types or content to be avoided, and define the content limits for the items. In summary, the specifications included the following:

- A statement of the strand or topic for the standard
- A full statement of the academic content standard, as found in each CST blueprint
- The expected cognitive level(s) of items written for the standard (Acquire, Integrate, or Extend), as defined by ETS and approved by the CDE
- The construct(s) appropriately measured by the standard
- A description of the kinds of stems appropriate for multiple-choice items for the standard
- A description of the kinds of distracters appropriate for multiple-choice items for the standard
- A description of specific kinds of items to be avoided, if any (such as ELA items about insignificant details)
- A description of appropriate stimuli (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

Internal Reviews

After the items were written, ETS employed a series of internal reviews. The reviews established the criteria to be used in judging the content validity of the items, making sure that each item was measuring what it was intended to measure. The internal reviews also examined the overall quality of the test items before they were prepared for presentation to the CDE and the 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 CDE and the ARP and, later, Statewide Pupil Assessment Review (SPAR) panels.

The ETS review process for the CSTs included the following:

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

Throughout this multistep review process, the lead content-area assessment specialists and development team members continually evaluated the relevance of the information being assessed, its relevance to the California content standards, its match to the test and item specifications, and its appropriateness to the population being assessed. Items that were only peripherally related to the test and item specifications, that did not measure core outcomes reflected in the California content standards, or that were not developmentally appropriate were eliminated early in this rigorous review process.

1. Internal Content Review

CST items and materials received two reviews from the content-area assessment specialists. These assessment specialists made sure that the items and related materials were in compliance with ETS's written guidelines for clarity, style, accuracy, and appropriateness for California students and in compliance with the approved item specifications. Assessment specialists reviewed each item on the basis of the following criteria:

- Relevance of each item as the item relates to the purpose of the test
- Match of each item to the item specifications, including cognitive level
- Match of each item to the principles of quality item development
- Match of each item to the identified standard (or standards, for history–social science)
- Difficulty of the item

- Accuracy of the content of the item
- Readability of the item or passage
- Grade-level appropriateness of the item
- Appropriateness of any illustrations, graphs, figures, or other illustrations

The assessment specialists also checked all items against their cluster classification codes, both to evaluate the correctness of the classification and to ensure that a given task is of a type appropriate to the outcome it was intended to measure. The reviewers accepted the item and classification as written, suggested revisions, or recommended that the items be discarded. These steps occurred prior to the CDE's review.

2. Internal Editorial Review

After the content-area assessment specialists reviewed each item, a group of specially trained editors reviewed each item in preparation for the item's review by the CDE and the ARPs. The editors checked questions for clarity, correctness of language, appropriateness of language, 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 conducted the next level of review. These trained staff members reviewed every item before it was prepared for CDE and ARP review. In addition, the review process promoted 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 groups, individuals with disabilities, and women) to the history and culture of the United States and the achievements of individuals within these groups

ARP Meetings for Review of CST Items

The ETS content-area assessment specialists facilitated the CST ARP meetings. Each meeting began with a brief training session on how to review items. ETS provided this training, which consisted of the following topics:

- Overview of the purpose and scope of the CSTs
- Overview of CST's test design specifications and blueprints
- Analysis of CST's item specifications
- Overview of criteria for reviewing constructed-response tasks
- Review and evaluation of items for bias and sensitivity issues

The criteria for evaluating constructed-response tasks included:

- 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(s)

- Plausibility of the distracters
- Bias and sensitivity factors

The committee was also trained on how to make recommendations for revising items. Guidelines for reviewing items were provided by ETS and approved by CDE. The guidelines for reviewing items are summarized below.

Does the item:

- Measure the content standard?
- Match the test item specifications?
- Align with the construct being measured?
- Test worthwhile concepts or information?
- Include administrator directions that give the student a full sense of what the item is asking?
- Avoid unnecessary wordiness?
- 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 reviewed a set of items independently and recorded their individual comments. The next step in the review process was for the group to discuss each item. The content-area assessment specialists facilitated the discussion and recorded all recommendations. Those recommendations were recorded in a master item review booklet. Item review binders and other item evaluation materials also identified potential bias and sensitivity factors the ARP considers as a part of its item reviews.

ETS staff maintained the minutes summarizing the review process, and then forwarded 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 a single achievement test to be used statewide for the testing of students in California public schools, grades two through eleven. At the SPAR panel meetings, all new items were presented in binders for review. The SPAR panel representatives ensured that the test items conformed to the requirements of *Education Code* Section 60614. The constructed-response tasks were also presented for review. If the SPAR panel rejected specific items and/or constructed-response tasks, the items and/or tasks were replaced. For the SPAR panel meeting, the item development coordinator or an ETS content specialist, requested in advance by the CDE, attended the opening session and remained at a nearby location or near a telephone to be available to respond to any questions during the course of the meeting.

Validity Evidence Based on Relations to Other Variables

Analyses of the relationship of test scores to variables external to the test provide an important source of validity evidence. The analyses address questions about the degree to which these relationships are consistent with the construct underlying the proposed test interpretations. Relationships between test scores and other measures intended to measure similar constructs provide criterion validity evidence. For the CSTs, the criterion evidence can be collected through an examination of the relationship between the CSTs and their CAT/6 Survey counterparts.

CAT/6 Survey tests assessed students on reading, language, spelling, mathematics, and science, and compared California student achievement to a national norm. The CSTs are expected to relate

closely to CAT/6 Survey programs; they are intended to measure similar constructs. Three groups of correlations were examined:

- Correlations between the CSTs for ELA and the CAT/6 Survey Reading, Language, and Spelling tests;
- Correlations between the CSTs for mathematics, including grade-specific and end-of-course CSTs, and the CAT/6 Survey Mathematics tests;
- Correlations between the CSTs for end-of-course science and the CAT/6 Survey Science tests.

Table 4.A.1 through Table 4.A.4, which start on page 108, present correlations between 2004 CST and CAT/6 Survey test scores based on the entire population of examinees in each grade, for grades two through eleven. The analysis was based on 2004 data because 2004 was the last year that the CAT/6 Survey tests were administered in all grades. For each correlation index, the sample size is provided immediately before the correlation in the tables.

CST for ELA versus CAT/6 Survey Reading/Language/Spelling

In 2004, students in grades two through eleven were required to take the CSTs for ELA and the two CAT/6 Survey subject tests, Reading and Language. Examinees in grades two through eight were also required to take CAT/6 Survey Spelling test. The specifications for the CAT/6 Survey test do not parallel those of the CST for ELA. However, CAT/6 Survey Reading, Language, and Spelling tests measure relevant aspects of the CST for ELA construct. Consequently, moderate to high correlations between the CAT/6 Survey tests and CST for ELA might be expected. The results showed that CST for ELA scores correlated highly with both CAT/6 Survey Reading and Language test scores across all grades, with correlations ranging from 0.75 to 0.80. The correlation coefficients between the CST for ELA and the CAT/6 Survey Spelling tests were moderately high and ranged from 0.62 to 0.70. It must be noted that the CAT/6 Survey Spelling tests tended to correlate highly with the CST for ELA for examinees at lower grade levels. This can be attributed to spelling's being an integral part of the language learning process for examinees at lower grade levels.

CST for Mathematics versus CAT/6 Survey Math

CSTs for Mathematics include grade-specific mathematics tests as well as end-of-course subject tests, while CAT/6 Survey Mathematics tests consist of grade-specific tests only. In 2004, for grades two through seven, grade-specific CST and CAT/6 Survey mathematics tests were administered. For grades eight and above, students took a CAT/6 Survey grade-specific mathematics test, but took one of the end-of-course mathematics CSTs. The end-of-course CSTs included General Mathematics (GM), Algebra I and II, Geometry, Summative High School Mathematics (HSM), and Integrated Mathematics 1, 2, and 3. The CST for General Mathematics could be taken only by students in grades eight and nine, while all other end-of-course tests could be administered to students in grades eight through eleven. It was expected that the grade-specific CSTs for mathematics would have a higher correlation with CAT/6 Survey Mathematics tests for the corresponding grades. However, a lower correlation was expected between end-of-course CSTs and the corresponding CAT/6 Survey Mathematics tests, because the subject-specific CSTs for mathematics were not intended to be parallel in constructs to CAT/6 Survey Mathematics tests.

The results shown in Table 4.A.2 and Table 4.A.3 show that the grade-specific CSTs for mathematics (grades two through seven) and CAT/6 Survey Mathematics tests had fairly high correlations ranging from 0.77 to 0.79. The CST for General Mathematics, which was taken only by students in grades eight and nine, correlated moderately high with the CAT/6 Survey Mathematics test, with correlations of 0.73 and 0.64 for the two grades, respectively.

A decreasing trend in correlations between the CST for Algebra I and the CAT/6 Survey Mathematics test was observed across grade levels (grades eight through eleven). The correlations between the tests ranged from 0.72 for grade eight to 0.43 for grade eleven. A similar trend was

observed for the relationship between the CST for Geometry and CAT/6 Survey Mathematics, with correlations of 0.64, 0.66, 0.61, and 0.50 for grades eight, nine, ten, and eleven, respectively. Both the CST for Algebra II and the CST for Summative High School Mathematics correlated moderately high with CAT/6 Survey Mathematics tests, with correlations between 0.60 and 0.79. All the CSTs for Integrated Mathematics exhibited a moderate correlation with the CAT/6 Survey Mathematics tests for the corresponding grades, with correlations ranging from 0.43 to 0.66. This scenario was expected because the CSTs for Integrated Mathematics were not designed to measure constructs similar to CAT/6 Survey Mathematics constructs.

CST for Science versus CAT/6 Survey Science

In 2004, the CAT/6 Survey Science tests were administered to examinees in grades nine, ten, and eleven. Scores from these tests were correlated with the end-of-course CSTs for Science to provide evidence of criterion validity. The end-of-course CSTs for science included Biology, Chemistry, Earth Science, Physics, and Integrated/Coordinated Science 1, 2, 3, and 4. As shown in Table 4.A.4 on page 109, all end-of-course CSTs for science correlated moderately high with the CAT/6 Survey Science tests across grades. The correlation coefficients ranged from 0.52 and 0.72. The alignment of the CSTs to the respective test blueprints and the relationship between CST and CAT/6 Survey test scores provide evidence for the validity of CSTs in their present use.

References

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Sireci, S. G. "Validity," *Encyclopedia of Psychological Assessment*. London: Sage Publications, 2002.

Wainer, H. and Braun, H. I. *Test Validity*. Mahwah, NJ: Lawrence Erlbaum Associates, 1998.

Appendix 4.A—Test Correlations Tables

Table 4.A.1 Correlations Between the CSTs for English–Language Arts and the CAT/6 Survey Tests

Grades	Number of Examinees (N)	ELA(CST) / Reading (CAT/6)	ELA (CST) / Language (CAT/6)	ELA (CST) / Spelling (CAT/6)
2	468,557	0.77	0.76	0.70
3	476,748	0.77	0.75	0.68
4	479,702	0.77	0.78	0.65
5	491,129	0.78	0.77	0.63
6	478,342	0.79	0.78	0.62
7	481,875	0.80	0.78	0.62
8	483,750	0.80	0.78	0.64
9	467,253	0.76	0.76	N/A
10	435,473	0.77	0.80	N/A
11	372,637	0.76	0.76	N/A

Table 4.A.2 Correlations Between Grade-specific CSTs for Mathematics and CAT/6 Survey Mathematics Tests

Grades	Number of Examinees (N)	Math (CST) / Math (CAT/6)
2	471,270	0.77
3	479,648	0.79
4	486,385	0.78
5	483,092	0.77
6	479,050	0.78
7	485,061	0.79

Table 4.A.3 Correlations Between End-of-Course CSTs for Mathematics and CAT/6 Survey Mathematics Tests

Grades	GM (CST) / MTH (CAT/6)		Algebra I (CST) / MTH (CAT/6)		Geometry (CST) / MTH (CAT/6)		Algebra II (CST) / MTH (CAT/6)	
	N	Correl.	N	Correl.	N	Correl.	N	Correl.
8	269,630	0.73	188,563	0.72	12,432	0.64	453	0.72
9	133,382	0.64	215,774	0.63	89,036	0.66	13,161	0.61
10	N/A	N/A	128,604	0.49	124,253	0.61	77,970	0.65
11	N/A	N/A	61,488	0.43	68,306	0.50	87,167	0.60
Grades	**HSM (CST) / MTH (CAT/6)**		**Integrated M. 1 (CST)/ MTH (CAT/6)**		**Integrated M. 2 (CST)/ MTH (CAT/6)**		**Integrated M. 3 (CST) / MTH (CAT/6)**	
	N	Correl.	N	Correl.	N	Correl.	N	Correl.
8	N/A	N/A	366	0.57	209	0.60	13	0.64
9	595	0.79	3,733	0.66	1,742	0.65	175	0.54
10	10,707	0.66	2,459	0.44	3,933	0.58	1,425	0.61
11	68,038	0.69	2,632	0.43	1,851	0.43	2,726	0.62

Table 4.A.4 Correlations Between End-of-Course CSTs for Science and CAT/6 Survey Science Tests

Grades	Biology (CST) / Science (CAT/6)		Chemistry (CST) / Science (CAT/6)		Earth Science (CST) / Science (CAT/6)		Physics (CST) / Science (CAT/6)	
	N	Correl.	N	Correl.	N	Correl.	N	Correl.
9	121,064	0.72	2,248	0.68	90,721	0.67	14,635	0.64
10	198,786	0.67	72,589	0.68	21,296	0.58	7,606	0.69
11	69,217	0.71	103,536	0.64	19,385	0.63	29,370	0.70
Grades	**Integrated S. 1 (CST) / Science (CAT/6)**		**Integrated S. 2 (CST) / Science (CAT/6)**		**Integrated S. 3 (CST) / Science (CAT/6)**		**Integrated S. 4 (CST) / Science (CAT/6)**	
	N	Correl.	N	Correl.	N	Correl.	N	Correl.
9	73,047	0.64	4,152	0.62	1,368	0.64	549	0.59
10	16,765	0.52	15,018	0.62	1,847	0.58	714	0.53
11	8,933	0.53	4,778	0.58	2,512	0.61	256	0.70

Chapter 5: Score Reports

This chapter describes the score reporting procedures and score-level analyses obtained for the spring 2008 administration of the California Standards Tests. The first section of the chapter describes the score scales, followed by a discussion on the types and purposes of score reports that are relevant to CSTs and the related STAR components. The second section focuses on summaries of scores obtained on the spring 2008 administration of CSTs. Following the pattern of previous chapters, the results are reported for each subject area and for each grade within a subject area. The numbers in the summary tables may not match exactly the results reported on the CDE Web site, as there may be slight differences in the samples used to compute the statistics. The sample used for analyses in this chapter contained more than 99 percent of all test results, constituting approximately 99.6 of the student records used in August 15 reporting. In addition, students testing with invalid scores were excluded rather than added into the below basic category.

Descriptions of Scores

Raw Score

For all of the tests except ELA grades four and seven, the raw score is simply the sum of correct responses on the test items. For examinees writing the essay in grades four and seven, the ELA raw score is the multiple-choice score plus the number of points obtained on the essay. The essays are rated on a 0–4 scale by a single reader. The essay score is obtained by doubling the rating; potential essay scores are therefore, 0, 2, 4, 6, and 8.

Scale Score

Approximately half of the questions on CSTs are replaced for each administration. Since one test form may be slightly more difficult or slightly easier than another, an equating process is used to adjust for the difficulty of the forms so that scores from year to year are comparable. As a result of this process, raw cut scores may differ from one form of the test to another. If raw scores were used to report results, the user would have to know the form of the CST a student took and the cut score for that form of the test to determine the proficiency level of the student. The aggregation of raw scores across years would also not be meaningful. The conversion of raw scores to a common reporting scale that is consistent from year to year simplifies the interpretation and aggregation of data. This reporting scale for the CSTs ranges from 150 to 600 and is commonly known as the “scale score” range.

Proficiency Levels

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

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

For all CSTs, a scale score of 350 provides the cut score separating basic performance from proficient performance and a scale score of 300 differentiates basic performance from below basic performance. The cut scores defining the proficient/advanced and the below basic/far below basic boundaries vary somewhat from test to test.

Score Reporting

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

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

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

Score Report Applications

STAR Program results provide parents and guardians with information about their children's progress. The results are a tool for increasing communication and collaboration between parents, guardians, and teachers. Along with teacher report cards 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. Any discrepancies between performance reported on report cards and the scores reported on the STAR Student Report should also be discussed.

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

STAR Program results help school districts and schools identify strengths and weaknesses in their instructional programs. Each year, school districts and school staffs examine STAR Program test results at each grade level and subject tested. Their findings are used to help determine:

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

The results from the STAR program are used for state and federal accountability programs to monitor each school's progress toward achieving established goals. STAR Program results are used to calculate each school's Academic Performance Index (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 (e.g., size and ethnic makeup), identify low-performing and high-priority schools, and set yearly targets for academic growth.

STAR Program results also are used to comply with federal No Child Left Behind (NCLB) 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 must meet AYP goals by showing that a specified percentage of students, districtwide and at each school, are performing at or above the proficient level on the CSTs in English–language arts and mathematics, or the CAPA. At the high school level, the California High School Exit Examination (CAHSEE) results for grade ten students are used in place of the CSTs to make this determination.

Score Report Contents

The individual STAR Student Report provides overall scale scores, performance levels, and reporting cluster (subscore) results for each CST taken by the student. As mentioned earlier, overall scores are reported on a scale ranging from 150 to 600. Results for the CSTs also are reported by performance levels: advanced, proficient, basic, below basic, or far below basic. Each performance level indicates how well a student is achieving the California content standards tested. In addition,

CST results are reported in clusters that describe how a student performs on a set of state content standards. Reporting cluster results compare an individual student's percent correct score to the average percent correct for the state, as a whole, and for the district where a student attends school. The range of proficient scores is also provided for each cluster score using a percent correct metric.

Reports for students with disabilities and English learners who use accommodations or modifications include a notation about the test administration that indicates:

- Student used accommodations, or
- Student was tested with modifications.

Scores for students who use accommodations are reported in the same way as for non-accommodated tests. Modifications, however, change what is being tested and therefore change scores. If students used modifications, their scores are counted differently from non-modified test scores on summary reports. On the CST summary reports, the students' scores are counted as far below basic, regardless of the scale score obtained.

In addition to individual student reports, several other reports are also provided to different groups of stakeholders. A description of those reports (CDE 2008) is provided in Appendix 5.A. In 2008, an additional score report, Ethnicity for Economic Status, was introduced for CSTs. This Subgroup Summary report disaggregates and reports results by cross-referencing each ethnicity with economic status—students are in the National School Lunch Program (NSLP; economically disadvantaged), not in the NSLP (not economically disadvantaged), or their NSLP status is unknown..

Score Distributions and Summary Statistics

This section summarizes and reports the score level analyses including descriptive statistics on raw and scale scores, distribution of examinees in various scale score ranges, and the distribution of examinees in the five proficiency levels. The analyses were performed on the sets of valid scores on each CST.

The descriptive information including number of items on each CST, number of examinees taking the CST, and the corresponding means and standard deviations of scores are presented in Table 5.1. Statistical indices are presented on both raw score scale and scale score scale; however, the decisions regarding an examinee performance are based on 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 on the respective CSTs. When a test is administered at more than one grade, the results are reported for the test as a whole and by grade.

The proportions of students in various performance levels are presented in Table 5.2. The last column on the table presents the overall proportion of examinees that scored at the proficient level or higher. For ELA the percentage of students that were proficient or advanced was fairly stable, ranging from 45 percent to 49 percent for six out of ten grades. For the ELA tests administered at grade three, grade ten, and grade eleven, percentage of examinees classified as proficient and above were lower, while the percentage was higher for grade four (55 percent). For the mathematics tests, the percent at proficient or above was higher at the lower grades; it showed a tendency to decrease with grade level, the end-of-course tests being the lowest (with the exception of the CST for Summative High School Mathematics [47 percent]). The percent at proficient or above for the history–social science tests was in the range of 33 percent to 38 percent. The percent of examinees at proficient or above for the science tests was higher at the lower grades and lower at the higher grades, with the exception of the CST for Physics, at 43 percent. The percentage at proficient or above for the CST for Integrated Mathematics 1 and the Integrated/Coordinated Science tests was lowest across all tests, falling at or below 12 percent.

The examinees who achieved the advanced level followed fairly similar patterns as seen in 2007. The highest percentage of examinees who achieved the advanced level were observed in the lower

mathematics, in grades two, three and four (29 percent to 33 percent) and grade four ELA (28 percent). The CST for Grade 8 Science also exhibited a higher percentage, 28 percent, in 2008.

Most of the CSTs showed an increase in the number of examinees who achieved the proficient or advanced levels in 2008 when compared to 2007.

Table 5.1 Mean and Standard Deviation of Raw and Scale Scores for CSTs

				Scale Score		Raw Score		Raw Scr. Pct Poss Range	
Subject	**CST**	**No. of Items**	**No. of Examinees**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
English–Language Arts	**2**	65	461,134	348	60	40.92	13.55	62.95	20.85
	3	65	444,585	333	58	41.91	12.36	64.48	19.02
	4	75	444,610	358	56	47.16	14.74	62.88	19.65
	5	75	449,549	348	52	47.44	13.90	63.26	18.54
	6	75	468,113	345	53	46.61	14.46	62.14	19.28
	7	75	476,518	349	62	45.79	15.05	61.06	20.07
	8	75	480,891	341	58	46.15	14.24	61.54	18.98
	9	75	504,080	348	61	44.58	15.29	59.44	20.39
	10	75	475,930	336	61	46.23	16.00	61.64	21.33
	11	75	443,198	327	65	43.07	15.54	57.43	20.72
History–Social Science	**8**	75	480,113	334	60	39.05	14.57	52.07	19.42
	World History	60	480,695	325	67	30.50	12.48	50.83	20.81
	11	60	432,488	331	66	31.21	12.32	52.02	20.53
Mathematics	**2**	64	461,864	372	81	47.03	11.75	73.49	18.36
	3	65	446,504	379	86	49.06	11.74	75.48	18.07
	4	65	447,141	374	75	48.10	12.55	74.01	19.31
	5	65	451,039	365	87	41.75	13.47	64.23	20.72
	6	65	468,590	348	71	39.61	13.49	60.95	20.76
	7	65	438,983	339	65	36.39	13.02	55.98	20.04
	General Mathematics	65	286,258	315	56	31.69	12.00	48.76	18.46
	Algebra I	65	742,363	315	67	29.75	12.15	45.78	18.69
	Geometry	65	382,108	311	68	33.87	13.39	52.11	20.60
	Algebra II	65	239,083	316	67	33.97	12.14	52.27	18.68
	Summ. H.S. Mathematics	65	115,855	350	74	44.62	12.37	68.65	19.03
	Integrated Mathematics 1	65	8,772	282	53	25.18	9.56	38.74	14.70
	Integrated Mathematics 2	65	4,275	316	58	28.20	11.37	43.38	17.49
	Integrated Mathematics 3	65	1,480	305	72	29.39	11.59	45.22	17.82
Science	**Grade 5 Science**	60	449,999	345	60	39.37	10.71	65.62	17.85
	Grade 8 Science	60	479,113	355	93	38.81	11.86	64.68	19.77
	Grade 10 Life Science	60	463,012	337	67	35.56	12.89	59.26	21.48
	Biology	60	523,638	340	57	35.63	12.46	59.39	20.76
	Chemistry	60	232,120	331	54	35.74	11.91	59.56	19.85
	Earth Science	60	223,770	323	47	33.12	11.27	55.21	18.78
	Physics	60	64,041	341	54	34.58	11.79	57.63	19.64
	Integrated Science 1	60	75,603	300	38	27.13	9.92	45.22	16.53
	Integrated Science 2	60	7,746	303	37	27.00	9.65	45.00	16.09
	Integrated Science 3	60	1,955	298	35	24.95	8.99	41.59	14.98
	Integrated Science 4	60	429	291	40	25.76	9.61	42.94	16.02
Grade-Specific	**Algebra I – 8**	65	247,372	343	74	35.00	12.96	53.85	19.93
	Geometry – 9	65	120,304	345	69	41.08	12.74	63.20	19.60
	Algebra II – 10	65	107,292	332	64	37.08	11.70	57.05	18.00
	High School Math – 11	65	98,124	343	72	43.56	12.41	67.02	19.10
	World History – 10	60	425,438	327	65	31.01	12.16	51.69	20.27

Table 5.2 Percentage of Examinees in Proficiency Levels for CSTs

Subject	CST	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Proficient/ Advanced
English–Language Arts	**2**	9%	15%	29%	30%	18%	48%
	3	11%	17%	34%	26%	12%	38%
	4	5%	11%	29%	27%	28%	55%
	5	7%	12%	33%	30%	18%	48%
	6	8%	13%	31%	28%	20%	47%
	7	9%	15%	27%	29%	20%	49%
	8	10%	15%	30%	27%	18%	45%
	9	8%	17%	27%	26%	23%	48%
	10	12%	18%	29%	22%	19%	41%
	11	18%	19%	26%	21%	16%	37%
History–Social Science	**8**	15%	19%	30%	20%	16%	37%
	10	26%	15%	26%	20%	13%	33%
	11	19%	17%	26%	22%	16%	38%
Mathematics	**2**	4%	15%	21%	30%	29%	59%
	3	3%	14%	21%	28%	33%	61%
	4	2%	14%	23%	29%	32%	61%
	5	6%	19%	24%	29%	22%	52%
	6	6%	22%	29%	27%	17%	44%
	7	9%	21%	29%	28%	13%	42%
	General Mathematics	15%	29%	28%	22%	5%	28%
	Algebra I	14%	35%	26%	18%	7%	25%
	Geometry	15%	37%	24%	16%	8%	24%
	Algebra II	20%	24%	29%	20%	7%	28%
	Summ. H.S. Math	5%	21%	27%	31%	16%	47%
	Integrated Math 1	27%	43%	20%	9%	2%	10%
	Integrated Math 2	13%	33%	29%	19%	6%	25%
	Integrated Math 3	27%	27%	23%	17%	6%	23%
Science	**Grade 5 Science**	9%	13%	31%	33%	13%	47%
	Grade 8 Science	15%	13%	20%	24%	28%	52%
	Grade 10 Life Science	16%	17%	27%	22%	18%	40%
	Biology	13%	13%	33%	26%	16%	42%
	Chemistry	17%	13%	38%	20%	12%	32%
	Earth Science	18%	16%	37%	21%	8%	29%
	Physics	10%	13%	33%	27%	16%	43%
	Integrated Science 1	30%	22%	37%	9%	2%	11%
	Integrated Science 2	25%	23%	40%	9%	2%	12%
	Integrated Science 3	28%	25%	38%	8%	1%	9%
	Integrated Science 4	37%	24%	31%	6%	2%	8%
Grade-Specific	**Algebra I – 8**	7%	24%	27%	29%	13%	42%
	Geometry – 9	5%	23%	29%	28%	15%	43%
	Algebra II – 10	12%	20%	32%	27%	9%	37%
	High School Math – 11	5%	23%	28%	29%	14%	43%
	World History – 10	24%	15%	27%	20%	13%	34%

Table 5.B.5 in Appendix 5.B, starting on page 121, shows the distributions of scale scores by CST. Table Table 5.B.6 presents same information for the five grade-specific tests. The tables show the distribution of examinees at 15 scale score intervals for the 38 CSTs. The scale scores range from 150 to 600, resulting in 30 scale score points within each interval.

Reference

California Department of Education, "2008 STAR CST-CAT/6 Survey, CAPA, and STS Printed Reports," http://www.startest.org/pdfs/STAR.reports.2008.pdf, 2008.

Appendix 5.A—Types of Score Reports Tables

Table 5.A.1 Score Reports Reflecting CST Results

2008 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. It mainly includes: • Scale scores • Performance levels • Number and percent correct in each reporting cluster • Comparison of the student's scores on specific content areas (reporting clusters) to the scores of students statewide who scored at the lowest score for proficient and the lowest score for advanced 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 color copies of this report are provided for each student: One is for the student's current teacher, and one is to be distributed to parents/ guardians by the district.
Student Record Label	
These reports are printed on adhesive labels to be affixed to the student's permanent school records. Each pupil shall have an individual record of accomplishment; that includes STAR testing results (see California *Education Code* section 60607[a]). Significant information includes: • Scale scores • Performance levels • 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 of individual student results. It mainly includes: • Percent correct for each reporting cluster within each subject area tested • A scale score and a performance level for each subject area tested • Writing score (grades 4 and 7) • CRL number	This report provides administrators and teachers with a quick reference to all students' results within each grade, or within each grade and year-round schedule at a school. Because this report includes individual student results and is not distributed beyond the student's school.
Student Master List Summary	
This report summarizes student results at the school, district, county, and state level for each grade. It does *not* include any individual student information. The following data is summarized by subject tested: • Number of students enrolled, number and percent of students tested, number and percent	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is sent to the school and one to the district. This report is also produced for districts, counties,

2008 STAR CST Printed Reports	
Description	**Distribution**
of valid scores, and number tested with scores • Mean percent correct, mean scale score, and scale score standard deviation for each subject area tested • Number and percent of students scoring at each performance level • The number of items for each reporting cluster and the mean percent correct • For the CSTs for grades 4 and 7 only, the percent of students achieving each Writing Application score ***Note:*** Summaries for specific science and mathematics CSTs across grades are provided in the Student Master List Summary—End-of-Course (CST) report.	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.
Student Master List Summary—End-of-Course	
This report summarizes Student Master List information for mathematics, science and history–social science end-of-course CSTs across grades at the school, district, county, and state level. It does *not* include any individual student information. At grades 7–11, CSTs for end-of-course mathematics tests are given in the following subjects: • Algebra I (grades 7–11) • General Mathematics (grades 8 and 9) • Geometry (grades 8–11) • Algebra II (grades 8–11) • Integrated Mathematics 1, 2, and 3 (grades 8–11) • Summative High School Mathematics (grades 9–11) At grades 9–11, CSTs for end-of-course science tests are offered in the following subjects: • Biology • Chemistry • Earth Science • Physics, • Integrated/Coordinated Science 1, 2, 3, and 4 For each of these CSTs, the following data is summarized by subject tested: • Number of students enrolled, number and percent of students tested, number and percent of valid scores, and number tested with scores • Mean percent correct, mean scale score, and	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is sent to the school and one to the district. This report is also produced for 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.

2008 STAR CST Printed Reports	
Description	**Distribution**
scale score standard deviation for each subject area tested • Number and percent of students scoring at each CST performance level • The number of items for each reporting cluster and the mean percent correct	
Subgroup Summary	
This set of reports disaggregates and reports results by the following subgroups: • All students • Disability Status • Economic status • Gender • English–language fluency • Primary Ethnicity These reports contain no individual student-identifying information and are aggregated at the school, district, county, and state level. For each subgroup within a report, and for the total number of students, the following are included: • Total number tested in the subgroup • Percent tested in subgroup as a percent of all students tested • Number and percent of valid scores • Number tested who received scores • Mean scale score • Standard deviation of scale score • Number and percent of students scoring at each CST performance level	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is sent to the school and one copy to the district. This report is also produced for 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 each ethnicity within economic status—students are in the National School Lunch Program (NSLP) (economically disadvantaged), not in the NSLP (not economically disadvantaged), or their NSLP status is unknown. 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 is included: • Total number tested in the subgroup • Percent tested in subgroup as a percent of all students tested	This report is a resource for evaluators, researchers, teachers, parents/guardians, community members, and administrators. One copy is sent to the school and one copy to the district. This report is also produced for 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.

2008 STAR CST Printed Reports	
Description	**Distribution**
• 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 CST performance level	
California Report for Teachers	
The purpose of this report is to make the results of last year's CST more useful for instruction by addressing three questions: • How did last year's students perform on the CST? • How did each group of students perform? • What additional resources are available? Information reported includes: • *Reporting cluster* names for the grade or EOC mathematics course • *Number of items* in each reporting cluster • *Average percent correct* for the reporting cluster, reported statewide, district, and teacher's students • *District students* results that include data for all schools in the district including all charter schools that tested as part of the district • *Proficient range* for the reporting cluster (average percent correct for students statewide whose scale scores were between 350—proficient—and the highest scale score for proficient on the total test) There are separate reports for ELA and mathematics.	One copy of this report is provided to the teacher who had the class during the year the test was given if teacher information was included in Pre-ID files or coded on School and Grade Identification Sheets (SGIDs). Every school receives grade-level or end-of-course reports. Under no circumstances is the information in the reports to be used for teacher evaluation.

Appendix 5.B—Scale Score Distribution Tables

Table 5.B.1 Distribution of CST Scale Scores for English–Language Arts

Scale Score	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
570 – 600	754	466	356	70	95	394	55	393	363	283
540 – 569	0	0	693	355	428	820	306	0	0	0
510 – 539	2,219	1,589	1,357	0	0	1,509	817	2,760	1,272	728
480 – 509	3,965	2,931	5,370	2,692	2,990	5,645	4,491	3,075	2,441	3,711
450 – 479	13,221	4,569	15,589	7,438	7,441	15,812	9,083	17,143	9,313	12,541
420 – 449	29,033	22,862	41,146	29,282	28,224	42,015	30,934	47,159	34,057	19,518
390 – 419	60,271	44,907	60,758	64,553	52,799	62,321	53,069	55,554	54,518	42,527
360 – 389	88,719	64,822	91,683	80,395	94,674	84,821	83,427	87,743	64,393	66,849
330 – 359	88,544	90,700	87,876	94,757	97,355	75,849	92,087	87,981	84,364	63,268
300 – 329	67,374	87,675	67,378	84,905	84,104	71,230	85,860	79,301	80,842	71,416
270 – 299	60,639	62,924	47,112	55,185	62,951	59,137	65,294	67,153	71,060	58,932
240 – 269	36,151	38,684	22,812	26,434	30,575	43,234	39,471	46,304	54,274	66,959
210 – 239	9,944	19,120	2,382	3,365	6,201	12,615	14,712	9,134	17,574	32,162
180 – 209	272	3,181	53	93	247	1,065	1,240	330	1,394	4,060
150 – 179	28	155	45	25	29	51	45	50	65	244

Table 5.B.2 Distribution of CST Scale Scores for History–Social Science

Scale Score	Grade 8	World History	Grade 11
570 — 600	304	1,259	663
540 — 569	581	1,711	1,123
510 — 539	2,252	2,465	1,929
480 — 509	4,016	3,341	6,096
450 — 479	9,803	13,899	9,060
420 — 449	25,852	19,120	25,903
390 — 419	43,399	39,546	42,240
360 — 389	70,366	56,555	57,086
330 — 359	77,958	62,651	59,211
300 — 329	83,521	82,059	72,932
270 — 299	91,907	87,133	75,590
240 — 269	60,127	85,071	60,267
210 — 239	9,464	19,802	18,121
180 — 209	507	2,437	2,016
150 — 179	56	3,646	251

Table 5.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	10,859	8,862	9,484	10,418	2,161	1,802
540 – 569	0	14,783	0	8,219	4,174	0
510 – 539	12,306	17,459	14,955	9,165	5,632	4,752
480 – 509	15,677	18,599	17,390	19,841	14,490	3,415
450 – 479	36,998	37,099	18,081	31,369	16,581	14,397
420 – 449	58,307	35,718	52,833	31,551	27,381	26,995
390 – 419	53,997	63,290	62,471	51,567	49,683	42,094
360 – 389	73,866	53,616	65,437	50,110	63,036	58,333
330 – 359	57,493	67,352	80,012	60,392	75,160	72,484
300 – 329	51,997	51,297	56,370	68,097	83,083	84,864
270 – 299	42,750	35,198	40,918	54,056	68,945	73,097
240 – 269	25,008	25,350	22,198	35,249	44,155	46,025
210 – 239	15,992	12,007	6,460	17,243	12,840	9,523
180 – 209	5,757	4,859	501	3,412	1,200	1,156
150 – 179	857	1,015	31	350	69	46

Table 5.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	93	3,612	779	701	446	7	4	4
540 – 569	0	2,166	1,633	740	1,147	2	3	3
510 – 539	480	5,567	2,360	957	1,920	14	24	13
480 – 509	512	7,234	2,929	2,683	2,437	20	31	12
450 – 479	2,936	14,102	6,888	3,448	6,088	44	64	39
420 – 449	8,094	24,481	12,136	9,306	6,950	75	117	35
390 – 419	17,281	40,593	24,034	12,606	14,628	190	207	68
360 – 389	30,929	63,828	28,275	25,324	17,530	358	438	121
330 – 359	46,663	83,965	47,161	32,795	15,811	716	538	187
300 – 329	53,440	134,986	58,463	46,639	18,584	1,203	885	205
270 – 299	56,432	167,136	70,909	42,918	13,997	1,990	1,048	256
240 – 269	48,379	138,803	80,400	38,724	9,612	2,289	728	258
210 – 239	18,937	47,889	38,038	15,965	5,052	1,557	169	194
180 – 209	1,842	7,614	7,852	5,601	1,475	254	18	74
150 – 179	240	387	251	676	178	53	1	11

Table 5.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	654	11,052	968	1,184	502	31	94
540 – 569	1,919	7,765	2,563	0	0	0	0
510 – 539	0	9,386	0	2,858	1,106	146	165
480 – 509	8,469	22,324	10,202	4,420	0	361	322
450 – 479	6,826	25,882	7,082	12,740	4,077	634	1,701
420 – 449	29,799	42,094	27,903	26,757	9,708	4,593	2,811
390 – 419	55,134	43,985	55,535	47,633	17,908	12,750	6,808
360 – 389	77,530	58,538	57,215	82,148	28,548	28,871	10,121
330 – 359	87,634	67,037	75,782	107,040	45,864	48,008	14,125
300 – 329	82,589	57,081	71,758	106,263	55,086	52,071	12,669
270 – 299	50,833	47,007	79,662	76,886	40,116	46,065	9,955
240 – 269	36,454	31,102	55,346	51,134	24,409	26,520	4,772
210 – 239	10,558	32,324	17,544	4,343	4,537	3,566	472
180 – 209	1,498	17,034	1,294	198	250	138	23
150 – 179	102	6,502	158	34	9	16	3

Scale Score	Integrated Science 1	Integrated Science 2	Integrated Science 3	Integrated Science 4
570 – 600	7	0	0	0
540 – 569	0	0	0	0
510 – 539	12	1	0	0
480 – 509	0	2	0	0
450 – 479	68	6	0	1
420 – 449	286	30	2	1
390 – 419	983	139	10	5
360 – 389	3,728	393	85	12
330 – 359	11,007	1,135	266	60
300 – 329	20,285	2,286	552	86
270 – 299	22,549	2,413	580	121
240 – 269	13,773	1,173	423	108
210 – 239	2,819	162	35	35
180 – 209	82	5	2	0
150 – 179	4	1	0	0

Table 5.B.6 Distribution of CST Scale Scores for 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	2,249	339	237	273	1,046
540 – 569	1,368	798	329	750	1,436
510 – 539	3,718	1,238	430	1,327	2,109
480 – 509	4,742	1,563	1,393	1,736	2,921
450 – 479	9,188	3,980	1,961	4,444	12,328
420 – 449	15,273	7,507	5,630	5,269	17,138
390 – 419	23,258	14,519	7,895	11,425	35,900
360 – 389	31,893	15,737	15,483	14,351	52,077
330 – 359	34,294	21,472	18,292	13,567	58,088
300 – 329	43,529	19,881	21,909	16,560	75,617
270 – 299	41,024	16,599	16,342	12,974	77,763
240 – 269	27,545	11,785	11,755	9,078	71,251
210 – 239	8,068	4,122	4,158	4,816	15,447
180 – 209	1,181	732	1,353	1,392	1,581
150 – 179	42	32	125	162	736

Chapter 6: Test Fairness

In order to ensure equity among various subpopulations, comprehensive analyses were conducted for the spring 2008 administration of the California Standards Tests. This chapter summarizes the subgroup analyses performed at the test level. Detailed item level analyses were also conducted when sufficient sample sizes were available for a subgroup. In addition, analyses are presented related to students with physical and learning disabilities who took the test under standard or modified conditions.

The chapter is, therefore, divided into two major sections. The first section presents the summary of statistics obtained on various demographic indicators, while the second section discusses the distributions of examinees grouped by accommodation provisions. Following the pattern of previous chapters, all analyses are replicated for each grade within a subject area.

Since assuring test security is crucial in the sustenance of a fair test, the chapter also briefly describes procedures for ensuring test security.

Demographic Distributions

Table 6.1 presents a listing of various subgroups included in this chapter, along with their definitions. Summary statistics for all students, and for subgroups based on demographic variables presented in Table 6.1, are discussed in this section. The demographic variables examined included gender, ethnicity, language fluency, economic disadvantage, and special education programs. Beginning in 2008, the demographic summaries are also presented for the results categorized by whether or not examinees belonging to a certain ethnic background participated in the National School Lunch Program (NSLP). The participation in this program is considered an indicator of a student being economically disadvantaged.

The results of the demographic-based analyses are presented in Table 6.A.1 through Table 6.A.38 for the 38 CSTs. The tables include the number of students tested for whom valid scores were available, mean scale scores, standard deviation of scale scores, and percentages of students in various proficiency levels, as well as mean percent correct scores within each reporting cluster. Note that the statistics in these tables slightly differ from the statewide statistics reported on the CDE Web site because the P1+ data file was used for the analyses in this chapter. This file included all records in the P1 data[1] file as well as additional 10,000+ records that belonged to Long Beach Unified School District. This final file contained more than 99 percent of the test results and approximately 99.6 percent of the student records used in the August 15, 2008, reporting of STAR results. In addition, students testing with invalid scores were excluded rather than added into the below basic category.

In addition to the subgroups presented in Table 6.1, 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

[1] P1 files are the first attempt to collect all student records statewide, but are not expected to include the records of a small number of schools that test at the very end of the administration cycle. P1 contains data for the schools from which answer documents were received for scoring by approximately June 20, 2008. The small number of schools that sent answer documents for scoring after that deadline are included in the file used for August 15, 2008, reporting.

Table 6.1 Subgroup Definitions

Subgroup	Definition
Gender	▪ Male ▪ Female
English Language Fluency	▪ English-Language Fluency ▪ Initially Fluent English Proficient ▪ English Learner ▪ Reclassified Fluent English Proficient
Ethnicity	▪ African American ▪ American Indian or Alaska Native ▪ Asian – Chinese – Japanese – Korean – Vietnamese – Asian Indian – Laotian – Cambodian – Other Asian ▪ Filipino ▪ Hispanic or Latino ▪ Pacific Islander – Native Hawaiian – Guamanian – Samoan – Tahitian – Other Pacific Islander ▪ White (not Hispanic)
Economic Status	▪ Economically Disadvantaged (NSLP) ▪ Not Economically Disadvantaged
Program Participation	▪ Specially Funded Programs – ESEA Title I School wide, Targeted – Migrant Education – Indian Education – Gifted and Talented – English Learner (EL) in English language development (ELD) – EL in ELD and specially designed academic instruction in English (SDAIE) – EL in ELD and SDAIE with Primary Language Support – EL in ELD and Academic Subjects through Primary Language – None

Table 6.2, on the next page, presents the total number of students and the percent of students enrolled in the NSLP for each ethnic group for all CSTs. As shown in the table, the Hispanic subgroup tended to have largest proportion of students enrolled in NSLP—70 to 80 percent of the students in this ethnic group were enrolled in the NSLP at the lower and middle grade levels, and 60 to 70 percent were enrolled in the higher grades.

Table 6.2 Percentage of NSLP by Ethnicity

NSLP by Ethnicity								
Subject		**Am. Ind**	**Asian Am.**	**Pacific**	**Filipino**	**Hispanic**	**Af. Amer.**	**White**
ELA Grade 2	**NSLP**	2,098	13,541	1,656	3,954	189,123	22,262	27,591
	Total	3,599	40,317	2,966	12,541	239,510	32,773	122,862
	%	58.3	33.6	55.8	31.5	79.0	67.9	22.5
ELA Grade 3	**NSLP**	2,032	12,616	1,602	4,101	180,033	21,531	27,530
	Total	3,533	36,841	2,927	12,824	227,925	32,120	122,377
	%	57.5	34.2	54.7	32.0	79.0	67.0	22.5
ELA Grade 4	**NSLP**	2,058	12,634	1,650	4,090	177,321	21,521	27,295
	Total	3,541	37,063	3,047	13,034	226,132	32,718	124,273
	%	58.1	34.1	54.2	31.4	78.4	65.8	22.0
ELA Grade 5	**NSLP**	1,950	13,830	1,547	4,195	176,057	21,627	27,514
	Total	3,581	39,135	2,994	13,307	225,853	33,157	127,034
	%	54.5	35.3	51.7	31.5	78.0	65.2	21.7
ELA Grade 6	**NSLP**	2,124	14,806	1,492	4133	178,932	22,444	29,411
	Total	3,831	40,249	2,957	13,510	233,764	35,226	134,104
	%	55.4	36.8	50.5	30.6	76.5	63.7	21.9
ELA Grade 7	**NSLP**	2,079	14,991	1,593	3,868	172,427	22,144	28,783
	Total	4,012	40,890	3,248	13,630	234,584	36,586	138,822
	%	51.8	36.7	49.0	28.4	73.5	60.5	20.7
ELA Grade 8	**NSLP**	2,006	15,151	1,514	3,573	167,329	22,466	28,258
	Total	3,965	41,503	3,214	13,302	234,366	38,142	142,215
	%	50.6	36.5	47.1	26.9	71.4	58.9	19.9
ELA Grade 9	**NSLP**	1,683	15,090	1,387	3,427	159,394	21,252	24,889
	Total	4204	43,477	3,380	14,400	244,660	40,076	148,554
	%	40.0	34.7	41.0	23.8	65.1	53.0	16.8
ELA Grade 10	**NSLP**	1,528	15,072	1,266	3,002	135,388	17,916	23,071
	Total	4,224	43,872	3,355	14,011	218,419	36,818	150,209
	%	36.2	34.4	37.7	21.4	62.0	48.7	15.4
ELA Grade 11	**NSLP**	1,229	14,510	1,125	2,783	114,826	15,564	20,828
	Total	3,746	43,063	3,089	13,994	193,096	33,512	148,230
	%	32.8	33.7	36.4	19.9	59.5	46.4	14.1
HSS Grade 8	**NSLP**	1,994	15,140	1,507	3,574	167,122	22,354	28,156
	Total	3,948	41,482	3,202	13,292	234,032	37,986	142,011
	%	50.5	36.5	47.1	26.9	71.4	58.8	19.8
HSS Grade 10	**NSLP**	1,484	15,244	1,290	3,088	136,916	18,031	22,896
	Total	4,188	44,796	3,387	14,361	219,992	37,022	151,920
	%	35.4	34.0	38.1	21.5	62.2	48.7	15.1
HSS Grade 11	**NSLP**	1,181	14,249	1,093	2,720	111,982	14,903	20,257
	Total	3,634	4,2468	3,008	13,734	187,837	32,108	145,453
	%	32.5	33.6	36.3	19.8	59.6	46.4	13.9
Mathematics Grade 2	**NSLP**	2,107	1,3570	1,661	3,958	189,397	22,290	27,663
	Total	3,616	40,381	2,972	12,550	239,845	32,820	123,092
	%	58.3	33.6	55.9	31.5	79.0	67.9	22.5
Mathematics Grade 3	**NSLP**	2,046	12,665	1,597	4,103	180,913	21,574	27,734
	Total	3,556	36,913	2,928	12,833	229,048	32,189	122,952
	%	57.5	34.3	54.5	32.0	79.0	67.0	22.6

NSLP by Ethnicity								
Subject		**Am. Ind**	**Asian Am.**	**Pacific**	**Filipino**	**Hispanic**	**Af. Amer.**	**White**
Mathematics Grade 4	**NSLP**	2,083	12,690	1,651	4,103	178,530	21,665	27,541
	Total	3,574	37,185	3,060	13,064	227,595	32,902	124,951
	%	58.3	34.1	54.0	31.4	78.4	65.8	22.0
Mathematics Grade 5	**NSLP**	1,951	13,897	1,561	4,200	177,004	21,697	27,611
	Total	3,587	39,223	3,012	13,308	226,910	33,255	127,243
	%	54.4	35.4	51.8	31.6	78.0	65.2	21.7
Mathematics Grade 6	**NSLP**	2,121	14,824	1,493	4,129	179,253	22,497	29,437
	Total	3,829	40,287	2,955	13,502	234,119	35,290	134,134
	%	55.4	36.8	50.5	30.6	76.6	63.7	21.9
Mathematics Grade 7	**NSLP**	1,926	13,014	1,525	3,576	164,042	20,896	26,945
	Total	3,699	32,867	3,051	12,308	222,418	34,356	125,960
	%	52.1	39.6	50.0	29.1	73.8	60.8	21.4
General Mathematics	**NSLP**	1,600	5,524	903	1,497	109,463	15,671	20,815
	Total	3,040	11,371	1,813	5,162	156,983	26,075	78,743
	%	52.6	48.6	49.8	29.0	69.7	60.1	26.4
Algebra I	**NSLP**	2,694	21,157	2,278	5,099	250,975	32,815	38,955
	Total	6,541	54,934	5,303	19,807	379,928	60,945	207,792
	%	41.2	38.5	43.0	25.7	66.1	53.8	18.7
Geometry	**NSLP**	829	14,083	1,015	2,964	104,508	12,990	15,519
	Total	2,671	41,446	2,780	13,726	165,949	27,611	124,541
	%	31.0	34.0	36.5	21.6	63.0	47.0	12.5
Algebra II	**NSLP**	336	10,969	508	1,887	51,917	5,898	7,897
	Total	1,431	36,350	1,561	10,132	84,904	14,072	88,579
	%	23.5	30.2	32.5	18.6	61.1	41.9	8.9
Summ. High School Mathematics	**NSLP**	109	7,153	154	861	15,470	1,366	2,940
	Total	535	29,520	589	5205	27,187	4,035	47,907
	%	20.4	24.2	26.1	16.5	56.9	33.9	6.1
Integrated Math 1	**NSLP**	28	196	25	89	2,586	379	578
	Total	67	471	74	331	4140	687	2,915
	%	41.8	41.6	33.8	26.9	62.5	55.2	19.8
Integrated Math 2	**NSLP**	19	284	13	38	1,007	196	234
	Total	39	503	28	153	1,630	366	1,482
	%	48.7	56.5	46.4	24.8	61.8	53.6	15.8
Integrated Math 3	**NSLP**	2	97	3	25	247	52	27
	Total	13	228	7	89	434	133	530
	%	15.4	42.5	42.9	28.1	56.9	39.1	5.1
Science Grade 5	**NSLP**	1,946	13,834	1,553	4,193	176,463	21,684	27,505
	Total	3,574	39,124	3,004	13,292	226,295	33,220	127,008
	%	54.4	35.4	51.7	31.5	78.0	65.3	21.7
Science Grade 8	**NSLP**	1,979	15,130	1,498	3,565	166,756	22,300	28,079
	Total	3,923	41,471	3,194	13,276	233,506	37,878	141,731
	%	50.4	36.5	46.9	26.9	71.4	58.9	19.8
Grade 10 Life Science	**NSLP**	1,439	14,829	1,232	2,956	131,559	16,816	22,339
	Total	4,037	43,376	3,256	13,834	211,936	34,735	147,190
	%	35.6	34.2	37.8	21.4	62.1	48.4	15.2

NSLP by Ethnicity								
Subject		**Am. Ind**	**Asian Am.**	**Pacific**	**Filipino**	**Hispanic**	**Af. Amer.**	**White**
Biology	**NSLP**	1,348	17,384	1,362	3,605	149,035	18,861	22,695
	Total	4,011	52,308	3,620	17,058	238,624	39,129	164,049
	%	33.6	33.2	37.6	21.1	62.5	48.2	13.8
Chemistry	**NSLP**	281	10,493	473	1,902	52,123	6,203	7,079
	Total	1,266	35,924	1,495	9,915	85,211	14,675	81,743
	%	22.2	29.2	31.6	19.2	61.2	42.3	8.7
Earth Science	**NSLP**	936	6,026	678	1,240	69,271	9,394	13,945
	Total	2,312	12,592	1,579	4,938	111,981	18,332	69,848
	%	40.5	47.9	42.9	25.1	61.9	51.2	20.0
Physics	**NSLP**	103	2,893	146	501	13,138	1,739	2,106
	Total	359	10,900	457	2,790	21,233	3,958	23,732
	%	28.7	26.5	31.9	18.0	61.9	43.9	8.9
Integrated Science 1	**NSLP**	282	1,583	213	595	31,989	3,893	3,216
	Total	637	4,219	538	2,066	45,934	6,631	14,934
	%	44.3	37.5	39.6	28.8	69.6	58.7	21.5
Integrated Science 2	**NSLP**	24	101	16	31	2,688	299	334
	Total	67	467	54	187	4,026	572	2,198
	%	35.8	21.6	29.6	16.6	66.8	52.3	15.2
Integrated Science 3	**NSLP**	3	39	0	7	474	70	127
	Total	10	101	8	36	853	158	780
	%	30.0	38.6	0.0	19.4	55.6	44.3	16.3
Integrated Science 4	**NSLP**	2	5	0	2	102	8	38
	Total	10	12	4	10	148	23	220
	%	20.0	41.7	0.0	20.0	68.9	34.8	17.3

Test Variations, Accommodations, and Modifications

All students participate in the STAR Program, including students with disabilities and English learners. Most students with disabilities and English learners take the California Standards Tests under standard conditions. Some students with disabilities and English learners, however, 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 they 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.

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 be tested in a smaller group or individually, have special lighting or adaptive furniture, or use magnifying equipment.

Category 2: Accommodations

Eligible students are permitted to take the CSTs with accommodations if 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 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 if 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 an examiner's reading the test to the student or a student's using a calculator to perform computations on the mathematics test.

Appendix 6.B presents the 2008 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 under the STAR Program in 2008.

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

Accommodation Summaries

The percentage of students utilizing various testing accommodations during the 2008 administration of all 38 CSTs is presented in Appendix 6.C. The data are organized into three sections within each table. The first section presents the percentages of students for the total testing population. The next section presents the results for non-special education and special education students. The final section presents the results for various categories based on English-language proficiency. The information within each section is presented for the relevant grades. Most accommodations are common across CSTs, although the CSTs for grades four and seven ELA also include accommodations related to the essays. Additional accommodations were included for CSTs for math that involved the use of calculators, arithmetic tables, and math manipulatives.

Examinees at the lower and middle grade levels who utilized various accommodations, modifications, and variations constituted approximately 1.2 to 3.1 percent of the overall examinee population. Fewer examinees (less than 0.1 to 1.9 percent) made use of these services for higher-level assessments. As expected, a significantly large percentage of special education students made use of the accommodations regardless of the grade and CST administered as compared to the non-special education students. The largest group of special education students that used special services was at grades four through seven for ELA and mathematics, and at grade five for science.

For students who were classified based on English fluency, the two groups where larger numbers of students used any modification, variation, or accommodation were the groups defined as "English only" and "English learner" groups. English learners used these services more frequently than the other group on all CSTs. The percentage of examinees making use of accommodations, variations, or modifications remained at less than 5 percent on the majority of the CSTs for English learners; the percentage remained at less than 3 percent for the English-speaking examinees. The exceptions to this scenario were observed for the CSTs for Grade 7 ELA, the CST for General Mathematics, and the CST for Integrated Mathematics 1. In those cases, 6.5 percent of the English learners used special services for the CST for Grade 7 ELA and 5.4 percent for the CST for General Mathematics, while

6.6 percent of the group utilized any accommodation, variation, or modification for the CST for Integrated Mathematics 1.

The most frequently used modifications or accommodations for all lower to middle grade CSTs for ELA and mathematics were the use of supervised breaks and examinersing read the questions aloud. Students taking the low to middle grade level CSTs for ELA and mathematics also made use of testing at the most beneficial time of the day. The percentage of these students ranged from .2 to .3 percent for most of those CSTs; a slightly larger percentage of the students—.35 percent—utilized this accommodation for the CST for Grade 4 ELA.

For all end-of-course CSTs for mathematics, a large number of special education examinees made use of calculators. Overall, a sizeable group used calculators on the CSTs for Integrated Mathematics and Algebra I (.3 percent to .7 percent) followed by Geometry, where .2 percent of the examinees made use of calculators.

The use of any modification, accommodation, or variation was less frequent for a majority of the CSTs for science for all groups. The percentage remained less than or equal to 1.5 percent for all groups on most of those tests except for the CSTs for Grade 5 and Grade 8 Science. In these cases, the special education students frequently utilized supervised breaks (7 percent for grade five, 4 percent for grade eight) and had examiners read the questions aloud (9 percent for grade five, 4 percent for grade eight).

Of all students making use of the accommodations or modifications, the largest percentage used IEP accommodations or modifications. This pattern was consistent with previous years.

DIF Analyses

Differential Item Functioning (DIF) analyses measure differences in item performance between different demographic groups of students who have similar overall test performance.

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 and Haenszel 1959; Holland and 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:

$$\alpha_{MH} = \frac{\left(\sum_m R_{rm} \frac{W_{fm}}{N_{tm}}\right)}{\left(\sum_m R_{fm} \frac{W_{rm}}{N_{tm}}\right)} \tag{6.1}$$

$$MH\ D\text{-}DIF = -2.35 \ln[\alpha_{MH}] \tag{6.2}$$

where,

R = number right,
W = number wrong,
N = total in:
$_{fm}$ = focal group at ability level m,
$_{rm}$ = reference group at ability level m, and
$_{tm}$ = total group at ability level 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 all ETS testing programs for more than 14 years. The definitions of the categories based on evaluations of the item-level MH D-DIF statistics is as follows:

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

The groups studied for DIF were based on gender, ethnicity, and level of English proficiency.[2] The results of the DIF analyses are presented in Appendix 6.D. Table 6.D.1 represents the operational items exhibiting significant negative DIF. Table 6.D.2 represents the same results for the field-test items. Test developers have been instructed to avoid selecting field-test items flagged as having shown DIF that disadvantage a focal group (C-DIF) for future operational test forms unless their inclusion is deemed essential to meeting test-content specifications.

Table 6.D.3 to Table 6.D.40 summarize the DIF category classifications for operational items in each CST based on the A, B, or C classifications. In these tables, classifications of B- or C- indicate DIF against a focal group and classifications of B+ and C+ indicate DIF in favor of a focal group. The last two columns of each table summarize the total number of questions classified as C- for one or more comparisons. Table 6.D.41 to Table 6.D.78, summarize the DIF category classifications for the field-test items. Both sets of tables are presented for all 38 CSTs.

The number of items flagged for moderate to large DIF against focal groups (C- DIF), has considerably reduced over time. The total number of items flagged for C- has reduced from 22 items (.88 percent of all items) in 2006 to 12 items (.48 percent) in 2008. In terms of subject areas, the largest reduction in items with moderate to large DIF has occurred for mathematics tests, where nine items were flagged as C- items in 2006 compared to only three items in 2008. Considering various subgroup comparisons, these reductions are the result of fewer items flagged for Asian, Filipino, and English learner subgroups. Detailed documentation is provided on items flagged for DIF in favor of reference groups. Such groups primarily include Asian and Filipino groups where items were flagged as having positive DIF for the ELA CSTs at the lower to middle level grades.

Test Security and Confidentiality

All tests within the STAR Program are secure documents. For the 2008 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 student data. To ensure security for all the tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI), as discussed next.

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

ETS's Office of Testing Integrity (OTI)

The OTI is a division of ETS that provides Quality Assurance and resides in the ETS Legal Department. The Quality Assurance division publishes and maintains *ETS Standards for Quality and Fairness,* which supports 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

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

OTI helps prevent misconduct on the part of test takers and administrators, detect potential misconduct through empirically established indicators, and resolve situations in a fair and balanced way that reflects the laws and professional standards governing the integrity of testing.

Test Development

During the test development process, ETS staff members consistently follow these established security procedures:

- Only authorized individuals have access to test content at any step in the development, review, and data analysis processes.
- Test developers keep all hardcopy test content, computer disk copies, art, film, proofs, and plates in locked storage when not in use.
- ETS shreds working copies of secure content as soon as they are no longer needed during the development process.
- Test developers take further security measures whenever they share items outside of ETS, including registered, secure mail, express delivery, and tracking records of sending and receipt of any test materials.

Item Review

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

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

Item Bank

Once the ARP review is complete, the items are placed in the item bank along with their corresponding review information. ETS then delivers the items to CDE via a delivery of the STAR electronic item bank. Subsequent updates to items are based on field-test and operational use of the items. However, only the latest version of the item is in the bank at any point in time, along with the administration data from every administration that has included the item. Security of the electronic item banking system is of critical importance. The measures that ETS takes for assuring the security of electronic files include the following:

- Electronic forms of test content, documentation, and item banks are backed up electronically, with the backups kept 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.

- To prevent unauthorized electronic access to the item bank, state-of-the-art network security measures are used.
- ETS routinely maintains many secure electronic systems for both internal and external access. The current electronic item banking application includes a login/ password system to authorize access to the database or designated portions of the database. In addition, only users authorized to access the specific SQL database will be able to use the electronic item banking system. A designated administrator at the CDE and at ETS will authorize users.

Transfer of Forms and Items to CDE

ETS shares a file transfer protocol (FTP) site with CDE. FTP is a standard method for exclusive routing of files. It is a password-protected server that only authorized users may access. On that site, ETS posts Word, PDF, or other document files for CDE to review. ETS sends an e-mail to CDE to notify them that files are posted. Item data are always transmitted in an encrypted format to the FTP site, never via e-mail.

Firewall

A firewall is software that prevents entry to files, e-mail, and other organization-specific programs from unauthorized users or computers. All ETS data exchange and internal e-mail remain within the ETS firewall at all ETS locations, from Princeton to San Antonio to Sacramento. The CDE has and will continue to view and approve ETS-developed applications such as those on the STAR Management System at ETS's Sacramento office, because the applications remain behind ETS's firewall before release. No hacker has ever broken into ETS's firewall.

Printing

After items and test forms are approved, the files are sent for printing on a CD using a secure courier system, such as Federal Express. According to established procedures, the OTI pre-approves all printing vendors before they can work on secured confidential and proprietary test material. The printing vendor must submit a completed ETS Printing Plan and Typesetting Facility Security Plan which documents security procedures, access to test materials, work in progress, personnel procedures, and access to the facilities by the employees and visitors. After reviewing the completed plan, members of the OTI visit the printing vendor to conduct an onsite inspection. The secured printing vendor packs and ships printed test booklets to Pearson Educational Measurement for packaging and distribution in a tight and precise way to prevent boxes from opening.

Test Administration

Pearson receives testing materials from printers, packages them, and sends them to districts. After testing, districts return materials to Pearson for scoring. During all these stages, PEM takes extraordinary measures to protect 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 specialized handling and delivery service that maintain test security and meet the CST 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 test 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 coordinator, who is responsible for returning them to the STAR Scoring and Processing Centers. More specifically:

- District STAR coordinators have 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 test materials 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 is to contact the CDE immediately and will be asked to follow up with a written explanation of the violation or suspected violation.
- Any irregularities in test security may result in invalidation of student test results.

Processing and Scoring

An environment that promotes the security of the test prompts, student responses, data, and employees is of utmost concern to Pearson throughout the project. 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 PEM 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 then stored in secure warehouses. The only time they are touched then is if there is a dispute of a score. For example, school districts or parents may request rescoring of a student's test. In such a case, a grade two or three test booklet or grade four through eleven answer document is removed from storage, copied, and sent securely to the ETS facility in Concord, California, for hand scoring, after which the copy is destroyed. No school or district personnel are allowed to look at the completed answer documents unless necessary for the purposes of transcription or to investigate irregular cases.

All answer documents and test booklets are destroyed after October 31 each year.

Transfer of Scores via Secure Data Exchange

After scoring is completed, Pearson sends files to ETS and follows secure data exchange procedures. 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, are assigned a visitor badge, and are escorted by Pearson personnel while at the facility. 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.

ETS and Pearson have implemented procedures and systems to provide efficient coordination of secure data exchange. This includes the established, secure, FTP 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

ETS Systems loads the Pearson files in a database. The Data Quality Services 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 for student results, the files flow into 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 via FTP. Any summary results that have less than ten students are not reported. The statistics from the results are also entered into the item bank.

Student Confidentiality

To meet *NCLB* and state requirements, districts must collect demographic data about students, such as ethnicity, parent education, disabilities, whether the student qualifies for the school lunch program, etc. In addition, students may reveal other information about themselves through the essays they write. ETS takes precautions to prevent any of this information becoming public or being used other than for testing purposes. Such measures are applicable to all documents where these data may appear, including:

- Pre-ID files
- Reports
- Essays

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 very limited. 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 an off-site storage facility for safekeeping to permit continued operation in the case of a disaster.

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:

- Scoring
- Transfer of scores via secure data exchange
- Reporting
- Erasure marks
- Internet postings
- Storage

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

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Appendix 6.A—Demographic Summary Tables

Table 6.A.1 Demographic Summary for English–Language Arts 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	461,134	348	60	9%	15%	29%	30%	18%	68%	59%	68%	65%	50%
Male	235,826	343	60	10%	16%	29%	28%	16%	66%	57%	66%	62%	48%
Female	225,092	354	60	7%	13%	28%	32%	20%	69%	61%	69%	68%	52%
Gender unknown	216	323	56	19%	19%	31%	24%	8%	58%	50%	60%	54%	44%
American Indian	3,599	337	56	10%	18%	30%	29%	13%	64%	56%	65%	60%	47%
Asian American	40,317	386	62	3%	6%	18%	34%	40%	79%	71%	78%	80%	61%
Pacific Islander	2,966	348	53	6%	12%	33%	35%	14%	69%	59%	68%	66%	49%
Filipino	12,541	374	54	3%	6%	23%	39%	29%	78%	67%	76%	77%	57%
Hispanic	239,510	330	53	12%	19%	34%	26%	9%	62%	53%	61%	59%	44%
African American	32,773	334	56	11%	18%	32%	27%	12%	64%	54%	63%	60%	45%
White	122,862	370	60	4%	9%	23%	35%	30%	74%	68%	77%	72%	58%
Ethnicity unknown	6,566	362	62	6%	11%	24%	33%	26%	72%	65%	74%	69%	55%
English Only	251,001	359	61	6%	12%	26%	33%	23%	71%	63%	72%	68%	54%
Initially Fluent English Prof.	30,770	378	59	3%	7%	21%	36%	33%	78%	69%	78%	76%	59%
English Learner	172,890	326	53	13%	21%	34%	24%	8%	60%	51%	59%	58%	43%
Reclassified Fluent Eng.	5,765	382	50	1%	4%	19%	44%	33%	80%	70%	80%	80%	60%
English Prof. unknown	708	326	59	17%	19%	31%	22%	10%	59%	51%	60%	56%	44%
Not in NSLP	197,679	372	60	4%	8%	22%	35%	30%	75%	68%	77%	73%	58%
In NSLP	262,317	330	53	12%	19%	33%	26%	9%	62%	53%	61%	59%	44%
NSLP status unknown	1,138	326	60	17%	20%	29%	23%	11%	59%	52%	60%	55%	44%
No Special Ed Services	425,266	351	59	7%	14%	29%	31%	19%	69%	60%	69%	67%	51%
Special Ed Services	35,834	308	58	28%	25%	25%	16%	8%	51%	45%	52%	49%	38%
Special Ed unknown	34	271	38	59%	26%	6%	9%	0%	36%	31%	33%	36%	28%
Primary Ethnicity—Not in NSLP													
American Indian	1,493	356	58	6%	12%	27%	34%	21%	70%	63%	72%	67%	53%
Asian American	26,702	400	60	2%	3%	13%	33%	49%	83%	76%	83%	84%	66%
Pacific Islander	1,301	362	54	4%	8%	28%	39%	21%	74%	65%	74%	72%	54%
Filipino	8,570	380	53	2%	5%	20%	40%	33%	80%	70%	78%	79%	59%
Hispanic	49,962	347	56	8%	14%	30%	33%	16%	68%	59%	68%	65%	50%
African American	10,396	351	57	7%	13%	29%	33%	19%	70%	60%	70%	67%	51%
White	95,024	379	59	3%	7%	20%	36%	34%	77%	71%	80%	75%	61%
Ethnicity unknown	4,231	376	60	3%	8%	21%	35%	33%	76%	69%	79%	74%	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	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—In NSLP													
American Indian	2,098	324	51	13%	22%	33%	25%	7%	60%	51%	60%	55%	42%
Asian American	13,541	358	57	5%	11%	27%	36%	21%	72%	62%	69%	72%	52%
Pacific Islander	1,656	336	49	8%	16%	37%	31%	9%	66%	54%	64%	62%	44%
Filipino	3,954	361	53	4%	8%	28%	38%	21%	74%	63%	71%	73%	52%
Hispanic	189,123	326	52	13%	21%	34%	25%	7%	61%	51%	59%	58%	42%
African American	22,262	326	53	13%	21%	33%	24%	8%	61%	51%	60%	57%	42%
White	27,591	341	56	10%	16%	31%	30%	14%	66%	58%	67%	62%	48%
Ethnicity unknown	2,092	339	56	11%	16%	31%	30%	12%	65%	56%	66%	62%	46%

Table 6.A.2 Demographic Summary for English–Language Arts 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	444,585	333	58	11%	17%	34%	26%	12%	69%	62%	67%	66%	55%
Male	225,523	328	58	13%	18%	34%	24%	11%	68%	59%	65%	64%	54%
Female	218,860	337	57	9%	16%	34%	27%	13%	70%	64%	68%	68%	57%
Gender unknown	202	304	57	27%	21%	27%	19%	6%	59%	52%	58%	55%	46%
American Indian	3,533	325	55	13%	19%	37%	24%	8%	67%	60%	65%	63%	52%
Asian American	36,841	365	61	4%	9%	26%	34%	27%	78%	71%	78%	76%	67%
Pacific Islander	2,927	331	52	9%	17%	39%	27%	9%	70%	61%	66%	66%	54%
Filipino	12,824	352	52	4%	10%	34%	35%	17%	76%	67%	74%	73%	63%
Hispanic	227,925	314	51	15%	22%	38%	19%	5%	63%	56%	60%	61%	49%
African American	32,120	318	53	15%	21%	36%	22%	6%	65%	57%	61%	61%	49%
White	122,377	359	57	5%	9%	29%	35%	22%	77%	70%	77%	72%	64%
Ethnicity unknown	6,038	345	60	8%	13%	31%	30%	17%	73%	66%	72%	69%	60%
English Only	243,789	345	58	7%	13%	32%	31%	16%	73%	66%	72%	69%	59%
Initially Fluent English Prof.	33,665	356	55	4%	9%	32%	34%	20%	76%	69%	77%	73%	64%
English Learner	147,865	303	48	20%	27%	38%	14%	3%	59%	52%	54%	58%	45%
Reclassified Fluent Eng.	18,288	364	43	1%	4%	33%	44%	18%	78%	72%	80%	77%	68%
English Prof. unknown	978	306	57	23%	23%	32%	16%	6%	60%	53%	58%	56%	45%
Not in NSLP	192,118	358	58	5%	10%	29%	34%	22%	77%	69%	76%	73%	64%
In NSLP	251,166	314	51	16%	23%	38%	19%	5%	63%	56%	59%	61%	49%
NSLP status unknown	1,301	306	57	24%	21%	33%	17%	5%	59%	53%	57%	57%	46%
No Special Ed Services	412,340	335	57	9%	17%	35%	27%	13%	70%	62%	68%	67%	56%
Special Ed Services	32,193	299	60	31%	21%	27%	15%	6%	57%	50%	53%	54%	44%
Special Ed unknown	52	258	48	63%	19%	12%	4%	2%	41%	37%	36%	39%	31%
Primary Ethnicity—Not in NSLP													
American Indian	1,493	342	56	8%	14%	34%	31%	14%	73%	65%	71%	67%	59%
Asian American	24,156	380	58	2%	5%	21%	36%	35%	81%	75%	83%	80%	72%
Pacific Islander	1,318	346	53	5%	12%	37%	31%	15%	74%	66%	73%	70%	59%
Filipino	8,706	359	51	2%	8%	32%	38%	20%	78%	69%	77%	75%	66%
Hispanic	47,558	333	54	9%	16%	37%	28%	10%	70%	62%	68%	66%	56%
African American	10,486	335	54	9%	16%	35%	29%	11%	71%	63%	68%	66%	56%
White	94,636	367	56	3%	7%	27%	37%	26%	80%	72%	80%	75%	67%
Ethnicity unknown	3,765	361	58	5%	8%	28%	35%	24%	77%	70%	78%	73%	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	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—In NSLP													
American Indian	2,032	313	51	16%	22%	38%	19%	4%	64%	56%	60%	59%	47%
Asian American	12,616	337	54	8%	15%	36%	29%	12%	71%	63%	68%	69%	57%
Pacific Islander	1,602	320	48	12%	21%	40%	23%	4%	66%	57%	61%	63%	49%
Filipino	4,101	338	50	6%	14%	40%	30%	10%	72%	63%	69%	69%	58%
Hispanic	180,033	309	49	17%	24%	38%	17%	3%	61%	54%	58%	60%	47%
African American	21,531	310	51	17%	24%	37%	18%	4%	63%	55%	58%	59%	46%
White	27,530	330	53	10%	16%	37%	28%	9%	69%	62%	67%	64%	54%
Ethnicity unknown	1,721	324	52	11%	21%	37%	24%	7%	67%	59%	64%	63%	52%

Table 6.A.3 Demographic Summary for English–Language Arts 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	444,610	358	56	5%	11%	29%	27%	28%	69%	57%	66%	65%	57%
Male	224,925	353	56	6%	13%	29%	26%	26%	68%	56%	65%	63%	55%
Female	219,518	363	55	3%	10%	28%	28%	31%	70%	58%	68%	68%	58%
Gender unknown	167	331	53	13%	17%	33%	22%	16%	59%	48%	55%	56%	48%
American Indian	3,541	348	53	6%	14%	32%	27%	21%	67%	54%	63%	60%	53%
Asian American	37,063	391	58	2%	5%	16%	25%	53%	79%	69%	77%	77%	67%
Pacific Islander	3,047	355	51	4%	12%	30%	30%	24%	69%	55%	65%	65%	55%
Filipino	13,034	379	50	1%	5%	21%	32%	41%	78%	64%	72%	74%	64%
Hispanic	226,132	340	49	7%	16%	36%	27%	15%	62%	50%	60%	60%	51%
African American	32,718	341	51	7%	16%	34%	26%	17%	65%	50%	60%	59%	50%
White	124,273	382	54	2%	5%	19%	28%	46%	79%	68%	74%	72%	65%
Ethnicity unknown	4,802	372	56	4%	8%	23%	28%	38%	75%	63%	71%	69%	61%
English Only	244,090	369	55	3%	8%	24%	28%	36%	74%	62%	70%	68%	60%
Initially Fluent English Prof.	36,905	380	53	1%	5%	21%	30%	42%	77%	65%	74%	73%	65%
English Learner	130,002	323	43	10%	21%	42%	20%	6%	55%	43%	54%	55%	45%
Reclassified Fluent Eng.	32,969	385	40	0%	1%	16%	40%	42%	79%	66%	77%	77%	67%
English Prof. unknown	644	336	53	10%	19%	31%	23%	17%	61%	50%	59%	57%	50%
Not in NSLP	195,710	382	55	2%	5%	19%	28%	45%	78%	67%	74%	72%	65%
In NSLP	248,021	338	49	7%	16%	36%	26%	15%	62%	49%	60%	60%	50%
NSLP status unknown	879	336	56	13%	18%	29%	22%	18%	61%	51%	59%	57%	50%
No Special Ed Services	411,525	361	55	4%	11%	29%	28%	29%	70%	58%	67%	66%	58%
Special Ed Services	33,049	323	57	18%	23%	28%	17%	14%	55%	45%	53%	51%	45%
Special Ed unknown	36	298	55	33%	28%	17%	17%	6%	46%	38%	44%	40%	37%
Primary Ethnicity—Not in NSLP													
American Indian	1,471	365	55	4%	9%	27%	28%	33%	73%	61%	68%	66%	59%
Asian American	24,362	406	55	1%	3%	11%	22%	64%	83%	74%	81%	81%	72%
Pacific Islander	1,391	370	51	3%	7%	23%	32%	35%	75%	62%	70%	70%	61%
Filipino	8,925	386	49	1%	3%	18%	31%	47%	80%	67%	74%	76%	66%
Hispanic	48,524	358	51	4%	10%	29%	31%	27%	70%	57%	67%	66%	57%
African American	11,106	359	52	4%	10%	28%	30%	28%	72%	57%	67%	65%	56%
White	96,768	391	52	1%	4%	15%	28%	52%	81%	71%	77%	75%	68%
Ethnicity unknown	3,163	384	55	2%	5%	19%	27%	47%	79%	68%	75%	73%	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—In NSLP													
American Indian	2,058	336	49	7%	18%	35%	26%	146%	63%	50%	59%	57%	48%
Asian American	12,634	363	52	4%	9%	27%	30%	30%	70%	59%	69%	69%	58%
Pacific Islander	1,650	342	47	5%	16%	36%	29%	16%	64%	50%	60%	62%	50%
Filipino	4,090	365	49	2%	8%	28%	33%	30%	73%	59%	68%	70%	59%
Hispanic	177,321	335	47	7%	17%	38%	25%	12%	60%	48%	58%	59%	49%
African American	21,521	332	48	9%	19%	36%	24%	12%	61%	46%	57%	56%	47%
White	27,295	353	51	5%	11%	30%	30%	23%	69%	57%	65%	63%	55%
Ethnicity unknown	1,452	348	50	6%	12%	32%	31%	19%	67%	54%	64%	62%	53%

Table 6.A.4 Demographic Summary for English–Language Arts 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	449,549	348	52	7%	12%	33%	30%	18%	68%	57%	65%	71%	55%
Male	227,581	343	53	8%	14%	33%	29%	17%	68%	56%	63%	68%	53%
Female	221,813	352	51	5%	11%	33%	32%	20%	69%	58%	67%	74%	58%
Gender unknown	155	329	49	12%	17%	39%	19%	12%	61%	50%	57%	64%	50%
American Indian	3,581	341	48	7%	14%	36%	30%	13%	68%	55%	63%	68%	53%
Asian American	39,135	379	55	3%	6%	20%	32%	40%	77%	67%	76%	82%	66%
Pacific Islander	2,994	344	48	6%	11%	38%	30%	15%	68%	55%	63%	72%	55%
Filipino	13,307	366	47	2%	6%	27%	38%	27%	76%	63%	72%	79%	62%
Hispanic	225,853	331	46	9%	17%	39%	26%	8%	62%	51%	59%	66%	50%
African American	33,157	331	48	10%	17%	38%	26%	9%	64%	50%	58%	66%	50%
White	127,034	370	50	3%	6%	24%	37%	31%	77%	66%	73%	77%	63%
Ethnicity unknown	4,488	359	53	5%	9%	27%	34%	25%	73%	61%	69%	74%	59%
English Only	243,848	358	51	4%	9%	29%	34%	23%	73%	61%	69%	74%	59%
Initially Fluent English Prof.	33,079	370	50	2%	6%	25%	36%	31%	76%	65%	73%	79%	63%
English Learner	118,951	311	40	15%	24%	44%	15%	2%	53%	44%	51%	58%	43%
Reclassified Fluent Eng.	53,025	368	39	0%	3%	29%	46%	22%	76%	64%	74%	81%	63%
English Prof. unknown	646	327	50	14%	17%	36%	24%	9%	61%	50%	58%	62%	48%
Not in NSLP	200,492	370	51	3%	6%	24%	36%	31%	77%	65%	73%	78%	63%
In NSLP	248,122	330	46	10%	17%	39%	26%	8%	62%	50%	59%	66%	49%
NSLP status unknown	935	327	54	16%	17%	32%	24%	11%	61%	50%	58%	62%	48%
No Special Ed Services	414,622	351	51	5%	11%	33%	32%	19%	70%	58%	66%	73%	56%
Special Ed Services	34,897	310	51	24%	24%	30%	15%	7%	54%	45%	50%	54%	42%
Special Ed unknown	30	276	23	30%	53%	17%	0%	0%	41%	34%	36%	39%	29%
Primary Ethnicity—Not in NSLP													
American Indian	1,624	356	48	4%	9%	31%	36%	20%	73%	61%	69%	73%	58%
Asian American	25,234	393	51	1%	3%	14%	31%	50%	82%	72%	80%	85%	70%
Pacific Islander	1,445	359	47	3%	6%	33%	36%	22%	73%	61%	69%	77%	60%
Filipino	9,099	372	46	1%	5%	24%	39%	31%	78%	65%	74%	81%	64%
Hispanic	49,483	348	47	5%	11%	34%	34%	15%	69%	57%	66%	72%	56%
African American	11,432	347	49	6%	12%	34%	33%	16%	70%	56%	65%	71%	55%
White	99,295	377	48	2%	4%	20%	38%	35%	80%	68%	75%	80%	65%
Ethnicity unknown	2,880	370	51	3%	7%	22%	36%	32%	77%	66%	73%	78%	63%

				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—In NSLP													
American Indian	1,950	329	45	9%	17%	41%	26%	7%	64%	51%	59%	64%	49%
Asian American	13,830	353	51	5%	11%	31%	32%	21%	69%	58%	67%	75%	57%
Pacific Islander	1,547	331	44	8%	16%	43%	24%	8%	63%	50%	58%	67%	50%
Filipino	4,195	353	47	4%	9%	34%	36%	18%	71%	58%	67%	75%	57%
Hispanic	176,057	326	45	10%	18%	41%	24%	6%	60%	49%	58%	64%	48%
African American	21,627	323	45	12%	19%	40%	23%	6%	60%	47%	55%	63%	47%
White	27,514	343	48	6%	13%	35%	33%	14%	69%	56%	64%	69%	54%
Ethnicity unknown	1,402	339	49	9%	13%	37%	30%	12%	67%	53%	62%	68%	52%

Table 6.A.5 Demographic Summary for English–Language Arts 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	468,113	345	53	8%	13%	31%	28%	20%	65%	60%	55%	72%	58%
Male	238,979	340	54	10%	15%	31%	26%	18%	63%	58%	54%	69%	56%
Female	228,962	351	52	5%	12%	32%	29%	22%	67%	62%	56%	75%	60%
Gender unknown	172	325	51	13%	24%	29%	21%	13%	57%	52%	49%	63%	51%
American Indian	3,831	338	50	9%	15%	34%	27%	15%	62%	58%	53%	68%	56%
Asian American	40,249	378	55	3%	6%	19%	29%	42%	76%	70%	66%	83%	69%
Pacific Islander	2,957	344	49	6%	14%	33%	30%	16%	66%	58%	54%	73%	57%
Filipino	13,510	366	47	2%	7%	26%	36%	29%	74%	67%	62%	81%	65%
Hispanic	233,764	329	47	11%	18%	38%	24%	9%	59%	54%	48%	67%	52%
African American	35,226	328	49	13%	18%	35%	24%	10%	60%	53%	49%	65%	53%
White	134,104	368	51	4%	7%	23%	33%	33%	73%	68%	64%	78%	67%
Ethnicity unknown	4,472	356	54	7%	10%	26%	31%	26%	69%	63%	59%	74%	62%
English Only	255,298	355	53	6%	10%	28%	31%	25%	69%	63%	59%	74%	62%
Initially Fluent English Prof.	32,265	369	51	3%	7%	25%	33%	33%	73%	68%	63%	80%	67%
English Learner	109,317	305	39	19%	28%	40%	11%	2%	49%	46%	39%	57%	42%
Reclassified Fluent Eng.	70,523	362	40	1%	4%	33%	40%	21%	72%	66%	61%	81%	64%
English Prof. unknown	710	326	52	16%	18%	33%	20%	13%	57%	53%	48%	63%	52%
Not in NSLP	212,423	367	52	4%	7%	24%	32%	33%	73%	67%	63%	79%	66%
In NSLP	254,704	327	47	11%	18%	38%	23%	9%	58%	54%	48%	66%	51%
NSLP status unknown	986	326	51	15%	18%	33%	22%	12%	57%	53%	48%	64%	52%
No Special Ed Services	422,474	351	51	5%	12%	32%	30%	21%	67%	62%	57%	74%	60%
Special Ed Services	45,605	296	47	33%	29%	25%	9%	4%	45%	42%	37%	50%	40%
Special Ed unknown	34	293	37	32%	32%	26%	9%	0%	41%	40%	40%	47%	40%
Primary Ethnicity—Not in NSLP													
American Indian	1,694	354	50	5%	10%	30%	32%	23%	69%	64%	59%	74%	62%
Asian American	25,394	393	52	2%	3%	13%	28%	53%	81%	75%	71%	87%	74%
Pacific Islander	1,451	356	49	4%	10%	27%	33%	25%	70%	63%	59%	77%	62%
Filipino	9,363	372	46	2%	5%	23%	37%	33%	76%	69%	64%	83%	67%
Hispanic	54,497	345	49	7%	12%	34%	31%	17%	65%	60%	55%	72%	58%
African American	12,666	343	50	8%	13%	33%	30%	17%	66%	58%	55%	71%	58%
White	104,471	375	49	2%	5%	20%	34%	38%	76%	70%	67%	81%	70%
Ethnicity unknown	2,887	369	52	4%	7%	21%	35%	33%	74%	68%	64%	79%	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—In NSLP													
American Indian	2,124	325	46	12%	19%	37%	23%	8%	58%	53%	48%	63%	51%
Asian American	14,806	352	51	6%	11%	30%	31%	22%	67%	62%	57%	77%	60%
Pacific Islander	1,492	331	44	8%	17%	39%	27%	8%	61%	54%	50%	69%	52%
Filipino	4,133	352	46	4%	10%	33%	33%	20%	69%	62%	57%	77%	60%
Hispanic	178,932	324	45	12%	20%	39%	22%	7%	57%	53%	47%	65%	50%
African American	22,444	319	46	15%	22%	37%	20%	6%	56%	49%	46%	61%	49%
White	29,411	340	49	8%	14%	34%	30%	15%	64%	58%	54%	69%	57%
Ethnicity unknown	1,362	332	49	11%	17%	35%	25%	12%	60%	55%	50%	67%	54%

Table 6.A.6 Demographic Summary for English–Language Arts 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	476,518	349	62	9%	15%	27%	29%	20%	65%	64%	59%	61%	57%
Male	243,458	341	63	12%	17%	26%	27%	18%	64%	63%	55%	58%	54%
Female	232,901	357	61	6%	13%	27%	31%	23%	66%	66%	62%	64%	60%
Gender unknown	159	312	58	23%	23%	28%	19%	8%	53%	55%	47%	50%	45%
American Indian	4,012	338	59	12%	17%	29%	28%	15%	63%	62%	56%	57%	53%
Asian American	40,890	388	65	4%	7%	16%	29%	44%	76%	74%	69%	75%	70%
Pacific Islander	3,248	345	57	8%	15%	31%	30%	16%	65%	63%	57%	62%	55%
Filipino	13,630	374	54	3%	7%	22%	36%	31%	74%	71%	65%	72%	65%
Hispanic	234,584	328	55	13%	20%	32%	26%	9%	58%	58%	53%	55%	50%
African American	36,586	327	57	15%	20%	30%	25%	10%	59%	57%	52%	55%	49%
White	138,822	374	59	4%	8%	20%	34%	34%	74%	73%	67%	68%	65%
Ethnicity unknown	4,746	357	62	8%	12%	25%	30%	25%	68%	67%	62%	64%	60%
English Only	261,930	360	62	7%	12%	24%	31%	26%	70%	68%	62%	65%	60%
Initially Fluent English Prof.	40,126	374	60	3%	8%	23%	33%	32%	73%	72%	66%	69%	65%
English Learner	94,707	295	43	25%	33%	32%	9%	1%	46%	45%	41%	45%	39%
Reclassified Fluent Eng.	78,999	363	47	2%	7%	32%	40%	19%	69%	69%	64%	67%	63%
English Prof. unknown	756	322	59	18%	23%	29%	21%	10%	56%	56%	50%	53%	48%
Not in NSLP	227,970	372	61	5%	9%	21%	33%	32%	73%	72%	66%	68%	64%
In NSLP	247,420	327	55	14%	21%	32%	25%	9%	58%	57%	52%	55%	50%
NSLP status unknown	1,128	318	61	22%	22%	25%	20%	10%	55%	54%	50%	51%	47%
No Special Ed Services	432,371	355	60	7%	13%	27%	31%	22%	67%	66%	61%	63%	59%
Special Ed Services	44,123	288	51	37%	30%	20%	9%	4%	46%	43%	39%	41%	37%
Special Ed unknown	24	282	48	50%	8%	33%	4%	4%	43%	42%	36%	38%	39%
Primary Ethnicity—Not in NSLP													
American Indian	1,923	355	59	8%	12%	25%	33%	21%	69%	67%	61%	62%	58%
Asian American	25,842	406	60	2%	4%	11%	28%	55%	81%	80%	73%	79%	76%
Pacific Islander	1,652	360	56	5%	10%	27%	34%	23%	70%	68%	62%	66%	60%
Filipino	9,743	381	53	2%	6%	20%	37%	36%	76%	73%	67%	74%	67%
Hispanic	61,779	344	57	9%	15%	29%	31%	16%	64%	63%	58%	60%	55%
African American	14,302	344	58	9%	15%	29%	31%	16%	65%	63%	58%	61%	55%
White	109,746	383	57	3%	6%	18%	35%	39%	77%	76%	69%	71%	68%
Ethnicity unknown	2,983	370	61	5%	9%	22%	32%	33%	73%	71%	66%	68%	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	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—In NSLP													
American Indian	2,079	324	55	16%	20%	32%	24%	8%	58%	57%	52%	53%	47%
Asian American	14,991	358	61	7%	12%	25%	32%	24%	67%	65%	60%	67%	61%
Pacific Islander	1,593	329	52	12%	19%	35%	26%	8%	59%	57%	53%	58%	49%
Filipino	3,868	358	54	5%	11%	28%	36%	21%	69%	66%	61%	68%	60%
Hispanic	172,427	323	53	14%	22%	33%	24%	7%	56%	56%	51%	54%	48%
African American	22,144	317	53	18%	23%	31%	21%	6%	56%	53%	49%	52%	46%
White	28,783	341	57	10%	16%	29%	30%	15%	64%	63%	57%	59%	54%
Ethnicity unknown	1,535	336	57	12%	17%	30%	28%	13%	62%	61%	55%	58%	53%

Table 6.A.7 Demographic Summary for English–Language Arts 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	480,891	341	58	10%	15%	30%	27%	18%	63%	61%	61%	69%	55%
Male	245,708	334	59	14%	17%	29%	25%	16%	61%	59%	59%	65%	52%
Female	235,008	349	56	7%	13%	30%	29%	21%	65%	63%	63%	73%	58%
Gender unknown	175	309	53	22%	20%	36%	15%	6%	53%	50%	51%	57%	44%
American Indian	3,965	333	55	11%	17%	32%	27%	13%	63%	58%	59%	66%	52%
Asian American	41,503	376	60	4%	7%	20%	30%	39%	72%	71%	72%	80%	66%
Pacific Islander	3,214	335	52	9%	16%	36%	26%	13%	62%	58%	60%	69%	52%
Filipino	13,302	362	50	3%	7%	26%	37%	26%	69%	68%	69%	78%	62%
Hispanic	234,366	323	51	14%	20%	35%	23%	8%	57%	55%	55%	64%	49%
African American	38,142	321	53	16%	20%	32%	23%	9%	57%	54%	55%	63%	49%
White	142,215	365	56	5%	8%	23%	33%	30%	72%	69%	69%	76%	62%
Ethnicity unknown	4,184	347	62	11%	13%	26%	28%	23%	66%	63%	64%	70%	56%
English Only	264,060	351	58	8%	12%	27%	30%	23%	67%	64%	65%	72%	58%
Initially Fluent English Prof.	40,226	363	56	4%	9%	26%	33%	28%	70%	68%	68%	77%	62%
English Learner	89,466	290	39	28%	33%	32%	7%	1%	45%	43%	44%	51%	39%
Reclassified Fluent Eng.	86,391	353	44	2%	8%	37%	36%	16%	67%	65%	64%	76%	59%
English Prof. unknown	748	312	57	23%	22%	29%	18%	8%	54%	50%	52%	58%	45%
Not in NSLP	238,147	361	58	6%	10%	25%	32%	28%	70%	67%	68%	75%	61%
In NSLP	241,586	322	52	15%	20%	34%	23%	8%	57%	54%	55%	63%	49%
NSLP status unknown	1,158	312	55	23%	23%	28%	19%	7%	54%	51%	51%	58%	45%
No Special Ed Services	437,860	347	56	7%	14%	30%	29%	20%	65%	63%	63%	71%	56%
Special Ed Services	43,005	285	48	39%	29%	21%	8%	3%	43%	41%	43%	47%	37%
Special Ed unknown	26	270	30	54%	31%	12%	4%	0%	36%	36%	37%	42%	31%
Primary Ethnicity—Not in NSLP													
American Indian	1,941	348	55	7%	13%	30%	31%	19%	67%	63%	64%	70%	57%
Asian American	26,284	392	57	2%	4%	14%	30%	50%	77%	76%	76%	84%	70%
Pacific Islander	1,694	347	53	7%	12%	32%	31%	18%	66%	62%	64%	73%	56%
Filipino	9,714	367	49	3%	6%	24%	38%	29%	71%	70%	70%	79%	63%
Hispanic	66,605	335	53	10%	16%	33%	28%	13%	62%	59%	60%	68%	53%
African American	15,553	335	55	11%	15%	32%	28%	14%	62%	58%	60%	68%	53%
White	113,658	372	54	3%	7%	21%	35%	34%	74%	71%	72%	78%	64%
Ethnicity unknown	2,698	362	60	7%	8%	24%	31%	30%	71%	68%	68%	74%	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	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—In NSLP													
American Indian	2,006	320	51	15%	21%	34%	22%	7%	58%	53%	55%	62%	47%
Asian American	15,151	349	56	7%	12%	29%	31%	21%	63%	63%	64%	73%	58%
Pacific Islander	1,514	322	48	12%	20%	40%	21%	7%	57%	53%	55%	65%	48%
Filipino	3,573	349	50	6%	11%	32%	34%	18%	63%	64%	64%	74%	57%
Hispanic	167,329	318	50	15%	21%	36%	21%	6%	56%	53%	53%	62%	48%
African American	22,466	312	50	19%	23%	33%	19%	5%	54%	50%	52%	59%	45%
White	28,258	336	54	11%	15%	31%	28%	14%	63%	59%	60%	67%	52%
Ethnicity unknown	1,289	321	56	17%	20%	29%	22%	10%	58%	54%	55%	62%	48%

Table 6.A.8 Demographic Summary for English–Language Arts 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	504,080	348	61	8%	17%	27%	26%	23%	65%	61%	63%	58%	54%
Male	259,180	342	62	10%	19%	27%	24%	21%	64%	60%	61%	55%	51%
Female	244,677	355	59	5%	14%	28%	28%	25%	66%	62%	65%	62%	56%
Gender unknown	223	316	54	19%	23%	28%	21%	9%	55%	51%	53%	46%	43%
American Indian	4,204	342	58	9%	18%	29%	25%	19%	64%	59%	62%	55%	52%
Asian American	43,477	386	63	3%	7%	17%	26%	47%	75%	72%	74%	72%	66%
Pacific Islander	3,380	342	56	7%	18%	30%	27%	18%	63%	59%	61%	58%	52%
Filipino	14,400	372	54	3%	8%	22%	33%	34%	73%	69%	71%	69%	62%
Hispanic	244,660	327	53	11%	23%	33%	23%	11%	58%	55%	56%	52%	47%
African American	40,076	327	54	12%	22%	31%	23%	12%	57%	55%	56%	51%	47%
White	148,554	374	59	4%	9%	20%	30%	38%	75%	68%	73%	67%	62%
Ethnicity unknown	5,329	349	64	9%	16%	24%	26%	25%	66%	61%	64%	58%	54%
English Only	282,232	359	61	6%	13%	24%	28%	29%	69%	64%	68%	62%	57%
Initially Fluent English Prof.	41,953	369	60	4%	10%	24%	30%	33%	72%	68%	70%	66%	60%
English Learner	91,710	295	39	21%	38%	32%	8%	1%	45%	44%	42%	40%	36%
Reclassified Fluent Eng.	87,248	357	48	2%	9%	33%	36%	20%	70%	65%	67%	63%	57%
English Prof. unknown	937	319	58	17%	27%	27%	19%	11%	55%	52%	53%	48%	43%
Not in NSLP	274,109	366	62	5%	11%	23%	28%	33%	71%	66%	70%	64%	59%
In NSLP	228,699	327	53	11%	23%	33%	23%	11%	58%	55%	55%	51%	47%
NSLP status unknown	1,272	320	58	16%	25%	29%	18%	11%	56%	52%	53%	48%	44%
No Special Ed Services	462,610	353	60	6%	15%	27%	27%	25%	67%	63%	65%	60%	55%
Special Ed Services	41,448	292	45	28%	37%	23%	8%	3%	43%	42%	42%	38%	35%
Special Ed unknown	22	299	37	23%	27%	45%	5%	0%	46%	47%	43%	39%	38%
Primary Ethnicity—Not in NSLP													
American Indian	2,509	353	59	6%	15%	27%	28%	24%	68%	62%	66%	59%	55%
Asian American	28,307	402	60	2%	5%	12%	24%	57%	80%	76%	79%	77%	70%
Pacific Islander	1,985	354	57	5%	14%	27%	30%	24%	67%	63%	65%	62%	56%
Filipino	10,947	377	53	2%	6%	20%	34%	37%	75%	71%	73%	71%	63%
Hispanic	84,816	337	55	9%	19%	31%	26%	15%	62%	58%	60%	55%	50%
African American	18,679	338	56	9%	18%	30%	26%	16%	62%	59%	60%	55%	50%
White	123,354	381	58	3%	7%	18%	30%	42%	77%	70%	75%	69%	64%
Ethnicity unknown	3,512	365	62	6%	11%	21%	29%	32%	72%	65%	70%	64%	59%

				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—In NSLP													
American Indian	1,683	326	54	13%	23%	32%	21%	11%	58%	54%	56%	50%	47%
Asian American	15,090	358	59	6%	12%	27%	29%	26%	66%	65%	65%	63%	58%
Pacific Islander	1,387	326	51	10%	24%	34%	23%	10%	57%	55%	55%	52%	46%
Filipino	3,427	354	54	4%	13%	30%	31%	22%	67%	64%	64%	62%	56%
Hispanic	159,394	322	50	12%	24%	34%	21%	8%	56%	53%	54%	50%	45%
African American	21,252	318	50	14%	26%	33%	20%	7%	53%	52%	53%	47%	43%
White	24,889	342	57	8%	17%	29%	28%	18%	64%	59%	62%	56%	52%
Ethnicity unknown	1,577	319	56	16%	25%	29%	19%	10%	55%	52%	53%	48%	44%

Table 6.A.9 Demographic Summary for English–Language Arts 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	475,930	336	61	12%	18%	29%	22%	19%	71%	59%	58%	66%	60%
Male	242,638	329	62	16%	19%	27%	20%	17%	69%	57%	56%	62%	57%
Female	233,097	344	60	8%	16%	30%	24%	21%	73%	62%	61%	69%	63%
Gender unknown	195	303	57	30%	23%	25%	15%	8%	60%	48%	48%	52%	48%
American Indian	4,224	328	57	14%	20%	30%	22%	14%	68%	57%	56%	62%	58%
Asian American	43,872	370	64	6%	9%	21%	26%	38%	79%	72%	68%	77%	72%
Pacific Islander	3,355	329	56	12%	20%	32%	22%	14%	69%	57%	55%	65%	58%
Filipino	14,011	356	54	5%	11%	30%	30%	25%	77%	67%	64%	75%	68%
Hispanic	218,419	317	53	17%	24%	33%	18%	9%	66%	52%	52%	60%	53%
African American	36,818	314	55	20%	24%	30%	17%	9%	64%	50%	51%	58%	52%
White	150,209	358	61	7%	11%	24%	27%	30%	77%	68%	66%	72%	68%
Ethnicity unknown	5,022	335	65	15%	17%	25%	22%	21%	70%	59%	59%	64%	60%
English Only	272,506	345	62	11%	15%	27%	24%	24%	73%	63%	62%	68%	64%
Initially Fluent English Prof.	40,453	357	61	7%	12%	27%	27%	28%	77%	67%	65%	73%	67%
English Learner	75,797	284	38	31%	38%	26%	5%	1%	55%	40%	40%	47%	39%
Reclassified Fluent Eng.	86,339	344	50	5%	13%	38%	28%	16%	75%	64%	61%	71%	64%
English Prof. unknown	835	304	56	28%	25%	26%	14%	8%	60%	47%	48%	53%	48%
Not in NSLP	276,130	351	62	9%	13%	26%	25%	26%	75%	65%	63%	70%	65%
In NSLP	198,598	316	54	17%	24%	32%	18%	9%	65%	52%	51%	59%	53%
NSLP status unknown	1,202	305	56	26%	25%	25%	15%	8%	60%	48%	49%	53%	49%
No Special Ed Services	437,971	341	60	10%	17%	29%	24%	21%	73%	61%	60%	68%	62%
Special Ed Services	37,934	279	45	42%	32%	18%	6%	2%	50%	37%	39%	43%	39%
Special Ed unknown	25	272	40	48%	28%	16%	8%	0%	50%	30%	39%	41%	37%
Primary Ethnicity—Not in NSLP													
American Indian	2,674	338	58	11%	16%	30%	24%	18%	71%	60%	59%	66%	61%
Asian American	28,743	384	62	4%	6%	17%	26%	47%	83%	77%	72%	80%	76%
Pacific Islander	2,084	338	56	10%	16%	31%	26%	17%	72%	61%	59%	69%	61%
Filipino	10,981	360	53	4%	9%	29%	31%	27%	78%	69%	65%	76%	70%
Hispanic	82,590	325	55	14%	21%	32%	21%	12%	68%	55%	55%	62%	56%
African American	18,766	323	57	16%	21%	30%	20%	12%	67%	54%	54%	62%	56%
White	126,832	364	60	6%	10%	23%	28%	33%	78%	70%	68%	74%	70%
Ethnicity unknown	3,460	349	65	10%	14%	25%	24%	27%	74%	64%	63%	69%	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	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—In NSLP													
American Indian	1,528	312	52	19%	26%	29%	19%	7%	64%	50%	51%	57%	52%
Asian American	15,072	344	59	9%	15%	29%	25%	21%	72%	64%	59%	70%	63%
Pacific Islander	1,266	314	51	16%	26%	33%	16%	8%	64%	51%	50%	60%	52%
Filipino	3,002	341	52	7%	16%	33%	27%	17%	72%	62%	59%	70%	63%
Hispanic	135,388	312	51	18%	26%	33%	16%	7%	65%	51%	50%	58%	51%
African American	17,916	304	51	23%	27%	30%	14%	5%	60%	47%	48%	55%	49%
White	23,071	326	58	15%	20%	30%	22%	13%	67%	56%	56%	62%	57%
Ethnicity unknown	1,355	306	56	25%	26%	26%	16%	8%	60%	49%	48%	55%	49%

Table 6.A.10 Demographic Summary for English–Language Arts 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	443,198	327	65	18%	19%	26%	21%	16%	58%	55%	60%	59%	57%
Male	224,145	320	66	22%	19%	25%	19%	14%	58%	52%	57%	56%	54%
Female	218,864	335	64	13%	18%	28%	23%	18%	59%	57%	63%	63%	60%
Gender unknown	189	287	63	43%	20%	19%	12%	7%	46%	42%	47%	45%	43%
American Indian	3,746	320	62	20%	20%	28%	20%	12%	57%	53%	59%	56%	54%
Asian American	43,063	360	68	9%	12%	22%	26%	32%	67%	64%	69%	72%	68%
Pacific Islander	3,089	317	59	19%	22%	29%	20%	10%	55%	52%	58%	56%	53%
Filipino	13,994	345	56	8%	13%	31%	31%	18%	64%	60%	66%	67%	64%
Hispanic	193,096	306	55	24%	24%	29%	17%	6%	52%	48%	54%	51%	50%
African American	33,512	303	58	28%	24%	26%	16%	6%	50%	47%	53%	50%	49%
White	148,230	350	67	11%	13%	23%	27%	26%	66%	62%	66%	68%	64%
Ethnicity unknown	4,468	326	71	22%	18%	22%	20%	18%	58%	54%	59%	58%	56%
English Only	260,250	337	67	15%	16%	25%	24%	20%	61%	58%	63%	63%	60%
Initially Fluent English Prof.	39,676	346	65	11%	14%	27%	26%	22%	64%	60%	66%	66%	63%
English Learner	63,200	271	39	44%	34%	18%	3%	1%	41%	37%	42%	38%	38%
Reclassified Fluent Eng.	79,361	332	52	9%	17%	37%	26%	11%	60%	56%	63%	61%	60%
English Prof. unknown	711	298	65	36%	23%	21%	12%	9%	50%	46%	51%	47%	46%
Not in NSLP	270,176	342	67	14%	15%	25%	25%	22%	63%	59%	64%	64%	61%
In NSLP	171,966	305	56	25%	25%	28%	16%	6%	51%	48%	54%	51%	50%
NSLP status unknown	1,056	294	61	37%	23%	22%	11%	7%	48%	45%	50%	45%	45%
No Special Ed Services	408,549	332	64	15%	18%	27%	23%	17%	60%	56%	62%	61%	59%
Special Ed Services	34,629	268	46	53%	27%	13%	5%	2%	40%	36%	41%	36%	36%
Special Ed unknown	20	259	54	75%	5%	10%	10%	0%	34%	33%	39%	39%	33%
Primary Ethnicity—Not in NSLP													
American Indian	2,504	329	63	17%	17%	29%	22%	15%	59%	55%	61%	59%	57%
Asian American	28,512	376	66	6%	8%	18%	27%	40%	72%	68%	73%	77%	72%
Pacific Islander	1,959	325	61	17%	18%	29%	23%	12%	57%	54%	60%	59%	56%
Filipino	11,188	349	56	7%	12%	30%	32%	20%	65%	61%	67%	69%	65%
Hispanic	77,879	313	59	21%	22%	29%	19%	9%	54%	50%	57%	53%	52%
African American	17,844	312	60	24%	21%	27%	19%	9%	53%	50%	56%	54%	52%
White	127,106	356	66	10%	12%	23%	28%	28%	68%	63%	68%	70%	66%
Ethnicity unknown	3,184	339	71	17%	15%	23%	22%	23%	62%	58%	63%	63%	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	Word Analysis and Vocabulary Development	Reading Comprehension	Literary Response and Analysis	Written Conventions	Writing Strategies
Primary Ethnicity—In NSLP													
American Indian	1,229	303	57	27%	25%	24%	17%	6%	52%	48%	54%	49%	48%
Asian American	14,510	331	61	15%	18%	28%	24%	15%	58%	56%	61%	62%	59%
Pacific Islander	1,125	304	54	23%	27%	30%	14%	6%	51%	47%	53%	51%	49%
Filipino	2,783	329	55	11%	19%	34%	26%	11%	59%	55%	62%	61%	58%
Hispanic	114,826	301	53	26%	26%	29%	15%	4%	50%	46%	53%	49%	48%
African American	15,564	292	53	33%	26%	25%	12%	4%	46%	44%	49%	46%	45%
White	20,828	317	62	21%	21%	26%	20%	11%	56%	52%	58%	55%	53%
Ethnicity unknown	1,101	297	61	33%	24%	22%	14%	7%	48%	46%	51%	47%	46%

Table 6.A.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	480,113	334	60	15%	19%	30%	20%	16%	52%	52%	51%	52%	53%
Male	245,297	336	64	16%	18%	27%	20%	19%	54%	53%	51%	52%	52%
Female	234,645	332	55	13%	20%	33%	21%	14%	51%	51%	50%	52%	53%
Gender unknown	171	301	48	29%	28%	29%	9%	6%	45%	42%	40%	40%	38%
American Indian	3,948	324	54	16%	22%	32%	19%	10%	51%	49%	47%	49%	49%
Asian American	41,482	376	66	5%	9%	21%	25%	39%	63%	67%	64%	66%	66%
Pacific Islander	3,202	328	54	14%	20%	33%	21%	12%	51%	50%	49%	51%	50%
Filipino	13,292	357	54	5%	11%	31%	29%	24%	59%	61%	58%	60%	60%
Hispanic	234,032	315	50	20%	25%	32%	16%	7%	46%	46%	45%	46%	46%
African American	37,986	312	52	23%	25%	30%	15%	7%	47%	44%	43%	45%	47%
White	142,011	357	60	8%	12%	27%	27%	26%	60%	60%	58%	60%	60%
Ethnicity unknown	4,160	340	63	14%	17%	27%	23%	19%	55%	55%	52%	54%	54%
English Only	263,447	343	61	12%	16%	29%	23%	20%	56%	55%	53%	55%	56%
Initially Fluent English Prof.	40,171	356	63	7%	13%	29%	25%	26%	59%	60%	58%	60%	59%
English Learner	89,484	289	38	34%	35%	25%	5%	1%	38%	36%	37%	37%	37%
Reclassified Fluent Eng.	86,272	343	52	6%	15%	38%	25%	15%	54%	56%	54%	56%	56%
English Prof. unknown	739	304	52	29%	26%	27%	13%	6%	44%	42%	41%	41%	42%
Not in NSLP	237,845	354	62	9%	13%	27%	25%	25%	59%	59%	57%	59%	59%
In NSLP	241,127	314	51	20%	25%	32%	15%	7%	46%	46%	45%	46%	46%
NSLP status unknown	1,141	303	51	30%	26%	26%	12%	6%	44%	42%	41%	41%	41%
No Special Ed Services	436,626	338	59	12%	18%	31%	22%	18%	54%	54%	52%	54%	54%
Special Ed Services	43,460	291	48	39%	30%	20%	7%	4%	40%	37%	36%	37%	38%
Special Ed unknown	27	278	29	41%	41%	19%	0%	0%	38%	33%	31%	34%	29%
Primary Ethnicity—Not in NSLP													
American Indian	1,936	338	56	10%	19%	31%	25%	15%	55%	54%	52%	54%	53%
Asian American	26,273	392	65	3%	6%	16%	26%	49%	68%	71%	69%	71%	70%
Pacific Islander	1,689	340	56	10%	17%	31%	25%	17%	55%	55%	53%	55%	55%
Filipino	9,703	362	54	4%	9%	29%	30%	27%	61%	63%	60%	62%	62%
Hispanic	66,488	327	54	15%	21%	33%	20%	12%	51%	50%	49%	50%	50%
African American	15,508	326	54	16%	20%	32%	20%	11%	51%	49%	47%	49%	51%
White	113,559	364	59	5%	10%	26%	28%	30%	62%	62%	60%	63%	63%
Ethnicity unknown	2,689	355	62	9%	13%	27%	27%	25%	60%	60%	57%	58%	58%

				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—In NSLP													
American Indian	1,994	311	48	21%	25%	34%	13%	6%	46%	44%	42%	44%	45%
Asian American	15,140	349	60	9%	14%	29%	25%	22%	55%	59%	56%	58%	58%
Pacific Islander	1,507	315	48	19%	22%	37%	16%	6%	47%	46%	45%	46%	46%
Filipino	3,574	342	53	8%	16%	34%	25%	17%	54%	56%	54%	55%	55%
Hispanic	167,122	310	48	22%	27%	32%	14%	6%	45%	44%	43%	44%	45%
African American	22,354	303	47	27%	27%	29%	12%	4%	44%	41%	40%	42%	43%
White	28,156	326	54	16%	21%	32%	20%	11%	51%	50%	48%	49%	50%
Ethnicity unknown	1,280	315	54	23%	24%	28%	17%	9%	47%	46%	44%	45%	46%

Table 6.A.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	480,695	325	67	26%	15%	26%	20%	13%	53%	53%	51%	50%	48%
Grade 9	35,642	325	80	33%	13%	19%	18%	18%	53%	51%	51%	49%	48%
Grade 10	425,438	327	65	24%	15%	27%	20%	13%	54%	54%	51%	51%	49%
Grade 11	19,615	266	62	62%	15%	14%	6%	3%	34%	34%	32%	32%	32%
Male	245,402	330	73	27%	13%	23%	20%	17%	53%	54%	53%	51%	50%
Female	235,106	319	60	26%	17%	29%	19%	10%	52%	52%	48%	48%	46%
Gender unknown	187	295	57	49%	12%	23%	10%	7%	45%	42%	40%	40%	39%
American Indian	4,188	317	62	29%	16%	26%	18%	11%	51%	51%	48%	47%	46%
Asian American	44,796	364	72	11%	8%	24%	28%	29%	63%	66%	63%	62%	62%
Pacific Islander	3,387	316	61	28%	15%	30%	18%	9%	51%	51%	48%	47%	45%
Filipino	14,361	342	62	13%	12%	32%	27%	16%	58%	60%	56%	55%	54%
Hispanic	219,992	304	56	35%	19%	26%	14%	6%	47%	45%	44%	43%	41%
African American	37,022	299	55	40%	18%	24%	13%	5%	46%	44%	42%	42%	39%
White	151,918	348	70	16%	11%	26%	26%	22%	60%	62%	58%	57%	56%
Ethnicity unknown	5,031	326	70	28%	14%	23%	20%	15%	53%	54%	50%	50%	49%
English Only	274,358	334	69	22%	13%	26%	22%	16%	55%	57%	53%	52%	51%
Initially Fluent English Prof.	41,259	344	70	17%	12%	27%	24%	20%	58%	59%	56%	56%	55%
English Learner	76,194	279	43	55%	21%	18%	5%	1%	39%	35%	36%	36%	32%
Reclassified Fluent Eng.	88,043	328	60	19%	16%	33%	21%	11%	54%	54%	52%	51%	50%
English Prof. unknown	841	295	58	46%	17%	20%	11%	6%	44%	42%	40%	41%	39%
Not in NSLP	279,204	340	70	20%	12%	26%	24%	19%	57%	58%	55%	54%	53%
In NSLP	200,299	304	56	36%	19%	26%	14%	6%	47%	45%	44%	43%	41%
NSLP status unknown	1,192	294	57	46%	16%	23%	10%	5%	44%	42%	40%	40%	39%
No Special Ed Services	442,577	329	67	24%	15%	27%	21%	14%	54%	54%	52%	51%	49%
Special Ed Services	38,093	281	53	57%	18%	15%	7%	4%	39%	36%	37%	37%	33%
Special Ed unknown	25	263	33	72%	8%	20%	0%	0%	32%	35%	30%	30%	26%
Primary Ethnicity—Not in NSLP													
American Indian	2,685	326	65	24%	15%	27%	21%	13%	53%	55%	51%	51%	48%
Asian American	29,477	378	71	7%	6%	21%	30%	36%	67%	70%	66%	66%	66%
Pacific Islander	2,093	325	63	24%	14%	30%	22%	11%	53%	54%	51%	49%	48%
Filipino	11,248	346	61	12%	11%	32%	28%	17%	59%	61%	57%	56%	56%
Hispanic	82,668	312	60	31%	17%	27%	17%	8%	49%	48%	46%	46%	44%
African American	18,861	307	58	34%	17%	26%	16%	7%	48%	48%	45%	45%	41%
White	128,710	354	70	13%	10%	26%	28%	24%	61%	64%	60%	59%	58%
Ethnicity unknown	3,462	339	71	21%	12%	25%	23%	19%	57%	59%	55%	54%	53%

				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—In NSLP													
American Indian	1,484	302	54	37%	19%	26%	13%	6%	46%	46%	43%	42%	41%
Asian American	15,244	339	65	18%	13%	29%	25%	16%	56%	57%	56%	54%	53%
Pacific Islander	1,290	302	56	34%	18%	31%	12%	5%	47%	46%	43%	43%	40%
Filipino	3,088	327	60	20%	16%	32%	22%	11%	53%	54%	52%	51%	49%
Hispanic	136,916	299	53	38%	20%	26%	12%	5%	46%	43%	43%	42%	40%
African American	18,031	290	50	45%	20%	22%	10%	3%	43%	41%	39%	39%	36%
White	22,896	316	62	29%	16%	28%	18%	9%	51%	50%	48%	47%	45%
Ethnicity unknown	1,350	296	57	44%	17%	21%	13%	5%	44%	43%	41%	40%	39%

Table 6.A.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	432,488	331	66	19%	17%	26%	22%	16%	54%	52%	52%	51%	50%
Male	218,132	334	69	20%	16%	24%	22%	18%	54%	54%	52%	53%	51%
Female	214,193	329	62	17%	19%	28%	22%	14%	54%	51%	53%	49%	50%
Gender unknown	163	294	53	37%	28%	18%	12%	5%	44%	40%	40%	39%	38%
American Indian	3,634	323	61	21%	19%	27%	21%	13%	52%	50%	50%	49%	48%
Asian American	42,468	365	70	9%	10%	23%	27%	31%	63%	63%	62%	62%	60%
Pacific Islander	3,008	321	58	21%	20%	29%	21%	10%	51%	49%	49%	47%	47%
Filipino	13,734	346	58	9%	13%	31%	30%	17%	58%	57%	58%	56%	56%
Hispanic	187,837	312	56	25%	22%	28%	17%	8%	48%	46%	46%	44%	44%
African American	32,108	305	55	29%	23%	26%	15%	6%	46%	44%	44%	41%	44%
White	145,452	352	68	12%	12%	24%	27%	24%	60%	59%	59%	58%	57%
Ethnicity unknown	4,247	329	69	22%	17%	24%	20%	17%	54%	52%	51%	50%	50%
English Only	253,941	339	67	16%	16%	25%	24%	19%	57%	55%	55%	54%	53%
Initially Fluent English Prof.	39,023	349	68	12%	13%	26%	26%	23%	59%	58%	58%	57%	56%
English Learner	60,648	282	41	42%	30%	21%	6%	1%	38%	37%	36%	35%	34%
Reclassified Fluent Eng.	78,245	336	58	12%	16%	33%	25%	14%	56%	54%	55%	52%	52%
English Prof. unknown	631	300	57	34%	25%	22%	12%	8%	45%	42%	41%	42%	41%
Not in NSLP	264,105	345	68	14%	14%	25%	25%	21%	58%	57%	56%	56%	55%
In NSLP	167,415	311	57	25%	23%	28%	17%	8%	48%	46%	46%	44%	44%
NSLP status unknown	968	297	55	37%	24%	22%	12%	6%	45%	41%	41%	40%	40%
No Special Ed Services	398,924	336	65	16%	17%	27%	23%	17%	55%	54%	54%	52%	52%
Special Ed Services	33,544	283	49	46%	27%	17%	7%	3%	39%	37%	35%	36%	35%
Special Ed unknown	20	278	42	50%	30%	15%	0%	5%	38%	33%	31%	35%	35%
Primary Ethnicity—Not in NSLP													
American Indian	2,442	331	63	19%	16%	26%	23%	16%	54%	53%	52%	52%	51%
Asian American	28,180	377	69	6%	8%	20%	29%	37%	67%	67%	66%	66%	64%
Pacific Islander	1,910	328	60	19%	18%	28%	23%	13%	53%	51%	52%	50%	50%
Filipino	10,991	349	58	8%	12%	31%	31%	19%	59%	58%	59%	57%	57%
Hispanic	75,486	319	59	22%	20%	28%	20%	10%	50%	48%	48%	47%	47%
African American	17,115	313	57	25%	21%	28%	18%	8%	48%	47%	47%	44%	46%
White	124,925	358	68	10%	11%	24%	28%	27%	62%	61%	60%	60%	58%
Ethnicity unknown	3,056	340	69	18%	14%	24%	23%	20%	57%	55%	54%	54%	53%

				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—In NSLP													
American Indian	1,181	308	54	25%	25%	28%	16%	6%	47%	45%	45%	43%	44%
Asian American	14,249	340	65	14%	15%	28%	24%	18%	56%	56%	56%	54%	53%
Pacific Islander	1,093	308	51	24%	24%	30%	17%	5%	48%	45%	45%	43%	44%
Filipino	2,720	332	56	13%	17%	33%	25%	12%	53%	53%	54%	51%	52%
Hispanic	111,982	307	54	27%	24%	28%	15%	6%	47%	45%	45%	43%	43%
African American	14,903	296	50	34%	26%	25%	12%	4%	43%	41%	41%	38%	40%
White	20,257	321	61	22%	20%	27%	20%	11%	51%	49%	49%	48%	47%
Ethnicity unknown	1,030	303	58	32%	23%	25%	14%	7%	46%	43%	43%	42%	42%

Table 6.A.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	461,864	372	81	4%	15%	21%	30%	29%	76%	74%	77%	70%	72%
Male	236,475	375	84	5%	15%	20%	30%	31%	76%	74%	77%	70%	72%
Female	225,171	370	79	4%	16%	22%	31%	27%	75%	73%	78%	69%	73%
Gender unknown	218	333	82	12%	26%	22%	25%	16%	65%	63%	70%	62%	64%
American Indian	3,616	358	77	5%	18%	24%	30%	22%	72%	70%	74%	68%	69%
Asian American	40,381	424	83	1%	6%	11%	27%	55%	87%	83%	88%	79%	83%
Pacific Islander	2,972	365	75	4%	16%	24%	33%	24%	75%	72%	77%	68%	71%
Filipino	12,550	400	77	2%	8%	16%	34%	41%	83%	79%	85%	76%	79%
Hispanic	239,845	351	74	5%	20%	25%	30%	19%	71%	69%	73%	66%	68%
African American	32,820	343	77	8%	23%	25%	28%	17%	69%	67%	70%	63%	65%
White	123,092	401	78	2%	8%	16%	32%	42%	83%	80%	83%	76%	79%
Ethnicity unknown	6,588	386	82	3%	12%	18%	32%	35%	79%	76%	80%	73%	76%
English Only	251,401	383	81	3%	12%	19%	31%	34%	78%	76%	79%	72%	75%
Initially Fluent English Prof.	30,769	410	79	1%	7%	15%	32%	46%	84%	82%	86%	77%	81%
English Learner	173,209	349	76	6%	21%	25%	29%	18%	70%	69%	73%	65%	67%
Reclassified Fluent Eng.	5,763	416	72	1%	4%	13%	33%	49%	86%	83%	88%	78%	82%
English Prof. unknown	722	342	83	10%	22%	24%	25%	19%	68%	66%	71%	63%	66%
Not in NSLP	197,970	401	80	2%	9%	16%	31%	43%	82%	79%	83%	76%	79%
In NSLP	262,740	351	75	6%	20%	25%	30%	19%	71%	69%	73%	65%	67%
NSLP status unknown	1,154	340	84	11%	23%	22%	24%	19%	67%	65%	69%	63%	64%
No Special Ed Services	425,067	377	79	3%	14%	21%	31%	30%	77%	75%	79%	71%	74%
Special Ed Services	36,762	319	87	19%	27%	20%	20%	14%	61%	59%	63%	58%	59%
Special Ed unknown	35	245	59	57%	20%	17%	6%	0%	40%	39%	40%	40%	35%
Primary Ethnicity—Not in NSLP													
American Indian	1,501	380	78	3%	12%	21%	33%	31%	78%	75%	79%	72%	75%
Asian American	26,735	441	78	1%	3%	8%	25%	63%	90%	86%	91%	82%	86%
Pacific Islander	1,302	384	76	2%	11%	20%	35%	32%	80%	76%	81%	72%	76%
Filipino	8,577	407	76	1%	7%	14%	33%	44%	84%	80%	86%	77%	81%
Hispanic	50,020	369	76	4%	15%	22%	33%	26%	75%	73%	77%	70%	72%
African American	10,411	364	78	5%	17%	22%	32%	25%	75%	72%	76%	68%	71%
White	95,177	411	76	1%	6%	14%	32%	47%	85%	82%	85%	78%	82%
Ethnicity unknown	4,247	404	81	2%	8%	14%	32%	43%	83%	80%	84%	76%	80%

				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—In NSLP													
American Indian	2,107	342	73	6%	23%	27%	28%	16%	68%	67%	70%	65%	65%
Asian American	13,570	392	81	3%	11%	17%	32%	37%	81%	77%	83%	73%	77%
Pacific Islander	1,661	351	71	5%	19%	27%	32%	17%	72%	69%	74%	65%	68%
Filipino	3,958	385	77	3%	11%	20%	34%	33%	80%	76%	82%	72%	75%
Hispanic	189,397	347	73	6%	22%	26%	30%	17%	69%	68%	72%	64%	66%
African American	22,290	333	74	9%	26%	26%	26%	14%	66%	65%	68%	61%	63%
White	27,663	367	76	4%	15%	22%	33%	25%	75%	73%	76%	70%	71%
Ethnicity unknown	2,094	356	75	5%	18%	24%	32%	21%	72%	70%	75%	67%	69%

Table 6.A.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	446,504	379	86	3%	14%	21%	28%	33%	76%	71%	74%	78%	82%
Male	227,076	380	88	4%	14%	20%	27%	35%	77%	71%	75%	78%	81%
Female	219,220	378	84	3%	14%	22%	28%	32%	75%	72%	74%	78%	83%
Gender unknown	208	333	85	13%	25%	25%	22%	16%	64%	60%	63%	68%	73%
American Indian	3,556	361	81	5%	16%	26%	28%	25%	73%	66%	71%	75%	80%
Asian American	36,913	440	88	1%	5%	10%	22%	62%	86%	85%	86%	86%	90%
Pacific Islander	2,928	375	79	3%	12%	23%	30%	31%	76%	71%	74%	78%	82%
Filipino	12,833	413	81	1%	6%	14%	30%	49%	83%	80%	82%	84%	88%
Hispanic	229,048	357	78	4%	18%	26%	29%	23%	71%	67%	70%	75%	79%
African American	32,189	348	81	7%	21%	26%	26%	21%	69%	64%	67%	73%	76%
White	122,952	406	84	2%	8%	16%	28%	46%	82%	77%	81%	82%	88%
Ethnicity unknown	6,085	386	89	4%	13%	19%	27%	37%	77%	73%	76%	78%	84%
English Only	244,839	389	86	3%	12%	19%	28%	38%	78%	73%	77%	80%	85%
Initially Fluent English Prof.	33,696	416	85	1%	7%	16%	27%	50%	83%	80%	82%	84%	89%
English Learner	148,669	348	76	5%	21%	27%	27%	19%	69%	65%	68%	73%	76%
Reclassified Fluent Eng.	18,294	433	75	0%	2%	10%	28%	59%	86%	85%	86%	87%	92%
English Prof. unknown	1,006	331	79	11%	26%	25%	24%	15%	65%	59%	64%	68%	72%
Not in NSLP	192,810	409	86	2%	8%	15%	28%	47%	82%	78%	81%	83%	88%
In NSLP	252,366	356	79	5%	19%	25%	28%	23%	71%	66%	69%	74%	78%
NSLP status unknown	1,328	334	82	11%	25%	23%	24%	17%	65%	60%	65%	68%	72%
No Special Ed Services	412,212	383	85	2%	13%	21%	28%	35%	77%	72%	75%	79%	83%
Special Ed Services	34,229	331	90	15%	25%	21%	20%	19%	64%	58%	64%	67%	69%
Special Ed unknown	63	265	79	48%	17%	21%	5%	10%	44%	42%	49%	49%	50%
Primary Ethnicity—Not in NSLP													
American Indian	1,502	383	83	3%	11%	21%	30%	35%	78%	72%	76%	78%	84%
Asian American	24,174	458	83	0%	2%	7%	19%	71%	89%	88%	89%	89%	92%
Pacific Islander	1,325	394	80	2%	8%	20%	30%	39%	80%	76%	78%	80%	85%
Filipino	8,713	421	79	1%	5%	13%	29%	53%	85%	82%	83%	85%	89%
Hispanic	47,801	377	80	3%	13%	22%	30%	32%	76%	71%	75%	78%	83%
African American	10,515	369	83	4%	15%	23%	29%	29%	74%	69%	73%	77%	81%
White	95,000	417	83	1%	6%	14%	28%	51%	84%	79%	83%	84%	90%
Ethnicity unknown	3,780	407	87	2%	8%	16%	28%	46%	81%	78%	81%	82%	87%

				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—In NSLP													
American Indian	2,046	346	76	6%	20%	29%	27%	18%	69%	63%	67%	72%	77%
Asian American	12,665	406	86	2%	9%	16%	28%	46%	81%	79%	80%	82%	85%
Pacific Islander	1,597	359	74	4%	16%	26%	30%	24%	72%	68%	70%	76%	79%
Filipino	4,103	395	81	2%	10%	18%	30%	40%	79%	77%	78%	81%	85%
Hispanic	180,913	352	77	5%	20%	27%	28%	21%	70%	66%	68%	74%	78%
African American	21,574	337	77	8%	24%	27%	24%	16%	66%	61%	65%	71%	74%
White	27,734	370	80	4%	15%	22%	30%	29%	75%	68%	73%	77%	82%
Ethnicity unknown	1,734	360	79	4%	18%	24%	29%	25%	73%	67%	70%	74%	80%

Table 6.A.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	447,141	374	75	2%	14%	23%	29%	32%	78%	72%	76%	68%	71%
Male	226,895	374	77	3%	14%	22%	28%	33%	79%	71%	75%	68%	69%
Female	220,079	374	72	2%	13%	24%	30%	32%	77%	74%	77%	68%	72%
Gender unknown	167	334	66	6%	23%	33%	26%	12%	71%	59%	65%	54%	60%
American Indian	3,574	354	69	3%	20%	27%	28%	22%	75%	66%	70%	62%	66%
Asian American	37,185	430	80	0%	4%	10%	23%	63%	88%	87%	88%	81%	82%
Pacific Islander	3,060	370	69	2%	12%	25%	31%	30%	78%	72%	76%	67%	69%
Filipino	13,064	403	73	1%	6%	16%	30%	48%	85%	81%	84%	76%	78%
Hispanic	227,595	356	67	3%	18%	28%	29%	23%	74%	68%	72%	63%	66%
African American	32,902	346	68	4%	22%	28%	27%	19%	72%	64%	69%	60%	63%
White	124,951	395	74	1%	8%	17%	30%	44%	84%	78%	81%	74%	77%
Ethnicity unknown	4,810	383	75	2%	10%	21%	29%	38%	81%	75%	78%	70%	73%
English Only	245,473	381	75	2%	12%	21%	29%	36%	81%	74%	78%	70%	73%
Initially Fluent English Prof.	36,965	404	78	1%	7%	17%	28%	47%	84%	80%	83%	76%	78%
English Learner	131,099	342	62	4%	22%	31%	27%	16%	70%	64%	68%	59%	62%
Reclassified Fluent Eng.	32,957	415	68	0%	2%	12%	31%	54%	87%	85%	87%	80%	81%
English Prof. unknown	647	341	68	5%	23%	29%	26%	17%	71%	63%	67%	57%	62%
Not in NSLP	196,533	399	76	1%	7%	17%	29%	46%	84%	79%	82%	75%	77%
In NSLP	249,718	354	68	3%	18%	28%	29%	22%	74%	67%	72%	63%	66%
NSLP status unknown	890	342	74	7%	24%	26%	24%	19%	71%	62%	66%	58%	61%
No Special Ed Services	411,492	378	74	1%	12%	23%	30%	34%	79%	74%	77%	69%	72%
Special Ed Services	35,609	331	73	9%	28%	26%	20%	16%	67%	58%	62%	55%	58%
Special Ed unknown	40	287	47	20%	53%	13%	13%	3%	56%	44%	44%	41%	41%
Primary Ethnicity—Not in NSLP													
American Indian	1,480	372	71	2%	14%	23%	30%	31%	80%	72%	75%	67%	72%
Asian American	24,426	446	78	0%	2%	7%	20%	71%	91%	90%	90%	84%	85%
Pacific Islander	1,403	385	71	2%	9%	22%	31%	37%	82%	76%	80%	71%	73%
Filipino	8,940	409	72	0%	4%	14%	30%	52%	86%	83%	85%	78%	80%
Hispanic	48,777	371	69	2%	13%	24%	32%	30%	78%	73%	76%	68%	71%
African American	11,141	366	71	3%	14%	24%	30%	29%	77%	71%	75%	66%	69%
White	97,197	404	73	1%	6%	15%	30%	49%	86%	80%	83%	77%	79%
Ethnicity unknown	3,169	396	76	1%	8%	17%	29%	44%	84%	79%	81%	73%	77%

				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—In NSLP													
American Indian	2,083	342	63	3%	24%	30%	27%	16%	72%	62%	67%	59%	62%
Asian American	12,690	401	76	1%	7%	17%	29%	47%	83%	81%	83%	74%	76%
Pacific Islander	1,651	358	65	3%	15%	28%	31%	23%	75%	69%	73%	64%	65%
Filipino	4,103	390	72	1%	8%	20%	32%	40%	82%	78%	81%	73%	75%
Hispanic	178,530	351	66	3%	19%	29%	29%	20%	73%	67%	71%	62%	65%
African American	21,665	336	64	5%	26%	29%	25%	15%	69%	61%	66%	57%	60%
White	27,541	362	68	2%	15%	26%	30%	26%	78%	69%	73%	65%	69%
Ethnicity unknown	1,455	361	67	3%	14%	27%	30%	25%	76%	69%	73%	64%	68%

Table 6.A.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	451,039	365	87	6%	19%	24%	29%	22%	62%	63%	68%	60%	76%
Male	228,821	365	91	7%	19%	23%	28%	23%	63%	63%	67%	59%	74%
Female	222,060	364	83	5%	18%	25%	31%	21%	61%	64%	69%	60%	77%
Gender unknown	158	323	72	13%	30%	25%	23%	9%	50%	54%	57%	51%	63%
American Indian	3,587	346	78	8%	22%	27%	28%	15%	59%	59%	64%	54%	71%
Asian American	39,223	432	95	2%	7%	13%	28%	50%	76%	79%	81%	76%	86%
Pacific Islander	3,012	358	78	5%	19%	27%	32%	18%	61%	62%	67%	58%	75%
Filipino	13,308	397	85	2%	10%	20%	35%	34%	70%	72%	76%	68%	82%
Hispanic	226,910	342	75	8%	24%	28%	28%	13%	57%	58%	63%	54%	72%
African American	33,255	332	75	11%	26%	27%	25%	11%	54%	55%	61%	52%	68%
White	127,243	391	87	3%	12%	20%	33%	32%	69%	70%	74%	67%	81%
Ethnicity unknown	4,501	372	89	6%	16%	22%	31%	25%	65%	66%	69%	62%	77%
English Only	244,404	373	88	5%	16%	23%	31%	25%	65%	65%	70%	62%	77%
Initially Fluent English Prof.	33,090	403	93	2%	11%	19%	31%	37%	70%	72%	76%	69%	83%
English Learner	119,869	320	66	11%	31%	30%	22%	7%	51%	52%	57%	48%	66%
Reclassified Fluent Eng.	53,028	403	79	1%	7%	20%	39%	34%	70%	73%	78%	71%	85%
English Prof. unknown	648	324	80	15%	27%	25%	22%	10%	51%	54%	57%	50%	65%
Not in NSLP	200,757	394	90	3%	11%	20%	32%	34%	69%	70%	74%	67%	81%
In NSLP	249,334	341	76	8%	24%	27%	27%	13%	56%	58%	63%	54%	71%
NSLP status unknown	948	326	83	16%	27%	26%	19%	13%	53%	54%	57%	49%	65%
No Special Ed Services	414,515	369	86	5%	17%	24%	30%	23%	63%	65%	69%	61%	77%
Special Ed Services	36,492	310	79	21%	31%	22%	16%	9%	49%	49%	53%	45%	61%
Special Ed unknown	32	259	41	34%	47%	19%	0%	0%	32%	36%	42%	29%	48%
Primary Ethnicity—Not in NSLP													
American Indian	1,629	365	81	5%	16%	24%	33%	21%	64%	64%	69%	60%	75%
Asian American	25,254	453	92	1%	4%	9%	26%	60%	81%	83%	84%	80%	89%
Pacific Islander	1,449	377	79	3%	13%	22%	37%	24%	65%	67%	72%	63%	79%
Filipino	9,094	404	84	1%	8%	18%	35%	36%	71%	73%	77%	70%	84%
Hispanic	49,590	359	79	5%	18%	26%	31%	19%	61%	62%	68%	58%	76%
African American	11,458	352	80	7%	20%	26%	30%	17%	59%	61%	66%	57%	73%
White	99,403	402	86	2%	9%	18%	34%	36%	72%	72%	76%	69%	83%
Ethnicity unknown	2,880	390	90	4%	12%	20%	32%	32%	69%	70%	73%	66%	80%

				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—In NSLP													
American Indian	1,951	330	72	11%	26%	29%	24%	10%	55%	55%	60%	50%	68%
Asian American	13,897	394	90	3%	12%	20%	33%	33%	69%	72%	74%	67%	81%
Pacific Islander	1,561	340	72	7%	24%	31%	27%	12%	57%	58%	63%	53%	71%
Filipino	4,200	382	85	4%	13%	23%	33%	27%	66%	68%	72%	65%	80%
Hispanic	177,004	337	73	8%	25%	28%	27%	11%	55%	56%	62%	53%	71%
African American	21,697	321	70	13%	29%	27%	23%	8%	51%	52%	58%	49%	65%
White	27,611	350	78	7%	21%	27%	30%	16%	60%	60%	65%	56%	72%
Ethnicity unknown	1,413	344	76	8%	22%	26%	30%	14%	58%	58%	64%	55%	72%

Table 6.A.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	468,590	348	71	6%	22%	29%	27%	17%	56%	64%	65%	57%	62%
Male	239,363	348	74	7%	22%	27%	26%	18%	57%	65%	65%	56%	62%
Female	229,056	347	68	4%	21%	31%	27%	16%	56%	62%	65%	58%	63%
Gender unknown	171	314	58	13%	34%	27%	19%	7%	45%	56%	54%	47%	51%
American Indian	3,829	333	63	7%	26%	32%	24%	11%	52%	60%	60%	52%	58%
Asian American	40,287	408	81	1%	7%	17%	30%	45%	72%	77%	81%	73%	77%
Pacific Islander	2,955	344	66	5%	22%	31%	28%	15%	55%	63%	65%	57%	61%
Filipino	13,502	373	68	2%	11%	26%	35%	25%	64%	70%	73%	65%	71%
Hispanic	234,119	327	59	7%	28%	33%	23%	8%	50%	57%	59%	51%	56%
African American	35,290	317	59	10%	33%	31%	19%	7%	47%	56%	55%	48%	53%
White	134,134	373	72	3%	12%	25%	33%	27%	63%	72%	72%	63%	71%
Ethnicity unknown	4,474	356	73	5%	18%	28%	29%	20%	58%	67%	67%	58%	65%
English Only	255,447	356	72	5%	18%	28%	29%	20%	58%	67%	67%	59%	66%
Initially Fluent English Prof.	32,271	380	78	2%	12%	25%	31%	30%	65%	71%	74%	66%	72%
English Learner	109,648	304	50	11%	40%	33%	13%	3%	44%	50%	51%	44%	47%
Reclassified Fluent Eng.	70,515	370	63	1%	9%	31%	37%	22%	63%	69%	73%	64%	71%
English Prof. unknown	709	319	62	12%	30%	31%	19%	9%	48%	56%	56%	48%	53%
Not in NSLP	212,489	374	75	3%	13%	25%	32%	28%	64%	71%	72%	64%	71%
In NSLP	255,118	326	60	8%	29%	33%	22%	8%	50%	57%	59%	51%	56%
NSLP status unknown	983	318	62	11%	31%	30%	19%	8%	48%	56%	55%	48%	53%
No Special Ed Services	422,197	354	70	4%	19%	30%	29%	19%	58%	65%	67%	59%	65%
Special Ed Services	46,354	291	56	22%	45%	20%	9%	4%	39%	47%	44%	39%	42%
Special Ed unknown	39	282	39	21%	51%	23%	5%	0%	36%	46%	43%	35%	38%
Primary Ethnicity—Not in NSLP													
American Indian	1,695	351	67	5%	19%	30%	30%	17%	58%	66%	66%	58%	64%
Asian American	25,414	428	79	1%	4%	12%	28%	55%	77%	82%	85%	77%	82%
Pacific Islander	1,449	360	69	3%	17%	26%	33%	21%	59%	68%	69%	61%	66%
Filipino	9,359	380	68	1%	10%	24%	36%	28%	65%	72%	75%	67%	73%
Hispanic	54,530	343	64	5%	22%	32%	28%	13%	55%	63%	64%	55%	62%
African American	12,677	335	63	7%	25%	31%	26%	11%	52%	61%	61%	53%	59%
White	104,478	383	71	2%	10%	23%	35%	31%	66%	75%	75%	66%	74%
Ethnicity unknown	2,887	371	73	3%	13%	25%	33%	26%	63%	72%	71%	63%	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—In NSLP													
American Indian	2,121	319	55	8%	32%	34%	20%	6%	48%	56%	56%	48%	53%
Asian American	14,824	373	71	2%	13%	25%	33%	27%	64%	69%	74%	65%	69%
Pacific Islander	1,493	329	59	7%	26%	36%	23%	9%	51%	59%	60%	52%	56%
Filipino	4,129	357	65	3%	16%	30%	33%	18%	60%	65%	69%	60%	66%
Hispanic	179,253	322	57	8%	30%	34%	21%	7%	49%	56%	57%	50%	54%
African American	22,497	307	54	12%	38%	30%	16%	4%	44%	52%	52%	45%	49%
White	29,437	338	63	6%	23%	33%	27%	11%	54%	62%	62%	54%	61%
Ethnicity unknown	1,364	329	62	8%	27%	34%	23%	9%	51%	58%	60%	51%	56%

Table 6.A.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	438,983	339	65	9%	21%	29%	28%	13%	58%	50%	57%	56%	54%	61%
Male	223,157	339	67	10%	21%	27%	28%	14%	58%	51%	55%	57%	54%	59%
Female	215,686	340	63	7%	21%	31%	28%	13%	58%	50%	58%	56%	54%	64%
Gender unknown	140	306	51	18%	33%	28%	20%	1%	48%	37%	48%	45%	44%	49%
American Indian	3,699	328	59	10%	25%	31%	26%	8%	54%	46%	53%	53%	52%	57%
Asian American	32,867	389	74	3%	8%	19%	35%	36%	73%	67%	70%	71%	67%	76%
Pacific Islander	3,051	335	59	8%	20%	33%	29%	10%	57%	50%	57%	56%	51%	60%
Filipino	12,308	363	63	3%	12%	27%	38%	21%	66%	58%	65%	64%	60%	71%
Hispanic	222,418	322	56	11%	27%	32%	24%	7%	53%	45%	52%	51%	49%	56%
African American	34,356	312	55	16%	30%	30%	19%	5%	49%	42%	50%	48%	45%	51%
White	125,960	361	65	4%	13%	26%	36%	21%	65%	57%	63%	64%	62%	68%
Ethnicity unknown	4,324	348	68	7%	19%	27%	30%	17%	60%	52%	59%	59%	57%	64%
English Only	239,897	347	66	7%	18%	28%	31%	16%	60%	52%	59%	59%	57%	63%
Initially Fluent English Prof.	35,321	363	69	4%	14%	27%	34%	22%	65%	58%	63%	64%	61%	69%
English Learner	90,876	299	47	19%	37%	29%	12%	2%	45%	38%	45%	43%	40%	47%
Reclassified Fluent Eng.	72,205	355	58	2%	13%	33%	37%	15%	64%	56%	62%	62%	59%	69%
English Prof. unknown	684	313	57	16%	30%	27%	20%	6%	49%	41%	49%	48%	47%	53%
Not in NSLP	204,613	360	67	5%	14%	26%	34%	21%	64%	56%	62%	63%	61%	68%
In NSLP	233,354	322	57	12%	27%	31%	23%	7%	52%	45%	52%	51%	48%	56%
NSLP status unknown	1,016	312	61	18%	30%	26%	20%	6%	48%	41%	48%	48%	47%	51%
No Special Ed Services	397,272	345	64	6%	19%	30%	30%	15%	60%	52%	59%	58%	56%	64%
Special Ed Services	41,689	286	50	31%	38%	19%	9%	3%	40%	34%	40%	38%	37%	41%
Special Ed unknown	22	269	44	50%	32%	9%	9%	0%	36%	28%	35%	33%	29%	35%
Primary Ethnicity—Not in NSLP														
American Indian	1,766	342	61	8%	19%	30%	32%	12%	59%	51%	57%	58%	56%	62%
Asian American	19,802	408	72	1%	4%	14%	35%	45%	77%	72%	74%	76%	73%	80%
Pacific Islander	1,524	347	61	5%	16%	31%	34%	14%	61%	54%	60%	60%	55%	65%
Filipino	8,714	369	62	3%	10%	26%	39%	23%	68%	60%	67%	66%	62%	73%
Hispanic	58,035	333	59	8%	22%	32%	28%	10%	56%	48%	56%	55%	52%	60%
African American	13,333	326	57	11%	25%	32%	25%	8%	54%	47%	55%	52%	49%	56%
White	98,744	370	64	3%	10%	24%	38%	24%	68%	59%	65%	66%	65%	71%
Ethnicity unknown	2,695	359	68	5%	15%	25%	34%	21%	64%	56%	62%	63%	61%	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	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—In NSLP														
American Indian	1,926	315	53	12%	30%	32%	21%	5%	50%	43%	49%	49%	48%	53%
Asian American	13,014	361	67	5%	13%	26%	35%	21%	66%	59%	64%	63%	59%	70%
Pacific Islander	1,525	323	54	11%	25%	34%	25%	6%	53%	47%	53%	52%	47%	56%
Filipino	3,576	350	61	5%	16%	30%	34%	15%	62%	54%	62%	60%	56%	66%
Hispanic	164,042	319	55	12%	28%	32%	22%	6%	51%	44%	51%	50%	47%	55%
African American	20,896	303	51	19%	33%	29%	16%	3%	46%	39%	47%	45%	42%	48%
White	26,945	331	58	9%	22%	32%	27%	9%	56%	47%	54%	54%	53%	58%
Ethnicity unknown	1,430	331	63	11%	23%	31%	24%	11%	55%	47%	54%	54%	52%	59%

Table 6.A.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	286,258	315	56	15%	29%	28%	22%	5%	48%	41%	58%	55%	42%	50%
Grade 8	209,463	321	57	13%	27%	29%	25%	6%	50%	42%	59%	57%	43%	52%
Grade 9	76,795	301	51	21%	34%	27%	16%	2%	42%	35%	53%	50%	38%	44%
Male	155,984	314	58	17%	29%	26%	22%	6%	48%	40%	56%	55%	43%	48%
Female	130,106	316	54	13%	29%	31%	22%	5%	47%	41%	60%	55%	40%	52%
Gender unknown	168	296	50	23%	38%	22%	14%	3%	42%	34%	49%	50%	37%	43%
American Indian	3,040	312	55	16%	29%	30%	21%	4%	47%	39%	56%	54%	42%	48%
Asian American	11,371	348	63	7%	17%	26%	34%	16%	60%	55%	69%	64%	51%	58%
Pacific Islander	1,813	319	54	12%	28%	31%	24%	5%	49%	43%	60%	56%	42%	51%
Filipino	5,162	340	57	7%	18%	30%	35%	10%	56%	51%	68%	63%	48%	58%
Hispanic	156,983	306	52	18%	33%	29%	18%	3%	45%	37%	54%	52%	39%	47%
African American	26,075	298	51	23%	34%	26%	15%	2%	42%	36%	52%	48%	35%	44%
White	78,743	333	58	10%	21%	29%	31%	9%	54%	46%	64%	60%	49%	56%
Ethnicity unknown	3,071	315	60	17%	29%	27%	21%	6%	48%	40%	57%	54%	44%	49%
English Only	158,768	321	58	14%	26%	28%	25%	6%	49%	42%	59%	56%	44%	52%
Initially Fluent English Prof.	16,788	330	56	9%	23%	31%	29%	7%	52%	45%	63%	60%	46%	55%
English Learner	75,729	291	47	24%	39%	25%	11%	1%	40%	33%	49%	47%	34%	41%
Reclassified Fluent Eng.	34,309	336	51	5%	20%	35%	33%	7%	55%	47%	66%	63%	47%	58%
English Prof. unknown	664	300	55	24%	32%	25%	15%	4%	43%	35%	52%	49%	39%	44%
Not in NSLP	128,622	328	58	11%	24%	29%	28%	8%	52%	45%	62%	59%	47%	54%
In NSLP	156,584	305	52	19%	33%	28%	18%	3%	44%	37%	54%	52%	38%	46%
NSLP status unknown	1,052	300	55	22%	34%	25%	14%	4%	43%	35%	51%	50%	38%	44%
No Special Ed Services	238,312	323	55	11%	27%	31%	25%	6%	50%	43%	61%	58%	44%	53%
Special Ed Services	47,922	277	46	37%	38%	17%	7%	1%	35%	29%	43%	41%	32%	37%
Special Ed unknown	24	268	36	33%	46%	21%	0%	0%	32%	26%	37%	40%	30%	34%
Primary Ethnicity—Not in NSLP														
American Indian	1,427	321	57	13%	26%	31%	24%	6%	50%	41%	59%	56%	46%	51%
Asian American	5,804	362	65	5%	13%	23%	37%	22%	64%	58%	72%	68%	56%	62%
Pacific Islander	904	324	55	12%	25%	31%	27%	6%	51%	44%	62%	57%	44%	53%
Filipino	3,652	346	57	6%	16%	29%	39%	11%	58%	53%	69%	64%	50%	60%
Hispanic	47,075	313	53	15%	30%	29%	21%	4%	47%	40%	57%	55%	41%	49%
African American	10,303	306	53	18%	32%	28%	18%	3%	45%	39%	56%	51%	38%	47%
White	57,667	340	58	7%	19%	29%	34%	11%	56%	48%	66%	62%	51%	59%
Ethnicity unknown	1,790	325	61	13%	26%	28%	25%	8%	51%	43%	60%	57%	47%	53%

				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—In NSLP														
American Indian	1,600	305	52	19%	31%	29%	18%	3%	44%	37%	54%	51%	40%	46%
Asian American	5,524	334	59	10%	21%	28%	32%	10%	55%	51%	65%	60%	46%	54%
Pacific Islander	903	313	52	13%	30%	32%	21%	4%	47%	41%	58%	54%	40%	49%
Filipino	1,497	326	55	10%	26%	32%	26%	6%	51%	45%	63%	59%	43%	52%
Hispanic	109,463	303	50	19%	34%	28%	17%	2%	44%	37%	53%	52%	38%	46%
African American	15,671	292	49	26%	35%	25%	13%	1%	40%	34%	50%	47%	34%	42%
White	20,815	315	56	15%	28%	29%	23%	5%	48%	40%	57%	55%	44%	50%
Ethnicity unknown	1,111	300	54	23%	34%	24%	16%	3%	44%	35%	51%	50%	39%	44%

Table 6.A.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	742,363	315	67	14%	35%	26%	18%	7%	55%	45%	44%	37%
Grade 7	25,616	415	80	2%	5%	14%	39%	41%	81%	71%	72%	63%
Grade 8	247,372	343	74	7%	24%	27%	29%	13%	63%	52%	53%	45%
Grade 9	272,810	302	53	15%	38%	29%	16%	2%	52%	42%	41%	34%
Grade 10	131,030	285	44	21%	46%	25%	8%	1%	46%	37%	35%	30%
Grade 11	65,535	278	41	25%	49%	20%	5%	0%	43%	35%	33%	29%
Male	383,658	312	68	16%	35%	25%	18%	7%	54%	44%	43%	37%
Female	358,389	317	66	12%	35%	27%	19%	7%	55%	46%	45%	38%
Gender unknown	316	286	57	26%	41%	22%	9%	2%	45%	37%	35%	31%
American Indian	6,541	303	58	16%	38%	27%	16%	3%	52%	41%	41%	35%
Asian American	54,934	380	88	5%	15%	21%	31%	28%	71%	62%	62%	55%
Pacific Islander	5,303	310	60	14%	36%	28%	18%	4%	54%	44%	43%	36%
Filipino	19,807	340	68	6%	24%	29%	29%	11%	63%	52%	53%	44%
Hispanic	379,928	298	54	18%	41%	25%	13%	3%	49%	41%	40%	33%
African American	60,945	290	52	22%	43%	22%	11%	2%	47%	38%	37%	31%
White	207,792	334	69	8%	26%	29%	26%	10%	62%	49%	50%	42%
Ethnicity unknown	7,113	311	67	16%	35%	24%	17%	6%	54%	44%	43%	37%
English Only	404,599	319	67	13%	32%	27%	21%	7%	57%	46%	46%	39%
Initially Fluent English Prof.	60,561	336	79	9%	28%	27%	23%	13%	61%	51%	50%	42%
English Learner	143,451	280	47	26%	48%	18%	6%	1%	41%	37%	35%	29%
Reclassified Fluent Eng.	132,433	327	66	8%	31%	31%	23%	8%	59%	49%	48%	40%
English Prof. unknown	1,319	284	55	27%	45%	17%	8%	3%	44%	36%	35%	31%
Not in NSLP	384,369	328	72	11%	29%	27%	23%	10%	59%	48%	48%	41%
In NSLP	356,149	300	57	17%	40%	25%	14%	3%	50%	41%	40%	33%
NSLP status unknown	1,845	285	53	26%	45%	18%	9%	2%	45%	36%	35%	31%
No Special Ed Services	684,007	318	67	12%	34%	27%	20%	7%	56%	46%	45%	38%
Special Ed Services	58,328	271	45	34%	47%	13%	5%	1%	38%	34%	32%	28%
Special Ed unknown	28	255	26	43%	54%	4%	0%	0%	32%	34%	25%	23%
Primary Ethnicity—Not in NSLP												
American Indian	3,819	310	60	13%	36%	28%	18%	4%	55%	43%	43%	36%
Asian American	33,688	398	90	3%	11%	18%	32%	35%	75%	66%	67%	59%
Pacific Islander	3,010	317	63	12%	33%	28%	21%	5%	56%	46%	45%	38%
Filipino	14,671	345	69	6%	22%	29%	31%	12%	64%	53%	54%	45%
Hispanic	128,266	301	56	16%	40%	26%	15%	3%	51%	42%	40%	34%
African American	27,906	297	56	19%	40%	25%	14%	3%	49%	40%	40%	33%
White	168,410	340	70	7%	24%	30%	28%	11%	64%	51%	51%	44%
Ethnicity unknown	4,599	322	71	13%	32%	25%	21%	8%	58%	46%	46%	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	Number Properties, Operations, and Linear Equations	Graphing and Systems of Linear Equations	Quadratics and Polynomials	Functions and Rational Expressions
Primary Ethnicity—In NSLP												
American Indian	2,694	294	53	20%	42%	25%	12%	2%	49%	39%	38%	32%
Asian American	21,157	352	78	7%	22%	26%	29%	17%	63%	56%	55%	48%
Pacific Islander	2,278	301	54	16%	39%	28%	15%	2%	51%	41%	41%	33%
Filipino	5,099	328	66	9%	28%	30%	25%	8%	59%	49%	49%	40%
Hispanic	250,975	296	53	18%	42%	25%	13%	2%	48%	41%	39%	32%
African American	32,815	284	49	25%	45%	20%	9%	1%	44%	37%	36%	30%
White	38,955	307	58	14%	37%	28%	17%	4%	54%	43%	42%	36%
Ethnicity unknown	2,176	292	55	22%	41%	23%	10%	3%	47%	39%	38%	32%

Table 6.A.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	382,108	311	68	15%	37%	24%	16%	8%	53%	49%	52%	53%
Grade 8	17,796	420	71	0%	3%	13%	34%	50%	82%	79%	81%	85%
Grade 9	120,304	345	69	5%	23%	29%	28%	15%	64%	59%	62%	66%
Grade 10	161,101	291	52	18%	44%	25%	10%	2%	48%	43%	46%	47%
Grade 11	82,907	274	44	26%	50%	18%	5%	1%	42%	37%	41%	40%
Male	186,596	313	71	16%	34%	24%	17%	9%	54%	49%	52%	53%
Female	195,436	309	66	14%	39%	25%	15%	7%	52%	48%	51%	53%
Gender unknown	76	284	54	22%	46%	20%	9%	3%	47%	37%	43%	46%
American Indian	2,671	309	60	13%	37%	28%	16%	6%	54%	48%	52%	53%
Asian American	41,446	365	85	5%	21%	22%	25%	27%	67%	65%	66%	70%
Pacific Islander	2,780	300	61	17%	41%	25%	13%	5%	50%	46%	49%	51%
Filipino	13,726	323	65	9%	33%	29%	20%	9%	57%	53%	56%	59%
Hispanic	165,949	286	52	22%	46%	21%	9%	2%	46%	41%	44%	45%
African American	27,611	278	50	27%	47%	18%	7%	2%	43%	39%	41%	42%
White	124,541	331	67	7%	28%	30%	23%	11%	61%	55%	58%	61%
Ethnicity unknown	3,384	317	69	13%	35%	25%	17%	10%	56%	51%	53%	55%
English Only	216,846	318	68	12%	33%	27%	19%	9%	56%	51%	54%	56%
Initially Fluent English Prof.	36,299	329	78	11%	33%	25%	18%	14%	58%	54%	56%	59%
English Learner	48,170	269	51	34%	47%	12%	5%	2%	39%	37%	39%	38%
Reclassified Fluent Eng.	80,391	307	64	13%	41%	25%	14%	7%	52%	47%	50%	53%
English Prof. unknown	402	294	65	22%	41%	21%	9%	6%	49%	44%	47%	46%
Not in NSLP	228,924	326	72	11%	31%	27%	20%	12%	58%	53%	56%	58%
In NSLP	152,591	288	56	22%	45%	21%	10%	3%	46%	42%	45%	46%
NSLP status unknown	593	296	63	21%	39%	24%	10%	5%	49%	43%	47%	48%
No Special Ed Services	366,381	313	68	14%	37%	25%	16%	8%	54%	49%	52%	54%
Special Ed Services	15,719	266	53	40%	41%	12%	5%	2%	39%	36%	38%	37%
Special Ed unknown	8	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP												
American Indian	1,835	314	61	10%	36%	30%	17%	7%	56%	49%	53%	54%
Asian American	27,307	382	86	4%	15%	20%	27%	34%	72%	69%	71%	74%
Pacific Islander	1,764	308	64	15%	38%	26%	15%	6%	52%	48%	51%	53%
Filipino	10,749	327	65	8%	31%	30%	21%	10%	58%	54%	57%	60%
Hispanic	61,262	293	56	18%	43%	24%	11%	3%	48%	43%	47%	48%
African American	14,562	286	53	22%	45%	21%	9%	2%	46%	41%	44%	45%
White	108,845	335	67	7%	27%	30%	25%	12%	62%	56%	59%	62%
Ethnicity unknown	2,600	325	70	10%	32%	27%	19%	12%	58%	53%	56%	58%

				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—In NSLP												
American Indian	829	296	55	18%	41%	24%	13%	3%	50%	43%	48%	49%
Asian American	14,083	333	74	8%	31%	26%	21%	14%	59%	56%	58%	62%
Pacific Islander	1,015	287	51	20%	47%	22%	8%	2%	46%	42%	44%	46%
Filipino	2,964	310	61	12%	38%	28%	16%	6%	53%	49%	52%	55%
Hispanic	104,508	282	50	24%	47%	20%	8%	2%	44%	40%	43%	44%
African American	12,990	269	45	32%	48%	15%	5%	1%	41%	36%	39%	39%
White	15,519	305	58	14%	39%	28%	15%	4%	53%	46%	50%	52%
Ethnicity unknown	683	287	60	25%	42%	19%	11%	3%	47%	42%	44%	44%

Table 6.A.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	239,083	316	67	20%	24%	29%	20%	7%	63%	49%	48%	45%
Grade 8	702	404	95	6%	5%	21%	28%	41%	82%	73%	71%	65%
Grade 9	19,825	384	78	5%	8%	21%	35%	31%	80%	69%	68%	61%
Grade 10	107,292	332	64	12%	20%	32%	27%	9%	69%	54%	53%	49%
Grade 11	111,264	288	50	30%	31%	28%	10%	1%	55%	41%	40%	38%
Male	112,712	320	70	19%	22%	28%	21%	9%	64%	50%	49%	47%
Female	126,328	313	63	20%	25%	30%	19%	6%	63%	48%	47%	44%
Gender unknown	43	274	58	42%	26%	19%	12%	2%	52%	37%	35%	34%
American Indian	1,431	309	56	19%	26%	32%	20%	4%	62%	48%	46%	44%
Asian American	36,350	361	77	7%	13%	27%	31%	21%	76%	62%	61%	55%
Pacific Islander	1,561	309	59	19%	28%	32%	17%	5%	62%	47%	46%	43%
Filipino	10,132	320	60	14%	24%	33%	22%	6%	66%	50%	50%	45%
Hispanic	84,904	292	55	29%	29%	26%	12%	2%	57%	42%	41%	39%
African American	14,072	282	53	37%	28%	23%	10%	2%	53%	40%	39%	36%
White	88,579	326	63	13%	22%	33%	25%	8%	66%	52%	52%	49%
Ethnicity unknown	2,054	321	66	16%	24%	31%	22%	8%	65%	51%	50%	47%
English Only	141,070	319	64	17%	23%	31%	22%	7%	64%	50%	49%	47%
Initially Fluent English Prof.	26,255	332	75	15%	21%	28%	23%	13%	68%	53%	53%	49%
English Learner	17,455	285	65	41%	26%	18%	10%	5%	54%	41%	39%	35%
Reclassified Fluent Eng.	54,100	311	66	22%	26%	28%	18%	7%	62%	48%	46%	43%
English Prof. unknown	203	301	74	31%	24%	25%	11%	9%	57%	45%	45%	41%
Not in NSLP	159,054	326	68	15%	22%	30%	23%	9%	66%	52%	51%	48%
In NSLP	79,749	296	60	29%	28%	26%	14%	4%	58%	44%	42%	39%
NSLP status unknown	280	300	67	27%	26%	28%	13%	6%	59%	44%	43%	41%
No Special Ed Services	234,697	317	67	19%	24%	29%	20%	8%	64%	49%	48%	45%
Special Ed Services	4,386	279	62	44%	25%	18%	10%	3%	50%	39%	38%	36%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP												
American Indian	1,092	313	56	17%	24%	33%	23%	4%	63%	49%	48%	45%
Asian American	25,341	371	78	6%	11%	25%	33%	25%	78%	65%	64%	58%
Pacific Islander	1,053	314	61	17%	26%	32%	19%	6%	64%	48%	48%	45%
Filipino	8,229	322	60	13%	23%	34%	23%	7%	66%	51%	51%	46%
Hispanic	32,912	299	56	25%	29%	29%	14%	3%	59%	44%	43%	41%
African American	8,155	288	55	32%	29%	25%	11%	2%	55%	41%	40%	38%
White	80,599	328	63	12%	21%	33%	25%	8%	67%	53%	52%	50%
Ethnicity unknown	1,673	325	66	14%	23%	31%	23%	9%	66%	52%	52%	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	Polynomials and Rational Expressions	Quadratics, Conics, and Complex Numbers	Exponents and Logarithms	Series, Combinatorics, Probability and Statistics
Primary Ethnicity—In NSLP												
American Indian	336	296	55	24%	31%	29%	13%	3%	58%	44%	42%	39%
Asian American	10,969	339	71	11%	19%	29%	28%	13%	71%	56%	55%	48%
Pacific Islander	508	298	54	23%	31%	30%	12%	4%	59%	45%	43%	38%
Filipino	1,887	311	59	18%	28%	31%	19%	5%	63%	48%	48%	42%
Hispanic	51,917	288	54	32%	30%	25%	11%	2%	55%	41%	39%	37%
African American	5,898	272	50	45%	28%	20%	7%	1%	49%	37%	36%	33%
White	7,897	306	58	21%	27%	31%	18%	4%	61%	47%	45%	43%
Ethnicity unknown	337	305	62	24%	26%	29%	16%	5%	61%	46%	43%	43%

Table 6.A.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	Algebra I	Geometry	Algebra II	Probability and Statistics
All valid scores	115,855	350	74	5%	21%	27%	31%	16%	73%	70%	66%	62%
Grade 9	634	412	86	5%	4%	13%	33%	46%	86%	82%	80%	75%
Grade 10	17,097	385	71	1%	9%	21%	39%	29%	82%	77%	75%	71%
Grade 11	98,124	343	72	5%	23%	28%	29%	14%	71%	68%	64%	60%
Male	54,691	360	76	4%	18%	25%	33%	20%	75%	72%	68%	67%
Female	61,148	341	71	5%	24%	28%	29%	13%	71%	68%	64%	57%
Gender unknown	16	320	50	0%	31%	44%	25%	0%	71%	63%	56%	49%
American Indian	535	333	69	8%	23%	32%	26%	10%	69%	66%	61%	59%
Asian American	29,520	387	74	2%	10%	20%	37%	31%	82%	78%	76%	69%
Pacific Islander	589	332	67	5%	30%	30%	27%	8%	68%	66%	61%	57%
Filipino	5,205	335	63	4%	26%	32%	29%	9%	69%	68%	63%	56%
Hispanic	27,187	311	62	10%	36%	30%	20%	5%	62%	60%	55%	49%
African American	4,035	301	63	15%	36%	28%	17%	4%	59%	56%	53%	47%
White	47,907	355	68	3%	18%	29%	34%	16%	75%	72%	67%	66%
Ethnicity unknown	877	353	73	5%	18%	29%	32%	16%	74%	71%	66%	64%
English Only	70,288	351	71	4%	20%	28%	32%	16%	74%	71%	66%	64%
Initially Fluent English Prof.	16,656	370	78	3%	17%	23%	32%	25%	77%	74%	71%	65%
English Learner	3,105	320	81	17%	28%	21%	22%	12%	63%	61%	58%	45%
Reclassified Fluent Eng.	25,756	337	74	7%	27%	27%	26%	13%	69%	66%	63%	55%
English Prof. unknown	50	343	68	2%	26%	30%	28%	14%	72%	70%	62%	65%
Not in NSLP	87,618	359	73	3%	18%	26%	33%	19%	75%	72%	68%	65%
In NSLP	28,165	320	68	10%	32%	28%	23%	8%	65%	62%	58%	51%
NSLP status unknown	72	334	78	13%	22%	26%	22%	17%	67%	66%	61%	58%
No Special Ed Services	115,029	350	73	5%	21%	27%	31%	16%	73%	70%	66%	62%
Special Ed Services	826	326	87	19%	22%	22%	21%	16%	65%	62%	59%	55%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–

				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	Geometry	Algebra II	Probability and Statistics
Primary Ethnicity—Not in NSLP												
American Indian	426	337	70	8%	21%	31%	28%	12%	70%	67%	62%	60%
Asian American	22,355	396	72	1%	8%	18%	38%	35%	84%	80%	78%	72%
Pacific Islander	435	336	69	5%	29%	29%	27%	10%	69%	67%	62%	60%
Filipino	4,342	339	63	4%	25%	31%	30%	10%	70%	69%	64%	57%
Hispanic	11,702	321	63	8%	32%	31%	23%	6%	65%	63%	58%	54%
African American	2,666	310	64	12%	34%	30%	19%	5%	62%	59%	55%	50%
White	44,939	357	68	3%	17%	28%	35%	17%	75%	72%	67%	67%
Ethnicity unknown	753	358	74	4%	17%	29%	33%	18%	74%	73%	67%	65%
Primary Ethnicity—In NSLP												
American Indian	109	314	63	9%	30%	36%	19%	6%	63%	63%	54%	54%
Asian American	7,153	359	71	3%	18%	26%	35%	19%	76%	72%	69%	60%
Pacific Islander	154	318	57	7%	32%	32%	25%	3%	65%	61%	59%	51%
Filipino	861	320	59	5%	34%	33%	23%	5%	64%	63%	59%	51%
Hispanic	15,470	303	59	12%	39%	28%	17%	3%	60%	58%	53%	46%
African American	1,366	286	57	21%	41%	25%	12%	1%	54%	51%	49%	41%
White	2,940	333	67	7%	26%	31%	27%	10%	69%	67%	61%	58%
Ethnicity unknown	112	328	67	10%	26%	27%	30%	7%	69%	64%	60%	55%

Table 6.A.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	8,772	282	53	27%	43%	20%	9%	2%	51%	41%	37%	30%	33%
Grade 8	63	275	65	33%	38%	19%	8%	2%	47%	35%	34%	29%	34%
Grade 9	1,743	284	65	32%	37%	16%	11%	4%	51%	42%	37%	32%	33%
Grade 10	2,585	281	51	26%	44%	20%	9%	1%	51%	41%	37%	31%	32%
Grade 11	4,381	282	49	24%	46%	21%	8%	1%	51%	40%	37%	29%	33%
Male	4,726	281	55	28%	42%	19%	9%	2%	51%	40%	37%	30%	33%
Female	4,042	283	51	25%	45%	20%	8%	1%	52%	42%	38%	31%	32%
Gender unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	67	288	57	30%	31%	22%	15%	1%	51%	38%	41%	36%	35%
Asian American	471	314	66	14%	35%	25%	20%	6%	60%	49%	49%	39%	40%
Pacific Islander	74	278	53	32%	42%	15%	8%	3%	51%	38%	37%	31%	30%
Filipino	331	297	60	20%	38%	26%	13%	4%	55%	44%	44%	33%	36%
Hispanic	4,140	271	48	32%	46%	15%	6%	1%	47%	38%	34%	29%	30%
African American	687	268	48	35%	45%	14%	5%	1%	45%	37%	34%	29%	29%
White	2,915	293	54	19%	42%	26%	12%	2%	56%	44%	40%	31%	35%
Ethnicity unknown	87	280	50	29%	40%	21%	9%	1%	49%	40%	39%	32%	31%
English Only	5,228	286	53	24%	42%	22%	10%	2%	53%	41%	38%	31%	34%
Initially Fluent English Prof.	699	296	62	21%	40%	21%	14%	4%	57%	44%	42%	32%	36%
English Learner	1,520	258	38	42%	47%	9%	3%	0%	40%	35%	30%	27%	28%
Reclassified Fluent Eng.	1,295	287	53	23%	45%	21%	10%	2%	53%	42%	39%	32%	33%
English Prof. unknown	30	263	37	33%	53%	13%	0%	0%	44%	37%	30%	27%	29%
Not in NSLP	4,844	290	54	22%	42%	24%	11%	2%	55%	43%	39%	32%	34%
In NSLP	3,911	272	50	33%	45%	15%	7%	1%	47%	38%	35%	29%	30%
NSLP status unknown	17	250	27	47%	47%	6%	0%	0%	45%	29%	28%	20%	23%
No Special Ed Services	7,770	285	54	25%	43%	21%	10%	2%	53%	41%	38%	31%	33%
Special Ed Services	1,002	258	41	43%	44%	10%	2%	0%	40%	34%	30%	27%	28%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP													
American Indian	39	296	61	28%	26%	23%	21%	3%	54%	42%	44%	41%	35%
Asian American	275	321	69	11%	32%	26%	23%	8%	62%	51%	51%	42%	41%
Pacific Islander	49	277	53	39%	37%	14%	8%	2%	50%	37%	38%	31%	30%
Filipino	242	298	59	20%	37%	26%	14%	3%	56%	45%	43%	34%	36%
Hispanic	1,549	277	47	28%	47%	18%	6%	1%	50%	39%	35%	30%	31%
African American	306	276	51	29%	44%	19%	7%	1%	47%	40%	36%	30%	31%
White	2,330	296	54	18%	41%	27%	12%	2%	58%	45%	41%	32%	36%
Ethnicity unknown	54	296	50	15%	44%	26%	13%	2%	56%	45%	43%	37%	34%

				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—In NSLP													
American Indian	28	275	50	32%	39%	21%	7%	0%	48%	33%	36%	28%	34%
Asian American	196	304	62	17%	39%	24%	15%	5%	56%	47%	47%	36%	37%
Pacific Islander	25	279	55	20%	52%	16%	8%	4%	54%	41%	36%	31%	29%
Filipino	89	296	62	21%	40%	24%	10%	4%	53%	43%	44%	33%	37%
Hispanic	2,586	268	47	35%	46%	13%	5%	1%	46%	37%	33%	28%	29%
African American	379	261	44	40%	45%	11%	3%	1%	42%	34%	32%	27%	28%
White	578	283	51	23%	46%	19%	10%	1%	51%	40%	38%	31%	33%
Ethnicity unknown	30	254	40	53%	30%	13%	3%	0%	40%	32%	32%	25%	26%

Table 6.A.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	4,275	316	58	13%	33%	29%	19%	6%	44%	42%	45%	45%	39%
Grade 8	74	381	47	1%	1%	23%	58%	16%	72%	63%	53%	56%	68%
Grade 9	686	341	65	9%	21%	25%	32%	12%	52%	51%	51%	51%	50%
Grade 10	1,589	321	64	13%	32%	27%	21%	7%	46%	43%	46%	48%	40%
Grade 11	1,926	301	44	15%	39%	32%	12%	1%	40%	38%	42%	40%	33%
Male	2,126	317	60	14%	32%	27%	21%	6%	45%	43%	44%	45%	40%
Female	2,147	315	57	12%	34%	31%	18%	5%	43%	42%	46%	46%	38%
Gender unknown	2	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	39	311	48	8%	36%	36%	18%	3%	44%	37%	44%	46%	40%
Asian American	503	337	70	8%	29%	27%	20%	15%	51%	48%	50%	52%	42%
Pacific Islander	28	297	58	21%	50%	11%	11%	7%	34%	38%	41%	41%	39%
Filipino	153	330	66	13%	26%	23%	28%	10%	47%	45%	50%	54%	44%
Hispanic	1,630	300	49	17%	41%	28%	12%	2%	40%	37%	41%	40%	34%
African American	366	297	56	21%	44%	21%	10%	4%	38%	36%	38%	39%	34%
White	1,482	331	56	8%	23%	34%	29%	6%	49%	48%	49%	49%	44%
Ethnicity unknown	74	301	54	22%	31%	28%	16%	3%	43%	37%	38%	39%	35%
English Only	2,726	320	59	12%	30%	30%	22%	6%	45%	44%	46%	46%	41%
Initially Fluent English Prof.	301	326	72	14%	34%	24%	17%	12%	46%	45%	47%	49%	41%
English Learner	513	291	45	20%	48%	22%	8%	2%	37%	34%	40%	36%	29%
Reclassified Fluent Eng.	730	314	53	10%	36%	32%	17%	5%	45%	40%	44%	45%	38%
English Prof. unknown	5	–	–	–	–	–	–	–	–	–	–	–	–
Not in NSLP	2,459	326	60	10%	28%	32%	24%	7%	47%	46%	47%	48%	42%
In NSLP	1,808	303	53	17%	40%	25%	13%	4%	41%	38%	41%	41%	35%
NSLP status unknown	8	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	4,042	318	59	12%	32%	29%	20%	6%	45%	43%	45%	46%	39%
Special Ed Services	233	286	39	25%	47%	21%	6%	1%	35%	33%	38%	34%	32%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP													
American Indian	20	315	55	5%	35%	40%	15%	5%	46%	40%	41%	47%	42%
Asian American	218	355	77	5%	23%	25%	25%	22%	57%	53%	53%	59%	47%
Pacific Islander	15	298	52	20%	47%	20%	7%	7%	32%	38%	43%	42%	44%
Filipino	115	333	68	14%	22%	24%	30%	10%	48%	46%	50%	56%	46%
Hispanic	620	304	49	13%	40%	32%	13%	2%	41%	38%	42%	42%	35%
African American	169	304	62	18%	43%	21%	13%	5%	40%	39%	40%	42%	35%
White	1,245	336	56	7%	21%	35%	31%	7%	50%	50%	50%	50%	46%
Ethnicity unknown	57	301	52	19%	33%	30%	16%	2%	43%	37%	38%	38%	36%

				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—In NSLP													
American Indian	19	305	41	11%	37%	32%	21%	0%	42%	35%	46%	45%	38%
Asian American	284	323	61	10%	35%	29%	17%	10%	47%	44%	49%	47%	39%
Pacific Islander	13	296	66	23%	54%	0%	15%	8%	35%	39%	38%	39%	34%
Filipino	38	319	61	11%	39%	18%	24%	8%	45%	42%	49%	48%	38%
Hispanic	1,007	297	50	19%	42%	25%	12%	2%	39%	36%	40%	39%	34%
African American	196	291	50	23%	45%	22%	7%	3%	37%	34%	37%	36%	33%
White	234	309	53	14%	38%	28%	18%	3%	42%	41%	42%	42%	35%
Ethnicity unknown	17	301	61	29%	24%	24%	18%	6%	43%	36%	38%	44%	33%

Table 6.A.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	1,480	305	72	27%	27%	23%	17%	6%	56%	50%	43%	44%	36%
Grade 8	3	–	–	–	–	–	–	–	–	–	–	–	–
Grade 9	118	365	56	3%	6%	27%	53%	11%	71%	64%	57%	66%	50%
Grade 10	441	313	64	19%	24%	34%	18%	5%	57%	51%	46%	47%	38%
Grade 11	918	293	73	33%	31%	18%	12%	6%	53%	48%	40%	40%	33%
Male	735	310	76	27%	24%	23%	19%	8%	57%	50%	45%	45%	38%
Female	744	300	68	27%	30%	23%	15%	5%	54%	50%	42%	43%	33%
Gender unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	13	308	63	23%	23%	38%	8%	8%	60%	56%	38%	43%	38%
Asian American	228	342	91	20%	17%	21%	25%	18%	61%	60%	53%	53%	43%
Pacific Islander	7	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	89	319	87	24%	26%	21%	19%	10%	57%	54%	46%	47%	40%
Hispanic	434	291	61	29%	35%	19%	13%	3%	54%	49%	40%	38%	31%
African American	133	271	70	48%	28%	11%	10%	3%	43%	41%	34%	35%	31%
White	530	307	60	22%	25%	32%	19%	3%	58%	49%	44%	47%	37%
Ethnicity unknown	46	281	75	43%	28%	11%	11%	7%	48%	42%	38%	37%	34%
English Only	917	303	66	26%	24%	28%	18%	4%	56%	49%	43%	45%	36%
Initially Fluent English Prof.	148	344	92	18%	22%	19%	22%	18%	62%	59%	53%	54%	43%
English Learner	102	275	66	39%	40%	10%	7%	4%	45%	43%	35%	36%	30%
Reclassified Fluent Eng.	309	299	72	29%	32%	17%	15%	7%	55%	51%	42%	39%	33%
English Prof. unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Not in NSLP	1,022	309	71	24%	25%	27%	18%	6%	57%	50%	44%	46%	37%
In NSLP	457	294	74	33%	32%	16%	14%	6%	52%	49%	40%	39%	33%
NSLP status unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	1,435	306	72	26%	27%	23%	17%	6%	56%	50%	43%	44%	36%
Special Ed Services	45	256	47	56%	22%	20%	2%	0%	41%	37%	31%	31%	27%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP													
American Indian	11	312	68	27%	9%	45%	9%	9%	58%	56%	39%	48%	37%
Asian American	131	356	91	16%	13%	22%	27%	21%	64%	64%	56%	58%	44%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	64	336	82	14%	23%	25%	27%	11%	61%	58%	49%	51%	44%
Hispanic	187	292	59	27%	34%	23%	13%	3%	53%	48%	40%	40%	32%
African American	81	267	60	49%	26%	15%	9%	1%	44%	40%	33%	34%	31%
White	502	308	60	21%	25%	32%	19%	3%	59%	49%	44%	47%	37%
Ethnicity unknown	42	283	77	43%	26%	12%	12%	7%	49%	43%	38%	39%	33%

				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—In NSLP													
American Indian	2	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	97	325	89	25%	22%	19%	22%	13%	56%	56%	48%	47%	43%
Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	25	276	85	48%	32%	12%	0%	8%	47%	41%	37%	36%	28%
Hispanic	247	290	63	30%	37%	17%	13%	4%	54%	49%	39%	37%	30%
African American	52	278	82	46%	31%	6%	12%	6%	42%	43%	36%	38%	30%
White	27	280	57	44%	22%	22%	7%	4%	47%	47%	34%	39%	26%
Ethnicity unknown	4	–	–	–	–	–	–	–	–	–	–	–	–

Table 6.A.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 5	Physical Science 4	Life Science 5	Life Science 4	Earth Science 5	Earth Science 4
All valid scores	449,999	345	60	9%	13%	31%	33%	13%	72%	69%	63%	61%	63%	67%
Male	228,051	347	64	10%	12%	28%	33%	15%	72%	70%	64%	61%	63%	68%
Female	221,790	343	56	8%	13%	34%	34%	11%	71%	69%	62%	61%	63%	67%
Gender unknown	158	321	56	16%	18%	36%	23%	6%	64%	62%	55%	56%	56%	58%
American Indian	3,574	340	56	10%	13%	34%	34%	10%	71%	69%	62%	60%	61%	66%
Asian American	39,124	381	67	4%	6%	20%	38%	31%	80%	78%	72%	71%	71%	78%
Pacific Islander	3,004	339	55	8%	15%	35%	32%	9%	71%	68%	61%	60%	60%	65%
Filipino	13,292	364	53	3%	7%	28%	44%	17%	79%	76%	68%	67%	67%	75%
Hispanic	226,295	326	52	13%	17%	37%	27%	5%	66%	64%	58%	55%	58%	61%
African American	33,220	323	54	16%	18%	34%	27%	6%	65%	63%	57%	55%	56%	59%
White	127,008	373	59	4%	6%	22%	44%	24%	80%	78%	70%	69%	70%	76%
Ethnicity unknown	4,482	358	63	7%	9%	27%	37%	19%	76%	73%	66%	65%	66%	71%
English Only	243,943	357	60	7%	10%	27%	39%	18%	76%	73%	66%	65%	66%	71%
Initially Fluent English Prof.	33,057	369	60	3%	7%	26%	41%	22%	79%	77%	70%	68%	69%	75%
English Learner	119,378	306	46	20%	24%	39%	15%	2%	59%	56%	53%	48%	52%	54%
Reclassified Fluent Eng.	52,972	362	48	1%	5%	33%	46%	14%	78%	76%	68%	66%	68%	75%
English Prof. unknown	649	321	59	19%	18%	32%	23%	8%	64%	62%	56%	54%	56%	58%
Not in NSLP	200,487	371	60	4%	7%	24%	42%	23%	79%	77%	70%	69%	70%	76%
In NSLP	248,580	325	52	13%	18%	37%	27%	5%	66%	63%	58%	54%	57%	60%
NSLP status unknown	932	323	62	20%	16%	29%	26%	8%	64%	62%	56%	55%	56%	59%
No Special Ed Services	413,939	348	59	8%	12%	31%	35%	14%	73%	70%	64%	62%	64%	68%
Special Ed Services	36,027	311	62	27%	20%	27%	20%	7%	59%	57%	53%	50%	52%	55%
Special Ed unknown	33	272	35	45%	33%	21%	0%	0%	44%	44%	41%	40%	41%	39%
Primary Ethnicity—Not in NSLP														
American Indian	1,621	357	56	6%	9%	28%	42%	16%	76%	74%	66%	66%	66%	72%
Asian American	25,219	398	64	2%	3%	15%	39%	40%	85%	83%	76%	76%	76%	83%
Pacific Islander	1,449	356	57	5%	8%	33%	40%	15%	76%	72%	66%	65%	65%	71%
Filipino	9,086	370	53	2%	5%	26%	47%	20%	80%	77%	70%	69%	69%	77%
Hispanic	49,520	344	54	7%	12%	34%	36%	10%	72%	70%	63%	61%	63%	68%
African American	11,439	341	56	10%	12%	32%	36%	10%	71%	68%	62%	61%	62%	66%
White	99,278	381	57	2%	4%	20%	45%	28%	82%	80%	72%	72%	72%	79%
Ethnicity unknown	2,875	373	62	4%	6%	23%	41%	26%	80%	77%	70%	70%	70%	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	Physical Science 5	Physical Science 4	Life Science 5	Life Science 4	Earth Science 5	Earth Science 4
Primary Ethnicity—In NSLP														
American Indian	1,946	327	52	13%	16%	38%	28%	5%	67%	65%	58%	56%	57%	61%
Asian American	13,834	349	59	8%	12%	30%	36%	14%	73%	70%	65%	62%	64%	69%
Pacific Islander	1,553	323	49	11%	21%	38%	26%	4%	66%	63%	57%	55%	56%	60%
Filipino	4,193	350	52	5%	10%	35%	39%	11%	75%	72%	65%	63%	63%	70%
Hispanic	176,463	321	50	14%	19%	38%	25%	4%	64%	62%	57%	53%	56%	59%
African American	21,684	314	51	19%	21%	35%	22%	3%	62%	60%	54%	52%	53%	55%
White	27,505	343	54	9%	12%	32%	37%	10%	73%	70%	63%	61%	62%	66%
Ethnicity unknown	1,402	334	55	12%	14%	34%	33%	8%	69%	67%	60%	58%	60%	63%

Table 6.A.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	479,113	355	93	15%	13%	20%	24%	28%	70%	69%	64%	66%	56%	63%
Male	244,671	358	99	17%	12%	18%	23%	31%	70%	71%	64%	67%	56%	63%
Female	234,272	352	86	13%	15%	22%	25%	25%	69%	68%	64%	64%	57%	64%
Gender unknown	170	294	78	35%	15%	28%	14%	8%	59%	56%	49%	50%	44%	49%
American Indian	3,923	338	87	18%	15%	22%	24%	21%	66%	67%	60%	63%	53%	59%
Asian American	41,471	420	96	5%	6%	12%	23%	55%	81%	81%	77%	77%	70%	77%
Pacific Islander	3,194	345	86	15%	14%	23%	26%	22%	67%	68%	62%	63%	54%	61%
Filipino	13,276	390	82	5%	7%	17%	29%	41%	76%	77%	73%	74%	65%	71%
Hispanic	233,506	326	80	20%	18%	24%	23%	15%	64%	63%	57%	60%	50%	59%
African American	37,878	318	82	24%	18%	23%	21%	14%	62%	61%	56%	57%	49%	55%
White	141,731	391	91	7%	7%	16%	27%	43%	77%	78%	72%	74%	64%	69%
Ethnicity unknown	4,134	358	96	16%	11%	19%	24%	31%	70%	70%	64%	67%	57%	63%
English Only	262,809	369	94	12%	11%	18%	25%	33%	72%	73%	67%	69%	59%	65%
Initially Fluent English Prof.	40,110	387	92	7%	9%	18%	26%	39%	76%	76%	71%	72%	63%	70%
English Learner	89,223	286	67	35%	25%	23%	13%	5%	55%	53%	47%	50%	41%	51%
Reclassified Fluent Eng.	86,240	370	77	5%	10%	24%	31%	29%	74%	73%	68%	69%	60%	70%
English Prof. unknown	731	304	86	32%	18%	19%	18%	13%	59%	59%	51%	54%	46%	51%
Not in NSLP	237,406	385	94	9%	9%	16%	26%	40%	76%	76%	70%	72%	63%	68%
In NSLP	240,573	325	82	21%	17%	24%	23%	16%	64%	63%	57%	59%	50%	59%
NSLP status unknown	1,134	305	83	30%	21%	21%	17%	12%	59%	58%	52%	53%	47%	53%
No Special Ed Services	435,966	363	90	12%	13%	20%	26%	30%	72%	71%	65%	67%	58%	65%
Special Ed Services	43,121	276	79	46%	20%	16%	10%	7%	50%	50%	45%	49%	40%	45%
Special Ed unknown	26	249	43	62%	23%	15%	0%	0%	36%	45%	38%	43%	35%	42%
Primary Ethnicity—Not in NSLP														
American Indian	1,928	361	89	13%	11%	20%	26%	30%	71%	72%	65%	68%	58%	63%
Asian American	26,273	443	91	3%	3%	8%	20%	66%	85%	85%	81%	81%	75%	80%
Pacific Islander	1,691	363	88	11%	11%	23%	26%	30%	71%	72%	66%	67%	58%	64%
Filipino	9,697	398	81	4%	6%	16%	30%	45%	78%	79%	74%	75%	67%	72%
Hispanic	66,327	343	84	16%	15%	23%	26%	22%	68%	67%	61%	64%	54%	61%
African American	15,456	338	84	18%	15%	22%	25%	21%	67%	66%	61%	62%	53%	59%
White	113,357	403	89	5%	6%	14%	27%	48%	79%	80%	74%	76%	66%	71%
Ethnicity unknown	2,677	381	96	10%	9%	17%	25%	39%	74%	75%	69%	72%	62%	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	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—In NSLP														
American Indian	1,979	317	79	23%	19%	23%	23%	12%	61%	62%	55%	58%	48%	56%
Asian American	15,130	380	90	9%	9%	18%	27%	37%	74%	74%	70%	70%	63%	71%
Pacific Islander	1,498	325	80	20%	18%	23%	25%	14%	63%	63%	58%	59%	50%	58%
Filipino	3,565	369	82	8%	11%	22%	28%	31%	72%	73%	68%	69%	61%	67%
Hispanic	166,756	319	78	22%	19%	25%	22%	13%	63%	61%	56%	58%	49%	58%
African American	22,300	304	77	29%	20%	23%	19%	9%	59%	58%	53%	54%	46%	52%
White	28,079	345	87	16%	13%	21%	26%	23%	68%	68%	62%	65%	54%	60%
Ethnicity unknown	1,266	318	82	25%	16%	22%	20%	16%	62%	62%	56%	59%	49%	55%

Table 6.A.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	463,012	337	67	16%	17%	27%	22%	18%	55%	58%	64%	60%	54%	68%
Male	235,521	338	71	19%	16%	24%	21%	20%	56%	58%	64%	61%	54%	66%
Female	227,322	336	61	13%	18%	30%	23%	15%	54%	59%	64%	60%	54%	70%
Gender unknown	169	296	58	39%	22%	20%	13%	7%	44%	45%	50%	46%	41%	51%
American Indian	4,037	330	63	18%	19%	27%	21%	15%	52%	56%	62%	59%	52%	65%
Asian American	43,376	377	71	7%	9%	21%	27%	37%	69%	70%	74%	72%	67%	81%
Pacific Islander	3,256	326	60	18%	20%	29%	21%	12%	53%	56%	60%	56%	50%	65%
Filipino	13,834	356	59	7%	11%	29%	31%	22%	63%	65%	72%	67%	61%	76%
Hispanic	211,936	315	56	21%	23%	31%	17%	8%	49%	53%	57%	53%	46%	61%
African American	34,735	310	57	26%	23%	28%	16%	7%	47%	51%	55%	51%	44%	58%
White	147,190	361	68	10%	11%	23%	28%	28%	62%	64%	72%	68%	64%	76%
Ethnicity unknown	4,648	337	70	19%	16%	24%	22%	19%	55%	57%	65%	60%	55%	67%
English Only	264,748	346	68	14%	14%	25%	25%	22%	58%	61%	67%	63%	58%	71%
Initially Fluent English Prof.	39,698	357	68	10%	12%	26%	26%	25%	62%	64%	71%	66%	61%	75%
English Learner	72,975	287	42	36%	33%	24%	6%	2%	40%	44%	45%	43%	34%	49%
Reclassified Fluent Eng.	84,828	342	57	9%	15%	35%	26%	15%	58%	61%	67%	62%	55%	72%
English Prof. unknown	763	302	58	33%	23%	24%	13%	6%	43%	47%	52%	49%	42%	55%
Not in NSLP	269,510	352	69	12%	13%	25%	26%	24%	60%	62%	69%	65%	60%	73%
In NSLP	192,400	316	57	22%	23%	30%	17%	8%	49%	53%	57%	53%	46%	61%
NSLP status unknown	1,102	303	57	32%	22%	25%	16%	5%	45%	47%	53%	49%	43%	55%
No Special Ed Services	426,774	341	66	14%	16%	28%	23%	19%	57%	60%	66%	62%	56%	70%
Special Ed Services	36,212	284	51	45%	27%	17%	7%	4%	38%	42%	44%	41%	35%	46%
Special Ed unknown	26	267	38	58%	27%	8%	8%	0%	35%	41%	36%	36%	24%	37%
Primary Ethnicity—Not in NSLP														
American Indian	2,580	339	64	14%	16%	27%	24%	18%	55%	58%	66%	62%	56%	69%
Asian American	28,494	391	70	4%	6%	17%	28%	45%	73%	73%	79%	76%	72%	85%
Pacific Islander	2,019	336	62	15%	17%	30%	24%	15%	55%	58%	64%	60%	54%	69%
Filipino	10,851	360	59	6%	10%	28%	32%	24%	64%	66%	73%	68%	63%	77%
Hispanic	79,960	323	59	19%	20%	30%	20%	10%	51%	54%	60%	56%	49%	63%
African American	17,805	319	59	22%	20%	29%	19%	10%	50%	54%	59%	54%	48%	62%
White	124,573	367	67	8%	9%	22%	29%	31%	64%	66%	74%	70%	66%	77%
Ethnicity unknown	3,228	350	71	14%	13%	24%	25%	24%	59%	60%	69%	64%	60%	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	Cell Biology	Genetics	Physiology	Ecology	Evolution	Investigation and Experimentation
Primary Ethnicity—In NSLP														
American Indian	1,439	313	57	23%	25%	27%	17%	8%	47%	50%	56%	54%	45%	60%
Asian American	14,829	350	65	10%	14%	28%	26%	22%	61%	64%	66%	65%	58%	75%
Pacific Islander	1,232	311	54	23%	26%	28%	17%	6%	48%	52%	54%	51%	44%	59%
Filipino	2,956	342	58	10%	15%	33%	27%	16%	58%	61%	67%	63%	55%	72%
Hispanic	131,559	311	53	23%	25%	31%	16%	6%	47%	51%	55%	52%	44%	60%
African American	16,816	301	52	31%	25%	27%	13%	5%	44%	48%	51%	47%	41%	55%
White	22,339	329	63	18%	18%	28%	22%	13%	52%	56%	62%	58%	52%	65%
Ethnicity unknown	1,230	308	59	29%	23%	26%	15%	8%	47%	49%	55%	50%	43%	57%

Table 6.A.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	523,638	340	57	13%	13%	33%	26%	16%	55%	61%	57%	65%	59%
Grade 9	177,719	353	58	9%	9%	29%	30%	22%	60%	66%	62%	69%	64%
Grade 10	249,277	332	52	14%	14%	36%	24%	11%	51%	58%	54%	62%	56%
Grade 11	96,642	338	62	16%	13%	31%	23%	16%	53%	59%	56%	64%	58%
Male	259,834	339	60	16%	13%	30%	25%	17%	55%	59%	57%	64%	58%
Female	263,630	341	53	10%	12%	36%	27%	14%	54%	62%	57%	65%	61%
Gender unknown	174	310	48	26%	22%	32%	15%	5%	43%	47%	46%	54%	47%
American Indian	4,011	337	52	12%	13%	34%	28%	13%	53%	60%	57%	65%	59%
Asian American	52,308	376	63	5%	6%	23%	31%	35%	68%	73%	69%	76%	72%
Pacific Islander	3,620	331	51	15%	15%	37%	24%	10%	52%	58%	53%	61%	56%
Filipino	17,058	354	49	5%	7%	34%	36%	18%	60%	67%	62%	72%	66%
Hispanic	238,624	321	47	18%	17%	38%	20%	6%	48%	54%	49%	58%	52%
African American	39,129	317	47	21%	18%	37%	19%	6%	47%	52%	48%	57%	50%
White	164,049	361	57	7%	7%	27%	34%	26%	61%	68%	66%	73%	68%
Ethnicity unknown	4,839	343	59	14%	11%	30%	27%	18%	55%	61%	59%	66%	61%
English Only	295,800	349	57	10%	10%	30%	29%	20%	57%	64%	61%	68%	63%
Initially Fluent English Prof.	47,720	356	59	8%	9%	30%	30%	23%	60%	66%	62%	71%	65%
English Learner	78,451	296	37	31%	27%	34%	7%	2%	41%	44%	39%	45%	40%
Reclassified Fluent Eng.	100,927	342	49	7%	10%	41%	29%	13%	56%	63%	57%	67%	61%
English Prof. unknown	740	314	49	24%	19%	34%	16%	7%	45%	50%	48%	55%	50%
Not in NSLP	307,044	353	59	9%	9%	29%	30%	22%	59%	65%	62%	70%	64%
In NSLP	215,493	321	48	18%	17%	38%	20%	7%	48%	54%	49%	58%	52%
NSLP status unknown	1,101	314	49	25%	18%	34%	17%	6%	45%	50%	47%	55%	49%
No Special Ed Services	489,670	343	56	11%	12%	33%	27%	17%	56%	62%	58%	66%	61%
Special Ed Services	33,939	294	44	39%	24%	25%	8%	3%	39%	42%	39%	46%	40%
Special Ed unknown	29	284	30	45%	24%	31%	0%	0%	33%	40%	35%	41%	33%
Primary Ethnicity—Not in NSLP													
American Indian	2,652	345	53	9%	10%	33%	31%	17%	55%	63%	60%	68%	63%
Asian American	34,852	388	62	3%	4%	18%	32%	43%	71%	77%	73%	80%	76%
Pacific Islander	2,251	339	53	12%	11%	35%	27%	14%	55%	61%	56%	65%	60%
Filipino	13,429	357	49	5%	7%	32%	37%	20%	61%	68%	63%	73%	67%
Hispanic	89,217	327	50	16%	15%	37%	24%	9%	50%	56%	52%	61%	55%
African American	20,139	324	49	17%	16%	37%	22%	8%	49%	55%	51%	60%	53%
White	141,060	365	57	6%	6%	26%	35%	28%	63%	69%	68%	74%	69%
Ethnicity unknown	3,444	354	58	9%	9%	28%	31%	23%	58%	65%	63%	71%	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	Cell Biology	Genetics	Ecology and Evolution	Physiology	Investigation and Experimentation
Primary Ethnicity—In NSLP													
American Indian	1,348	322	48	18%	17%	37%	23%	6%	47%	54%	50%	60%	52%
Asian American	17,384	352	56	8%	9%	33%	30%	20%	60%	66%	60%	69%	64%
Pacific Islander	1,362	317	45	19%	20%	39%	18%	5%	48%	53%	47%	55%	51%
Filipino	3,605	342	47	7%	10%	40%	30%	12%	56%	63%	57%	68%	61%
Hispanic	149,035	317	45	19%	19%	39%	18%	5%	47%	53%	48%	56%	50%
African American	18,861	310	44	24%	20%	37%	15%	4%	44%	49%	45%	53%	46%
White	22,695	335	52	14%	13%	35%	27%	12%	52%	58%	56%	64%	57%
Ethnicity unknown	1,203	317	52	25%	16%	34%	17%	9%	46%	51%	49%	56%	50%

Table 6.A.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	232,120	331	54	17%	13%	38%	20%	12%	61%	66%	60%	53%	55%	67%
Grade 9	4,073	341	61	17%	9%	30%	25%	19%	67%	69%	63%	57%	60%	70%
Grade 10	102,125	342	54	11%	10%	38%	25%	16%	66%	71%	64%	58%	59%	72%
Grade 11	125,922	321	53	21%	16%	38%	16%	9%	58%	63%	56%	50%	51%	63%
Male	108,386	336	59	17%	11%	34%	22%	16%	64%	68%	62%	55%	57%	68%
Female	123,701	326	50	16%	15%	41%	18%	9%	60%	65%	58%	52%	53%	66%
Gender unknown	33	308	43	27%	18%	33%	21%	0%	51%	59%	54%	43%	48%	60%
American Indian	1,266	330	48	14%	13%	42%	23%	9%	62%	66%	60%	54%	54%	69%
Asian American	35,924	360	60	7%	8%	32%	27%	26%	71%	77%	69%	64%	67%	74%
Pacific Islander	1,495	319	48	20%	15%	44%	14%	7%	58%	63%	55%	49%	51%	61%
Filipino	9,915	333	47	10%	14%	44%	22%	10%	63%	70%	61%	55%	56%	69%
Hispanic	85,211	307	44	27%	19%	39%	12%	4%	54%	57%	51%	45%	46%	58%
African American	14,675	302	44	32%	19%	36%	10%	3%	52%	55%	49%	43%	43%	55%
White	81,743	347	52	8%	9%	39%	27%	17%	67%	73%	67%	60%	61%	76%
Ethnicity unknown	1,891	337	55	13%	11%	38%	22%	15%	63%	69%	63%	56%	58%	71%
English Only	134,292	338	54	13%	11%	39%	23%	14%	64%	70%	63%	56%	57%	71%
Initially Fluent English Prof.	26,454	343	58	12%	12%	37%	22%	18%	66%	71%	63%	58%	59%	71%
English Learner	16,998	285	41	49%	20%	23%	5%	2%	45%	45%	42%	36%	41%	44%
Reclassified Fluent Eng.	54,215	321	50	19%	17%	40%	16%	8%	59%	63%	56%	50%	52%	63%
English Prof. unknown	161	307	48	31%	17%	37%	10%	5%	52%	58%	51%	44%	46%	59%
Not in NSLP	153,014	342	55	11%	11%	38%	24%	16%	65%	71%	64%	57%	59%	72%
In NSLP	78,880	309	46	27%	18%	37%	13%	5%	54%	58%	52%	45%	47%	58%
NSLP status unknown	226	311	49	27%	14%	39%	16%	4%	55%	59%	52%	47%	47%	61%
No Special Ed Services	227,406	331	54	16%	13%	38%	20%	12%	62%	67%	60%	54%	55%	68%
Special Ed Services	4,713	293	52	48%	16%	23%	8%	5%	46%	49%	45%	40%	41%	49%
Special Ed unknown	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP														
American Indian	982	333	48	13%	12%	41%	25%	10%	63%	67%	62%	55%	55%	71%
Asian American	25,407	368	60	5%	6%	30%	28%	31%	74%	79%	72%	67%	70%	78%
Pacific Islander	1,021	324	49	17%	14%	45%	16%	8%	60%	66%	57%	52%	53%	64%
Filipino	8,003	335	47	9%	13%	45%	23%	11%	64%	71%	62%	56%	57%	70%
Hispanic	33,022	315	46	21%	17%	41%	15%	5%	56%	61%	54%	48%	49%	63%
African American	8,448	308	45	28%	18%	38%	12%	4%	54%	58%	51%	45%	45%	58%
White	74,600	349	52	7%	8%	39%	28%	18%	68%	74%	67%	60%	61%	76%
Ethnicity unknown	1,531	343	55	11%	10%	38%	23%	17%	65%	71%	65%	58%	60%	74%

				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—In NSLP														
American Indian	281	317	45	20%	17%	43%	14%	6%	56%	63%	55%	48%	49%	62%
Asian American	10,493	338	53	12%	12%	39%	23%	14%	65%	70%	62%	57%	60%	67%
Pacific Islander	473	307	44	27%	19%	42%	9%	4%	54%	58%	52%	44%	46%	54%
Filipino	1,902	323	44	15%	17%	43%	18%	7%	59%	66%	57%	51%	52%	64%
Hispanic	52,123	302	42	31%	20%	37%	10%	3%	52%	55%	49%	43%	44%	56%
African American	6,203	294	40	38%	21%	32%	7%	1%	49%	51%	45%	40%	40%	51%
White	7,079	326	48	16%	13%	43%	20%	8%	61%	66%	59%	52%	53%	68%
Ethnicity unknown	326	313	49	24%	17%	38%	16%	4%	55%	59%	53%	48%	50%	58%

Table 6.A.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	223,770	323	47	18%	16%	37%	21%	8%	60%	59%	50%	61%
Grade 9	151,665	326	47	16%	15%	38%	22%	9%	62%	60%	51%	63%
Grade 10	32,337	314	46	25%	18%	35%	17%	6%	56%	55%	46%	57%
Grade 11	39,768	320	48	21%	16%	35%	20%	8%	57%	58%	49%	60%
Male	119,549	326	50	19%	14%	34%	22%	11%	61%	60%	51%	62%
Female	104,117	320	43	17%	18%	41%	19%	6%	58%	58%	48%	61%
Gender unknown	104	296	41	33%	25%	32%	10%	1%	50%	49%	38%	53%
American Indian	2,312	322	47	20%	15%	37%	22%	7%	60%	59%	50%	60%
Asian American	12,592	338	49	12%	12%	37%	27%	13%	64%	64%	56%	68%
Pacific Islander	1,579	317	43	19%	19%	39%	17%	6%	57%	57%	47%	59%
Filipino	4,938	337	44	9%	12%	41%	28%	11%	65%	65%	56%	68%
Hispanic	111,981	312	42	22%	19%	39%	15%	4%	56%	55%	45%	57%
African American	18,332	306	41	28%	20%	37%	12%	3%	54%	52%	43%	54%
White	69,848	342	49	11%	10%	34%	30%	16%	67%	67%	58%	69%
Ethnicity unknown	2,188	323	51	22%	14%	32%	22%	10%	60%	58%	50%	61%
English Only	131,312	331	49	16%	13%	35%	24%	11%	63%	62%	53%	64%
Initially Fluent English Prof.	16,143	330	46	13%	13%	40%	24%	9%	63%	62%	53%	65%
English Learner	44,990	295	35	34%	26%	34%	6%	1%	49%	47%	39%	49%
Reclassified Fluent Eng.	30,867	329	40	10%	13%	47%	24%	6%	63%	62%	52%	66%
English Prof. unknown	458	301	44	35%	19%	32%	10%	3%	51%	50%	41%	52%
Not in NSLP	120,940	333	49	14%	13%	36%	25%	12%	64%	63%	54%	65%
In NSLP	102,156	311	42	23%	20%	39%	15%	4%	56%	54%	45%	57%
NSLP status unknown	674	303	44	33%	20%	32%	12%	3%	52%	51%	42%	52%
No Special Ed Services	200,049	327	47	16%	15%	38%	22%	9%	61%	61%	51%	63%
Special Ed Services	23,715	295	41	40%	22%	27%	8%	3%	48%	46%	39%	46%
Special Ed unknown	6	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP												
American Indian	1,364	327	48	17%	13%	36%	25%	8%	62%	61%	51%	62%
Asian American	6,552	349	49	8%	9%	33%	31%	19%	68%	68%	61%	72%
Pacific Islander	895	323	46	17%	16%	38%	21%	7%	60%	60%	50%	62%
Filipino	3,686	341	43	7%	11%	40%	31%	12%	67%	66%	57%	69%
Hispanic	42,453	317	44	20%	17%	40%	18%	5%	58%	57%	47%	59%
African American	8,863	312	43	24%	18%	39%	16%	4%	56%	55%	45%	57%
White	55,741	347	49	9%	9%	33%	32%	18%	69%	68%	59%	70%
Ethnicity unknown	1,386	334	51	16%	12%	32%	26%	13%	64%	63%	54%	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	Astronomy and Cosmology	Solid Earth	The Earth's Energy	Investigation and Experimentation
Primary Ethnicity—In NSLP												
American Indian	936	315	44	23%	17%	38%	18%	5%	56%	56%	47%	57%
Asian American	6,026	325	45	15%	15%	41%	22%	7%	60%	60%	52%	64%
Pacific Islander	678	309	39	22%	22%	41%	12%	3%	54%	53%	44%	56%
Filipino	1,240	326	43	14%	15%	43%	21%	8%	61%	60%	51%	64%
Hispanic	69,271	309	40	24%	21%	39%	13%	3%	55%	53%	44%	56%
African American	9,394	300	39	31%	23%	35%	9%	2%	51%	50%	40%	52%
White	13,945	325	47	18%	15%	36%	22%	9%	61%	60%	51%	62%
Ethnicity unknown	666	307	46	31%	18%	32%	14%	5%	54%	51%	43%	55%

Table 6.A.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	64,041	341	54	10%	13%	33%	27%	16%	61%	58%	58%	60%	48%	64%
Grade 9	11,810	326	49	15%	18%	37%	21%	9%	55%	51%	52%	56%	43%	57%
Grade 10	7,870	332	53	14%	16%	34%	23%	13%	58%	53%	55%	56%	45%	60%
Grade 11	44,361	347	54	9%	12%	32%	29%	19%	63%	60%	60%	61%	50%	67%
Male	33,459	348	58	10%	12%	30%	27%	21%	63%	60%	61%	61%	51%	67%
Female	30,570	333	48	11%	15%	38%	26%	10%	58%	56%	55%	58%	45%	62%
Gender unknown	12	312	44	17%	33%	25%	25%	0%	51%	47%	48%	51%	34%	51%
American Indian	359	337	55	14%	13%	31%	27%	15%	59%	55%	57%	59%	47%	64%
Asian American	10,900	367	54	4%	6%	28%	34%	28%	69%	69%	68%	67%	57%	73%
Pacific Islander	457	328	47	14%	16%	38%	24%	9%	57%	53%	52%	54%	44%	59%
Filipino	2,790	340	45	6%	11%	41%	31%	11%	60%	59%	59%	61%	48%	65%
Hispanic	21,233	316	43	18%	21%	39%	17%	5%	52%	48%	48%	51%	39%	54%
African American	3,958	308	42	23%	24%	36%	13%	4%	49%	44%	45%	48%	36%	50%
White	23,732	358	53	5%	8%	30%	33%	23%	67%	64%	66%	65%	54%	72%
Ethnicity unknown	612	346	55	11%	10%	30%	30%	19%	63%	60%	62%	60%	49%	67%
English Only	38,134	348	54	8%	11%	32%	30%	19%	63%	60%	62%	62%	51%	68%
Initially Fluent English Prof.	7,429	353	55	6%	10%	32%	30%	21%	65%	63%	63%	63%	52%	68%
English Learner	4,329	293	41	38%	28%	24%	7%	3%	44%	38%	36%	43%	33%	40%
Reclassified Fluent Eng.	14,106	332	47	9%	16%	41%	23%	10%	58%	55%	54%	57%	45%	61%
English Prof. unknown	43	329	48	12%	12%	47%	21%	9%	54%	53%	56%	57%	45%	57%
Not in NSLP	43,257	353	54	7%	10%	31%	31%	21%	65%	62%	63%	64%	52%	69%
In NSLP	20,712	317	45	18%	21%	38%	17%	6%	52%	48%	48%	51%	40%	54%
NSLP status unknown	72	334	49	13%	7%	44%	26%	10%	57%	56%	58%	58%	46%	62%
No Special Ed Services	62,215	342	54	9%	13%	34%	27%	16%	61%	58%	59%	60%	49%	65%
Special Ed Services	1,825	297	49	39%	25%	22%	9%	5%	45%	37%	40%	44%	34%	44%
Special Ed unknown	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP														
American Indian	255	349	55	8%	10%	31%	31%	20%	62%	60%	61%	63%	52%	69%
Asian American	7,981	374	54	2%	5%	25%	35%	33%	72%	72%	71%	70%	60%	76%
Pacific Islander	310	335	48	10%	14%	37%	28%	11%	59%	57%	55%	57%	46%	62%
Filipino	2,285	344	45	6%	10%	40%	33%	12%	61%	60%	60%	62%	49%	66%
Hispanic	8,086	325	46	14%	18%	38%	22%	8%	55%	51%	52%	55%	43%	59%
African American	2,212	316	44	18%	21%	40%	17%	5%	52%	47%	49%	51%	39%	54%
White	21,610	360	53	4%	8%	29%	34%	25%	67%	65%	67%	66%	55%	73%
Ethnicity unknown	518	350	54	8%	10%	30%	32%	21%	64%	61%	63%	62%	51%	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	Motion and Forces	Conservation of Energy and Momentum	Heat and Thermodynamics	Waves	Electric and Magnetic Phenomena	Investigation and Experimentation
Primary Ethnicity—In NSLP														
American Indian	103	309	44	28%	19%	30%	19%	3%	51%	43%	47%	48%	36%	52%
Asian American	2,893	346	50	7%	10%	35%	30%	17%	63%	62%	60%	61%	51%	65%
Pacific Islander	146	314	42	21%	21%	40%	14%	5%	52%	46%	46%	48%	40%	52%
Filipino	501	326	41	11%	17%	43%	24%	6%	55%	53%	52%	54%	43%	59%
Hispanic	13,138	310	40	20%	23%	39%	14%	3%	50%	45%	45%	49%	37%	51%
African American	1,739	298	37	29%	29%	32%	9%	2%	45%	40%	40%	44%	33%	45%
White	2,106	331	49	12%	16%	38%	23%	11%	58%	52%	55%	56%	45%	61%
Ethnicity unknown	86	319	54	28%	15%	26%	22%	9%	53%	48%	52%	48%	42%	53%

Table 6.A.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	75,603	300	38	30%	22%	37%	9%	2%	50%	40%	53%	37%	47%
Grade 9	58,889	302	39	28%	22%	38%	10%	2%	50%	41%	54%	37%	48%
Grade 10	7,682	289	34	40%	23%	31%	6%	0%	46%	35%	47%	33%	42%
Grade 11	9,032	294	36	36%	22%	33%	8%	1%	49%	36%	50%	34%	45%
Male	40,006	300	40	31%	20%	36%	10%	2%	51%	40%	53%	37%	46%
Female	35,568	299	36	28%	24%	38%	8%	1%	49%	40%	52%	37%	49%
Gender unknown	29	290	23	31%	34%	34%	0%	0%	49%	35%	47%	32%	41%
American Indian	637	302	39	30%	20%	36%	12%	2%	52%	39%	54%	37%	48%
Asian American	4,219	327	46	13%	14%	43%	22%	8%	60%	53%	65%	46%	60%
Pacific Islander	538	293	37	36%	21%	36%	7%	1%	46%	37%	49%	35%	44%
Filipino	2,066	315	37	15%	18%	50%	16%	2%	55%	47%	61%	41%	55%
Hispanic	45,934	292	33	35%	25%	34%	5%	1%	45%	37%	49%	34%	44%
African American	6,631	289	34	39%	25%	30%	5%	1%	45%	36%	47%	33%	42%
White	14,934	318	41	17%	15%	45%	19%	4%	61%	46%	62%	42%	56%
Ethnicity unknown	644	300	42	33%	17%	37%	11%	2%	52%	40%	52%	37%	48%
English Only	35,191	306	40	26%	19%	40%	13%	3%	54%	42%	56%	38%	50%
Initially Fluent English Prof.	5,610	311	41	21%	18%	43%	13%	4%	55%	45%	58%	40%	52%
English Learner	17,866	279	28	50%	28%	20%	1%	0%	37%	32%	42%	32%	36%
Reclassified Fluent Eng.	16,796	306	34	19%	23%	47%	9%	1%	52%	43%	56%	38%	51%
English Prof. unknown	140	291	33	41%	23%	29%	6%	1%	46%	35%	49%	34%	42%
Not in NSLP	33,451	309	41	23%	19%	41%	14%	3%	55%	43%	57%	39%	52%
In NSLP	41,978	292	34	35%	25%	34%	6%	1%	45%	37%	49%	34%	43%
NSLP status unknown	174	289	33	40%	23%	32%	5%	1%	45%	35%	48%	33%	41%
No Special Ed Services	67,521	302	38	27%	22%	39%	10%	2%	51%	41%	54%	37%	49%
Special Ed Services	8,075	277	30	55%	24%	18%	2%	0%	38%	31%	41%	31%	35%
Special Ed unknown	7	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP													
American Indian	354	306	41	27%	17%	38%	15%	2%	56%	40%	56%	38%	51%
Asian American	2,625	334	48	11%	12%	43%	25%	11%	63%	55%	67%	48%	63%
Pacific Islander	324	297	38	30%	19%	42%	8%	1%	48%	39%	52%	36%	46%
Filipino	1,466	317	37	13%	17%	50%	17%	3%	56%	48%	62%	41%	57%
Hispanic	13,858	296	35	31%	24%	38%	7%	1%	48%	38%	51%	35%	46%
African American	2,725	295	36	34%	23%	35%	7%	1%	48%	38%	50%	35%	44%
White	11,686	322	41	14%	13%	46%	21%	5%	63%	48%	64%	43%	58%
Ethnicity unknown	413	306	44	28%	15%	41%	13%	3%	55%	43%	54%	38%	51%

				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—In NSLP													
American Indian	282	297	36	33%	24%	32%	10%	1%	48%	38%	52%	36%	45%
Asian American	1,583	317	41	16%	17%	45%	18%	4%	55%	49%	61%	43%	55%
Pacific Islander	213	286	33	44%	23%	28%	5%	0%	43%	35%	45%	32%	41%
Filipino	595	309	36	18%	20%	47%	13%	1%	53%	46%	57%	39%	52%
Hispanic	31,989	290	32	36%	26%	33%	5%	0%	44%	37%	48%	34%	43%
African American	3,893	286	32	43%	26%	27%	3%	1%	43%	35%	45%	32%	40%
White	3,216	302	38	28%	21%	40%	10%	2%	53%	41%	54%	37%	48%
Ethnicity unknown	207	289	34	40%	21%	32%	7%	0%	48%	35%	46%	34%	41%

Table 6.A.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	7,746	303	37	25%	23%	40%	9%	2%	52%	40%	50%	36%	48%
Grade 9	2,362	315	42	19%	20%	42%	14%	6%	57%	45%	56%	40%	52%
Grade 10	3,732	299	34	26%	26%	40%	8%	1%	50%	38%	48%	34%	46%
Grade 11	1,652	296	33	31%	24%	38%	6%	1%	48%	38%	47%	33%	45%
Male	4,206	303	39	27%	22%	39%	10%	2%	51%	40%	52%	36%	47%
Female	3,540	303	35	23%	26%	42%	8%	2%	53%	40%	48%	35%	49%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	67	306	35	21%	22%	49%	6%	1%	55%	39%	56%	34%	50%
Asian American	467	340	51	12%	13%	32%	23%	20%	68%	58%	63%	51%	62%
Pacific Islander	54	292	32	33%	24%	39%	4%	0%	46%	38%	43%	35%	37%
Filipino	187	310	35	14%	23%	50%	11%	2%	56%	42%	54%	38%	53%
Hispanic	4,026	294	32	31%	26%	37%	5%	0%	48%	36%	45%	33%	43%
African American	572	286	30	39%	28%	29%	3%	0%	43%	34%	41%	32%	40%
White	2,198	315	36	14%	20%	49%	15%	3%	57%	46%	58%	39%	55%
Ethnicity unknown	175	310	39	19%	19%	42%	17%	2%	54%	44%	56%	37%	53%
English Only	4,057	308	38	21%	22%	43%	12%	2%	53%	43%	53%	37%	50%
Initially Fluent English Prof.	738	312	43	21%	21%	38%	13%	7%	56%	44%	54%	39%	50%
English Learner	1,563	282	27	43%	31%	23%	2%	0%	42%	31%	38%	30%	36%
Reclassified Fluent Eng.	1,372	308	35	17%	21%	50%	9%	2%	55%	42%	53%	37%	51%
English Prof. unknown	16	306	41	25%	31%	19%	25%	0%	48%	47%	53%	37%	52%
Not in NSLP	4,202	311	40	20%	20%	44%	13%	4%	55%	44%	55%	38%	52%
In NSLP	3,530	293	32	31%	28%	35%	5%	0%	47%	36%	45%	33%	43%
NSLP status unknown	14	311	36	14%	29%	36%	21%	0%	50%	52%	55%	42%	45%
No Special Ed Services	6,875	306	37	22%	23%	42%	10%	3%	53%	41%	52%	37%	49%
Special Ed Services	871	281	30	49%	27%	22%	3%	0%	40%	32%	40%	30%	36%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP													
American Indian	43	313	32	14%	19%	58%	9%	0%	59%	41%	59%	35%	55%
Asian American	363	348	51	10%	9%	30%	26%	25%	72%	63%	66%	54%	64%
Pacific Islander	38	291	33	34%	21%	42%	3%	0%	47%	38%	42%	35%	36%
Filipino	156	312	35	13%	22%	50%	13%	2%	57%	43%	55%	38%	54%
Hispanic	1,335	296	34	30%	24%	39%	6%	1%	48%	37%	47%	33%	45%
African American	273	291	32	34%	28%	32%	5%	0%	45%	36%	43%	33%	41%
White	1,860	318	36	13%	18%	51%	15%	3%	58%	47%	59%	40%	56%
Ethnicity unknown	134	315	41	19%	16%	41%	22%	3%	57%	46%	59%	39%	55%

				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—In NSLP													
American Indian	24	295	38	33%	29%	33%	0%	4%	49%	35%	50%	31%	41%
Asian American	101	308	36	17%	28%	41%	13%	2%	54%	41%	50%	39%	55%
Pacific Islander	16	293	32	31%	31%	31%	6%	0%	44%	39%	45%	34%	39%
Filipino	31	303	35	19%	26%	48%	3%	3%	49%	38%	50%	38%	52%
Hispanic	2,688	293	31	32%	27%	36%	5%	0%	47%	36%	44%	33%	42%
African American	299	283	27	44%	29%	25%	2%	0%	41%	32%	38%	30%	38%
White	334	302	32	20%	30%	39%	11%	0%	50%	40%	51%	35%	50%
Ethnicity unknown	37	293	27	24%	30%	46%	0%	0%	45%	39%	47%	31%	46%

Table 6.A.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	1,955	298	35	28%	25%	38%	8%	1%	45%	37%	46%	35%	53%
Grade 9	241	293	32	31%	25%	40%	5%	0%	42%	34%	44%	36%	51%
Grade 10	220	292	33	38%	25%	30%	7%	0%	41%	34%	44%	32%	51%
Grade 11	1,494	300	35	26%	26%	39%	9%	1%	46%	38%	47%	35%	54%
Male	1,063	299	37	29%	24%	36%	10%	1%	45%	38%	46%	36%	54%
Female	891	297	32	27%	27%	40%	6%	0%	44%	37%	46%	34%	53%
Gender unknown	1	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	10	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	101	309	36	15%	27%	44%	13%	2%	48%	44%	51%	36%	59%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	36	304	34	17%	31%	39%	14%	0%	49%	41%	48%	30%	58%
Hispanic	853	293	32	33%	29%	32%	6%	0%	42%	35%	43%	33%	49%
African American	158	287	30	37%	28%	34%	1%	1%	39%	33%	40%	31%	47%
White	780	306	36	22%	21%	44%	12%	1%	49%	40%	49%	37%	59%
Ethnicity unknown	9	–	–	–	–	–	–	–	–	–	–	–	–
English Only	1,250	302	35	25%	24%	41%	10%	1%	47%	38%	48%	36%	56%
Initially Fluent English Prof.	120	295	32	31%	27%	38%	5%	0%	43%	36%	45%	36%	50%
English Learner	244	275	24	52%	32%	14%	1%	0%	33%	30%	36%	28%	35%
Reclassified Fluent Eng.	337	304	34	19%	25%	45%	10%	1%	48%	40%	47%	36%	57%
English Prof. unknown	4	–	–	–	–	–	–	–	–	–	–	–	–
Not in NSLP	1,225	302	35	24%	25%	41%	9%	1%	47%	38%	48%	36%	56%
In NSLP	720	293	33	33%	27%	33%	6%	0%	41%	36%	43%	33%	49%
NSLP status unknown	10	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	1,731	301	34	24%	26%	40%	9%	1%	46%	38%	47%	36%	55%
Special Ed Services	224	279	30	53%	25%	19%	3%	0%	35%	30%	39%	29%	42%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP													
American Indian	7	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	62	310	38	15%	26%	44%	15%	2%	48%	44%	55%	35%	61%
Pacific Islander	8	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	29	306	35	14%	31%	38%	17%	0%	51%	42%	46%	31%	60%
Hispanic	375	293	32	31%	30%	33%	5%	0%	43%	34%	44%	34%	50%
African American	88	292	31	32%	26%	40%	1%	1%	42%	34%	42%	35%	50%
White	649	307	36	20%	21%	45%	12%	1%	49%	40%	50%	37%	60%
Ethnicity unknown	7	–	–	–	–	–	–	–	–	–	–	–	–

				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—In NSLP													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	39	307	33	15%	28%	44%	10%	3%	48%	43%	46%	37%	55%
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	7	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	474	292	33	34%	27%	32%	6%	0%	41%	36%	43%	33%	48%
African American	70	280	26	43%	30%	26%	1%	0%	36%	31%	38%	26%	43%
White	127	298	33	31%	21%	39%	9%	0%	44%	35%	46%	38%	54%
Ethnicity unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

Table 6.A.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	429	291	40	37%	24%	31%	6%	2%	54%	36%	49%	31%	48%
Grade 9	131	279	29	48%	26%	25%	1%	0%	49%	31%	45%	26%	39%
Grade 10	180	288	38	37%	26%	33%	3%	1%	53%	35%	47%	30%	50%
Grade 11	118	308	48	25%	21%	34%	16%	4%	60%	42%	57%	37%	57%
Male	245	291	43	40%	19%	31%	8%	2%	54%	36%	50%	31%	50%
Female	184	290	36	34%	32%	30%	4%	1%	54%	36%	49%	30%	47%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	10	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	12	295	40	33%	17%	42%	8%	0%	50%	37%	49%	40%	53%
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	10	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	148	280	31	48%	26%	26%	1%	0%	48%	33%	44%	28%	42%
African American	23	295	46	39%	13%	35%	9%	4%	58%	42%	50%	31%	44%
White	220	297	44	31%	23%	34%	10%	3%	57%	37%	53%	33%	52%
Ethnicity unknown	2	–	–	–	–	–	–	–	–	–	–	–	–
English Only	308	295	43	34%	23%	32%	8%	2%	56%	36%	52%	32%	50%
Initially Fluent English Prof.	32	283	34	41%	34%	22%	3%	0%	49%	35%	44%	30%	43%
English Learner	26	257	25	81%	8%	12%	0%	0%	33%	30%	30%	25%	31%
Reclassified Fluent Eng.	63	289	27	32%	32%	37%	0%	0%	55%	35%	48%	29%	50%
English Prof. unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Not in NSLP	270	297	43	31%	23%	34%	9%	2%	56%	38%	53%	33%	51%
In NSLP	157	280	31	46%	26%	26%	1%	1%	49%	31%	44%	27%	44%
NSLP status unknown	2	–	–	–	–	–	–	–	–	–	–	–	–
No Special Ed Services	395	293	40	34%	26%	32%	6%	2%	55%	36%	50%	31%	49%
Special Ed Services	34	265	34	68%	12%	18%	3%	0%	39%	28%	38%	24%	36%
Special Ed unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not in NSLP													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	7	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	4	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	8	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	44	285	37	43%	27%	27%	2%	0%	50%	37%	47%	30%	42%
African American	15	306	49	33%	13%	33%	13%	7%	59%	45%	54%	37%	52%
White	182	300	46	30%	21%	35%	11%	3%	57%	38%	54%	34%	53%
Ethnicity unknown	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
Primary Ethnicity—In NSLP													
American Indian	2	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	5	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	102	278	29	50%	25%	25%	0%	0%	48%	31%	42%	27%	43%
African American	8	–	–	–	–	–	–	–	–	–	–	–	–
White	38	286	37	37%	32%	26%	3%	3%	53%	32%	46%	27%	50%
Ethnicity unknown	0	–	–	–	–	–	–	–	–	–	–	–	–

Appendix 6.B—2008 Test Variations, Accommodations, and Modifications

Table 6.B.1 Matrix of Test Variations, Accommodations, and Modifications

Test Variation (1) / Accommodation (2) / Modification (3) *		Provision
A.	Test administration directions that are simplified or clarified (does not apply to test questions)	All
	Test individual student separately, provided that a test examiner directly supervises the student	1
	Visual magnifying equipment	1
	Audio amplification equipment	1
	Noise buffers (e.g. individual carrel or study enclosure)	1
	Special lighting or acoustics; special or adaptive furniture	1
	Colored overlay, mask, or other means to maintain visual attention	1
	Manually Coded English or American Sign Language to present directions for administration (does not apply to test questions)	1
	Student marks in test booklet (other than responses) including highlighting	All (For grades 2, 3 – marks must be erased to avoid scanning interference)
B. 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
C. Responses dictated [orally, or in Manually Coded English or American Sign Language] to a scribe for selected-response items (multiple-choice questions)		2
D. Word processing software with spell and grammar check tools turned off for the essay responses (writing portion of the test)		2
E. Essay responses dictated orally or in Manually Coded English to a scribe, audio recorder, or speech-to-text converter and the student provides all spelling and language conventions.		2
F. 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
G. Braille transcriptions provided by the test contractor		2
H. Large-print versions [Test items enlarged if font larger than required on large-print versions]		2
I. Extra time on a test within a testing day		All
J. Test over more than one day for a test or test part to be administered in a single sitting		2
K. Supervised breaks within a section of the test		2
L. Administration of the test at the most beneficial time of day to the student		2
M. Test administered at home or in hospital by a test examiner		2
N. Dictionary		3
O. Manually Coded English or American Sign Language to present test questions		2 (Math, science, history–social science) 3 (ELA)

Test Variation (1) / Accommodation (2) / Modification (3) *	Provision
P. Student used an audio presentation (CD)	2 (Math, science, history–social science) 3 (ELA)
Q. Calculator on the mathematics or science tests	3
R. Arithmetic table or formulas on the mathematics or science tests	3
S. Math manipulatives on the mathematics or science tests	3
T. Word processing software with spell and grammar check tools enabled on the essay responses writing portion of test	3
U. Essay responses dictated orally, in Manually Coded English, or in American Sign Language to a scribe, [audio recorder, or speech-to-text converter] (scribe provides spelling, grammar, and language conventions).	3
V. Assistive device that interferes with the independent work of the student on the multiple-choice and/or essay responses	3
Z. Student heard test examiner read aloud test questions or any text in the Writing Prompt and Response Booklet that the student was to read independently (audio CD presentation not used)	2 (Math, science, history–social science) 3 (ELA)

* All = These test variations may be provided to all students.

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

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

Modification (3) = Eligible students shall be permitted to take the tests with modifications if specified in the eligible student's IEP or Section 504 Plan.

Table 6.B.2 Matrix of Test Variations for English Learners

Test Variation	Provision
A. 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
B. Additional supervised breaks within a testing day or following each section (STAR) within a test part, provided that the test section is completed within a testing day. A test section is identified by a "STOP" at the end of it.	Variation Allowed
C. 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
D. 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

Appendix 6.C—Accommodation Summary Tables

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

Table 6.C.1 Accommodation Summary for English–Language Arts Grade Two

Accommodation Summary for English–Language Arts Grade Two		
All Tested	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	186	0.04%
C: Dictated responses to a scribe	106	0.02%
F: Used non-interfering assistive device	72	0.02%
G: Used braille test	50	0.01%
H: Used large-print test	178	0.04%
J: Tested over more than one day	1,016	0.22%
K: Had supervised breaks	2,975	0.64%
L: Most beneficial time of day	1,318	0.28%
M: Administered at home or in a hospital	51	0.01%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	62	0.01%
P: Used audio presentation (CD)	65	0.01%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	57	0.01%
X: Used an unlisted accommodation	744	0.16%
Y: Leave blank	28	0.01%
Z: Examiner read test questions aloud	1,078	0.23%
Accom. or Mod. is in Section 504 Plan	108	0.02%
Accom. or Mod. is in IEP	4,431	0.96%
English Learner Test Variation A	1,429	0.31%
English Learner Test Variation B	138	0.03%
English Learner Test Variation C	326	0.07%
Any Accom., Mod., or EL Variation	6,902	1.49%
No Accom., Mod., or EL Variation	456,466	98.51%
Students Not in Special Education	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	35	0.01%
C: Dictated responses to a scribe	18	0.00%
F: Used non-interfering assistive device	5	0.00%
G: Used braille test	12	0.00%
H: Used large-print test	30	0.01%
J: Tested over more than one day	159	0.04%
K: Had supervised breaks	504	0.12%
L: Most beneficial time of day	197	0.05%
M: Administered at home or in a hospital	32	0.01%

Accommodation Summary for English–Language Arts Grade Two		
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	3	0.00%
P: Used audio presentation (CD)	7	0.00%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	12	0.00%
X: Used an unlisted accommodation	169	0.04%
Y: Leave blank	7	0.00%
Z: Examiner read test questions aloud	159	0.04%
Accom. or Mod. is in Section 504 Plan	97	0.02%
Accom. or Mod. is in IEP	673	0.16%
English Learner Test Variation A	1,343	0.32%
English Learner Test Variation B	93	0.02%
English Learner Test Variation C	272	0.06%
Any Accom., Mod., or EL Variation	2,486	0.58%
No Accom., Mod., or EL Variation	423,755	99.42%
Students in Special Education	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	148	0.40%
C: Dictated responses to a scribe	88	0.24%
F: Used non-interfering assistive device	67	0.18%
G: Used braille test	37	0.10%
H: Used large-print test	147	0.40%
J: Tested over more than one day	849	2.29%
K: Had supervised breaks	2,457	6.62%
L: Most beneficial time of day	1,115	3.01%
M: Administered at home or in a hospital	19	0.05%
N: Used a dictionary	5	0.01%
O: Examiner presented with MCE or ASL	59	0.16%
P: Used audio presentation (CD)	58	0.16%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	45	0.12%
X: Used an unlisted accommodation	573	1.54%
Y: Leave blank	21	0.06%
Z: Examiner read test questions aloud	917	2.47%
Accom. or Mod. is in Section 504 Plan	11	0.03%
Accom. or Mod. is in IEP	3,733	10.06%
English Learner Test Variation A	86	0.23%
English Learner Test Variation B	45	0.12%
English Learner Test Variation C	54	0.15%
Any Accom., Mod., or EL Variation	4,391	11.84%
No Accom., Mod., or EL Variation	32,700	88.16%

Accommodation Summary for English–Language Arts Grade Two		
English-Only Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	128	0.05%
C: Dictated responses to a scribe	66	0.03%
F: Used non-interfering assistive device	46	0.02%
G: Used braille test	30	0.01%
H: Used large-print test	118	0.05%
J: Tested over more than one day	683	0.27%
K: Had supervised breaks	1,875	0.74%
L: Most beneficial time of day	853	0.34%
M: Administered at home or in a hospital	38	0.02%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	39	0.02%
P: Used audio presentation (CD)	41	0.02%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	40	0.02%
X: Used an unlisted accommodation	484	0.19%
Y: Leave blank	24	0.01%
Z: Examiner read test questions aloud	656	0.26%
Accom. or Mod. is in Section 504 Plan	81	0.03%
Accom. or Mod. is in IEP	2,807	1.11%
English Learner Test Variation A	24	0.01%
English Learner Test Variation B	10	0.00%
English Learner Test Variation C	16	0.01%
Any Accom., Mod., or EL Variation	3,374	1.34%
No Accom., Mod., or EL Variation	248,983	98.66%
Initially Fluent English Proficient (I-FEP) Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	3	0.01%
C: Dictated responses to a scribe	3	0.01%
F: Used non-interfering assistive device	2	0.01%
G: Used braille test	3	0.01%
H: Used large-print test	7	0.02%
J: Tested over more than one day	17	0.06%
K: Had supervised breaks	60	0.19%
L: Most beneficial time of day	18	0.06%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.01%
X: Used an unlisted accommodation	16	0.05%

Accommodation Summary for English–Language Arts Grade Two		
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	19	0.06%
Accom. or Mod. is in Section 504 Plan	2	0.01%
Accom. or Mod. is in IEP	87	0.28%
English Learner Test Variation A	14	0.05%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	3	0.01%
Any Accom., Mod., or EL Variation	120	0.39%
No Accom., Mod., or EL Variation	30,704	99.61%
English Learner (EL) Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	49	0.03%
C: Dictated responses to a scribe	36	0.02%
F: Used non-interfering assistive device	24	0.01%
G: Used braille test	17	0.01%
H: Used large-print test	44	0.03%
J: Tested over more than one day	307	0.18%
K: Had supervised breaks	1,020	0.59%
L: Most beneficial time of day	438	0.25%
M: Administered at home or in a hospital	13	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	22	0.01%
P: Used audio presentation (CD)	23	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	14	0.01%
X: Used an unlisted accommodation	239	0.14%
Y: Leave blank	4	0.00%
Z: Examiner read test questions aloud	396	0.23%
Accom. or Mod. is in Section 504 Plan	24	0.01%
Accom. or Mod. is in IEP	1,507	0.87%
English Learner Test Variation A	1,390	0.80%
English Learner Test Variation B	127	0.07%
English Learner Test Variation C	307	0.18%
Any Accom., Mod., or EL Variation	3,373	1.94%
No Accom., Mod., or EL Variation	170,313	98.06%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	1	0.02%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	0	0.00%
H: Used large-print test	1	0.02%
J: Tested over more than one day	1	0.02%

Accommodation Summary for English–Language Arts Grade Two		
K: Had supervised breaks	7	0.12%
L: Most beneficial time of day	1	0.02%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	1	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	0	0.00%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	2	0.03%
Accom. or Mod. is in Section 504 Plan	0	0.00%
Accom. or Mod. is in IEP	8	0.14%
English Learner Test Variation A	1	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
Any Accom., Mod., or EL Variation	10	0.17%
No Accom., Mod., or EL Variation	5,760	99.83%

Table 6.C.2 Accommodation Summary for English–Language Arts Grade Three

Accommodation Summary for English–Language Arts Grade Three		
All Tested	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	164	0.04%
C: Dictated responses to a scribe	50	0.01%
F: Used non-interfering assistive device	63	0.01%
G: Used braille test	28	0.01%
H: Used large-print test	192	0.04%
J: Tested over more than one day	691	0.15%
K: Had supervised breaks	2,556	0.57%
L: Most beneficial time of day	942	0.21%
M: Administered at home or in a hospital	38	0.01%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	18	0.00%
P: Used audio presentation (CD)	69	0.02%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	49	0.01%
X: Used an unlisted accommodation	707	0.16%
Y: Leave blank	35	0.01%
Z: Examiner read test questions aloud	651	0.15%
Accom. or Mod. is in Section 504 Plan	144	0.03%
Accom. or Mod. is in IEP	3,348	0.75%
English Learner Test Variation A	946	0.21%
English Learner Test Variation B	116	0.03%
English Learner Test Variation C	301	0.07%
Any Accom., Mod., or EL Variation	5,529	1.24%
No Accom., Mod., or EL Variation	440,670	98.76%
Students Not in Special Education	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	36	0.01%
C: Dictated responses to a scribe	13	0.00%
F: Used non-interfering assistive device	6	0.00%
G: Used braille test	6	0.00%
H: Used large-print test	50	0.01%
J: Tested over more than one day	102	0.02%
K: Had supervised breaks	453	0.11%
L: Most beneficial time of day	137	0.03%
M: Administered at home or in a hospital	19	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	9	0.00%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	8	0.00%

Accommodation Summary for English–Language Arts Grade Three		
X: Used an unlisted accommodation	168	0.04%
Y: Leave blank	10	0.00%
Z: Examiner read test questions aloud	120	0.03%
Accom. or Mod. is in Section 504 Plan	127	0.03%
Accom. or Mod. is in IEP	512	0.12%
English Learner Test Variation A	913	0.22%
English Learner Test Variation B	78	0.02%
English Learner Test Variation C	261	0.06%
Any Accom., Mod., or EL Variation	1,944	0.47%
No Accom., Mod., or EL Variation	411,256	99.53%
Students in Special Education	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	120	0.36%
C: Dictated responses to a scribe	37	0.11%
F: Used non-interfering assistive device	55	0.17%
G: Used braille test	21	0.06%
H: Used large-print test	138	0.42%
J: Tested over more than one day	581	1.76%
K: Had supervised breaks	2,083	6.32%
L: Most beneficial time of day	796	2.42%
M: Administered at home or in a hospital	19	0.06%
N: Used a dictionary	5	0.02%
O: Examiner presented with MCE or ASL	16	0.05%
P: Used audio presentation (CD)	58	0.18%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	40	0.12%
X: Used an unlisted accommodation	532	1.62%
Y: Leave blank	25	0.08%
Z: Examiner read test questions aloud	526	1.60%
Accom. or Mod. is in Section 504 Plan	17	0.05%
Accom. or Mod. is in IEP	2,798	8.49%
English Learner Test Variation A	33	0.10%
English Learner Test Variation B	38	0.12%
English Learner Test Variation C	40	0.12%
Any Accom., Mod., or EL Variation	3,547	10.77%
No Accom., Mod., or EL Variation	29,392	89.23%
English-Only Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	99	0.04%
C: Dictated responses to a scribe	37	0.02%
F: Used non-interfering assistive device	40	0.02%
G: Used braille test	15	0.01%
H: Used large-print test	120	0.05%

Accommodation Summary for English–Language Arts Grade Three		
J: Tested over more than one day	452	0.18%
K: Had supervised breaks	1,574	0.64%
L: Most beneficial time of day	596	0.24%
M: Administered at home or in a hospital	28	0.01%
N: Used a dictionary	4	0.00%
O: Examiner presented with MCE or ASL	10	0.00%
P: Used audio presentation (CD)	37	0.02%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	42	0.02%
X: Used an unlisted accommodation	453	0.19%
Y: Leave blank	25	0.01%
Z: Examiner read test questions aloud	395	0.16%
Accom. or Mod. is in Section 504 Plan	114	0.05%
Accom. or Mod. is in IEP	2,067	0.84%
English Learner Test Variation A	41	0.02%
English Learner Test Variation B	21	0.01%
English Learner Test Variation C	26	0.01%
Any Accom., Mod., or EL Variation	2,794	1.14%
No Accom., Mod., or EL Variation	242,009	98.86%
Initially Fluent English Proficient (I-FEP) Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	9	0.03%
C: Dictated responses to a scribe	3	0.01%
F: Used non-interfering assistive device	2	0.01%
G: Used braille test	1	0.00%
H: Used large-print test	15	0.04%
J: Tested over more than one day	15	0.04%
K: Had supervised breaks	57	0.17%
L: Most beneficial time of day	18	0.05%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	9	0.03%
Y: Leave blank	2	0.01%
Z: Examiner read test questions aloud	14	0.04%
Accom. or Mod. is in Section 504 Plan	3	0.01%
Accom. or Mod. is in IEP	81	0.24%
English Learner Test Variation A	16	0.05%
English Learner Test Variation B	6	0.02%

Accommodation Summary for English–Language Arts Grade Three		
English Learner Test Variation C	6	0.02%
Any Accom., Mod., or EL Variation	125	0.37%
No Accom., Mod., or EL Variation	33,584	99.63%
English Learner (EL) Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	45	0.03%
C: Dictated responses to a scribe	10	0.01%
F: Used non-interfering assistive device	19	0.01%
G: Used braille test	9	0.01%
H: Used large-print test	47	0.03%
J: Tested over more than one day	216	0.15%
K: Had supervised breaks	893	0.60%
L: Most beneficial time of day	317	0.21%
M: Administered at home or in a hospital	9	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented with MCE or ASL	7	0.00%
P: Used audio presentation (CD)	27	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	6	0.00%
X: Used an unlisted accommodation	232	0.16%
Y: Leave blank	7	0.00%
Z: Examiner read test questions aloud	227	0.15%
Accom. or Mod. is in Section 504 Plan	23	0.02%
Accom. or Mod. is in IEP	1,149	0.77%
English Learner Test Variation A	882	0.59%
English Learner Test Variation B	86	0.06%
English Learner Test Variation C	266	0.18%
Any Accom., Mod., or EL Variation	2,533	1.71%
No Accom., Mod., or EL Variation	145,840	98.29%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	1	0.01%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	1	0.01%
H: Used large-print test	3	0.02%
J: Tested over more than one day	1	0.01%
K: Had supervised breaks	14	0.08%
L: Most beneficial time of day	6	0.03%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	2	0.01%

Accommodation Summary for English–Language Arts Grade Three		
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	5	0.03%
Y: Leave blank	1	0.01%
Z: Examiner read test questions aloud	1	0.01%
Accom. or Mod. is in Section 504 Plan	2	0.01%
Accom. or Mod. is in IEP	18	0.10%
English Learner Test Variation A	4	0.02%
English Learner Test Variation B	1	0.01%
English Learner Test Variation C	1	0.01%
Any Accom., Mod., or EL Variation	30	0.16%
No Accom., Mod., or EL Variation	18,269	99.84%

Table 6.C.3 Accommodation Summary for English–Language Arts Grade Four

Accommodation Summary for English–Language Arts Grade Four		
All Tested	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	495	0.11%
C: Dictated responses to a scribe	30	0.01%
D: Used word processing with tools off	162	0.04%
E: Dictated essay with conventions	81	0.02%
F: Used non-interfering assistive device	101	0.02%
G: Used braille test	31	0.01%
H: Used large-print test	208	0.05%
J: Tested over more than one day	1,015	0.23%
K: Had supervised breaks	3,974	0.89%
L: Most beneficial time of day	1,539	0.35%
M: Administered at home or in a hospital	52	0.01%
N: Used a dictionary	73	0.02%
O: Examiner presented with MCE or ASL	28	0.01%
P: Used audio presentation (CD)	151	0.03%
T: Used word processing with tools on	7	0.00%
U: Dictated essay without conventions	43	0.01%
V: Used interfering assistive device	10	0.00%
W: Used an unlisted modification	119	0.03%
X: Used an unlisted accommodation	1,231	0.28%
Y: Leave blank	67	0.02%
Z: Examiner read test questions aloud	1,797	0.40%
Accom. or Mod. is in Section 504 Plan	252	0.06%
Accom. or Mod. is in IEP	5,162	1.16%
English Learner Test Variation A	1,986	0.45%
English Learner Test Variation B	204	0.05%
English Learner Test Variation C	520	0.12%
Any Accom., Mod., or EL Variation	9,501	2.13%
No Accom., Mod., or EL Variation	436,491	97.87%
Students Not in Special Education	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	95	0.02%
C: Dictated responses to a scribe	6	0.00%
D: Used word processing with tools off	38	0.01%
E: Dictated essay with conventions	30	0.01%
F: Used non-interfering assistive device	15	0.00%
G: Used braille test	1	0.00%
H: Used large-print test	46	0.01%
J: Tested over more than one day	138	0.03%
K: Had supervised breaks	633	0.15%
L: Most beneficial time of day	227	0.06%

Accommodation Summary for English–Language Arts Grade Four		
M: Administered at home or in a hospital	35	0.01%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	4	0.00%
P: Used audio presentation (CD)	20	0.00%
T: Used word processing with tools on	1	0.00%
U: Dictated essay without conventions	11	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	13	0.00%
X: Used an unlisted accommodation	204	0.05%
Y: Leave blank	16	0.00%
Z: Examiner read test questions aloud	355	0.09%
Accom. or Mod. is in Section 504 Plan	237	0.06%
Accom. or Mod. is in IEP	652	0.16%
English Learner Test Variation A	1,886	0.46%
English Learner Test Variation B	147	0.04%
English Learner Test Variation C	444	0.11%
Any Accom., Mod., or EL Variation	3,510	0.85%
No Accom., Mod., or EL Variation	408,481	99.15%
Students in Special Education	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	396	1.17%
C: Dictated responses to a scribe	24	0.07%
D: Used word processing with tools off	124	0.37%
E: Dictated essay with conventions	51	0.15%
F: Used non-interfering assistive device	86	0.25%
G: Used braille test	30	0.09%
H: Used large-print test	162	0.48%
J: Tested over more than one day	874	2.57%
K: Had supervised breaks	3,314	9.76%
L: Most beneficial time of day	1,309	3.85%
M: Administered at home or in a hospital	17	0.05%
N: Used a dictionary	67	0.20%
O: Examiner presented with MCE or ASL	24	0.07%
P: Used audio presentation (CD)	131	0.39%
T: Used word processing with tools on	6	0.02%
U: Dictated essay without conventions	32	0.09%
V: Used interfering assistive device	10	0.03%
W: Used an unlisted modification	106	0.31%
X: Used an unlisted accommodation	1,022	3.01%
Y: Leave blank	51	0.15%
Z: Examiner read test questions aloud	1,436	4.23%

Accommodation Summary for English–Language Arts Grade Four		
Accom. or Mod. is in Section 504 Plan	15	0.04%
Accom. or Mod. is in IEP	4,479	13.19%
English Learner Test Variation A	100	0.29%
English Learner Test Variation B	57	0.17%
English Learner Test Variation C	76	0.22%
Any Accom., Mod., or EL Variation	5,960	17.55%
No Accom., Mod., or EL Variation	27,999	82.45%
English-Only Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	376	0.15%
C: Dictated responses to a scribe	22	0.01%
D: Used word processing with tools off	143	0.06%
E: Dictated essay with conventions	56	0.02%
F: Used non-interfering assistive device	71	0.03%
G: Used braille test	21	0.01%
H: Used large-print test	139	0.06%
J: Tested over more than one day	667	0.27%
K: Had supervised breaks	2,472	1.01%
L: Most beneficial time of day	981	0.40%
M: Administered at home or in a hospital	40	0.02%
N: Used a dictionary	49	0.02%
O: Examiner presented with MCE or ASL	18	0.01%
P: Used audio presentation (CD)	93	0.04%
T: Used word processing with tools on	6	0.00%
U: Dictated essay without conventions	36	0.01%
V: Used interfering assistive device	5	0.00%
W: Used an unlisted modification	85	0.03%
X: Used an unlisted accommodation	820	0.33%
Y: Leave blank	47	0.02%
Z: Examiner read test questions aloud	1,082	0.44%
Accom. or Mod. is in Section 504 Plan	196	0.08%
Accom. or Mod. is in IEP	3,252	1.33%
English Learner Test Variation A	53	0.02%
English Learner Test Variation B	14	0.01%
English Learner Test Variation C	19	0.01%
Any Accom., Mod., or EL Variation	4,662	1.90%
No Accom., Mod., or EL Variation	240,309	98.10%
Initially Fluent English Proficient (I-FEP) Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	11	0.03%
C: Dictated responses to a scribe	1	0.00%
D: Used word processing with tools off	5	0.01%
E: Dictated essay with conventions	5	0.01%

Accommodation Summary for English–Language Arts Grade Four		
F: Used non-interfering assistive device	5	0.01%
G: Used braille test	0	0.00%
H: Used large-print test	7	0.02%
J: Tested over more than one day	17	0.05%
K: Had supervised breaks	98	0.27%
L: Most beneficial time of day	50	0.14%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	7	0.02%
O: Examiner presented with MCE or ASL	3	0.01%
P: Used audio presentation (CD)	3	0.01%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	1	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	3	0.01%
X: Used an unlisted accommodation	41	0.11%
Y: Leave blank	2	0.01%
Z: Examiner read test questions aloud	37	0.10%
Accom. or Mod. is in Section 504 Plan	5	0.01%
Accom. or Mod. is in IEP	128	0.35%
English Learner Test Variation A	18	0.05%
English Learner Test Variation B	3	0.01%
English Learner Test Variation C	3	0.01%
Any Accom., Mod., or EL Variation	212	0.57%
No Accom., Mod., or EL Variation	36,718	99.43%
English Learner (EL) Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	100	0.08%
C: Dictated responses to a scribe	7	0.01%
D: Used word processing with tools off	14	0.01%
E: Dictated essay with conventions	17	0.01%
F: Used non-interfering assistive device	25	0.02%
G: Used braille test	8	0.01%
H: Used large-print test	58	0.04%
J: Tested over more than one day	326	0.25%
K: Had supervised breaks	1,365	1.05%
L: Most beneficial time of day	484	0.37%
M: Administered at home or in a hospital	11	0.01%
N: Used a dictionary	16	0.01%
O: Examiner presented with MCE or ASL	5	0.00%
P: Used audio presentation (CD)	55	0.04%
T: Used word processing with tools on	1	0.00%
U: Dictated essay without conventions	6	0.00%

Accommodation Summary for English–Language Arts Grade Four		
V: Used interfering assistive device	4	0.00%
W: Used an unlisted modification	30	0.02%
X: Used an unlisted accommodation	357	0.27%
Y: Leave blank	17	0.01%
Z: Examiner read test questions aloud	656	0.50%
Accom. or Mod. is in Section 504 Plan	46	0.04%
Accom. or Mod. is in IEP	1,728	1.32%
English Learner Test Variation A	1,896	1.45%
English Learner Test Variation B	185	0.14%
English Learner Test Variation C	496	0.38%
Any Accom., Mod., or EL Variation	4,522	3.47%
No Accom., Mod., or EL Variation	125,943	96.53%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	4	0.01%
C: Dictated responses to a scribe	0	0.00%
D: Used word processing with tools off	0	0.00%
E: Dictated essay with conventions	2	0.01%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	1	0.00%
H: Used large-print test	4	0.01%
J: Tested over more than one day	2	0.01%
K: Had supervised breaks	28	0.08%
L: Most beneficial time of day	15	0.05%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	0	0.00%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	9	0.03%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	20	0.06%
Accom. or Mod. is in Section 504 Plan	4	0.01%
Accom. or Mod. is in IEP	35	0.11%
English Learner Test Variation A	18	0.05%
English Learner Test Variation B	2	0.01%
English Learner Test Variation C	2	0.01%
Any Accom., Mod., or EL Variation	80	0.24%
No Accom., Mod., or EL Variation	32,896	99.76%

Table 6.C.4 Accommodation Summary for English–Language Arts Grade Five

Accommodation Summary for English–Language Arts Grade Five		
All Tested	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	448	0.10%
C: Dictated responses to a scribe	29	0.01%
F: Used non-interfering assistive device	66	0.01%
G: Used braille test	27	0.01%
H: Used large-print test	186	0.04%
J: Tested over more than one day	1,101	0.24%
K: Had supervised breaks	3,635	0.81%
L: Most beneficial time of day	1,280	0.28%
M: Administered at home or in a hospital	45	0.01%
N: Used a dictionary	23	0.01%
O: Examiner presented with MCE or ASL	20	0.00%
P: Used audio presentation (CD)	85	0.02%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	76	0.02%
X: Used an unlisted accommodation	891	0.20%
Y: Leave blank	41	0.01%
Z: Examiner read test questions aloud	623	0.14%
Accom. or Mod. is in Section 504 Plan	183	0.04%
Accom. or Mod. is in IEP	5,134	1.14%
English Learner Test Variation A	797	0.18%
English Learner Test Variation B	88	0.02%
English Learner Test Variation C	326	0.07%
Any Accom., Mod., or EL Variation	6,921	1.54%
No Accom., Mod., or EL Variation	443,878	98.46%
Students Not in Special Education	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	59	0.01%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	7	0.00%
G: Used braille test	5	0.00%
H: Used large-print test	39	0.01%
J: Tested over more than one day	113	0.03%
K: Had supervised breaks	431	0.10%
L: Most beneficial time of day	132	0.03%
M: Administered at home or in a hospital	13	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	7	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.00%

Accommodation Summary for English–Language Arts Grade Five		
X: Used an unlisted accommodation	136	0.03%
Y: Leave blank	8	0.00%
Z: Examiner read test questions aloud	58	0.01%
Accom. or Mod. is in Section 504 Plan	167	0.04%
Accom. or Mod. is in IEP	511	0.12%
English Learner Test Variation A	772	0.19%
English Learner Test Variation B	51	0.01%
English Learner Test Variation C	291	0.07%
Any Accom., Mod., or EL Variation	1,678	0.40%
No Accom., Mod., or EL Variation	413,345	99.60%
Students in Special Education	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	388	1.09%
C: Dictated responses to a scribe	25	0.07%
F: Used non-interfering assistive device	59	0.17%
G: Used braille test	22	0.06%
H: Used large-print test	147	0.41%
J: Tested over more than one day	981	2.74%
K: Had supervised breaks	3,191	8.93%
L: Most beneficial time of day	1,143	3.20%
M: Administered at home or in a hospital	31	0.09%
N: Used a dictionary	22	0.06%
O: Examiner presented with MCE or ASL	19	0.05%
P: Used audio presentation (CD)	78	0.22%
V: Used interfering assistive device	3	0.01%
W: Used an unlisted modification	72	0.20%
X: Used an unlisted accommodation	747	2.09%
Y: Leave blank	33	0.09%
Z: Examiner read test questions aloud	563	1.58%
Accom. or Mod. is in Section 504 Plan	16	0.04%
Accom. or Mod. is in IEP	4,600	12.87%
English Learner Test Variation A	25	0.07%
English Learner Test Variation B	37	0.10%
English Learner Test Variation C	35	0.10%
Any Accom., Mod., or EL Variation	5,220	14.60%
No Accom., Mod., or EL Variation	30,523	85.40%
English-Only Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	322	0.13%
C: Dictated responses to a scribe	18	0.01%
F: Used non-interfering assistive device	40	0.02%
G: Used braille test	16	0.01%
H: Used large-print test	117	0.05%

Accommodation Summary for English–Language Arts Grade Five		
J: Tested over more than one day	685	0.28%
K: Had supervised breaks	2,234	0.91%
L: Most beneficial time of day	832	0.34%
M: Administered at home or in a hospital	30	0.01%
N: Used a dictionary	16	0.01%
O: Examiner presented with MCE or ASL	15	0.01%
P: Used audio presentation (CD)	59	0.02%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	61	0.02%
X: Used an unlisted accommodation	566	0.23%
Y: Leave blank	25	0.01%
Z: Examiner read test questions aloud	387	0.16%
Accom. or Mod. is in Section 504 Plan	142	0.06%
Accom. or Mod. is in IEP	3,180	1.30%
English Learner Test Variation A	13	0.01%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	10	0.00%
Any Accom., Mod., or EL Variation	3,742	1.53%
No Accom., Mod., or EL Variation	240,890	98.47%
Initially Fluent English Proficient (I-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	13	0.04%
C: Dictated responses to a scribe	2	0.01%
F: Used non-interfering assistive device	3	0.01%
G: Used braille test	0	0.00%
H: Used large-print test	8	0.02%
J: Tested over more than one day	23	0.07%
K: Had supervised breaks	84	0.25%
L: Most beneficial time of day	28	0.08%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.01%
X: Used an unlisted accommodation	30	0.09%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	14	0.04%
Accom. or Mod. is in Section 504 Plan	6	0.02%
Accom. or Mod. is in IEP	134	0.40%

Accommodation Summary for English–Language Arts Grade Five		
English Learner Test Variation A	7	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	4	0.01%
Any Accom., Mod., or EL Variation	158	0.48%
No Accom., Mod., or EL Variation	32,950	99.52%
English Learner (EL) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	101	0.08%
C: Dictated responses to a scribe	7	0.01%
F: Used non-interfering assistive device	22	0.02%
G: Used braille test	9	0.01%
H: Used large-print test	47	0.04%
J: Tested over more than one day	375	0.31%
K: Had supervised breaks	1,259	1.05%
L: Most beneficial time of day	401	0.34%
M: Administered at home or in a hospital	14	0.01%
N: Used a dictionary	6	0.01%
O: Examiner presented with MCE or ASL	4	0.00%
P: Used audio presentation (CD)	26	0.02%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	12	0.01%
X: Used an unlisted accommodation	281	0.24%
Y: Leave blank	14	0.01%
Z: Examiner read test questions aloud	214	0.18%
Accom. or Mod. is in Section 504 Plan	32	0.03%
Accom. or Mod. is in IEP	1,733	1.45%
English Learner Test Variation A	771	0.65%
English Learner Test Variation B	81	0.07%
English Learner Test Variation C	309	0.26%
Any Accom., Mod., or EL Variation	2,911	2.44%
No Accom., Mod., or EL Variation	116,453	97.56%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	11	0.02%
C: Dictated responses to a scribe	2	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	13	0.02%
J: Tested over more than one day	11	0.02%
K: Had supervised breaks	44	0.08%
L: Most beneficial time of day	13	0.02%
M: Administered at home or in a hospital	0	0.00%

Accommodation Summary for English–Language Arts Grade Five		
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	9	0.02%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	5	0.01%
Accom. or Mod. is in Section 504 Plan	3	0.01%
Accom. or Mod. is in IEP	67	0.13%
English Learner Test Variation A	5	0.01%
English Learner Test Variation B	3	0.01%
English Learner Test Variation C	2	0.00%
Any Accom., Mod., or EL Variation	89	0.17%
No Accom., Mod., or EL Variation	52,954	99.83%

Table 6.C.5 Accommodation Summary for English–Language Arts Grade Six

Accommodation Summary for English–Language Arts Grade Six		
All Tested	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	399	0.08%
C: Dictated responses to a scribe	39	0.01%
F: Used non-interfering assistive device	81	0.02%
G: Used braille test	36	0.01%
H: Used large-print test	225	0.05%
J: Tested over more than one day	1,256	0.27%
K: Had supervised breaks	3,871	0.82%
L: Most beneficial time of day	1,347	0.29%
M: Administered at home or in a hospital	58	0.01%
N: Used a dictionary	30	0.01%
O: Examiner presented with MCE or ASL	55	0.01%
P: Used audio presentation (CD)	172	0.04%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	92	0.02%
X: Used an unlisted accommodation	1,183	0.25%
Y: Leave blank	60	0.01%
Z: Examiner read test questions aloud	1,088	0.23%
Accom. or Mod. is in Section 504 Plan	126	0.03%
Accom. or Mod. is in IEP	6,082	1.29%
English Learner Test Variation A	1,123	0.24%
English Learner Test Variation B	60	0.01%
English Learner Test Variation C	630	0.13%
Any Accom., Mod., or EL Variation	8,323	1.77%
No Accom., Mod., or EL Variation	461,741	98.23%
Students Not in Special Education	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	45	0.01%
C: Dictated responses to a scribe	5	0.00%
F: Used non-interfering assistive device	3	0.00%
G: Used braille test	4	0.00%
H: Used large-print test	40	0.01%
J: Tested over more than one day	135	0.03%
K: Had supervised breaks	418	0.10%
L: Most beneficial time of day	105	0.02%
M: Administered at home or in a hospital	35	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	13	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	12	0.00%

Accommodation Summary for English–Language Arts Grade Six		
X: Used an unlisted accommodation	166	0.04%
Y: Leave blank	12	0.00%
Z: Examiner read test questions aloud	73	0.02%
Accom. or Mod. is in Section 504 Plan	113	0.03%
Accom. or Mod. is in IEP	559	0.13%
English Learner Test Variation A	1,032	0.24%
English Learner Test Variation B	45	0.01%
English Learner Test Variation C	584	0.14%
Any Accom., Mod., or EL Variation	2,083	0.49%
No Accom., Mod., or EL Variation	420,880	99.51%
Students in Special Education	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	351	0.75%
C: Dictated responses to a scribe	34	0.07%
F: Used non-interfering assistive device	78	0.17%
G: Used braille test	32	0.07%
H: Used large-print test	183	0.39%
J: Tested over more than one day	1,113	2.36%
K: Had supervised breaks	3,441	7.31%
L: Most beneficial time of day	1,238	2.63%
M: Administered at home or in a hospital	23	0.05%
N: Used a dictionary	28	0.06%
O: Examiner presented with MCE or ASL	54	0.11%
P: Used audio presentation (CD)	159	0.34%
V: Used interfering assistive device	3	0.01%
W: Used an unlisted modification	80	0.17%
X: Used an unlisted accommodation	1,014	2.15%
Y: Leave blank	47	0.10%
Z: Examiner read test questions aloud	1,010	2.15%
Accom. or Mod. is in Section 504 Plan	13	0.03%
Accom. or Mod. is in IEP	5,499	11.68%
English Learner Test Variation A	91	0.19%
English Learner Test Variation B	15	0.03%
English Learner Test Variation C	46	0.10%
Any Accom., Mod., or EL Variation	6,216	13.21%
No Accom., Mod., or EL Variation	40,846	86.79%
English-Only Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	277	0.11%
C: Dictated responses to a scribe	31	0.01%
F: Used non-interfering assistive device	48	0.02%
G: Used braille test	23	0.01%
H: Used large-print test	149	0.06%

Accommodation Summary for English–Language Arts Grade Six		
J: Tested over more than one day	799	0.31%
K: Had supervised breaks	2,306	0.90%
L: Most beneficial time of day	883	0.34%
M: Administered at home or in a hospital	46	0.02%
N: Used a dictionary	15	0.01%
O: Examiner presented with MCE or ASL	35	0.01%
P: Used audio presentation (CD)	109	0.04%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	64	0.02%
X: Used an unlisted accommodation	774	0.30%
Y: Leave blank	37	0.01%
Z: Examiner read test questions aloud	618	0.24%
Accom. or Mod. is in Section 504 Plan	102	0.04%
Accom. or Mod. is in IEP	3,738	1.46%
English Learner Test Variation A	22	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	9	0.00%
Any Accom., Mod., or EL Variation	4,328	1.69%
No Accom., Mod., or EL Variation	252,144	98.31%
Initially Fluent English Proficient (I-FEP) Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	6	0.02%
C: Dictated responses to a scribe	2	0.01%
F: Used non-interfering assistive device	5	0.02%
G: Used braille test	5	0.02%
H: Used large-print test	10	0.03%
J: Tested over more than one day	32	0.10%
K: Had supervised breaks	98	0.30%
L: Most beneficial time of day	29	0.09%
M: Administered at home or in a hospital	2	0.01%
N: Used a dictionary	4	0.01%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	2	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.01%
X: Used an unlisted accommodation	35	0.11%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	21	0.06%
Accom. or Mod. is in Section 504 Plan	4	0.01%
Accom. or Mod. is in IEP	154	0.48%

Accommodation Summary for English–Language Arts Grade Six		
English Learner Test Variation A	5	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
Any Accom., Mod., or EL Variation	184	0.57%
No Accom., Mod., or EL Variation	32,127	99.43%
English Learner (EL) Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	92	0.08%
C: Dictated responses to a scribe	5	0.00%
F: Used non-interfering assistive device	27	0.02%
G: Used braille test	7	0.01%
H: Used large-print test	51	0.05%
J: Tested over more than one day	402	0.37%
K: Had supervised breaks	1,388	1.26%
L: Most beneficial time of day	415	0.38%
M: Administered at home or in a hospital	8	0.01%
N: Used a dictionary	11	0.01%
O: Examiner presented with MCE or ASL	20	0.02%
P: Used audio presentation (CD)	57	0.05%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	18	0.02%
X: Used an unlisted accommodation	348	0.32%
Y: Leave blank	17	0.02%
Z: Examiner read test questions aloud	434	0.39%
Accom. or Mod. is in Section 504 Plan	16	0.01%
Accom. or Mod. is in IEP	2,069	1.88%
English Learner Test Variation A	1,079	0.98%
English Learner Test Variation B	59	0.05%
English Learner Test Variation C	618	0.56%
Any Accom., Mod., or EL Variation	3,644	3.31%
No Accom., Mod., or EL Variation	106,353	96.69%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	19	0.03%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used braille test	0	0.00%
H: Used large-print test	13	0.02%
J: Tested over more than one day	15	0.02%
K: Had supervised breaks	63	0.09%
L: Most beneficial time of day	16	0.02%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%

Accommodation Summary for English–Language Arts Grade Six		
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	4	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	6	0.01%
X: Used an unlisted accommodation	23	0.03%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	11	0.02%
Accom. or Mod. is in Section 504 Plan	3	0.00%
Accom. or Mod. is in IEP	98	0.14%
English Learner Test Variation A	17	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	3	0.00%
Any Accom., Mod., or EL Variation	138	0.20%
No Accom., Mod., or EL Variation	70,427	99.80%

Table 6.C.6 Accommodation Summary for English–Language Arts Grade Seven

Accommodation Summary for English–Language Arts Grade Seven		
All Tested	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	305	0.06%
C: Dictated responses to a scribe	40	0.01%
D: Used word processing with tools off	306	0.06%
E: Dictated essay with conventions	63	0.01%
F: Used non-interfering assistive device	70	0.01%
G: Used braille test	45	0.01%
H: Used large-print test	212	0.04%
J: Tested over more than one day	683	0.14%
K: Had supervised breaks	2,967	0.62%
L: Most beneficial time of day	969	0.20%
M: Administered at home or in a hospital	77	0.02%
N: Used a dictionary	92	0.02%
O: Examiner presented with MCE or ASL	57	0.01%
P: Used audio presentation (CD)	210	0.04%
T: Used word processing with tools on	34	0.01%
U: Dictated essay without conventions	34	0.01%
V: Used interfering assistive device	7	0.00%
W: Used an unlisted modification	125	0.03%
X: Used an unlisted accommodation	1,535	0.32%
Y: Leave blank	117	0.02%
Z: Examiner read test questions aloud	2,492	0.52%
Accom. or Mod. is in Section 504 Plan	91	0.02%
Accom. or Mod. is in IEP	4,826	1.01%
English Learner Test Variation A	3,179	0.66%
English Learner Test Variation B	238	0.05%
English Learner Test Variation C	2,262	0.47%
Any Accom., Mod., or EL Variation	11,441	2.39%
No Accom., Mod., or EL Variation	467,296	97.61%
Students Not in Special Education	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	42	0.01%
C: Dictated responses to a scribe	5	0.00%
D: Used word processing with tools off	70	0.02%
E: Dictated essay with conventions	12	0.00%
F: Used non-interfering assistive device	7	0.00%
G: Used braille test	7	0.00%
H: Used large-print test	37	0.01%
J: Tested over more than one day	58	0.01%
K: Had supervised breaks	288	0.07%
L: Most beneficial time of day	93	0.02%

Accommodation Summary for English–Language Arts Grade Seven		
M: Administered at home or in a hospital	41	0.01%
N: Used a dictionary	9	0.00%
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	8	0.00%
T: Used word processing with tools on	6	0.00%
U: Dictated essay without conventions	5	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	20	0.00%
X: Used an unlisted accommodation	167	0.04%
Y: Leave blank	20	0.00%
Z: Examiner read test questions aloud	173	0.04%
Accom. or Mod. is in Section 504 Plan	82	0.02%
Accom. or Mod. is in IEP	374	0.09%
English Learner Test Variation A	3,000	0.69%
English Learner Test Variation B	191	0.04%
English Learner Test Variation C	2,137	0.49%
Any Accom., Mod., or EL Variation	4,655	1.07%
No Accom., Mod., or EL Variation	428,474	98.93%
Students in Special Education	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	261	0.57%
C: Dictated responses to a scribe	35	0.08%
D: Used word processing with tools off	236	0.52%
E: Dictated essay with conventions	50	0.11%
F: Used non-interfering assistive device	63	0.14%
G: Used braille test	38	0.08%
H: Used large-print test	174	0.38%
J: Tested over more than one day	623	1.37%
K: Had supervised breaks	2,667	5.85%
L: Most beneficial time of day	874	1.92%
M: Administered at home or in a hospital	36	0.08%
N: Used a dictionary	83	0.18%
O: Examiner presented with MCE or ASL	55	0.12%
P: Used audio presentation (CD)	202	0.44%
T: Used word processing with tools on	28	0.06%
U: Dictated essay without conventions	29	0.06%
V: Used interfering assistive device	6	0.01%
W: Used an unlisted modification	105	0.23%
X: Used an unlisted accommodation	1,368	3.00%
Y: Leave blank	97	0.21%
Z: Examiner read test questions aloud	2,318	5.09%

Accommodation Summary for English–Language Arts Grade Seven		
Accom. or Mod. is in Section 504 Plan	9	0.02%
Accom. or Mod. is in IEP	4,437	9.73%
English Learner Test Variation A	179	0.39%
English Learner Test Variation B	47	0.10%
English Learner Test Variation C	125	0.27%
Any Accom., Mod., or EL Variation	6,771	14.85%
No Accom., Mod., or EL Variation	38,812	85.15%
English-Only Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	229	0.09%
C: Dictated responses to a scribe	30	0.01%
D: Used word processing with tools off	272	0.10%
E: Dictated essay with conventions	54	0.02%
F: Used non-interfering assistive device	50	0.02%
G: Used braille test	20	0.01%
H: Used large-print test	148	0.06%
J: Tested over more than one day	463	0.18%
K: Had supervised breaks	1,795	0.68%
L: Most beneficial time of day	674	0.26%
M: Administered at home or in a hospital	58	0.02%
N: Used a dictionary	59	0.02%
O: Examiner presented with MCE or ASL	33	0.01%
P: Used audio presentation (CD)	111	0.04%
T: Used word processing with tools on	33	0.01%
U: Dictated essay without conventions	28	0.01%
V: Used interfering assistive device	4	0.00%
W: Used an unlisted modification	72	0.03%
X: Used an unlisted accommodation	1,036	0.39%
Y: Leave blank	77	0.03%
Z: Examiner read test questions aloud	1,338	0.51%
Accom. or Mod. is in Section 504 Plan	79	0.03%
Accom. or Mod. is in IEP	2,916	1.11%
English Learner Test Variation A	86	0.03%
English Learner Test Variation B	10	0.00%
English Learner Test Variation C	54	0.02%
Any Accom., Mod., or EL Variation	4,739	1.80%
No Accom., Mod., or EL Variation	258,425	98.20%
Initially Fluent English Proficient (I-FEP) Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	10	0.02%
C: Dictated responses to a scribe	1	0.00%
D: Used word processing with tools off	11	0.03%
E: Dictated essay with conventions	2	0.00%

Accommodation Summary for English–Language Arts Grade Seven		
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	3	0.01%
H: Used large-print test	8	0.02%
J: Tested over more than one day	18	0.04%
K: Had supervised breaks	82	0.20%
L: Most beneficial time of day	32	0.08%
M: Administered at home or in a hospital	6	0.01%
N: Used a dictionary	3	0.01%
O: Examiner presented with MCE or ASL	3	0.01%
P: Used audio presentation (CD)	4	0.01%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	2	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	7	0.02%
X: Used an unlisted accommodation	51	0.13%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	64	0.16%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	122	0.30%
English Learner Test Variation A	14	0.03%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	8	0.02%
Any Accom., Mod., or EL Variation	227	0.56%
No Accom., Mod., or EL Variation	39,970	99.44%
English Learner (EL) Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	50	0.05%
C: Dictated responses to a scribe	4	0.00%
D: Used word processing with tools off	14	0.01%
E: Dictated essay with conventions	4	0.00%
F: Used non-interfering assistive device	11	0.01%
G: Used braille test	18	0.02%
H: Used large-print test	43	0.05%
J: Tested over more than one day	188	0.20%
K: Had supervised breaks	1,010	1.06%
L: Most beneficial time of day	238	0.25%
M: Administered at home or in a hospital	9	0.01%
N: Used a dictionary	29	0.03%
O: Examiner presented with MCE or ASL	21	0.02%
P: Used audio presentation (CD)	91	0.10%
T: Used word processing with tools on	1	0.00%
U: Dictated essay without conventions	4	0.00%

Accommodation Summary for English–Language Arts Grade Seven		
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	44	0.05%
X: Used an unlisted accommodation	415	0.43%
Y: Leave blank	33	0.03%
Z: Examiner read test questions aloud	1,035	1.08%
Accom. or Mod. is in Section 504 Plan	7	0.01%
Accom. or Mod. is in IEP	1,665	1.74%
English Learner Test Variation A	3,019	3.16%
English Learner Test Variation B	205	0.21%
English Learner Test Variation C	2,141	2.24%
Any Accom., Mod., or EL Variation	6,204	6.49%
No Accom., Mod., or EL Variation	89,319	93.51%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	15	0.02%
C: Dictated responses to a scribe	5	0.01%
D: Used word processing with tools off	9	0.01%
E: Dictated essay with conventions	2	0.00%
F: Used non-interfering assistive device	7	0.01%
G: Used braille test	4	0.01%
H: Used large-print test	11	0.01%
J: Tested over more than one day	8	0.01%
K: Had supervised breaks	66	0.08%
L: Most beneficial time of day	19	0.02%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	2	0.00%
T: Used word processing with tools on	0	0.00%
U: Dictated essay without conventions	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%
X: Used an unlisted accommodation	31	0.04%
Y: Leave blank	5	0.01%
Z: Examiner read test questions aloud	49	0.06%
Accom. or Mod. is in Section 504 Plan	4	0.01%
Accom. or Mod. is in IEP	106	0.13%
English Learner Test Variation A	57	0.07%
English Learner Test Variation B	21	0.03%
English Learner Test Variation C	59	0.07%
Any Accom., Mod., or EL Variation	243	0.31%
No Accom., Mod., or EL Variation	78,832	99.69%

Table 6.C.7 Accommodation Summary for English–Language Arts Grade Eight

Accommodation Summary for English–Language Arts Grade Eight		
All Tested	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	258	0.05%
C: Dictated responses to a scribe	38	0.01%
F: Used non-interfering assistive device	17	0.00%
G: Used braille test	57	0.01%
H: Used large-print test	180	0.04%
J: Tested over more than one day	628	0.13%
K: Had supervised breaks	2,294	0.48%
L: Most beneficial time of day	743	0.15%
M: Administered at home or in a hospital	86	0.02%
N: Used a dictionary	25	0.01%
O: Examiner presented with MCE or ASL	41	0.01%
P: Used audio presentation (CD)	166	0.03%
V: Used interfering assistive device	4	0.00%
W: Used an unlisted modification	75	0.02%
X: Used an unlisted accommodation	824	0.17%
Y: Leave blank	52	0.01%
Z: Examiner read test questions aloud	622	0.13%
Accom. or Mod. is in Section 504 Plan	88	0.02%
Accom. or Mod. is in IEP	3,773	0.78%
English Learner Test Variation A	1,343	0.28%
English Learner Test Variation B	32	0.01%
English Learner Test Variation C	1,021	0.21%
Any Accom., Mod., or EL Variation	6,315	1.31%
No Accom., Mod., or EL Variation	476,542	98.69%
Students Not in Special Education	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	33	0.01%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	25	0.01%
J: Tested over more than one day	38	0.01%
K: Had supervised breaks	169	0.04%
L: Most beneficial time of day	49	0.01%
M: Administered at home or in a hospital	55	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	6	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	14	0.00%

Accommodation Summary for English–Language Arts Grade Eight		
X: Used an unlisted accommodation	87	0.02%
Y: Leave blank	11	0.00%
Z: Examiner read test questions aloud	25	0.01%
Accom. or Mod. is in Section 504 Plan	78	0.02%
Accom. or Mod. is in IEP	261	0.06%
English Learner Test Variation A	1,290	0.29%
English Learner Test Variation B	20	0.00%
English Learner Test Variation C	993	0.23%
Any Accom., Mod., or EL Variation	2,175	0.50%
No Accom., Mod., or EL Variation	436,542	99.50%
Students in Special Education	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	225	0.51%
C: Dictated responses to a scribe	35	0.08%
F: Used non-interfering assistive device	15	0.03%
G: Used braille test	54	0.12%
H: Used large-print test	154	0.35%
J: Tested over more than one day	589	1.34%
K: Had supervised breaks	2,114	4.79%
L: Most beneficial time of day	694	1.57%
M: Administered at home or in a hospital	29	0.07%
N: Used a dictionary	23	0.05%
O: Examiner presented with MCE or ASL	40	0.09%
P: Used audio presentation (CD)	160	0.36%
V: Used interfering assistive device	4	0.01%
W: Used an unlisted modification	61	0.14%
X: Used an unlisted accommodation	735	1.67%
Y: Leave blank	41	0.09%
Z: Examiner read test questions aloud	596	1.35%
Accom. or Mod. is in Section 504 Plan	10	0.02%
Accom. or Mod. is in IEP	3,496	7.93%
English Learner Test Variation A	53	0.12%
English Learner Test Variation B	12	0.03%
English Learner Test Variation C	28	0.06%
Any Accom., Mod., or EL Variation	4,124	9.35%
No Accom., Mod., or EL Variation	39,989	90.65%
English-Only Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	194	0.07%
C: Dictated responses to a scribe	34	0.01%
F: Used non-interfering assistive device	13	0.00%
G: Used braille test	34	0.01%
H: Used large-print test	114	0.04%

Accommodation Summary for English–Language Arts Grade Eight		
J: Tested over more than one day	452	0.17%
K: Had supervised breaks	1,491	0.56%
L: Most beneficial time of day	491	0.19%
M: Administered at home or in a hospital	61	0.02%
N: Used a dictionary	10	0.00%
O: Examiner presented with MCE or ASL	24	0.01%
P: Used audio presentation (CD)	100	0.04%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	41	0.02%
X: Used an unlisted accommodation	523	0.20%
Y: Leave blank	39	0.01%
Z: Examiner read test questions aloud	330	0.12%
Accom. or Mod. is in Section 504 Plan	75	0.03%
Accom. or Mod. is in IEP	2,402	0.91%
English Learner Test Variation A	26	0.01%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	17	0.01%
Any Accom., Mod., or EL Variation	2,905	1.10%
No Accom., Mod., or EL Variation	262,305	98.90%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	7	0.02%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	8	0.02%
J: Tested over more than one day	8	0.02%
K: Had supervised breaks	43	0.11%
L: Most beneficial time of day	12	0.03%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented with MCE or ASL	3	0.01%
P: Used audio presentation (CD)	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	17	0.04%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	9	0.02%
Accom. or Mod. is in Section 504 Plan	2	0.00%
Accom. or Mod. is in IEP	81	0.20%

Accommodation Summary for English–Language Arts Grade Eight		
English Learner Test Variation A	8	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	2	0.00%
Any Accom., Mod., or EL Variation	107	0.27%
No Accom., Mod., or EL Variation	40,185	99.73%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	42	0.05%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	3	0.00%
G: Used braille test	18	0.02%
H: Used large-print test	45	0.05%
J: Tested over more than one day	160	0.18%
K: Had supervised breaks	690	0.77%
L: Most beneficial time of day	210	0.23%
M: Administered at home or in a hospital	14	0.02%
N: Used a dictionary	11	0.01%
O: Examiner presented with MCE or ASL	14	0.02%
P: Used audio presentation (CD)	59	0.07%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	29	0.03%
X: Used an unlisted accommodation	260	0.29%
Y: Leave blank	8	0.01%
Z: Examiner read test questions aloud	269	0.30%
Accom. or Mod. is in Section 504 Plan	7	0.01%
Accom. or Mod. is in IEP	1,178	1.31%
English Learner Test Variation A	1,296	1.44%
English Learner Test Variation B	25	0.03%
English Learner Test Variation C	990	1.10%
Any Accom., Mod., or EL Variation	3,143	3.49%
No Accom., Mod., or EL Variation	86,965	96.51%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	13	0.02%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used braille test	3	0.00%
H: Used large-print test	13	0.02%
J: Tested over more than one day	7	0.01%
K: Had supervised breaks	61	0.07%
L: Most beneficial time of day	26	0.03%
M: Administered at home or in a hospital	5	0.01%
N: Used a dictionary	1	0.00%

Accommodation Summary for English–Language Arts Grade Eight		
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	5	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.00%
X: Used an unlisted accommodation	19	0.02%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	9	0.01%
Accom. or Mod. is in Section 504 Plan	4	0.00%
Accom. or Mod. is in IEP	96	0.11%
English Learner Test Variation A	10	0.01%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	11	0.01%
Any Accom., Mod., or EL Variation	137	0.16%
No Accom., Mod., or EL Variation	86,346	99.84%

Table 6.C.8 Accommodation Summary for English–Language Arts Grade Nine

Accommodation Summary for English–Language Arts Grade Nine		
All Tested	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	132	0.03%
C: Dictated responses to a scribe	26	0.01%
F: Used non-interfering assistive device	17	0.00%
G: Used braille test	38	0.01%
H: Used large-print test	102	0.02%
J: Tested over more than one day	378	0.07%
K: Had supervised breaks	1,529	0.30%
L: Most beneficial time of day	440	0.09%
M: Administered at home or in a hospital	84	0.02%
N: Used a dictionary	110	0.02%
O: Examiner presented with MCE or ASL	30	0.01%
P: Used audio presentation (CD)	176	0.03%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	27	0.01%
X: Used an unlisted accommodation	540	0.11%
Y: Leave blank	43	0.01%
Z: Examiner read test questions aloud	514	0.10%
Accom. or Mod. is in Section 504 Plan	33	0.01%
Accom. or Mod. is in IEP	2,738	0.54%
English Learner Test Variation A	1,285	0.25%
English Learner Test Variation B	221	0.04%
English Learner Test Variation C	1,839	0.36%
Any Accom., Mod., or EL Variation	5,612	1.11%
No Accom., Mod., or EL Variation	501,134	98.89%
Students Not in Special Education	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	12	0.00%
C: Dictated responses to a scribe	6	0.00%
F: Used non-interfering assistive device	9	0.00%
G: Used braille test	4	0.00%
H: Used large-print test	12	0.00%
J: Tested over more than one day	22	0.00%
K: Had supervised breaks	116	0.02%
L: Most beneficial time of day	31	0.01%
M: Administered at home or in a hospital	41	0.01%
N: Used a dictionary	4	0.00%
O: Examiner presented with MCE or ASL	4	0.00%
P: Used audio presentation (CD)	5	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%

Accommodation Summary for English–Language Arts Grade Nine		
X: Used an unlisted accommodation	47	0.01%
Y: Leave blank	4	0.00%
Z: Examiner read test questions aloud	46	0.01%
Accom. or Mod. is in Section 504 Plan	31	0.01%
Accom. or Mod. is in IEP	191	0.04%
English Learner Test Variation A	1,264	0.27%
English Learner Test Variation B	207	0.04%
English Learner Test Variation C	1,801	0.39%
Any Accom., Mod., or EL Variation	2,633	0.57%
No Accom., Mod., or EL Variation	461,462	99.43%
Students in Special Education	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	120	0.28%
C: Dictated responses to a scribe	20	0.05%
F: Used non-interfering assistive device	8	0.02%
G: Used braille test	34	0.08%
H: Used large-print test	90	0.21%
J: Tested over more than one day	354	0.83%
K: Had supervised breaks	1,410	3.31%
L: Most beneficial time of day	408	0.96%
M: Administered at home or in a hospital	42	0.10%
N: Used a dictionary	106	0.25%
O: Examiner presented with MCE or ASL	26	0.06%
P: Used audio presentation (CD)	171	0.40%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	27	0.06%
X: Used an unlisted accommodation	488	1.14%
Y: Leave blank	39	0.09%
Z: Examiner read test questions aloud	466	1.09%
Accom. or Mod. is in Section 504 Plan	2	0.00%
Accom. or Mod. is in IEP	2,537	5.95%
English Learner Test Variation A	21	0.05%
English Learner Test Variation B	14	0.03%
English Learner Test Variation C	38	0.09%
Any Accom., Mod., or EL Variation	2,969	6.97%
No Accom., Mod., or EL Variation	39,657	93.03%
English-Only Students	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	106	0.04%
C: Dictated responses to a scribe	16	0.01%
F: Used non-interfering assistive device	6	0.00%
G: Used braille test	25	0.01%
H: Used large-print test	77	0.03%

Accommodation Summary for English–Language Arts Grade Nine		
J: Tested over more than one day	266	0.09%
K: Had supervised breaks	1,048	0.37%
L: Most beneficial time of day	332	0.12%
M: Administered at home or in a hospital	68	0.02%
N: Used a dictionary	79	0.03%
O: Examiner presented with MCE or ASL	10	0.00%
P: Used audio presentation (CD)	104	0.04%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	25	0.01%
X: Used an unlisted accommodation	330	0.12%
Y: Leave blank	24	0.01%
Z: Examiner read test questions aloud	298	0.11%
Accom. or Mod. is in Section 504 Plan	32	0.01%
Accom. or Mod. is in IEP	1,797	0.63%
English Learner Test Variation A	32	0.01%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	38	0.01%
Any Accom., Mod., or EL Variation	2,182	0.77%
No Accom., Mod., or EL Variation	281,581	99.23%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	2	0.00%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used braille test	3	0.01%
H: Used large-print test	4	0.01%
J: Tested over more than one day	12	0.03%
K: Had supervised breaks	40	0.10%
L: Most beneficial time of day	13	0.03%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	4	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	22	0.05%
Y: Leave blank	2	0.00%
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	75	0.18%

Accommodation Summary for English–Language Arts Grade Nine		
English Learner Test Variation A	12	0.03%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	3	0.01%
Any Accom., Mod., or EL Variation	101	0.24%
No Accom., Mod., or EL Variation	41,954	99.76%
English Learner (EL) Students	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	16	0.02%
C: Dictated responses to a scribe	8	0.01%
F: Used non-interfering assistive device	9	0.01%
G: Used braille test	7	0.01%
H: Used large-print test	11	0.01%
J: Tested over more than one day	84	0.09%
K: Had supervised breaks	384	0.42%
L: Most beneficial time of day	77	0.08%
M: Administered at home or in a hospital	8	0.01%
N: Used a dictionary	29	0.03%
O: Examiner presented with MCE or ASL	20	0.02%
P: Used audio presentation (CD)	65	0.07%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	175	0.19%
Y: Leave blank	17	0.02%
Z: Examiner read test questions aloud	193	0.21%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	780	0.84%
English Learner Test Variation A	1,232	1.33%
English Learner Test Variation B	216	0.23%
English Learner Test Variation C	1,780	1.92%
Any Accom., Mod., or EL Variation	3,193	3.45%
No Accom., Mod., or EL Variation	89,333	96.55%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Pct. of Total**
B: Marked in test booklet	8	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used braille test	3	0.00%
H: Used large-print test	10	0.01%
J: Tested over more than one day	15	0.02%
K: Had supervised breaks	49	0.06%
L: Most beneficial time of day	13	0.01%
M: Administered at home or in a hospital	8	0.01%

Accommodation Summary for English–Language Arts Grade Nine		
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	3	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	13	0.01%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	8	0.01%
Accom. or Mod. is in Section 504 Plan	0	0.00%
Accom. or Mod. is in IEP	81	0.09%
English Learner Test Variation A	6	0.01%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	16	0.02%
Any Accom., Mod., or EL Variation	120	0.14%
No Accom., Mod., or EL Variation	87,326	99.86%

Table 6.C.9 Accommodation Summary for English–Language Arts Grade Ten

Accommodation Summary for English–Language Arts Grade Ten		
All Tested	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	106	0.02%
C: Dictated responses to a scribe	33	0.01%
F: Used non-interfering assistive device	15	0.00%
G: Used braille test	22	0.00%
H: Used large-print test	99	0.02%
J: Tested over more than one day	351	0.07%
K: Had supervised breaks	1,384	0.29%
L: Most beneficial time of day	370	0.08%
M: Administered at home or in a hospital	72	0.02%
N: Used a dictionary	150	0.03%
O: Examiner presented with MCE or ASL	20	0.00%
P: Used audio presentation (CD)	250	0.05%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	24	0.01%
X: Used an unlisted accommodation	439	0.09%
Y: Leave blank	33	0.01%
Z: Examiner read test questions aloud	390	0.08%
Accom. or Mod. is in Section 504 Plan	46	0.01%
Accom. or Mod. is in IEP	2,474	0.52%
English Learner Test Variation A	1,010	0.21%
English Learner Test Variation B	150	0.03%
English Learner Test Variation C	1,551	0.32%
Any Accom., Mod., or EL Variation	4,821	1.01%
No Accom., Mod., or EL Variation	473,754	98.99%
Students Not in Special Education	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	12	0.00%
C: Dictated responses to a scribe	9	0.00%
F: Used non-interfering assistive device	4	0.00%
G: Used braille test	1	0.00%
H: Used large-print test	16	0.00%
J: Tested over more than one day	26	0.01%
K: Had supervised breaks	98	0.02%
L: Most beneficial time of day	21	0.00%
M: Administered at home or in a hospital	48	0.01%
N: Used a dictionary	15	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	9	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.00%

Accommodation Summary for English–Language Arts Grade Ten		
X: Used an unlisted accommodation	44	0.01%
Y: Leave blank	6	0.00%
Z: Examiner read test questions aloud	27	0.01%
Accom. or Mod. is in Section 504 Plan	43	0.01%
Accom. or Mod. is in IEP	179	0.04%
English Learner Test Variation A	997	0.23%
English Learner Test Variation B	142	0.03%
English Learner Test Variation C	1,514	0.34%
Any Accom., Mod., or EL Variation	2,144	0.49%
No Accom., Mod., or EL Variation	437,282	99.51%
Students in Special Education	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	94	0.24%
C: Dictated responses to a scribe	24	0.06%
F: Used non-interfering assistive device	11	0.03%
G: Used braille test	21	0.05%
H: Used large-print test	83	0.21%
J: Tested over more than one day	323	0.83%
K: Had supervised breaks	1,282	3.28%
L: Most beneficial time of day	349	0.89%
M: Administered at home or in a hospital	24	0.06%
N: Used a dictionary	135	0.35%
O: Examiner presented with MCE or ASL	19	0.05%
P: Used audio presentation (CD)	241	0.62%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	21	0.05%
X: Used an unlisted accommodation	394	1.01%
Y: Leave blank	27	0.07%
Z: Examiner read test questions aloud	361	0.92%
Accom. or Mod. is in Section 504 Plan	3	0.01%
Accom. or Mod. is in IEP	2,286	5.84%
English Learner Test Variation A	13	0.03%
English Learner Test Variation B	8	0.02%
English Learner Test Variation C	37	0.09%
Any Accom., Mod., or EL Variation	2,668	6.82%
No Accom., Mod., or EL Variation	36,454	93.18%
English-Only Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	85	0.03%
C: Dictated responses to a scribe	16	0.01%
F: Used non-interfering assistive device	6	0.00%
G: Used braille test	13	0.00%
H: Used large-print test	70	0.03%

Accommodation Summary for English–Language Arts Grade Ten		
J: Tested over more than one day	238	0.09%
K: Had supervised breaks	988	0.36%
L: Most beneficial time of day	274	0.10%
M: Administered at home or in a hospital	54	0.02%
N: Used a dictionary	103	0.04%
O: Examiner presented with MCE or ASL	9	0.00%
P: Used audio presentation (CD)	149	0.05%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	17	0.01%
X: Used an unlisted accommodation	287	0.10%
Y: Leave blank	23	0.01%
Z: Examiner read test questions aloud	219	0.08%
Accom. or Mod. is in Section 504 Plan	43	0.02%
Accom. or Mod. is in IEP	1,636	0.60%
English Learner Test Variation A	22	0.01%
English Learner Test Variation B	5	0.00%
English Learner Test Variation C	17	0.01%
Any Accom., Mod., or EL Variation	1,982	0.72%
No Accom., Mod., or EL Variation	272,104	99.28%
Initially Fluent English Proficient (I-FEP) Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	3	0.01%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	0	0.00%
H: Used large-print test	8	0.02%
J: Tested over more than one day	11	0.03%
K: Had supervised breaks	39	0.10%
L: Most beneficial time of day	15	0.04%
M: Administered at home or in a hospital	5	0.01%
N: Used a dictionary	3	0.01%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	6	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	16	0.04%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	10	0.02%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	77	0.19%

Accommodation Summary for English–Language Arts Grade Ten		
English Learner Test Variation A	11	0.03%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	7	0.02%
Any Accom., Mod., or EL Variation	100	0.25%
No Accom., Mod., or EL Variation	40,476	99.75%
English Learner (EL) Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	9	0.01%
C: Dictated responses to a scribe	13	0.02%
F: Used non-interfering assistive device	5	0.01%
G: Used braille test	3	0.00%
H: Used large-print test	12	0.02%
J: Tested over more than one day	87	0.11%
K: Had supervised breaks	304	0.40%
L: Most beneficial time of day	69	0.09%
M: Administered at home or in a hospital	9	0.01%
N: Used a dictionary	42	0.05%
O: Examiner presented with MCE or ASL	11	0.01%
P: Used audio presentation (CD)	91	0.12%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	6	0.01%
X: Used an unlisted accommodation	125	0.16%
Y: Leave blank	8	0.01%
Z: Examiner read test questions aloud	147	0.19%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	674	0.88%
English Learner Test Variation A	970	1.27%
English Learner Test Variation B	143	0.19%
English Learner Test Variation C	1,515	1.98%
Any Accom., Mod., or EL Variation	2,614	3.42%
No Accom., Mod., or EL Variation	73,903	96.58%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	9	0.01%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	6	0.01%
H: Used large-print test	9	0.01%
J: Tested over more than one day	13	0.02%
K: Had supervised breaks	47	0.05%
L: Most beneficial time of day	11	0.01%
M: Administered at home or in a hospital	4	0.00%
N: Used a dictionary	2	0.00%

Accommodation Summary for English–Language Arts Grade Ten		
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	4	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	10	0.01%
Y: Leave blank	2	0.00%
Z: Examiner read test questions aloud	14	0.02%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	81	0.09%
English Learner Test Variation A	3	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	9	0.01%
Any Accom., Mod., or EL Variation	110	0.13%
No Accom., Mod., or EL Variation	86,441	99.87%

Table 6.C.10 Accommodation Summary for English–Language Arts Grade Eleven

Accommodation Summary for English–Language Arts Grade Eleven		
All Tested	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	100	0.02%
C: Dictated responses to a scribe	29	0.01%
F: Used non-interfering assistive device	21	0.00%
G: Used braille test	37	0.01%
H: Used large-print test	95	0.02%
J: Tested over more than one day	253	0.06%
K: Had supervised breaks	1,258	0.28%
L: Most beneficial time of day	303	0.07%
M: Administered at home or in a hospital	77	0.02%
N: Used a dictionary	126	0.03%
O: Examiner presented with MCE or ASL	18	0.00%
P: Used audio presentation (CD)	324	0.07%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	25	0.01%
X: Used an unlisted accommodation	464	0.10%
Y: Leave blank	101	0.02%
Z: Examiner read test questions aloud	507	0.11%
Accom. or Mod. is in Section 504 Plan	26	0.01%
Accom. or Mod. is in IEP	2,437	0.55%
English Learner Test Variation A	700	0.16%
English Learner Test Variation B	129	0.03%
English Learner Test Variation C	1,084	0.24%
Any Accom., Mod., or EL Variation	4,299	0.96%
No Accom., Mod., or EL Variation	441,854	99.04%
Students Not in Special Education	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	5	0.00%
C: Dictated responses to a scribe	10	0.00%
F: Used non-interfering assistive device	9	0.00%
G: Used braille test	1	0.00%
H: Used large-print test	5	0.00%
J: Tested over more than one day	14	0.00%
K: Had supervised breaks	66	0.02%
L: Most beneficial time of day	23	0.01%
M: Administered at home or in a hospital	41	0.01%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	10	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%

Accommodation Summary for English–Language Arts Grade Eleven		
X: Used an unlisted accommodation	35	0.01%
Y: Leave blank	23	0.01%
Z: Examiner read test questions aloud	21	0.01%
Accom. or Mod. is in Section 504 Plan	22	0.01%
Accom. or Mod. is in IEP	116	0.03%
English Learner Test Variation A	686	0.17%
English Learner Test Variation B	120	0.03%
English Learner Test Variation C	1,065	0.26%
Any Accom., Mod., or EL Variation	1,555	0.38%
No Accom., Mod., or EL Variation	408,606	99.62%
Students in Special Education	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	95	0.26%
C: Dictated responses to a scribe	19	0.05%
F: Used non-interfering assistive device	12	0.03%
G: Used braille test	36	0.10%
H: Used large-print test	90	0.25%
J: Tested over more than one day	235	0.65%
K: Had supervised breaks	1,187	3.30%
L: Most beneficial time of day	278	0.77%
M: Administered at home or in a hospital	36	0.10%
N: Used a dictionary	120	0.33%
O: Examiner presented with MCE or ASL	18	0.05%
P: Used audio presentation (CD)	314	0.87%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	25	0.07%
X: Used an unlisted accommodation	427	1.19%
Y: Leave blank	78	0.22%
Z: Examiner read test questions aloud	485	1.35%
Accom. or Mod. is in Section 504 Plan	4	0.01%
Accom. or Mod. is in IEP	2,311	6.42%
English Learner Test Variation A	14	0.04%
English Learner Test Variation B	9	0.03%
English Learner Test Variation C	19	0.05%
Any Accom., Mod., or EL Variation	2,734	7.60%
No Accom., Mod., or EL Variation	33,237	92.40%
English-Only Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	75	0.03%
C: Dictated responses to a scribe	19	0.01%
F: Used non-interfering assistive device	12	0.00%
G: Used braille test	27	0.01%
H: Used large-print test	66	0.03%

Accommodation Summary for English–Language Arts Grade Eleven		
J: Tested over more than one day	203	0.08%
K: Had supervised breaks	928	0.35%
L: Most beneficial time of day	253	0.10%
M: Administered at home or in a hospital	65	0.02%
N: Used a dictionary	81	0.03%
O: Examiner presented with MCE or ASL	7	0.00%
P: Used audio presentation (CD)	211	0.08%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	20	0.01%
X: Used an unlisted accommodation	299	0.11%
Y: Leave blank	58	0.02%
Z: Examiner read test questions aloud	299	0.11%
Accom. or Mod. is in Section 504 Plan	21	0.01%
Accom. or Mod. is in IEP	1,664	0.64%
English Learner Test Variation A	10	0.00%
English Learner Test Variation B	5	0.00%
English Learner Test Variation C	16	0.01%
Any Accom., Mod., or EL Variation	2,023	0.77%
No Accom., Mod., or EL Variation	260,010	99.23%
Initially Fluent English Proficient (I-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	6	0.02%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	3	0.01%
G: Used braille test	0	0.00%
H: Used large-print test	3	0.01%
J: Tested over more than one day	6	0.02%
K: Had supervised breaks	38	0.10%
L: Most beneficial time of day	6	0.02%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	2	0.01%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	6	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	21	0.05%
Y: Leave blank	7	0.02%
Z: Examiner read test questions aloud	11	0.03%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	71	0.18%

Accommodation Summary for English–Language Arts Grade Eleven		
English Learner Test Variation A	4	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	8	0.02%
Any Accom., Mod., or EL Variation	99	0.25%
No Accom., Mod., or EL Variation	39,742	99.75%
English Learner (EL) Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	14	0.02%
C: Dictated responses to a scribe	9	0.01%
F: Used non-interfering assistive device	5	0.01%
G: Used braille test	7	0.01%
H: Used large-print test	15	0.02%
J: Tested over more than one day	39	0.06%
K: Had supervised breaks	251	0.39%
L: Most beneficial time of day	37	0.06%
M: Administered at home or in a hospital	7	0.01%
N: Used a dictionary	40	0.06%
O: Examiner presented with MCE or ASL	11	0.02%
P: Used audio presentation (CD)	95	0.15%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.01%
X: Used an unlisted accommodation	136	0.21%
Y: Leave blank	31	0.05%
Z: Examiner read test questions aloud	182	0.28%
Accom. or Mod. is in Section 504 Plan	2	0.00%
Accom. or Mod. is in IEP	619	0.97%
English Learner Test Variation A	677	1.06%
English Learner Test Variation B	123	0.19%
English Learner Test Variation C	1,049	1.64%
Any Accom., Mod., or EL Variation	2,054	3.21%
No Accom., Mod., or EL Variation	61,868	96.79%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	5	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	3	0.00%
H: Used large-print test	11	0.01%
J: Tested over more than one day	5	0.01%
K: Had supervised breaks	33	0.04%
L: Most beneficial time of day	6	0.01%
M: Administered at home or in a hospital	5	0.01%

Accommodation Summary for English–Language Arts Grade Eleven		
N: Used a dictionary	3	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	11	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	7	0.01%
Y: Leave blank	4	0.01%
Z: Examiner read test questions aloud	13	0.02%
Accom. or Mod. is in Section 504 Plan	2	0.00%
Accom. or Mod. is in IEP	71	0.09%
English Learner Test Variation A	9	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	10	0.01%
Any Accom., Mod., or EL Variation	107	0.13%
No Accom., Mod., or EL Variation	79,523	99.87%

Table 6.C.11 Accommodation Summary for History–Social Science Grade Eight

Accommodation Summary for History–Social Science Grade Eight		
All Tested	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	225	0.05%
C: Dictated responses to a scribe	37	0.01%
F: Used non-interfering assistive device	16	0.00%
G: Used braille test	58	0.01%
H: Used large-print test	180	0.04%
J: Tested over more than one day	506	0.11%
K: Had supervised breaks	1,987	0.41%
L: Most beneficial time of day	662	0.14%
M: Administered at home or in a hospital	86	0.02%
N: Used a dictionary	19	0.00%
O: Examiner presented with MCE or ASL	50	0.01%
P: Used audio presentation (CD)	469	0.10%
V: Used interfering assistive device	4	0.00%
W: Used an unlisted modification	80	0.02%
X: Used an unlisted accommodation	815	0.17%
Y: Leave blank	31	0.01%
Z: Examiner read test questions aloud	1,969	0.41%
Accom. or Mod. is in Section 504 Plan	97	0.02%
Accom. or Mod. is in IEP	4,572	0.95%
English Learner Test Variation A	1,260	0.26%
English Learner Test Variation B	26	0.01%
English Learner Test Variation C	969	0.20%
English Learner Test Variation D	418	0.09%
Any Accom., Mod., or EL Variation	7,201	1.50%
No Accom., Mod., or EL Variation	474,007	98.50%
Students Not in Special Education	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	32	0.01%
C: Dictated responses to a scribe	6	0.00%
F: Used non-interfering assistive device	4	0.00%
G: Used braille test	3	0.00%
H: Used large-print test	26	0.01%
J: Tested over more than one day	33	0.01%
K: Had supervised breaks	159	0.04%
L: Most beneficial time of day	42	0.01%
M: Administered at home or in a hospital	56	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	17	0.00%
V: Used interfering assistive device	0	0.00%

Accommodation Summary for History–Social Science Grade Eight		
W: Used an unlisted modification	21	0.00%
X: Used an unlisted accommodation	88	0.02%
Y: Leave blank	12	0.00%
Z: Examiner read test questions aloud	106	0.02%
Accom. or Mod. is in Section 504 Plan	89	0.02%
Accom. or Mod. is in IEP	303	0.07%
English Learner Test Variation A	1,209	0.28%
English Learner Test Variation B	15	0.00%
English Learner Test Variation C	941	0.22%
English Learner Test Variation D	410	0.09%
Any Accom., Mod., or EL Variation	2,202	0.50%
No Accom., Mod., or EL Variation	435,176	99.50%
Students in Special Education	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	193	0.44%
C: Dictated responses to a scribe	31	0.07%
F: Used non-interfering assistive device	12	0.03%
G: Used braille test	54	0.12%
H: Used large-print test	153	0.35%
J: Tested over more than one day	473	1.08%
K: Had supervised breaks	1,820	4.15%
L: Most beneficial time of day	619	1.41%
M: Administered at home or in a hospital	28	0.06%
N: Used a dictionary	19	0.04%
O: Examiner presented with MCE or ASL	49	0.11%
P: Used audio presentation (CD)	448	1.02%
V: Used interfering assistive device	4	0.01%
W: Used an unlisted modification	59	0.13%
X: Used an unlisted accommodation	725	1.66%
Y: Leave blank	19	0.04%
Z: Examiner read test questions aloud	1,862	4.25%
Accom. or Mod. is in Section 504 Plan	8	0.02%
Accom. or Mod. is in IEP	4,252	9.71%
English Learner Test Variation A	51	0.12%
English Learner Test Variation B	11	0.03%
English Learner Test Variation C	28	0.06%
English Learner Test Variation D	8	0.02%
Any Accom., Mod., or EL Variation	4,982	11.37%
No Accom., Mod., or EL Variation	38,821	88.63%

Accommodation Summary for History–Social Science Grade Eight		
English-Only Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	172	0.07%
C: Dictated responses to a scribe	31	0.01%
F: Used non-interfering assistive device	12	0.00%
G: Used braille test	34	0.01%
H: Used large-print test	114	0.04%
J: Tested over more than one day	372	0.14%
K: Had supervised breaks	1,272	0.48%
L: Most beneficial time of day	443	0.17%
M: Administered at home or in a hospital	62	0.02%
N: Used a dictionary	7	0.00%
O: Examiner presented with MCE or ASL	29	0.01%
P: Used audio presentation (CD)	285	0.11%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	43	0.02%
X: Used an unlisted accommodation	501	0.19%
Y: Leave blank	27	0.01%
Z: Examiner read test questions aloud	1,057	0.40%
Accom. or Mod. is in Section 504 Plan	85	0.03%
Accom. or Mod. is in IEP	2,792	1.06%
English Learner Test Variation A	21	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	13	0.00%
English Learner Test Variation D	12	0.00%
Any Accom., Mod., or EL Variation	3,343	1.27%
No Accom., Mod., or EL Variation	260,762	98.73%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	6	0.01%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	8	0.02%
J: Tested over more than one day	6	0.01%
K: Had supervised breaks	38	0.09%
L: Most beneficial time of day	11	0.03%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	3	0.01%
P: Used audio presentation (CD)	11	0.03%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.00%

Accommodation Summary for History–Social Science Grade Eight		
X: Used an unlisted accommodation	17	0.04%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	46	0.11%
Accom. or Mod. is in Section 504 Plan	2	0.00%
Accom. or Mod. is in IEP	99	0.25%
English Learner Test Variation A	8	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	2	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	132	0.33%
No Accom., Mod., or EL Variation	40,084	99.67%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	34	0.04%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	18	0.02%
H: Used large-print test	43	0.05%
J: Tested over more than one day	121	0.13%
K: Had supervised breaks	620	0.69%
L: Most beneficial time of day	191	0.21%
M: Administered at home or in a hospital	14	0.02%
N: Used a dictionary	12	0.01%
O: Examiner presented with MCE or ASL	17	0.02%
P: Used audio presentation (CD)	157	0.17%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	31	0.03%
X: Used an unlisted accommodation	274	0.31%
Y: Leave blank	3	0.00%
Z: Examiner read test questions aloud	819	0.91%
Accom. or Mod. is in Section 504 Plan	5	0.01%
Accom. or Mod. is in IEP	1,548	1.72%
English Learner Test Variation A	1,219	1.36%
English Learner Test Variation B	21	0.02%
English Learner Test Variation C	942	1.05%
English Learner Test Variation D	402	0.45%
Any Accom., Mod., or EL Variation	3,540	3.94%
No Accom., Mod., or EL Variation	86,230	96.06%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	11	0.01%
C: Dictated responses to a scribe	2	0.00%
F: Used non-interfering assistive device	2	0.00%

Accommodation Summary for History–Social Science Grade Eight		
G: Used braille test	4	0.00%
H: Used large-print test	15	0.02%
J: Tested over more than one day	6	0.01%
K: Had supervised breaks	50	0.06%
L: Most beneficial time of day	15	0.02%
M: Administered at home or in a hospital	4	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	15	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.00%
X: Used an unlisted accommodation	18	0.02%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	42	0.05%
Accom. or Mod. is in Section 504 Plan	5	0.01%
Accom. or Mod. is in IEP	117	0.14%
English Learner Test Variation A	10	0.01%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	11	0.01%
English Learner Test Variation D	2	0.00%
Any Accom., Mod., or EL Variation	167	0.19%
No Accom., Mod., or EL Variation	86,202	99.81%

Table 6.C.12 Accommodation Summary for World History

Accommodation Summary for World History					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	10	75	3	88	0.02%
C: Dictated responses to a scribe	1	29	2	32	0.01%
F: Used non-interfering assistive device	0	7	1	8	0.00%
G: Used braille test	5	15	2	22	0.00%
H: Used large-print test	9	77	7	93	0.02%
J: Tested over more than one day	57	174	21	252	0.05%
K: Had supervised breaks	134	911	128	1,173	0.24%
L: Most beneficial time of day	73	226	55	354	0.07%
M: Administered at home or in a hospital	9	51	9	69	0.01%
N: Used a dictionary	5	40	8	53	0.01%
O: Examiner presented with MCE or ASL	0	15	1	16	0.00%
P: Used audio presentation (CD)	16	172	2	190	0.04%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	5	10	1	16	0.00%
X: Used an unlisted accommodation	25	343	25	393	0.08%
Y: Leave blank	3	31	5	39	0.01%
Z: Examiner read test questions aloud	49	454	33	536	0.11%
Accom. or Mod. is in Section 504 Plan	2	34	1	37	0.01%
Accom. or Mod. is in IEP	193	1,785	190	2,168	0.44%
English Learner Test Variation A	24	644	43	711	0.14%
English Learner Test Variation B	4	117	3	124	0.02%
English Learner Test Variation C	90	1,058	107	1,255	0.25%
English Learner Test Variation D	78	886	90	1,054	0.21%
Any Accom., Mod., or EL Variation	401	3,669	373	4,443	0.90%
No Accom., Mod., or EL Variation	39,949	425,705	26,002	491,656	99.10%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	10	0	10	0.00%
C: Dictated responses to a scribe	0	10	1	11	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used braille test	0	1	0	1	0.00%
H: Used large-print test	0	14	0	14	0.00%
J: Tested over more than one day	2	14	0	16	0.00%
K: Had supervised breaks	9	73	6	88	0.02%
L: Most beneficial time of day	4	16	1	21	0.00%
M: Administered at home or in a hospital	2	36	7	45	0.01%
N: Used a dictionary	0	11	1	12	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	2	8	0	10	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%

Accommodation Summary for World History					
W: Used an unlisted modification	0	4	0	4	0.00%
X: Used an unlisted accommodation	2	37	1	40	0.01%
Y: Leave blank	0	6	0	6	0.00%
Z: Examiner read test questions aloud	1	22	1	24	0.01%
Accom. or Mod. is in Section 504 Plan	2	32	1	35	0.01%
Accom. or Mod. is in IEP	8	135	7	150	0.03%
English Learner Test Variation A	24	639	43	706	0.15%
English Learner Test Variation B	4	115	3	122	0.03%
English Learner Test Variation C	89	1,034	106	1,229	0.27%
English Learner Test Variation D	72	867	88	1,027	0.23%
Any Accom., Mod., or EL Variation	163	1,765	176	2,104	0.46%
No Accom., Mod., or EL Variation	36,352	394,281	23,056	453,689	99.54%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	10	65	3	78	0.19%
C: Dictated responses to a scribe	1	19	1	21	0.05%
F: Used non-interfering assistive device	0	7	1	8	0.02%
G: Used braille test	5	14	2	21	0.05%
H: Used large-print test	9	63	7	79	0.20%
J: Tested over more than one day	55	160	21	236	0.59%
K: Had supervised breaks	125	835	122	1,082	2.69%
L: Most beneficial time of day	69	210	53	332	0.82%
M: Administered at home or in a hospital	7	15	2	24	0.06%
N: Used a dictionary	5	29	7	41	0.10%
O: Examiner presented with MCE or ASL	0	15	1	16	0.04%
P: Used audio presentation (CD)	14	164	2	180	0.45%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	5	6	1	12	0.03%
X: Used an unlisted accommodation	22	306	24	352	0.87%
Y: Leave blank	3	25	5	33	0.08%
Z: Examiner read test questions aloud	48	425	32	505	1.25%
Accom. or Mod. is in Section 504 Plan	0	2	0	2	0.00%
Accom. or Mod. is in IEP	184	1,640	182	2,006	4.98%
English Learner Test Variation A	0	5	0	5	0.01%
English Learner Test Variation B	0	2	0	2	0.00%
English Learner Test Variation C	1	24	1	26	0.06%
English Learner Test Variation D	6	19	2	27	0.07%
Any Accom., Mod., or EL Variation	237	1,894	196	2,327	5.78%
No Accom., Mod., or EL Variation	3,596	31,413	2,944	37,953	94.22%

Accommodation Summary for World History					
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	9	60	2	71	0.03%
C: Dictated responses to a scribe	1	15	0	16	0.01%
F: Used non-interfering assistive device	0	3	1	4	0.00%
G: Used braille test	2	8	2	12	0.00%
H: Used large-print test	7	57	4	68	0.02%
J: Tested over more than one day	50	114	20	184	0.06%
K: Had supervised breaks	107	639	103	849	0.30%
L: Most beneficial time of day	57	159	49	265	0.09%
M: Administered at home or in a hospital	9	36	9	54	0.02%
N: Used a dictionary	5	26	6	37	0.01%
O: Examiner presented with MCE or ASL	0	6	1	7	0.00%
P: Used audio presentation (CD)	11	89	2	102	0.04%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	4	8	1	13	0.00%
X: Used an unlisted accommodation	17	234	20	271	0.10%
Y: Leave blank	3	20	5	28	0.01%
Z: Examiner read test questions aloud	27	256	18	301	0.11%
Accom. or Mod. is in Section 504 Plan	2	31	1	34	0.01%
Accom. or Mod. is in IEP	140	1,154	147	1,441	0.51%
English Learner Test Variation A	0	6	1	7	0.00%
English Learner Test Variation B	0	2	0	2	0.00%
English Learner Test Variation C	3	9	2	14	0.00%
English Learner Test Variation D	1	6	2	9	0.00%
Any Accom., Mod., or EL Variation	188	1,373	166	1,727	0.61%
No Accom., Mod., or EL Variation	21,798	244,624	15,092	281,514	99.39%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	2	0	2	0.00%
C: Dictated responses to a scribe	0	1	0	1	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used braille test	1	0	0	1	0.00%
H: Used large-print test	0	7	1	8	0.02%
J: Tested over more than one day	3	8	1	12	0.03%
K: Had supervised breaks	3	27	3	33	0.08%
L: Most beneficial time of day	3	10	0	13	0.03%
M: Administered at home or in a hospital	0	5	0	5	0.01%
N: Used a dictionary	0	0	1	1	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	4	0	4	0.01%
V: Used interfering assistive device	0	0	0	0	0.00%

Accommodation Summary for World History					
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	2	13	1	16	0.04%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	9	2	11	0.03%
Accom. or Mod. is in Section 504 Plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	5	56	7	68	0.16%
English Learner Test Variation A	1	6	0	7	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	5	1	6	0.01%
English Learner Test Variation D	1	1	0	2	0.00%
Any Accom., Mod., or EL Variation	7	72	8	87	0.21%
No Accom., Mod., or EL Variation	3,864	36,619	1,719	42,202	99.79%
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	6	1	7	0.01%
C: Dictated responses to a scribe	0	10	2	12	0.02%
F: Used non-interfering assistive device	0	2	0	2	0.00%
G: Used braille test	1	2	0	3	0.00%
H: Used large-print test	0	8	2	10	0.01%
J: Tested over more than one day	3	43	0	46	0.06%
K: Had supervised breaks	19	206	21	246	0.31%
L: Most beneficial time of day	9	48	5	62	0.08%
M: Administered at home or in a hospital	0	6	0	6	0.01%
N: Used a dictionary	0	14	1	15	0.02%
O: Examiner presented with MCE or ASL	0	9	0	9	0.01%
P: Used audio presentation (CD)	4	74	0	78	0.10%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	2	0	2	0.00%
X: Used an unlisted accommodation	6	87	4	97	0.12%
Y: Leave blank	0	9	0	9	0.01%
Z: Examiner read test questions aloud	21	171	13	205	0.26%
Accom. or Mod. is in Section 504 Plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	42	503	34	579	0.73%
English Learner Test Variation A	23	629	42	694	0.87%
English Learner Test Variation B	3	114	3	120	0.15%
English Learner Test Variation C	86	1,034	102	1,222	1.54%
English Learner Test Variation D	75	873	86	1,034	1.30%
Any Accom., Mod., or EL Variation	192	2,129	194	2,515	3.16%
No Accom., Mod., or EL Variation	7,180	64,067	5,818	77,065	96.84%

Accommodation Summary for World History					
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	1	7	0	8	0.01%
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 test	1	5	0	6	0.01%
H: Used large-print test	2	5	0	7	0.01%
J: Tested over more than one day	0	9	0	9	0.01%
K: Had supervised breaks	1	35	0	36	0.04%
L: Most beneficial time of day	0	8	0	8	0.01%
M: Administered at home or in a hospital	0	4	0	4	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	1	5	0	6	0.01%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	0	0	1	0.00%
X: Used an unlisted accommodation	0	9	0	9	0.01%
Y: Leave blank	0	2	0	2	0.00%
Z: Examiner read test questions aloud	1	15	0	16	0.02%
Accom. or Mod. is in Section 504 Plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	5	67	0	72	0.08%
English Learner Test Variation A	0	2	0	2	0.00%
English Learner Test Variation B	1	1	0	2	0.00%
English Learner Test Variation C	1	7	2	10	0.01%
English Learner Test Variation D	1	6	2	9	0.01%
Any Accom., Mod., or EL Variation	9	85	3	97	0.11%
No Accom., Mod., or EL Variation	6,959	79,737	3,301	89,997	99.89%

Table 6.C.13 Accommodation Summary for History–Social Science Grade Eleven

Accommodation Summary for History–Social Science Grade Eleven		
All Tested	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	80	0.02%
C: Dictated responses to a scribe	23	0.01%
F: Used non-interfering assistive device	9	0.00%
G: Used braille test	34	0.01%
H: Used large-print test	89	0.02%
J: Tested over more than one day	159	0.04%
K: Had supervised breaks	931	0.21%
L: Most beneficial time of day	230	0.05%
M: Administered at home or in a hospital	65	0.01%
N: Used a dictionary	49	0.01%
O: Examiner presented with MCE or ASL	18	0.00%
P: Used audio presentation (CD)	220	0.05%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	14	0.00%
X: Used an unlisted accommodation	408	0.09%
Y: Leave blank	77	0.02%
Z: Examiner read test questions aloud	510	0.12%
Accom. or Mod. is in Section 504 Plan	23	0.01%
Accom. or Mod. is in IEP	1,943	0.45%
English Learner Test Variation A	560	0.13%
English Learner Test Variation B	106	0.02%
English Learner Test Variation C	928	0.21%
English Learner Test Variation D	685	0.16%
Any Accom., Mod., or EL Variation	3,596	0.83%
No Accom., Mod., or EL Variation	430,864	99.17%
Students Not in Special Education	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	3	0.00%
C: Dictated responses to a scribe	9	0.00%
F: Used non-interfering assistive device	3	0.00%
G: Used braille test	1	0.00%
H: Used large-print test	5	0.00%
J: Tested over more than one day	12	0.00%
K: Had supervised breaks	50	0.01%
L: Most beneficial time of day	18	0.00%
M: Administered at home or in a hospital	40	0.01%
N: Used a dictionary	5	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	9	0.00%
V: Used interfering assistive device	1	0.00%

Accommodation Summary for History–Social Science Grade Eleven		
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	30	0.01%
Y: Leave blank	3	0.00%
Z: Examiner read test questions aloud	17	0.00%
Accom. or Mod. is in Section 504 Plan	19	0.00%
Accom. or Mod. is in IEP	93	0.02%
English Learner Test Variation A	548	0.14%
English Learner Test Variation B	97	0.02%
English Learner Test Variation C	911	0.23%
English Learner Test Variation D	665	0.17%
Any Accom., Mod., or EL Variation	1,435	0.36%
No Accom., Mod., or EL Variation	398,967	99.64%
Students in Special Education	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	77	0.23%
C: Dictated responses to a scribe	14	0.04%
F: Used non-interfering assistive device	6	0.02%
G: Used braille test	33	0.10%
H: Used large-print test	84	0.25%
J: Tested over more than one day	145	0.43%
K: Had supervised breaks	877	2.58%
L: Most beneficial time of day	212	0.62%
M: Administered at home or in a hospital	25	0.07%
N: Used a dictionary	44	0.13%
O: Examiner presented with MCE or ASL	18	0.05%
P: Used audio presentation (CD)	211	0.62%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	14	0.04%
X: Used an unlisted accommodation	376	1.10%
Y: Leave blank	74	0.22%
Z: Examiner read test questions aloud	492	1.45%
Accom. or Mod. is in Section 504 Plan	4	0.01%
Accom. or Mod. is in IEP	1,844	5.42%
English Learner Test Variation A	12	0.04%
English Learner Test Variation B	9	0.03%
English Learner Test Variation C	17	0.05%
English Learner Test Variation D	20	0.06%
Any Accom., Mod., or EL Variation	2,155	6.33%
No Accom., Mod., or EL Variation	31,883	93.67%

Accommodation Summary for History–Social Science Grade Eleven		
English-Only Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	60	0.02%
C: Dictated responses to a scribe	14	0.01%
F: Used non-interfering assistive device	6	0.00%
G: Used braille test	25	0.01%
H: Used large-print test	60	0.02%
J: Tested over more than one day	138	0.05%
K: Had supervised breaks	674	0.26%
L: Most beneficial time of day	190	0.07%
M: Administered at home or in a hospital	56	0.02%
N: Used a dictionary	26	0.01%
O: Examiner presented with MCE or ASL	9	0.00%
P: Used audio presentation (CD)	141	0.06%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	12	0.00%
X: Used an unlisted accommodation	260	0.10%
Y: Leave blank	43	0.02%
Z: Examiner read test questions aloud	308	0.12%
Accom. or Mod. is in Section 504 Plan	19	0.01%
Accom. or Mod. is in IEP	1,295	0.51%
English Learner Test Variation A	8	0.00%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	10	0.00%
English Learner Test Variation D	6	0.00%
Any Accom., Mod., or EL Variation	1,553	0.61%
No Accom., Mod., or EL Variation	253,612	99.39%
Initially Fluent English Proficient (I-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	4	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	1	0.00%
G: Used braille test	0	0.00%
H: Used large-print test	4	0.01%
J: Tested over more than one day	5	0.01%
K: Had supervised breaks	28	0.07%
L: Most beneficial time of day	5	0.01%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	2	0.01%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	6	0.02%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%

Accommodation Summary for History–Social Science Grade Eleven		
X: Used an unlisted accommodation	19	0.05%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	11	0.03%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	62	0.16%
English Learner Test Variation A	2	0.01%
English Learner Test Variation B	2	0.01%
English Learner Test Variation C	4	0.01%
English Learner Test Variation D	2	0.01%
Any Accom., Mod., or EL Variation	77	0.20%
No Accom., Mod., or EL Variation	39,053	99.80%
English Learner (EL) Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	12	0.02%
C: Dictated responses to a scribe	7	0.01%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	7	0.01%
H: Used large-print test	14	0.02%
J: Tested over more than one day	14	0.02%
K: Had supervised breaks	195	0.32%
L: Most beneficial time of day	30	0.05%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	19	0.03%
O: Examiner presented with MCE or ASL	9	0.01%
P: Used audio presentation (CD)	63	0.10%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	120	0.20%
Y: Leave blank	32	0.05%
Z: Examiner read test questions aloud	174	0.28%
Accom. or Mod. is in Section 504 Plan	2	0.00%
Accom. or Mod. is in IEP	517	0.85%
English Learner Test Variation A	543	0.89%
English Learner Test Variation B	101	0.17%
English Learner Test Variation C	906	1.48%
English Learner Test Variation D	670	1.10%
Any Accom., Mod., or EL Variation	1,865	3.05%
No Accom., Mod., or EL Variation	59,197	96.95%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 11**	**Pct. of Total**
B: Marked in test booklet	4	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	0	0.00%

Accommodation Summary for History–Social Science Grade Eleven		
G: Used braille test	2	0.00%
H: Used large-print test	11	0.01%
J: Tested over more than one day	2	0.00%
K: Had supervised breaks	28	0.04%
L: Most beneficial time of day	5	0.01%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	9	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	8	0.01%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	15	0.02%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	61	0.08%
English Learner Test Variation A	6	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	7	0.01%
English Learner Test Variation D	7	0.01%
Any Accom., Mod., or EL Variation	89	0.11%
No Accom., Mod., or EL Variation	78,376	99.89%

Table 6.C.14 Accommodation Summary for Mathematics Grade Two

Accommodation Summary for Mathematics Grade Two		
All Tested	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	179	0.04%
C: Dictated responses to a scribe	104	0.02%
F: Used non-interfering assistive device	68	0.01%
G: Used braille test	51	0.01%
H: Used large-print test	186	0.04%
J: Tested over more than one day	901	0.19%
K: Had supervised breaks	2,777	0.60%
L: Most beneficial time of day	1,233	0.27%
M: Administered at home or in a hospital	54	0.01%
N: Used a dictionary	9	0.00%
O: Examiner presented with MCE or ASL	104	0.02%
P: Used audio presentation (CD)	101	0.02%
Q: Used a calculator	24	0.01%
R: Used an arithmetic table	23	0.00%
S: Used math manipulatives	87	0.02%
V: Used interfering assistive device	8	0.00%
W: Used an unlisted modification	50	0.01%
X: Used an unlisted accommodation	735	0.16%
Y: Leave blank	38	0.01%
Z: Examiner read test questions aloud	2,359	0.51%
Accom. or Mod. is in Section 504 Plan	108	0.02%
Accom. or Mod. is in IEP	4,955	1.07%
English Learner Test Variation A	1,377	0.30%
English Learner Test Variation B	137	0.03%
English Learner Test Variation C	298	0.06%
English Learner Test Variation D	173	0.04%
Any Accom., Mod., or EL Variation	7,475	1.61%
No Accom., Mod., or EL Variation	455,567	98.39%
Students Not in Special Education	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	37	0.01%
C: Dictated responses to a scribe	20	0.00%
F: Used non-interfering assistive device	8	0.00%
G: Used braille test	14	0.00%
H: Used large-print test	36	0.01%
J: Tested over more than one day	145	0.03%
K: Had supervised breaks	483	0.11%
L: Most beneficial time of day	194	0.05%
M: Administered at home or in a hospital	33	0.01%
N: Used a dictionary	4	0.00%

Accommodation Summary for Mathematics Grade Two		
O: Examiner presented with MCE or ASL	8	0.00%
P: Used audio presentation (CD)	9	0.00%
Q: Used a calculator	6	0.00%
R: Used an arithmetic table	8	0.00%
S: Used math manipulatives	17	0.00%
V: Used interfering assistive device	8	0.00%
W: Used an unlisted modification	17	0.00%
X: Used an unlisted accommodation	171	0.04%
Y: Leave blank	18	0.00%
Z: Examiner read test questions aloud	411	0.10%
Accom. or Mod. is in Section 504 Plan	97	0.02%
Accom. or Mod. is in IEP	776	0.18%
English Learner Test Variation A	1,293	0.30%
English Learner Test Variation B	94	0.02%
English Learner Test Variation C	253	0.06%
English Learner Test Variation D	165	0.04%
Any Accom., Mod., or EL Variation	2,611	0.61%
No Accom., Mod., or EL Variation	423,345	99.39%
Students in Special Education	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	139	0.38%
C: Dictated responses to a scribe	84	0.23%
F: Used non-interfering assistive device	60	0.16%
G: Used braille test	36	0.10%
H: Used large-print test	149	0.40%
J: Tested over more than one day	748	2.02%
K: Had supervised breaks	2,279	6.15%
L: Most beneficial time of day	1,032	2.79%
M: Administered at home or in a hospital	21	0.06%
N: Used a dictionary	5	0.01%
O: Examiner presented with MCE or ASL	96	0.26%
P: Used audio presentation (CD)	91	0.25%
Q: Used a calculator	18	0.05%
R: Used an arithmetic table	15	0.04%
S: Used math manipulatives	69	0.19%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	33	0.09%
X: Used an unlisted accommodation	562	1.52%
Y: Leave blank	20	0.05%
Z: Examiner read test questions aloud	1,936	5.23%
Accom. or Mod. is in Section 504 Plan	11	0.03%
Accom. or Mod. is in IEP	4,149	11.20%

Accommodation Summary for Mathematics Grade Two		
English Learner Test Variation A	84	0.23%
English Learner Test Variation B	43	0.12%
English Learner Test Variation C	45	0.12%
English Learner Test Variation D	8	0.02%
Any Accom., Mod., or EL Variation	4,834	13.05%
No Accom., Mod., or EL Variation	32,216	86.95%
English-Only Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	122	0.05%
C: Dictated responses to a scribe	67	0.03%
F: Used non-interfering assistive device	42	0.02%
G: Used braille test	31	0.01%
H: Used large-print test	123	0.05%
J: Tested over more than one day	595	0.24%
K: Had supervised breaks	1,746	0.69%
L: Most beneficial time of day	792	0.31%
M: Administered at home or in a hospital	37	0.01%
N: Used a dictionary	7	0.00%
O: Examiner presented with MCE or ASL	60	0.02%
P: Used audio presentation (CD)	61	0.02%
Q: Used a calculator	20	0.01%
R: Used an arithmetic table	19	0.01%
S: Used math manipulatives	59	0.02%
V: Used interfering assistive device	6	0.00%
W: Used an unlisted modification	34	0.01%
X: Used an unlisted accommodation	491	0.19%
Y: Leave blank	30	0.01%
Z: Examiner read test questions aloud	1,371	0.54%
Accom. or Mod. is in Section 504 Plan	81	0.03%
Accom. or Mod. is in IEP	3,086	1.22%
English Learner Test Variation A	34	0.01%
English Learner Test Variation B	12	0.00%
English Learner Test Variation C	11	0.00%
English Learner Test Variation D	7	0.00%
Any Accom., Mod., or EL Variation	3,682	1.46%
No Accom., Mod., or EL Variation	248,461	98.54%
Initially Fluent English Proficient (I-FEP) Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	4	0.01%
C: Dictated responses to a scribe	4	0.01%
F: Used non-interfering assistive device	3	0.01%
G: Used braille test	4	0.01%
H: Used large-print test	8	0.03%

Accommodation Summary for Mathematics Grade Two		
J: Tested over more than one day	17	0.06%
K: Had supervised breaks	55	0.18%
L: Most beneficial time of day	18	0.06%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	1	0.00%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	14	0.05%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	42	0.14%
Accom. or Mod. is in Section 504 Plan	2	0.01%
Accom. or Mod. is in IEP	93	0.30%
English Learner Test Variation A	14	0.05%
English Learner Test Variation B	2	0.01%
English Learner Test Variation C	5	0.02%
English Learner Test Variation D	5	0.02%
Any Accom., Mod., or EL Variation	132	0.43%
No Accom., Mod., or EL Variation	30,674	99.57%
English Learner (EL) Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	48	0.03%
C: Dictated responses to a scribe	32	0.02%
F: Used non-interfering assistive device	23	0.01%
G: Used braille test	16	0.01%
H: Used large-print test	46	0.03%
J: Tested over more than one day	280	0.16%
K: Had supervised breaks	955	0.55%
L: Most beneficial time of day	412	0.24%
M: Administered at home or in a hospital	14	0.01%
N: Used a dictionary	1	0.00%
O: Examiner presented with MCE or ASL	42	0.02%
P: Used audio presentation (CD)	38	0.02%
Q: Used a calculator	3	0.00%
R: Used an arithmetic table	3	0.00%
S: Used math manipulatives	24	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	13	0.01%

Accommodation Summary for Mathematics Grade Two		
X: Used an unlisted accommodation	223	0.13%
Y: Leave blank	7	0.00%
Z: Examiner read test questions aloud	929	0.54%
Accom. or Mod. is in Section 504 Plan	24	0.01%
Accom. or Mod. is in IEP	1,741	1.00%
English Learner Test Variation A	1,328	0.77%
English Learner Test Variation B	123	0.07%
English Learner Test Variation C	282	0.16%
English Learner Test Variation D	161	0.09%
Any Accom., Mod., or EL Variation	3,618	2.08%
No Accom., Mod., or EL Variation	169,973	97.92%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 2**	**Pct. of Total**
B: Marked in test booklet	1	0.02%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	0	0.00%
H: Used large-print test	1	0.02%
J: Tested over more than one day	2	0.03%
K: Had supervised breaks	8	0.14%
L: Most beneficial time of day	2	0.03%
M: Administered at home or in a hospital	1	0.02%
N: Used a dictionary	1	0.02%
O: Examiner presented with MCE or ASL	1	0.02%
P: Used audio presentation (CD)	1	0.02%
Q: Used a calculator	1	0.02%
R: Used an arithmetic table	1	0.02%
S: Used math manipulatives	1	0.02%
V: Used interfering assistive device	1	0.02%
W: Used an unlisted modification	1	0.02%
X: Used an unlisted accommodation	2	0.03%
Y: Leave blank	1	0.02%
Z: Examiner read test questions aloud	7	0.12%
Accom. or Mod. is in Section 504 Plan	0	0.00%
Accom. or Mod. is in IEP	11	0.19%
English Learner Test Variation A	1	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	14	0.24%
No Accom., Mod., or EL Variation	5,758	99.76%

Table 6.C.15 Accommodation Summary for Mathematics Grade Three

Accommodation Summary for Mathematics Grade Three		
All Tested	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	164	0.04%
C: Dictated responses to a scribe	43	0.01%
F: Used non-interfering assistive device	66	0.01%
G: Used braille test	27	0.01%
H: Used large-print test	194	0.04%
J: Tested over more than one day	668	0.15%
K: Had supervised breaks	2,532	0.57%
L: Most beneficial time of day	968	0.22%
M: Administered at home or in a hospital	38	0.01%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	51	0.01%
P: Used audio presentation (CD)	176	0.04%
Q: Used a calculator	22	0.00%
R: Used an arithmetic table	40	0.01%
S: Used math manipulatives	38	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	51	0.01%
X: Used an unlisted accommodation	795	0.18%
Y: Leave blank	29	0.01%
Z: Examiner read test questions aloud	3,854	0.86%
Accom. or Mod. is in Section 504 Plan	164	0.04%
Accom. or Mod. is in IEP	5,239	1.17%
English Learner Test Variation A	932	0.21%
English Learner Test Variation B	80	0.02%
English Learner Test Variation C	281	0.06%
English Learner Test Variation D	242	0.05%
Any Accom., Mod., or EL Variation	8,043	1.80%
No Accom., Mod., or EL Variation	439,735	98.20%
Students Not in Special Education	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	37	0.01%
C: Dictated responses to a scribe	13	0.00%
F: Used non-interfering assistive device	6	0.00%
G: Used braille test	6	0.00%
H: Used large-print test	48	0.01%
J: Tested over more than one day	107	0.03%
K: Had supervised breaks	439	0.11%
L: Most beneficial time of day	144	0.03%
M: Administered at home or in a hospital	19	0.00%
N: Used a dictionary	1	0.00%

Accommodation Summary for Mathematics Grade Three		
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	28	0.01%
Q: Used a calculator	4	0.00%
R: Used an arithmetic table	8	0.00%
S: Used math manipulatives	6	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	13	0.00%
X: Used an unlisted accommodation	171	0.04%
Y: Leave blank	9	0.00%
Z: Examiner read test questions aloud	642	0.16%
Accom. or Mod. is in Section 504 Plan	144	0.03%
Accom. or Mod. is in IEP	793	0.19%
English Learner Test Variation A	892	0.22%
English Learner Test Variation B	47	0.01%
English Learner Test Variation C	238	0.06%
English Learner Test Variation D	229	0.06%
Any Accom., Mod., or EL Variation	2,384	0.58%
No Accom., Mod., or EL Variation	410,840	99.42%
Students in Special Education	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	120	0.35%
C: Dictated responses to a scribe	30	0.09%
F: Used non-interfering assistive device	59	0.17%
G: Used braille test	20	0.06%
H: Used large-print test	142	0.41%
J: Tested over more than one day	554	1.61%
K: Had supervised breaks	2,073	6.01%
L: Most beneficial time of day	816	2.37%
M: Administered at home or in a hospital	19	0.06%
N: Used a dictionary	5	0.01%
O: Examiner presented with MCE or ASL	49	0.14%
P: Used audio presentation (CD)	146	0.42%
Q: Used a calculator	18	0.05%
R: Used an arithmetic table	32	0.09%
S: Used math manipulatives	32	0.09%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	37	0.11%
X: Used an unlisted accommodation	618	1.79%
Y: Leave blank	20	0.06%
Z: Examiner read test questions aloud	3,188	9.24%
Accom. or Mod. is in Section 504 Plan	20	0.06%
Accom. or Mod. is in IEP	4,398	12.75%

Accommodation Summary for Mathematics Grade Three		
English Learner Test Variation A	40	0.12%
English Learner Test Variation B	33	0.10%
English Learner Test Variation C	43	0.12%
English Learner Test Variation D	13	0.04%
Any Accom., Mod., or EL Variation	5,611	16.27%
No Accom., Mod., or EL Variation	28,877	83.73%
English-Only Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	101	0.04%
C: Dictated responses to a scribe	35	0.01%
F: Used non-interfering assistive device	37	0.02%
G: Used braille test	14	0.01%
H: Used large-print test	122	0.05%
J: Tested over more than one day	427	0.17%
K: Had supervised breaks	1,529	0.62%
L: Most beneficial time of day	611	0.25%
M: Administered at home or in a hospital	27	0.01%
N: Used a dictionary	4	0.00%
O: Examiner presented with MCE or ASL	18	0.01%
P: Used audio presentation (CD)	98	0.04%
Q: Used a calculator	13	0.01%
R: Used an arithmetic table	22	0.01%
S: Used math manipulatives	24	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	39	0.02%
X: Used an unlisted accommodation	504	0.21%
Y: Leave blank	18	0.01%
Z: Examiner read test questions aloud	2,212	0.90%
Accom. or Mod. is in Section 504 Plan	130	0.05%
Accom. or Mod. is in IEP	3,088	1.26%
English Learner Test Variation A	37	0.02%
English Learner Test Variation B	10	0.00%
English Learner Test Variation C	16	0.01%
English Learner Test Variation D	6	0.00%
Any Accom., Mod., or EL Variation	4,151	1.69%
No Accom., Mod., or EL Variation	241,504	98.31%
Initially Fluent English Proficient (I-FEP) Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	9	0.03%
C: Dictated responses to a scribe	3	0.01%
F: Used non-interfering assistive device	3	0.01%
G: Used braille test	1	0.00%
H: Used large-print test	14	0.04%

Accommodation Summary for Mathematics Grade Three		
J: Tested over more than one day	15	0.04%
K: Had supervised breaks	49	0.15%
L: Most beneficial time of day	19	0.06%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	5	0.01%
Q: Used a calculator	1	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	12	0.04%
Y: Leave blank	2	0.01%
Z: Examiner read test questions aloud	91	0.27%
Accom. or Mod. is in Section 504 Plan	3	0.01%
Accom. or Mod. is in IEP	130	0.39%
English Learner Test Variation A	11	0.03%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	1	0.00%
English Learner Test Variation D	5	0.01%
Any Accom., Mod., or EL Variation	181	0.54%
No Accom., Mod., or EL Variation	33,558	99.46%
English Learner (EL) Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	44	0.03%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	25	0.02%
G: Used braille test	9	0.01%
H: Used large-print test	48	0.03%
J: Tested over more than one day	217	0.15%
K: Had supervised breaks	921	0.62%
L: Most beneficial time of day	327	0.22%
M: Administered at home or in a hospital	10	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented with MCE or ASL	32	0.02%
P: Used audio presentation (CD)	67	0.04%
Q: Used a calculator	8	0.01%
R: Used an arithmetic table	16	0.01%
S: Used math manipulatives	13	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	10	0.01%

Accommodation Summary for Mathematics Grade Three		
X: Used an unlisted accommodation	266	0.18%
Y: Leave blank	8	0.01%
Z: Examiner read test questions aloud	1,502	1.01%
Accom. or Mod. is in Section 504 Plan	27	0.02%
Accom. or Mod. is in IEP	1,951	1.31%
English Learner Test Variation A	879	0.59%
English Learner Test Variation B	69	0.05%
English Learner Test Variation C	263	0.18%
English Learner Test Variation D	229	0.15%
Any Accom., Mod., or EL Variation	3,612	2.42%
No Accom., Mod., or EL Variation	145,432	97.58%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 3**	**Pct. of Total**
B: Marked in test booklet	1	0.01%
C: Dictated responses to a scribe	1	0.01%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	1	0.01%
H: Used large-print test	3	0.02%
J: Tested over more than one day	1	0.01%
K: Had supervised breaks	13	0.07%
L: Most beneficial time of day	6	0.03%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	3	0.02%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	1	0.01%
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	5	0.03%
Y: Leave blank	1	0.01%
Z: Examiner read test questions aloud	15	0.08%
Accom. or Mod. is in Section 504 Plan	2	0.01%
Accom. or Mod. is in IEP	27	0.15%
English Learner Test Variation A	3	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	2	0.01%
Any Accom., Mod., or EL Variation	40	0.22%
No Accom., Mod., or EL Variation	18,270	99.78%

Table 6.C.16 Accommodation Summary for Mathematics Grade Four

Accommodation Summary for Mathematics Grade Four		
All Tested	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	535	0.12%
C: Dictated responses to a scribe	35	0.01%
F: Used non-interfering assistive device	53	0.01%
G: Used braille test	24	0.01%
H: Used large-print test	192	0.04%
J: Tested over more than one day	991	0.22%
K: Had supervised breaks	3,202	0.71%
L: Most beneficial time of day	1,252	0.28%
M: Administered at home or in a hospital	40	0.01%
N: Used a dictionary	16	0.00%
O: Examiner presented with MCE or ASL	43	0.01%
P: Used audio presentation (CD)	287	0.06%
Q: Used a calculator	53	0.01%
R: Used an arithmetic table	91	0.02%
S: Used math manipulatives	25	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	67	0.01%
X: Used an unlisted accommodation	935	0.21%
Y: Leave blank	40	0.01%
Z: Examiner read test questions aloud	4,013	0.90%
Accom. or Mod. is in Section 504 Plan	261	0.06%
Accom. or Mod. is in IEP	6,861	1.53%
English Learner Test Variation A	1,055	0.24%
English Learner Test Variation B	74	0.02%
English Learner Test Variation C	285	0.06%
English Learner Test Variation D	176	0.04%
Any Accom., Mod., or EL Variation	9,189	2.05%
No Accom., Mod., or EL Variation	438,669	97.95%
Students Not in Special Education	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	91	0.02%
C: Dictated responses to a scribe	6	0.00%
F: Used non-interfering assistive device	8	0.00%
G: Used braille test	1	0.00%
H: Used large-print test	43	0.01%
J: Tested over more than one day	136	0.03%
K: Had supervised breaks	493	0.12%
L: Most beneficial time of day	183	0.04%
M: Administered at home or in a hospital	24	0.01%
N: Used a dictionary	1	0.00%

Accommodation Summary for Mathematics Grade Four		
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	27	0.01%
Q: Used a calculator	6	0.00%
R: Used an arithmetic table	17	0.00%
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	9	0.00%
X: Used an unlisted accommodation	167	0.04%
Y: Leave blank	7	0.00%
Z: Examiner read test questions aloud	512	0.12%
Accom. or Mod. is in Section 504 Plan	245	0.06%
Accom. or Mod. is in IEP	811	0.20%
English Learner Test Variation A	1,020	0.25%
English Learner Test Variation B	38	0.01%
English Learner Test Variation C	240	0.06%
English Learner Test Variation D	173	0.04%
Any Accom., Mod., or EL Variation	2,421	0.59%
No Accom., Mod., or EL Variation	409,515	99.41%
Students in Special Education	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	440	1.23%
C: Dictated responses to a scribe	29	0.08%
F: Used non-interfering assistive device	45	0.13%
G: Used braille test	23	0.06%
H: Used large-print test	149	0.42%
J: Tested over more than one day	852	2.37%
K: Had supervised breaks	2,685	7.48%
L: Most beneficial time of day	1,067	2.97%
M: Administered at home or in a hospital	16	0.04%
N: Used a dictionary	15	0.04%
O: Examiner presented with MCE or ASL	42	0.12%
P: Used audio presentation (CD)	260	0.72%
Q: Used a calculator	47	0.13%
R: Used an arithmetic table	73	0.20%
S: Used math manipulatives	22	0.06%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	58	0.16%
X: Used an unlisted accommodation	763	2.13%
Y: Leave blank	33	0.09%
Z: Examiner read test questions aloud	3,489	9.72%
Accom. or Mod. is in Section 504 Plan	16	0.04%
Accom. or Mod. is in IEP	6,016	16.77%

Accommodation Summary for Mathematics Grade Four		
English Learner Test Variation A	35	0.10%
English Learner Test Variation B	36	0.10%
English Learner Test Variation C	45	0.13%
English Learner Test Variation D	3	0.01%
Any Accom., Mod., or EL Variation	6,734	18.77%
No Accom., Mod., or EL Variation	29,146	81.23%
English-Only Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	396	0.16%
C: Dictated responses to a scribe	22	0.01%
F: Used non-interfering assistive device	36	0.01%
G: Used braille test	16	0.01%
H: Used large-print test	132	0.05%
J: Tested over more than one day	629	0.26%
K: Had supervised breaks	1,978	0.80%
L: Most beneficial time of day	784	0.32%
M: Administered at home or in a hospital	29	0.01%
N: Used a dictionary	8	0.00%
O: Examiner presented with MCE or ASL	19	0.01%
P: Used audio presentation (CD)	175	0.07%
Q: Used a calculator	43	0.02%
R: Used an arithmetic table	63	0.03%
S: Used math manipulatives	15	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	48	0.02%
X: Used an unlisted accommodation	622	0.25%
Y: Leave blank	28	0.01%
Z: Examiner read test questions aloud	2,218	0.90%
Accom. or Mod. is in Section 504 Plan	201	0.08%
Accom. or Mod. is in IEP	4,113	1.67%
English Learner Test Variation A	22	0.01%
English Learner Test Variation B	11	0.00%
English Learner Test Variation C	13	0.01%
English Learner Test Variation D	2	0.00%
Any Accom., Mod., or EL Variation	4,810	1.96%
No Accom., Mod., or EL Variation	241,125	98.04%
Initially Fluent English Proficient (I-FEP) Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	16	0.04%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	2	0.01%
G: Used braille test	0	0.00%
H: Used large-print test	6	0.02%

Accommodation Summary for Mathematics Grade Four		
J: Tested over more than one day	17	0.05%
K: Had supervised breaks	74	0.20%
L: Most beneficial time of day	36	0.10%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	2	0.01%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	5	0.01%
Q: Used a calculator	2	0.01%
R: Used an arithmetic table	4	0.01%
S: Used math manipulatives	2	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.01%
X: Used an unlisted accommodation	34	0.09%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	119	0.32%
Accom. or Mod. is in Section 504 Plan	5	0.01%
Accom. or Mod. is in IEP	200	0.54%
English Learner Test Variation A	7	0.02%
English Learner Test Variation B	2	0.01%
English Learner Test Variation C	1	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	230	0.62%
No Accom., Mod., or EL Variation	36,762	99.38%
English Learner (EL) Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	115	0.09%
C: Dictated responses to a scribe	12	0.01%
F: Used non-interfering assistive device	15	0.01%
G: Used braille test	6	0.00%
H: Used large-print test	52	0.04%
J: Tested over more than one day	339	0.26%
K: Had supervised breaks	1,117	0.85%
L: Most beneficial time of day	418	0.32%
M: Administered at home or in a hospital	10	0.01%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	23	0.02%
P: Used audio presentation (CD)	107	0.08%
Q: Used a calculator	8	0.01%
R: Used an arithmetic table	24	0.02%
S: Used math manipulatives	8	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	16	0.01%

Accommodation Summary for Mathematics Grade Four		
X: Used an unlisted accommodation	269	0.20%
Y: Leave blank	11	0.01%
Z: Examiner read test questions aloud	1,648	1.26%
Accom. or Mod. is in Section 504 Plan	52	0.04%
Accom. or Mod. is in IEP	2,486	1.89%
English Learner Test Variation A	1,016	0.77%
English Learner Test Variation B	61	0.05%
English Learner Test Variation C	271	0.21%
English Learner Test Variation D	174	0.13%
Any Accom., Mod., or EL Variation	4,068	3.10%
No Accom., Mod., or EL Variation	127,239	96.90%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 4**	**Pct. of Total**
B: Marked in test booklet	5	0.02%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	1	0.00%
H: Used large-print test	2	0.01%
J: Tested over more than one day	3	0.01%
K: Had supervised breaks	23	0.07%
L: Most beneficial time of day	8	0.02%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	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	1	0.00%
X: Used an unlisted accommodation	5	0.02%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	21	0.06%
Accom. or Mod. is in Section 504 Plan	3	0.01%
Accom. or Mod. is in IEP	42	0.13%
English Learner Test Variation A	9	0.03%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	58	0.18%
No Accom., Mod., or EL Variation	32,915	99.82%

Table 6.C.17 Accommodation Summary for Mathematics Grade Five

Accommodation Summary for Mathematics Grade Five		
All Tested	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	463	0.10%
C: Dictated responses to a scribe	38	0.01%
F: Used non-interfering assistive device	73	0.02%
G: Used braille test	26	0.01%
H: Used large-print test	187	0.04%
J: Tested over more than one day	1,011	0.22%
K: Had supervised breaks	3,356	0.74%
L: Most beneficial time of day	1,254	0.28%
M: Administered at home or in a hospital	48	0.01%
N: Used a dictionary	14	0.00%
O: Examiner presented with MCE or ASL	52	0.01%
P: Used audio presentation (CD)	234	0.05%
Q: Used a calculator	90	0.02%
R: Used an arithmetic table	91	0.02%
S: Used math manipulatives	23	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	62	0.01%
X: Used an unlisted accommodation	931	0.21%
Y: Leave blank	41	0.01%
Z: Examiner read test questions aloud	4,216	0.93%
Accom. or Mod. is in Section 504 Plan	211	0.05%
Accom. or Mod. is in IEP	7,263	1.61%
English Learner Test Variation A	730	0.16%
English Learner Test Variation B	60	0.01%
English Learner Test Variation C	265	0.06%
English Learner Test Variation D	181	0.04%
Any Accom., Mod., or EL Variation	9,318	2.06%
No Accom., Mod., or EL Variation	442,416	97.94%
Students Not in Special Education	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	54	0.01%
C: Dictated responses to a scribe	9	0.00%
F: Used non-interfering assistive device	8	0.00%
G: Used braille test	5	0.00%
H: Used large-print test	39	0.01%
J: Tested over more than one day	112	0.03%
K: Had supervised breaks	423	0.10%
L: Most beneficial time of day	129	0.03%
M: Administered at home or in a hospital	16	0.00%
N: Used a dictionary	4	0.00%

Accommodation Summary for Mathematics Grade Five		
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	21	0.01%
Q: Used a calculator	5	0.00%
R: Used an arithmetic table	5	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.00%
X: Used an unlisted accommodation	148	0.04%
Y: Leave blank	8	0.00%
Z: Examiner read test questions aloud	429	0.10%
Accom. or Mod. is in Section 504 Plan	195	0.05%
Accom. or Mod. is in IEP	693	0.17%
English Learner Test Variation A	710	0.17%
English Learner Test Variation B	30	0.01%
English Learner Test Variation C	233	0.06%
English Learner Test Variation D	174	0.04%
Any Accom., Mod., or EL Variation	1,958	0.47%
No Accom., Mod., or EL Variation	412,946	99.53%
Students in Special Education	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	409	1.11%
C: Dictated responses to a scribe	29	0.08%
F: Used non-interfering assistive device	65	0.18%
G: Used braille test	21	0.06%
H: Used large-print test	148	0.40%
J: Tested over more than one day	895	2.43%
K: Had supervised breaks	2,923	7.94%
L: Most beneficial time of day	1,122	3.05%
M: Administered at home or in a hospital	31	0.08%
N: Used a dictionary	10	0.03%
O: Examiner presented with MCE or ASL	50	0.14%
P: Used audio presentation (CD)	212	0.58%
Q: Used a calculator	85	0.23%
R: Used an arithmetic table	86	0.23%
S: Used math manipulatives	23	0.06%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	58	0.16%
X: Used an unlisted accommodation	775	2.11%
Y: Leave blank	33	0.09%
Z: Examiner read test questions aloud	3,772	10.25%
Accom. or Mod. is in Section 504 Plan	16	0.04%
Accom. or Mod. is in IEP	6,542	17.78%

Accommodation Summary for Mathematics Grade Five		
English Learner Test Variation A	20	0.05%
English Learner Test Variation B	30	0.08%
English Learner Test Variation C	32	0.09%
English Learner Test Variation D	7	0.02%
Any Accom., Mod., or EL Variation	7,332	19.92%
No Accom., Mod., or EL Variation	29,466	80.08%
English-Only Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	323	0.13%
C: Dictated responses to a scribe	22	0.01%
F: Used non-interfering assistive device	45	0.02%
G: Used braille test	16	0.01%
H: Used large-print test	118	0.05%
J: Tested over more than one day	617	0.25%
K: Had supervised breaks	2,017	0.82%
L: Most beneficial time of day	808	0.33%
M: Administered at home or in a hospital	29	0.01%
N: Used a dictionary	7	0.00%
O: Examiner presented with MCE or ASL	24	0.01%
P: Used audio presentation (CD)	151	0.06%
Q: Used a calculator	69	0.03%
R: Used an arithmetic table	64	0.03%
S: Used math manipulatives	14	0.01%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	49	0.02%
X: Used an unlisted accommodation	589	0.24%
Y: Leave blank	25	0.01%
Z: Examiner read test questions aloud	2,328	0.95%
Accom. or Mod. is in Section 504 Plan	163	0.07%
Accom. or Mod. is in IEP	4,268	1.74%
English Learner Test Variation A	14	0.01%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	10	0.00%
English Learner Test Variation D	12	0.00%
Any Accom., Mod., or EL Variation	4,960	2.03%
No Accom., Mod., or EL Variation	239,915	97.97%
Initially Fluent English Proficient (I-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	11	0.03%
C: Dictated responses to a scribe	3	0.01%
F: Used non-interfering assistive device	3	0.01%
G: Used braille test	0	0.00%
H: Used large-print test	7	0.02%

Accommodation Summary for Mathematics Grade Five		
J: Tested over more than one day	21	0.06%
K: Had supervised breaks	76	0.23%
L: Most beneficial time of day	29	0.09%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	4	0.01%
P: Used audio presentation (CD)	2	0.01%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	2	0.01%
X: Used an unlisted accommodation	29	0.09%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	97	0.29%
Accom. or Mod. is in Section 504 Plan	7	0.02%
Accom. or Mod. is in IEP	175	0.53%
English Learner Test Variation A	3	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	3	0.01%
Any Accom., Mod., or EL Variation	210	0.63%
No Accom., Mod., or EL Variation	32,905	99.37%
English Learner (EL) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	118	0.10%
C: Dictated responses to a scribe	10	0.01%
F: Used non-interfering assistive device	23	0.02%
G: Used braille test	8	0.01%
H: Used large-print test	48	0.04%
J: Tested over more than one day	358	0.30%
K: Had supervised breaks	1,204	1.00%
L: Most beneficial time of day	400	0.33%
M: Administered at home or in a hospital	16	0.01%
N: Used a dictionary	7	0.01%
O: Examiner presented with MCE or ASL	24	0.02%
P: Used audio presentation (CD)	81	0.07%
Q: Used a calculator	21	0.02%
R: Used an arithmetic table	26	0.02%
S: Used math manipulatives	8	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	10	0.01%

Accommodation Summary for Mathematics Grade Five		
X: Used an unlisted accommodation	299	0.25%
Y: Leave blank	11	0.01%
Z: Examiner read test questions aloud	1,741	1.45%
Accom. or Mod. is in Section 504 Plan	37	0.03%
Accom. or Mod. is in IEP	2,712	2.26%
English Learner Test Variation A	709	0.59%
English Learner Test Variation B	57	0.05%
English Learner Test Variation C	254	0.21%
English Learner Test Variation D	166	0.14%
Any Accom., Mod., or EL Variation	4,013	3.34%
No Accom., Mod., or EL Variation	116,035	96.66%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	11	0.02%
C: Dictated responses to a scribe	3	0.01%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	13	0.02%
J: Tested over more than one day	10	0.02%
K: Had supervised breaks	44	0.08%
L: Most beneficial time of day	12	0.02%
M: Administered at home or in a hospital	2	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	0	0.00%
Q: Used a calculator	0	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	1	0.00%
X: Used an unlisted accommodation	8	0.02%
Y: Leave blank	2	0.00%
Z: Examiner read test questions aloud	42	0.08%
Accom. or Mod. is in Section 504 Plan	4	0.01%
Accom. or Mod. is in IEP	85	0.16%
English Learner Test Variation A	3	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	110	0.21%
No Accom., Mod., or EL Variation	52,935	99.79%

Table 6.C.18 Accommodation Summary for Mathematics Grade Six

Accommodation Summary for Mathematics Grade Six		
All Tested	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	401	0.09%
C: Dictated responses to a scribe	35	0.01%
F: Used non-interfering assistive device	67	0.01%
G: Used braille test	30	0.01%
H: Used large-print test	224	0.05%
J: Tested over more than one day	1,169	0.25%
K: Had supervised breaks	3,564	0.76%
L: Most beneficial time of day	1,318	0.28%
M: Administered at home or in a hospital	58	0.01%
N: Used a dictionary	21	0.00%
O: Examiner presented with MCE or ASL	74	0.02%
P: Used audio presentation (CD)	433	0.09%
Q: Used a calculator	313	0.07%
R: Used an arithmetic table	147	0.03%
S: Used math manipulatives	10	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	95	0.02%
X: Used an unlisted accommodation	1,162	0.25%
Y: Leave blank	56	0.01%
Z: Examiner read test questions aloud	4,028	0.86%
Accom. or Mod. is in Section 504 Plan	146	0.03%
Accom. or Mod. is in IEP	8,000	1.70%
English Learner Test Variation A	1,069	0.23%
English Learner Test Variation B	58	0.01%
English Learner Test Variation C	609	0.13%
English Learner Test Variation D	358	0.08%
Any Accom., Mod., or EL Variation	10,481	2.23%
No Accom., Mod., or EL Variation	459,257	97.77%
Students Not in Special Education	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	46	0.01%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	40	0.01%
J: Tested over more than one day	126	0.03%
K: Had supervised breaks	390	0.09%
L: Most beneficial time of day	103	0.02%
M: Administered at home or in a hospital	35	0.01%
N: Used a dictionary	0	0.00%

Accommodation Summary for Mathematics Grade Six		
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	31	0.01%
Q: Used a calculator	44	0.01%
R: Used an arithmetic table	20	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	16	0.00%
X: Used an unlisted accommodation	167	0.04%
Y: Leave blank	9	0.00%
Z: Examiner read test questions aloud	315	0.07%
Accom. or Mod. is in Section 504 Plan	128	0.03%
Accom. or Mod. is in IEP	688	0.16%
English Learner Test Variation A	979	0.23%
English Learner Test Variation B	41	0.01%
English Learner Test Variation C	563	0.13%
English Learner Test Variation D	341	0.08%
Any Accom., Mod., or EL Variation	2,312	0.55%
No Accom., Mod., or EL Variation	420,404	99.45%
Students in Special Education	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	353	0.75%
C: Dictated responses to a scribe	31	0.07%
F: Used non-interfering assistive device	65	0.14%
G: Used braille test	28	0.06%
H: Used large-print test	182	0.39%
J: Tested over more than one day	1,034	2.20%
K: Had supervised breaks	3,162	6.73%
L: Most beneficial time of day	1,211	2.58%
M: Administered at home or in a hospital	23	0.05%
N: Used a dictionary	21	0.04%
O: Examiner presented with MCE or ASL	72	0.15%
P: Used audio presentation (CD)	401	0.85%
Q: Used a calculator	269	0.57%
R: Used an arithmetic table	127	0.27%
S: Used math manipulatives	9	0.02%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	79	0.17%
X: Used an unlisted accommodation	993	2.11%
Y: Leave blank	46	0.10%
Z: Examiner read test questions aloud	3,701	7.88%
Accom. or Mod. is in Section 504 Plan	18	0.04%
Accom. or Mod. is in IEP	7,283	15.50%

Accommodation Summary for Mathematics Grade Six		
English Learner Test Variation A	90	0.19%
English Learner Test Variation B	17	0.04%
English Learner Test Variation C	46	0.10%
English Learner Test Variation D	17	0.04%
Any Accom., Mod., or EL Variation	8,140	17.33%
No Accom., Mod., or EL Variation	38,843	82.67%
English-Only Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	272	0.11%
C: Dictated responses to a scribe	29	0.01%
F: Used non-interfering assistive device	39	0.02%
G: Used braille test	19	0.01%
H: Used large-print test	148	0.06%
J: Tested over more than one day	714	0.28%
K: Had supervised breaks	2,131	0.83%
L: Most beneficial time of day	859	0.34%
M: Administered at home or in a hospital	45	0.02%
N: Used a dictionary	12	0.00%
O: Examiner presented with MCE or ASL	49	0.02%
P: Used audio presentation (CD)	236	0.09%
Q: Used a calculator	224	0.09%
R: Used an arithmetic table	93	0.04%
S: Used math manipulatives	7	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	65	0.03%
X: Used an unlisted accommodation	755	0.29%
Y: Leave blank	36	0.01%
Z: Examiner read test questions aloud	2,240	0.87%
Accom. or Mod. is in Section 504 Plan	119	0.05%
Accom. or Mod. is in IEP	4,800	1.87%
English Learner Test Variation A	22	0.01%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	9	0.00%
English Learner Test Variation D	20	0.01%
Any Accom., Mod., or EL Variation	5,507	2.15%
No Accom., Mod., or EL Variation	250,707	97.85%
Initially Fluent English Proficient (I-FEP) Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	6	0.02%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	2	0.01%
G: Used braille test	5	0.02%
H: Used large-print test	10	0.03%

Accommodation Summary for Mathematics Grade Six		
J: Tested over more than one day	30	0.09%
K: Had supervised breaks	84	0.26%
L: Most beneficial time of day	28	0.09%
M: Administered at home or in a hospital	2	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	5	0.02%
Q: Used a calculator	4	0.01%
R: Used an arithmetic table	3	0.01%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.01%
X: Used an unlisted accommodation	34	0.11%
Y: Leave blank	3	0.01%
Z: Examiner read test questions aloud	90	0.28%
Accom. or Mod. is in Section 504 Plan	2	0.01%
Accom. or Mod. is in IEP	192	0.59%
English Learner Test Variation A	4	0.01%
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	220	0.68%
No Accom., Mod., or EL Variation	32,075	99.32%
English Learner (EL) Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	101	0.09%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	26	0.02%
G: Used braille test	6	0.01%
H: Used large-print test	51	0.05%
J: Tested over more than one day	402	0.37%
K: Had supervised breaks	1,274	1.16%
L: Most beneficial time of day	413	0.38%
M: Administered at home or in a hospital	9	0.01%
N: Used a dictionary	9	0.01%
O: Examiner presented with MCE or ASL	23	0.02%
P: Used audio presentation (CD)	187	0.17%
Q: Used a calculator	79	0.07%
R: Used an arithmetic table	49	0.04%
S: Used math manipulatives	3	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	20	0.02%

Accommodation Summary for Mathematics Grade Six		
X: Used an unlisted accommodation	349	0.32%
Y: Leave blank	15	0.01%
Z: Examiner read test questions aloud	1,636	1.49%
Accom. or Mod. is in Section 504 Plan	21	0.02%
Accom. or Mod. is in IEP	2,860	2.60%
English Learner Test Variation A	1,029	0.94%
English Learner Test Variation B	55	0.05%
English Learner Test Variation C	597	0.54%
English Learner Test Variation D	329	0.30%
Any Accom., Mod., or EL Variation	4,555	4.14%
No Accom., Mod., or EL Variation	105,401	95.86%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 6**	**Pct. of Total**
B: Marked in test booklet	17	0.02%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	0	0.00%
H: Used large-print test	13	0.02%
J: Tested over more than one day	16	0.02%
K: Had supervised breaks	60	0.09%
L: Most beneficial time of day	14	0.02%
M: Administered at home or in a hospital	0	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	5	0.01%
Q: Used a calculator	6	0.01%
R: Used an arithmetic table	2	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	7	0.01%
X: Used an unlisted accommodation	23	0.03%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	55	0.08%
Accom. or Mod. is in Section 504 Plan	3	0.00%
Accom. or Mod. is in IEP	126	0.18%
English Learner Test Variation A	14	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	3	0.00%
English Learner Test Variation D	7	0.01%
Any Accom., Mod., or EL Variation	170	0.24%
No Accom., Mod., or EL Variation	70,385	99.76%

Table 6.C.19 Accommodation Summary for Mathematics Grade Seven

Accommodation Summary for Mathematics Grade Seven		
All Tested	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	295	0.07%
C: Dictated responses to a scribe	39	0.01%
F: Used non-interfering assistive device	23	0.01%
G: Used braille test	42	0.01%
H: Used large-print test	170	0.04%
J: Tested over more than one day	564	0.12%
K: Had supervised breaks	2,186	0.48%
L: Most beneficial time of day	654	0.14%
M: Administered at home or in a hospital	64	0.01%
N: Used a dictionary	10	0.00%
O: Examiner presented with MCE or ASL	43	0.01%
P: Used audio presentation (CD)	431	0.10%
Q: Used a calculator	375	0.08%
R: Used an arithmetic table	90	0.02%
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	46	0.01%
X: Used an unlisted accommodation	835	0.18%
Y: Leave blank	31	0.01%
Z: Examiner read test questions aloud	2,369	0.52%
Accom. or Mod. is in Section 504 Plan	95	0.02%
Accom. or Mod. is in IEP	5,195	1.15%
English Learner Test Variation A	1,492	0.33%
English Learner Test Variation B	39	0.01%
English Learner Test Variation C	1,050	0.23%
English Learner Test Variation D	604	0.13%
Any Accom., Mod., or EL Variation	8,067	1.78%
No Accom., Mod., or EL Variation	444,564	98.22%
Students Not in Special Education	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	41	0.01%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	3	0.00%
G: Used braille test	7	0.00%
H: Used large-print test	30	0.01%
J: Tested over more than one day	48	0.01%
K: Had supervised breaks	197	0.05%
L: Most beneficial time of day	59	0.01%
M: Administered at home or in a hospital	31	0.01%
N: Used a dictionary	2	0.00%

Accommodation Summary for Mathematics Grade Seven		
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	18	0.00%
Q: Used a calculator	23	0.01%
R: Used an arithmetic table	10	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	5	0.00%
X: Used an unlisted accommodation	98	0.02%
Y: Leave blank	4	0.00%
Z: Examiner read test questions aloud	138	0.03%
Accom. or Mod. is in Section 504 Plan	84	0.02%
Accom. or Mod. is in IEP	375	0.09%
English Learner Test Variation A	1,410	0.35%
English Learner Test Variation B	28	0.01%
English Learner Test Variation C	995	0.24%
English Learner Test Variation D	574	0.14%
Any Accom., Mod., or EL Variation	2,490	0.61%
No Accom., Mod., or EL Variation	405,058	99.39%
Students in Special Education	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	252	0.56%
C: Dictated responses to a scribe	36	0.08%
F: Used non-interfering assistive device	20	0.04%
G: Used braille test	35	0.08%
H: Used large-print test	139	0.31%
J: Tested over more than one day	515	1.14%
K: Had supervised breaks	1,978	4.39%
L: Most beneficial time of day	594	1.32%
M: Administered at home or in a hospital	33	0.07%
N: Used a dictionary	8	0.02%
O: Examiner presented with MCE or ASL	41	0.09%
P: Used audio presentation (CD)	412	0.91%
Q: Used a calculator	351	0.78%
R: Used an arithmetic table	80	0.18%
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	41	0.09%
X: Used an unlisted accommodation	737	1.64%
Y: Leave blank	27	0.06%
Z: Examiner read test questions aloud	2,224	4.94%
Accom. or Mod. is in Section 504 Plan	11	0.02%
Accom. or Mod. is in IEP	4,803	10.66%

Accommodation Summary for Mathematics Grade Seven		
English Learner Test Variation A	82	0.18%
English Learner Test Variation B	11	0.02%
English Learner Test Variation C	55	0.12%
English Learner Test Variation D	30	0.07%
Any Accom., Mod., or EL Variation	5,560	12.34%
No Accom., Mod., or EL Variation	39,498	87.66%
English-Only Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	212	0.09%
C: Dictated responses to a scribe	30	0.01%
F: Used non-interfering assistive device	14	0.01%
G: Used braille test	18	0.01%
H: Used large-print test	119	0.05%
J: Tested over more than one day	389	0.16%
K: Had supervised breaks	1,307	0.53%
L: Most beneficial time of day	438	0.18%
M: Administered at home or in a hospital	48	0.02%
N: Used a dictionary	6	0.00%
O: Examiner presented with MCE or ASL	26	0.01%
P: Used audio presentation (CD)	224	0.09%
Q: Used a calculator	230	0.09%
R: Used an arithmetic table	50	0.02%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	24	0.01%
X: Used an unlisted accommodation	556	0.22%
Y: Leave blank	19	0.01%
Z: Examiner read test questions aloud	1,191	0.48%
Accom. or Mod. is in Section 504 Plan	82	0.03%
Accom. or Mod. is in IEP	3,050	1.23%
English Learner Test Variation A	36	0.01%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	29	0.01%
English Learner Test Variation D	11	0.00%
Any Accom., Mod., or EL Variation	3,659	1.48%
No Accom., Mod., or EL Variation	243,985	98.52%
Initially Fluent English Proficient (I-FEP) Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	10	0.03%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	2	0.01%
G: Used braille test	3	0.01%
H: Used large-print test	7	0.02%

Accommodation Summary for Mathematics Grade Seven		
J: Tested over more than one day	15	0.04%
K: Had supervised breaks	65	0.18%
L: Most beneficial time of day	21	0.06%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	2	0.01%
O: Examiner presented with MCE or ASL	3	0.01%
P: Used audio presentation (CD)	14	0.04%
Q: Used a calculator	13	0.04%
R: Used an arithmetic table	6	0.02%
S: Used math manipulatives	2	0.01%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	3	0.01%
X: Used an unlisted accommodation	31	0.09%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	75	0.21%
Accom. or Mod. is in Section 504 Plan	2	0.01%
Accom. or Mod. is in IEP	144	0.40%
English Learner Test Variation A	11	0.03%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	3	0.01%
English Learner Test Variation D	2	0.01%
Any Accom., Mod., or EL Variation	194	0.54%
No Accom., Mod., or EL Variation	35,863	99.46%
English Learner (EL) Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	62	0.07%
C: Dictated responses to a scribe	4	0.00%
F: Used non-interfering assistive device	4	0.00%
G: Used braille test	17	0.02%
H: Used large-print test	36	0.04%
J: Tested over more than one day	147	0.16%
K: Had supervised breaks	757	0.80%
L: Most beneficial time of day	173	0.18%
M: Administered at home or in a hospital	10	0.01%
N: Used a dictionary	2	0.00%
O: Examiner presented with MCE or ASL	13	0.01%
P: Used audio presentation (CD)	186	0.20%
Q: Used a calculator	120	0.13%
R: Used an arithmetic table	30	0.03%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	18	0.02%

Accommodation Summary for Mathematics Grade Seven		
X: Used an unlisted accommodation	233	0.25%
Y: Leave blank	11	0.01%
Z: Examiner read test questions aloud	1,053	1.11%
Accom. or Mod. is in Section 504 Plan	8	0.01%
Accom. or Mod. is in IEP	1,880	1.99%
English Learner Test Variation A	1,433	1.51%
English Learner Test Variation B	36	0.04%
English Learner Test Variation C	1,011	1.07%
English Learner Test Variation D	586	0.62%
Any Accom., Mod., or EL Variation	4,053	4.28%
No Accom., Mod., or EL Variation	90,604	95.72%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 7**	**Pct. of Total**
B: Marked in test booklet	10	0.01%
C: Dictated responses to a scribe	4	0.01%
F: Used non-interfering assistive device	3	0.00%
G: Used braille test	4	0.01%
H: Used large-print test	6	0.01%
J: Tested over more than one day	7	0.01%
K: Had supervised breaks	46	0.06%
L: Most beneficial time of day	17	0.02%
M: Administered at home or in a hospital	2	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	3	0.00%
Q: Used a calculator	9	0.01%
R: Used an arithmetic table	3	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	13	0.02%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	44	0.06%
Accom. or Mod. is in Section 504 Plan	3	0.00%
Accom. or Mod. is in IEP	102	0.14%
English Learner Test Variation A	10	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	7	0.01%
English Learner Test Variation D	5	0.01%
Any Accom., Mod., or EL Variation	134	0.18%
No Accom., Mod., or EL Variation	73,383	99.82%

Table 6.C.20 Accommodation Summary for General Mathematics

Accommodation Summary for General Mathematics				
All Tested	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked in test booklet	172	51	223	0.08%
C: Dictated responses to a scribe	20	7	27	0.01%
F: Used non-interfering assistive device	7	6	13	0.00%
G: Used braille test	39	18	57	0.02%
H: Used large-print test	116	34	150	0.05%
J: Tested over more than one day	389	160	549	0.19%
K: Had supervised breaks	1,664	630	2,294	0.79%
L: Most beneficial time of day	554	206	760	0.26%
M: Administered at home or in a hospital	50	25	75	0.03%
N: Used a dictionary	11	12	23	0.01%
O: Examiner presented with MCE or ASL	42	33	75	0.03%
P: Used audio presentation (CD)	366	113	479	0.17%
Q: Used a calculator	419	845	1,264	0.44%
R: Used an arithmetic table	90	13	103	0.04%
S: Used math manipulatives	7	0	7	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	69	9	78	0.03%
X: Used an unlisted accommodation	636	312	948	0.33%
Y: Leave blank	27	23	50	0.02%
Z: Examiner read test questions aloud	1,767	256	2,023	0.70%
Accom. or Mod. is in Section 504 Plan	66	15	81	0.03%
Accom. or Mod. is in IEP	4,074	1,749	5,823	2.02%
English Learner Test Variation A	956	320	1,276	0.44%
English Learner Test Variation B	21	66	87	0.03%
English Learner Test Variation C	605	349	954	0.33%
English Learner Test Variation D	332	413	745	0.26%
Any Accom., Mod., or EL Variation	6,080	2,767	8,847	3.06%
No Accom., Mod., or EL Variation	204,651	75,391	280,042	96.94%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked in test booklet	14	3	17	0.01%
C: Dictated responses to a scribe	3	0	3	0.00%
F: Used non-interfering assistive device	0	3	3	0.00%
G: Used braille test	1	4	5	0.00%
H: Used large-print test	14	3	17	0.01%
J: Tested over more than one day	24	10	34	0.01%
K: Had supervised breaks	130	46	176	0.07%
L: Most beneficial time of day	45	13	58	0.02%
M: Administered at home or in a hospital	28	11	39	0.02%
N: Used a dictionary	0	0	0	0.00%

Accommodation Summary for General Mathematics				
O: Examiner presented with MCE or ASL	1	0	1	0.00%
P: Used audio presentation (CD)	12	2	14	0.01%
Q: Used a calculator	30	44	74	0.03%
R: Used an arithmetic table	4	0	4	0.00%
S: Used math manipulatives	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	16	0	16	0.01%
X: Used an unlisted accommodation	62	20	82	0.03%
Y: Leave blank	12	1	13	0.01%
Z: Examiner read test questions aloud	98	17	115	0.05%
Accom. or Mod. is in Section 504 Plan	56	13	69	0.03%
Accom. or Mod. is in IEP	264	103	367	0.15%
English Learner Test Variation A	923	308	1,231	0.51%
English Learner Test Variation B	14	60	74	0.03%
English Learner Test Variation C	590	331	921	0.38%
English Learner Test Variation D	330	380	710	0.30%
Any Accom., Mod., or EL Variation	1,633	771	2,404	1.00%
No Accom., Mod., or EL Variation	177,044	59,850	236,894	99.00%
Students in Special Education	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked in test booklet	158	48	206	0.42%
C: Dictated responses to a scribe	17	7	24	0.05%
F: Used non-interfering assistive device	7	3	10	0.02%
G: Used braille test	37	14	51	0.10%
H: Used large-print test	101	31	132	0.27%
J: Tested over more than one day	365	148	513	1.04%
K: Had supervised breaks	1,525	582	2,107	4.25%
L: Most beneficial time of day	508	192	700	1.41%
M: Administered at home or in a hospital	20	14	34	0.07%
N: Used a dictionary	11	12	23	0.05%
O: Examiner presented with MCE or ASL	41	33	74	0.15%
P: Used audio presentation (CD)	350	111	461	0.93%
Q: Used a calculator	387	797	1,184	2.39%
R: Used an arithmetic table	86	13	99	0.20%
S: Used math manipulatives	7	0	7	0.01%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	53	9	62	0.13%
X: Used an unlisted accommodation	573	291	864	1.74%
Y: Leave blank	15	22	37	0.07%
Z: Examiner read test questions aloud	1,668	239	1,907	3.85%
Accom. or Mod. is in Section 504 Plan	10	2	12	0.02%
Accom. or Mod. is in IEP	3,793	1,639	5,432	10.96%

Accommodation Summary for General Mathematics				
English Learner Test Variation A	33	12	45	0.09%
English Learner Test Variation B	7	6	13	0.03%
English Learner Test Variation C	15	18	33	0.07%
English Learner Test Variation D	2	33	35	0.07%
Any Accom., Mod., or EL Variation	4,430	1,989	6,419	12.95%
No Accom., Mod., or EL Variation	27,602	15,539	43,141	87.05%
English-Only Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked in test booklet	126	41	167	0.10%
C: Dictated responses to a scribe	17	7	24	0.01%
F: Used non-interfering assistive device	5	4	9	0.01%
G: Used braille test	24	12	36	0.02%
H: Used large-print test	71	27	98	0.06%
J: Tested over more than one day	287	109	396	0.25%
K: Had supervised breaks	1,090	457	1,547	0.96%
L: Most beneficial time of day	365	155	520	0.32%
M: Administered at home or in a hospital	33	18	51	0.03%
N: Used a dictionary	4	7	11	0.01%
O: Examiner presented with MCE or ASL	25	15	40	0.02%
P: Used audio presentation (CD)	212	61	273	0.17%
Q: Used a calculator	308	588	896	0.56%
R: Used an arithmetic table	66	9	75	0.05%
S: Used math manipulatives	4	0	4	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	37	8	45	0.03%
X: Used an unlisted accommodation	394	187	581	0.36%
Y: Leave blank	21	9	30	0.02%
Z: Examiner read test questions aloud	920	170	1,090	0.68%
Accom. or Mod. is in Section 504 Plan	57	14	71	0.04%
Accom. or Mod. is in IEP	2,506	1,201	3,707	2.31%
English Learner Test Variation A	19	3	22	0.01%
English Learner Test Variation B	3	0	3	0.00%
English Learner Test Variation C	9	6	15	0.01%
English Learner Test Variation D	9	2	11	0.01%
Any Accom., Mod., or EL Variation	2,950	1,419	4,369	2.72%
No Accom., Mod., or EL Variation	111,486	44,674	156,160	97.28%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked in test booklet	3	0	3	0.02%
C: Dictated responses to a scribe	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0.00%
G: Used braille test	1	0	1	0.01%
H: Used large-print test	3	0	3	0.02%

Accommodation Summary for General Mathematics				
J: Tested over more than one day	6	8	14	0.08%
K: Had supervised breaks	29	17	46	0.27%
L: Most beneficial time of day	12	7	19	0.11%
M: Administered at home or in a hospital	3	0	3	0.02%
N: Used a dictionary	0	0	0	0.00%
O: Examiner presented with MCE or ASL	2	0	2	0.01%
Q: Used a calculator	6	22	28	0.17%
R: Used an arithmetic table	3	0	3	0.02%
S: Used math manipulatives	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	2	0	2	0.01%
X: Used an unlisted accommodation	12	13	25	0.15%
Y: Leave blank	1	1	2	0.01%
Z: Examiner read test questions aloud	38	9	47	0.28%
Accom. or Mod. is in Section 504 Plan	0	0	0	0.00%
Accom. or Mod. is in IEP	82	44	126	0.75%
English Learner Test Variation A	5	4	9	0.05%
English Learner Test Variation B	0	0	0	0.00%
English Learner Test Variation C	2	0	2	0.01%
English Learner Test Variation D	0	4	4	0.02%
Any Accom., Mod., or EL Variation	99	61	160	0.95%
No Accom., Mod., or EL Variation	12,578	4,149	16,727	99.05%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked in test booklet	36	9	45	0.06%
C: Dictated responses to a scribe	2	0	2	0.00%
F: Used non-interfering assistive device	2	2	4	0.01%
G: Used braille test	14	6	20	0.03%
H: Used large-print test	37	5	42	0.05%
J: Tested over more than one day	91	35	126	0.16%
K: Had supervised breaks	502	127	629	0.82%
L: Most beneficial time of day	156	33	189	0.25%
M: Administered at home or in a hospital	12	4	16	0.02%
N: Used a dictionary	7	5	12	0.02%
O: Examiner presented with MCE or ASL	15	18	33	0.04%
P: Used audio presentation (CD)	134	51	185	0.24%
Q: Used a calculator	93	216	309	0.40%
R: Used an arithmetic table	17	4	21	0.03%
S: Used math manipulatives	3	0	3	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	26	0	26	0.03%

Accommodation Summary for General Mathematics				
X: Used an unlisted accommodation	214	107	321	0.42%
Y: Leave blank	3	13	16	0.02%
Z: Examiner read test questions aloud	768	74	842	1.10%
Accom. or Mod. is in Section 504 Plan	7	1	8	0.01%
Accom. or Mod. is in IEP	1,375	460	1,835	2.40%
English Learner Test Variation A	927	312	1,239	1.62%
English Learner Test Variation B	17	65	82	0.11%
English Learner Test Variation C	591	342	933	1.22%
English Learner Test Variation D	321	406	727	0.95%
Any Accom., Mod., or EL Variation	2,890	1,225	4,115	5.39%
No Accom., Mod., or EL Variation	52,754	19,507	72,261	94.61%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Grade 9**	**Total**	**Pct. of Total**
B: Marked in test booklet	5	1	6	0.02%
C: Dictated responses to a scribe	1	0	1	0.00%
F: Used non-interfering assistive device	0	0	0	0.00%
G: Used braille test	0	0	0	0.00%
H: Used large-print test	5	2	7	0.02%
J: Tested over more than one day	4	6	10	0.03%
K: Had supervised breaks	38	22	60	0.17%
L: Most beneficial time of day	19	7	26	0.08%
M: Administered at home or in a hospital	1	3	4	0.01%
N: Used a dictionary	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0.00%
P: Used audio presentation (CD)	12	0	12	0.03%
Q: Used a calculator	9	19	28	0.08%
R: Used an arithmetic table	3	0	3	0.01%
S: Used math manipulatives	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0.00%
W: Used an unlisted modification	4	1	5	0.01%
X: Used an unlisted accommodation	14	5	19	0.06%
Y: Leave blank	2	0	2	0.01%
Z: Examiner read test questions aloud	36	3	39	0.11%
Accom. or Mod. is in Section 504 Plan	2	0	2	0.01%
Accom. or Mod. is in IEP	99	40	139	0.40%
English Learner Test Variation A	3	0	3	0.01%
English Learner Test Variation B	1	1	2	0.01%
English Learner Test Variation C	3	1	4	0.01%
English Learner Test Variation D	1	1	2	0.01%
Any Accom., Mod., or EL Variation	125	53	178	0.52%
No Accom., Mod., or EL Variation	27,381	6,856	34,237	99.48%

Table 6.C.21 Accommodation Summary for Algebra I

Accommodation Summary for Algebra I							
All Tested	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	4	53	58	43	23	181	0.02%
C: Dictated responses to a scribe	1	18	7	12	5	43	0.01%
F: Used non-interfering assistive device	1	6	10	4	7	28	0.00%
G: Used braille test	0	17	14	12	4	47	0.01%
H: Used large-print test	2	50	39	30	19	140	0.02%
J: Tested over more than one day	3	94	81	134	62	374	0.05%
K: Had supervised breaks	6	378	601	586	416	1,987	0.27%
L: Most beneficial time of day	2	106	163	161	112	544	0.07%
M: Administered at home or in a hospital	3	31	38	31	23	126	0.02%
N: Used a dictionary	0	1	3	8	10	22	0.00%
O: Examiner presented with MCE or ASL	0	10	12	15	13	50	0.01%
P: Used audio presentation (CD)	1	44	68	94	61	268	0.04%
Q: Used a calculator	1	71	647	1,006	904	2,629	0.35%
R: Used an arithmetic table	0	21	2	13	15	51	0.01%
S: Used math manipulatives	0	1	3	1	3	8	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	7	7	4	11	29	0.00%
X: Used an unlisted accommodation	2	165	156	184	174	681	0.09%
Y: Leave blank	0	7	24	15	41	87	0.01%
Z: Examiner read test questions aloud	7	323	305	294	159	1,088	0.15%
Accom. or Mod. is in Section 504 Plan	3	36	19	13	7	78	0.01%
Accom. or Mod. is in IEP	16	808	1,535	1,825	1,396	5,580	0.75%
English Learner Test Variation A	4	286	788	540	239	1,857	0.25%
English Learner Test Variation B	0	8	110	51	40	209	0.03%
English Learner Test Variation C	4	284	1,125	756	353	2,522	0.34%
English Learner Test Variation D	1	102	931	657	342	2,033	0.27%
Any Accom., Mod., or EL Variation	31	1,453	3,524	3,251	2,193	10,452	1.40%
No Accom., Mod., or EL Variation	25,604	246,357	270,809	129,557	64,749	737,076	98.60%
Students Not in Special Education	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	1	15	4	2	0	22	0.00%
C: Dictated responses to a scribe	1	4	4	2	1	12	0.00%
F: Used non-interfering assistive device	0	1	7	3	5	16	0.00%
G: Used braille test	0	1	0	0	1	2	0.00%
H: Used large-print test	0	6	4	4	1	15	0.00%
J: Tested over more than one day	1	8	5	7	2	23	0.00%
K: Had supervised breaks	1	25	54	41	23	144	0.02%
L: Most beneficial time of day	0	5	13	10	7	35	0.01%

Accommodation Summary for Algebra I							
M: Administered at home or in a hospital	2	26	16	19	12	75	0.01%
N: Used a dictionary	0	1	0	0	0	1	0.00%
O: Examiner presented with MCE or ASL	0	0	6	0	0	6	0.00%
P: Used audio presentation (CD)	1	3	8	2	1	15	0.00%
Q: Used a calculator	0	6	65	49	39	159	0.02%
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	4	0	1	0	5	0.00%
X: Used an unlisted accommodation	0	23	17	14	14	68	0.01%
Y: Leave blank	0	0	3	2	2	7	0.00%
Z: Examiner read test questions aloud	1	19	17	7	6	50	0.01%
Accom. or Mod. is in Section 504 Plan	3	34	18	13	6	74	0.01%
Accom. or Mod. is in IEP	1	55	125	90	68	339	0.05%
English Learner Test Variation A	4	275	780	538	228	1,825	0.27%
English Learner Test Variation B	0	6	102	51	38	197	0.03%
English Learner Test Variation C	4	273	1,108	751	345	2,481	0.36%
English Learner Test Variation D	1	100	913	641	336	1,991	0.29%
Any Accom., Mod., or EL Variation	14	551	1,895	1,289	648	4,397	0.64%
No Accom., Mod., or EL Variation	25,215	236,684	251,928	113,563	54,418	681,808	99.36%
Students in Special Education	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	3	38	54	41	23	159	0.26%
C: Dictated responses to a scribe	0	14	3	10	4	31	0.05%
F: Used non-interfering assistive device	1	5	3	1	2	12	0.02%
G: Used braille test	0	16	14	12	3	45	0.07%
H: Used large-print test	2	44	35	26	18	125	0.20%
J: Tested over more than one day	2	86	76	127	59	350	0.57%
K: Had supervised breaks	5	351	546	541	393	1,836	3.00%
L: Most beneficial time of day	2	101	150	151	104	508	0.83%
M: Administered at home or in a hospital	1	5	22	12	11	51	0.08%
N: Used a dictionary	0	0	3	8	10	21	0.03%
O: Examiner presented with MCE or ASL	0	10	6	15	13	44	0.07%
P: Used audio presentation (CD)	0	41	60	92	60	253	0.41%
Q: Used a calculator	1	64	581	954	862	2,462	4.02%
R: Used an arithmetic table	0	21	2	13	12	48	0.08%
S: Used math manipulatives	0	1	1	1	3	6	0.01%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	3	7	3	11	24	0.04%

Accommodation Summary for Algebra I							
X: Used an unlisted accommodation	2	141	135	170	160	608	0.99%
Y: Leave blank	0	7	21	13	39	80	0.13%
Z: Examiner read test questions aloud	6	304	288	284	150	1,032	1.68%
Accom. or Mod. is in Section 504 Plan	0	2	1	0	1	4	0.01%
Accom. or Mod. is in IEP	15	749	1,405	1,726	1,323	5,218	8.51%
English Learner Test Variation A	0	11	8	2	11	32	0.05%
English Learner Test Variation B	0	2	8	0	2	12	0.02%
English Learner Test Variation C	0	11	17	5	8	41	0.07%
English Learner Test Variation D	0	2	18	16	6	42	0.07%
Any Accom., Mod., or EL Variation	17	898	1,624	1,953	1,540	6,032	9.84%
No Accom., Mod., or EL Variation	389	9,673	18,875	15,987	10,331	55,255	90.16%
English-Only Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	2	39	45	34	18	138	0.03%
C: Dictated responses to a scribe	0	14	1	10	2	27	0.01%
F: Used non-interfering assistive device	1	4	3	1	2	11	0.00%
G: Used braille test	0	10	9	10	3	32	0.01%
H: Used large-print test	1	30	30	18	14	93	0.02%
J: Tested over more than one day	2	71	64	93	57	287	0.07%
K: Had supervised breaks	4	228	376	419	317	1,344	0.33%
L: Most beneficial time of day	1	64	117	117	100	399	0.10%
M: Administered at home or in a hospital	2	23	31	19	19	94	0.02%
N: Used a dictionary	0	1	2	4	3	10	0.00%
O: Examiner presented with MCE or ASL	0	6	5	7	11	29	0.01%
P: Used audio presentation (CD)	1	28	43	40	39	151	0.04%
Q: Used a calculator	1	46	423	648	647	1,765	0.43%
R: Used an arithmetic table	0	11	2	12	12	37	0.01%
S: Used math manipulatives	0	0	0	1	3	4	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	4	7	4	9	24	0.01%
X: Used an unlisted accommodation	2	97	101	121	116	437	0.11%
Y: Leave blank	0	6	14	13	25	58	0.01%
Z: Examiner read test questions aloud	5	182	166	159	119	631	0.15%
Accom. or Mod. is in Section 504 Plan	2	31	19	13	7	72	0.02%
Accom. or Mod. is in IEP	13	492	973	1,194	989	3,661	0.90%
English Learner Test Variation A	0	3	21	4	7	35	0.01%
English Learner Test Variation B	0	0	3	2	1	6	0.00%
English Learner Test Variation C	0	6	30	8	6	50	0.01%
English Learner Test Variation D	0	3	10	3	5	21	0.01%
Any Accom., Mod., or EL Variation	18	628	1,179	1,358	1,166	4,349	1.07%
No Accom., Mod., or EL Variation	15,165	135,454	145,449	71,408	35,913	403,389	98.93%

Accommodation Summary for Algebra I

Initially Fluent English Proficient (I-FEP) Students	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked in test booklet	0	2	1	3	0	6	0.01%
C: Dictated responses to a scribe	0	1	0	0	0	1	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0	0.00%
G: Used braille test	0	1	1	0	0	2	0.00%
H: Used large-print test	0	5	1	5	0	11	0.02%
J: Tested over more than one day	0	1	1	5	0	7	0.01%
K: Had supervised breaks	0	13	18	14	8	53	0.09%
L: Most beneficial time of day	0	2	4	9	1	16	0.03%
M: Administered at home or in a hospital	0	1	0	5	0	6	0.01%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	1	1	0	1	3	0.00%
P: Used audio presentation (CD)	0	0	3	4	1	8	0.01%
Q: Used a calculator	0	2	16	38	35	91	0.15%
R: Used an arithmetic table	0	0	0	0	1	1	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	4	6	8	5	23	0.04%
Y: Leave blank	0	0	1	0	1	2	0.00%
Z: Examiner read test questions aloud	0	7	9	5	2	23	0.04%
Accom. or Mod. is in Section 504 Plan	0	2	0	0	0	2	0.00%
Accom. or Mod. is in IEP	0	23	43	61	47	174	0.29%
English Learner Test Variation A	0	3	5	5	0	13	0.02%
English Learner Test Variation B	0	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	2	2	1	5	0.01%
English Learner Test Variation D	0	0	6	1	0	7	0.01%
Any Accom., Mod., or EL Variation	0	37	54	77	53	221	0.36%
No Accom., Mod., or EL Variation	4,116	24,137	19,743	8,409	4,203	60,608	99.64%
English Learner (EL) Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	7	6	4	4	21	0.01%
C: Dictated responses to a scribe	0	2	6	2	3	13	0.01%
F: Used non-interfering assistive device	0	1	6	1	4	12	0.01%
G: Used braille test	0	3	2	0	1	6	0.00%
H: Used large-print test	0	8	4	6	3	21	0.01%
J: Tested over more than one day	1	20	11	35	5	72	0.05%
K: Had supervised breaks	1	125	185	133	80	524	0.36%
L: Most beneficial time of day	1	38	37	32	8	116	0.08%
M: Administered at home or in a hospital	0	3	3	6	2	14	0.01%

Accommodation Summary for Algebra I							
N: Used a dictionary	0	0	1	4	7	12	0.01%
O: Examiner presented with MCE or ASL	0	2	6	8	1	17	0.01%
P: Used audio presentation (CD)	0	12	19	49	20	100	0.07%
Q: Used a calculator	0	22	179	273	188	662	0.46%
R: Used an arithmetic table	0	10	0	1	2	13	0.01%
S: Used math manipulatives	0	1	3	0	0	4	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	3	0	0	2	5	0.00%
X: Used an unlisted accommodation	0	58	43	48	49	198	0.14%
Y: Leave blank	0	1	7	2	15	25	0.02%
Z: Examiner read test questions aloud	2	127	123	120	36	408	0.28%
Accom. or Mod. is in Section 504 Plan	0	1	0	0	0	1	0.00%
Accom. or Mod. is in IEP	2	258	451	495	308	1,514	1.05%
English Learner Test Variation A	4	274	756	528	231	1,793	1.24%
English Learner Test Variation B	0	6	106	48	39	199	0.14%
English Learner Test Variation C	4	271	1,082	743	346	2,446	1.69%
English Learner Test Variation D	1	98	907	651	336	1,993	1.38%
Any Accom., Mod., or EL Variation	9	733	2,193	1,723	914	5,572	3.85%
No Accom., Mod., or EL Variation	766	32,130	57,799	31,627	16,917	139,239	96.15%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	2	5	6	2	1	16	0.01%
C: Dictated responses to a scribe	1	1	0	0	0	2	0.00%
F: Used non-interfering assistive device	0	1	1	0	0	2	0.00%
G: Used braille test	0	3	2	2	0	7	0.01%
H: Used large-print test	1	7	4	1	2	15	0.01%
J: Tested over more than one day	0	2	5	1	0	8	0.01%
K: Had supervised breaks	1	10	21	16	8	56	0.04%
L: Most beneficial time of day	0	2	4	2	2	10	0.01%
M: Administered at home or in a hospital	1	4	4	1	2	12	0.01%
N: Used a dictionary	0	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	1	0	0	0	1	0.00%
P: Used audio presentation (CD)	0	3	3	1	1	8	0.01%
Q: Used a calculator	0	1	29	44	30	104	0.08%
R: Used an arithmetic table	0	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	4	6	7	2	19	0.01%
Y: Leave blank	0	0	1	0	0	1	0.00%
Z: Examiner read test questions aloud	0	7	7	9	1	24	0.02%

Accommodation Summary for Algebra I							
Accom. or Mod. is in Section 504 Plan	1	2	0	0	0	3	0.00%
Accom. or Mod. is in IEP	1	30	67	69	43	210	0.16%
English Learner Test Variation A	0	5	4	1	0	10	0.01%
English Learner Test Variation B	0	2	1	1	0	4	0.00%
English Learner Test Variation C	0	6	9	2	0	17	0.01%
English Learner Test Variation D	0	0	6	2	0	8	0.01%
Any Accom., Mod., or EL Variation	4	49	91	82	47	273	0.21%
No Accom., Mod., or EL Variation	5,539	54,386	47,304	17,781	7,521	132,531	99.79%

Table 6.C.22 Accommodation Summary for Geometry

Accommodation Summary for Geometry						
All Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	2	13	15	12	42	0.01%
C: Dictated responses to a scribe	0	6	16	8	30	0.01%
F: Used non-interfering assistive device	0	5	5	2	12	0.00%
G: Used braille test	0	6	2	8	16	0.00%
H: Used large-print test	3	21	25	18	67	0.02%
J: Tested over more than one day	2	8	36	28	74	0.02%
K: Had supervised breaks	2	35	183	162	382	0.10%
L: Most beneficial time of day	0	14	43	31	88	0.02%
M: Administered at home or in a hospital	1	8	12	21	42	0.01%
N: Used a dictionary	0	0	1	1	2	0.00%
O: Examiner presented with MCE or ASL	0	1	2	8	11	0.00%
P: Used audio presentation (CD)	1	0	12	33	46	0.01%
Q: Used a calculator	0	56	342	404	802	0.21%
R: Used an arithmetic table	0	0	1	11	12	0.00%
S: Used math manipulatives	0	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	3	4	0.00%
X: Used an unlisted accommodation	0	11	34	74	119	0.03%
Y: Leave blank	0	1	8	12	21	0.01%
Z: Examiner read test questions aloud	0	11	66	97	174	0.05%
Accom. or Mod. is in Section 504 Plan	1	4	14	7	26	0.01%
Accom. or Mod. is in IEP	5	107	514	642	1,268	0.33%
English Learner Test Variation A	3	42	191	163	399	0.10%
English Learner Test Variation B	0	11	37	22	70	0.02%
English Learner Test Variation C	6	75	320	261	662	0.17%
English Learner Test Variation D	3	96	263	240	602	0.16%
Any Accom., Mod., or EL Variation	14	299	1,131	1,146	2,590	0.67%
No Accom., Mod., or EL Variation	17,785	120,188	160,632	82,528	381,133	99.33%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	3	4	1	8	0.00%
C: Dictated responses to a scribe	0	1	7	5	13	0.00%
F: Used non-interfering assistive device	0	0	1	1	2	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	1	5	6	2	14	0.00%
J: Tested over more than one day	0	1	6	2	9	0.00%
K: Had supervised breaks	0	3	15	11	29	0.01%
L: Most beneficial time of day	0	1	3	2	6	0.00%

Accommodation Summary for Geometry						
M: Administered at home or in a hospital	1	7	11	12	31	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	1	0	0	1	2	0.00%
Q: Used a calculator	0	1	20	10	31	0.01%
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	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	2	6	7	15	0.00%
Y: Leave blank	0	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	3	1	4	0.00%
Accom. or Mod. is in Section 504 Plan	0	4	14	7	25	0.01%
Accom. or Mod. is in IEP	1	7	33	28	69	0.02%
English Learner Test Variation A	3	42	189	162	396	0.11%
English Learner Test Variation B	0	11	35	22	68	0.02%
English Learner Test Variation C	6	75	311	257	649	0.18%
English Learner Test Variation D	3	96	260	235	594	0.16%
Any Accom., Mod., or EL Variation	9	174	552	435	1,170	0.32%
No Accom., Mod., or EL Variation	17,591	118,345	153,332	76,697	365,965	99.68%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	2	10	11	11	34	0.21%
C: Dictated responses to a scribe	0	5	9	3	17	0.10%
F: Used non-interfering assistive device	0	5	4	1	10	0.06%
G: Used braille test	0	6	2	8	16	0.10%
H: Used large-print test	2	16	19	16	53	0.32%
J: Tested over more than one day	2	7	30	25	64	0.39%
K: Had supervised breaks	2	32	168	151	353	2.13%
L: Most beneficial time of day	0	13	40	29	82	0.49%
M: Administered at home or in a hospital	0	1	1	9	11	0.07%
N: Used a dictionary	0	0	1	1	2	0.01%
O: Examiner presented with MCE or ASL	0	1	2	8	11	0.07%
P: Used audio presentation (CD)	0	0	12	32	44	0.27%
Q: Used a calculator	0	55	321	389	765	4.62%
R: Used an arithmetic table	0	0	1	10	11	0.07%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	3	4	0.02%
X: Used an unlisted accommodation	0	9	28	67	104	0.63%

Accommodation Summary for Geometry						
Y: Leave blank	0	1	8	11	20	0.12%
Z: Examiner read test questions aloud	0	11	63	94	168	1.01%
Accom. or Mod. is in Section 504 Plan	1	0	0	0	1	0.01%
Accom. or Mod. is in IEP	4	100	480	609	1,193	7.20%
English Learner Test Variation A	0	0	2	1	3	0.02%
English Learner Test Variation B	0	0	2	0	2	0.01%
English Learner Test Variation C	0	0	9	4	13	0.08%
English Learner Test Variation D	0	0	3	5	8	0.05%
Any Accom., Mod., or EL Variation	5	125	578	706	1,414	8.53%
No Accom., Mod., or EL Variation	194	1,842	7,294	5,830	15,160	91.47%
English-Only Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	1	12	10	8	31	0.01%
C: Dictated responses to a scribe	0	4	6	3	13	0.01%
F: Used non-interfering assistive device	0	4	1	1	6	0.00%
G: Used braille test	0	3	1	5	9	0.00%
H: Used large-print test	3	15	18	12	48	0.02%
J: Tested over more than one day	1	7	20	23	51	0.02%
K: Had supervised breaks	1	26	107	112	246	0.11%
L: Most beneficial time of day	0	8	25	25	58	0.03%
M: Administered at home or in a hospital	1	7	10	17	35	0.02%
N: Used a dictionary	0	0	1	0	1	0.00%
O: Examiner presented with MCE or ASL	0	0	2	2	4	0.00%
P: Used audio presentation (CD)	0	0	5	20	25	0.01%
Q: Used a calculator	0	32	212	249	493	0.23%
R: Used an arithmetic table	0	0	1	6	7	0.00%
S: Used math manipulatives	0	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	2	3	0.00%
X: Used an unlisted accommodation	0	5	28	48	81	0.04%
Y: Leave blank	0	0	2	6	8	0.00%
Z: Examiner read test questions aloud	0	8	34	47	89	0.04%
Accom. or Mod. is in Section 504 Plan	0	4	14	7	25	0.01%
Accom. or Mod. is in IEP	4	68	317	407	796	0.37%
English Learner Test Variation A	0	0	2	2	4	0.00%
English Learner Test Variation B	0	0	2	0	2	0.00%
English Learner Test Variation C	0	0	2	2	4	0.00%
English Learner Test Variation D	0	0	3	1	4	0.00%
Any Accom., Mod., or EL Variation	5	98	408	480	991	0.46%
No Accom., Mod., or EL Variation	10,658	71,565	89,673	44,912	216,808	99.54%

Accommodation Summary for Geometry

Initially Fluent English Proficient (I-FEP) Students	Grade 8	Grade 9	Grade 10	Grade 11	Total	Pct. of Total
B: Marked in test booklet	0	1	0	0	1	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	2	0	1	3	0.01%
H: Used large-print test	0	2	0	0	2	0.01%
J: Tested over more than one day	0	1	0	0	1	0.00%
K: Had supervised breaks	0	1	2	5	8	0.02%
L: Most beneficial time of day	0	2	0	2	4	0.01%
M: Administered at home or in a hospital	0	0	0	1	1	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	1	0	0	3	4	0.01%
Q: Used a calculator	0	3	9	23	35	0.10%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	1	1	0.00%
X: Used an unlisted accommodation	0	2	1	3	6	0.02%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	5	6	0.02%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	9	11	32	52	0.14%
English Learner Test Variation A	0	1	3	0	4	0.01%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	4	0	4	0.01%
English Learner Test Variation D	0	1	1	0	2	0.01%
Any Accom., Mod., or EL Variation	1	12	17	39	69	0.19%
No Accom., Mod., or EL Variation	3,003	13,836	13,096	6,395	36,330	99.81%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	4	3	7	0.01%
C: Dictated responses to a scribe	0	1	8	5	14	0.03%
F: Used non-interfering assistive device	0	1	4	1	6	0.01%
G: Used braille test	0	0	1	0	1	0.00%
H: Used large-print test	0	1	3	5	9	0.02%
J: Tested over more than one day	0	0	9	4	13	0.03%
K: Had supervised breaks	1	7	60	37	105	0.22%
L: Most beneficial time of day	0	4	14	4	22	0.05%
M: Administered at home or in a hospital	0	0	0	3	3	0.01%

Accommodation Summary for Geometry						
N: Used a dictionary	0	0	0	1	1	0.00%
O: Examiner presented with MCE or ASL	0	1	0	5	6	0.01%
P: Used audio presentation (CD)	0	0	7	9	16	0.03%
Q: Used a calculator	0	18	99	101	218	0.45%
R: Used an arithmetic table	0	0	0	5	5	0.01%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	3	5	21	29	0.06%
Y: Leave blank	0	1	5	6	12	0.02%
Z: Examiner read test questions aloud	0	2	30	43	75	0.15%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	23	148	164	336	0.69%
English Learner Test Variation A	3	41	185	159	388	0.80%
English Learner Test Variation B	0	11	35	22	68	0.14%
English Learner Test Variation C	6	75	310	256	647	1.33%
English Learner Test Variation D	3	95	257	235	590	1.22%
Any Accom., Mod., or EL Variation	7	178	659	579	1,423	2.93%
No Accom., Mod., or EL Variation	249	7,601	23,447	15,807	47,104	97.07%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	1	0	1	1	3	0.00%
C: Dictated responses to a scribe	0	1	2	0	3	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	1	0	2	3	0.00%
H: Used large-print test	0	3	4	1	8	0.01%
J: Tested over more than one day	1	0	7	1	9	0.01%
K: Had supervised breaks	0	1	14	8	23	0.03%
L: Most beneficial time of day	0	0	4	0	4	0.00%
M: Administered at home or in a hospital	0	1	2	0	3	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	1	1	0.00%
P: Used audio presentation (CD)	0	0	0	1	1	0.00%
Q: Used a calculator	0	3	22	29	54	0.07%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	0	2	3	0.00%
Y: Leave blank	0	0	1	0	1	0.00%
Z: Examiner read test questions aloud	0	1	1	2	4	0.00%

Accommodation Summary for Geometry						
Accom. or Mod. is in Section 504 Plan	1	0	0	0	1	0.00%
Accom. or Mod. is in IEP	0	7	38	37	82	0.10%
English Learner Test Variation A	0	0	1	2	3	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	4	3	7	0.01%
English Learner Test Variation D	0	0	2	4	6	0.01%
Any Accom., Mod., or EL Variation	1	11	47	46	105	0.13%
No Accom., Mod., or EL Variation	3,871	27,083	34,239	15,293	80,486	99.87%

Table 6.C.23 Accommodation Summary for Algebra II

Accommodation Summary for Algebra II						
All Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	14	10	24	0.01%
C: Dictated responses to a scribe	0	0	1	4	5	0.00%
F: Used non-interfering assistive device	0	0	2	2	4	0.00%
G: Used braille test	0	0	6	0	6	0.00%
H: Used large-print test	0	6	16	13	35	0.01%
J: Tested over more than one day	0	2	3	14	19	0.01%
K: Had supervised breaks	0	3	21	50	74	0.03%
L: Most beneficial time of day	0	0	3	10	13	0.01%
M: Administered at home or in a hospital	0	2	6	5	13	0.01%
N: Used a dictionary	0	0	2	0	2	0.00%
O: Examiner presented with MCE or ASL	0	0	1	2	3	0.00%
P: Used audio presentation (CD)	0	0	2	10	12	0.01%
Q: Used a calculator	0	4	23	104	131	0.05%
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	1	3	9	13	0.01%
Y: Leave blank	0	0	0	7	7	0.00%
Z: Examiner read test questions aloud	0	0	7	15	22	0.01%
Accom. or Mod. is in Section 504 Plan	0	2	9	7	18	0.01%
Accom. or Mod. is in IEP	0	9	60	155	224	0.09%
English Learner Test Variation A	0	5	15	77	97	0.04%
English Learner Test Variation B	0	1	5	14	20	0.01%
English Learner Test Variation C	0	26	84	153	263	0.11%
English Learner Test Variation D	0	8	52	96	156	0.07%
Any Accom., Mod., or EL Variation	0	46	214	420	680	0.28%
No Accom., Mod., or EL Variation	702	19,793	107,206	111,164	238,865	99.72%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	3	2	5	0.00%
C: Dictated responses to a scribe	0	0	0	2	2	0.00%
F: Used non-interfering assistive device	0	0	1	1	2	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	1	3	0	4	0.00%
J: Tested over more than one day	0	0	0	3	3	0.00%
K: Had supervised breaks	0	1	1	7	9	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%

Accommodation Summary for Algebra II						
M: Administered at home or in a hospital	0	2	6	4	12	0.01%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	1	1	0.00%
P: Used audio presentation (CD)	0	0	0	2	2	0.00%
Q: Used a calculator	0	1	3	6	10	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	1	1	1	3	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	2	2	0.00%
Accom. or Mod. is in Section 504 Plan	0	1	8	7	16	0.01%
Accom. or Mod. is in IEP	0	2	4	9	15	0.01%
English Learner Test Variation A	0	5	15	76	96	0.04%
English Learner Test Variation B	0	1	5	14	20	0.01%
English Learner Test Variation C	0	26	84	152	262	0.11%
English Learner Test Variation D	0	8	52	94	154	0.07%
Any Accom., Mod., or EL Variation	0	36	142	233	411	0.17%
No Accom., Mod., or EL Variation	692	19,625	106,001	108,293	234,611	99.83%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	11	8	19	0.42%
C: Dictated responses to a scribe	0	0	1	2	3	0.07%
F: Used non-interfering assistive device	0	0	1	1	2	0.04%
G: Used braille test	0	0	6	0	6	0.13%
H: Used large-print test	0	5	13	13	31	0.69%
J: Tested over more than one day	0	2	3	11	16	0.35%
K: Had supervised breaks	0	2	20	43	65	1.44%
L: Most beneficial time of day	0	0	3	10	13	0.29%
M: Administered at home or in a hospital	0	0	0	1	1	0.02%
N: Used a dictionary	0	0	2	0	2	0.04%
O: Examiner presented with MCE or ASL	0	0	1	1	2	0.04%
P: Used audio presentation (CD)	0	0	2	8	10	0.22%
Q: Used a calculator	0	3	20	98	121	2.68%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%

Accommodation Summary for Algebra II						
X: Used an unlisted accommodation	0	0	2	8	10	0.22%
Y: Leave blank	0	0	0	7	7	0.15%
Z: Examiner read test questions aloud	0	0	7	13	20	0.44%
Accom. or Mod. is in Section 504 Plan	0	1	1	0	2	0.04%
Accom. or Mod. is in IEP	0	7	56	146	209	4.62%
English Learner Test Variation A	0	0	0	1	1	0.02%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	1	1	0.02%
English Learner Test Variation D	0	0	0	2	2	0.04%
Any Accom., Mod., or EL Variation	0	10	72	187	269	5.95%
No Accom., Mod., or EL Variation	10	168	1,205	2,871	4,254	94.05%
English-Only Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	12	9	21	0.01%
C: Dictated responses to a scribe	0	0	1	3	4	0.00%
F: Used non-interfering assistive device	0	0	2	1	3	0.00%
G: Used braille test	0	0	3	0	3	0.00%
H: Used large-print test	0	6	13	8	27	0.02%
J: Tested over more than one day	0	2	3	13	18	0.01%
K: Had supervised breaks	0	2	14	32	48	0.03%
L: Most beneficial time of day	0	0	2	7	9	0.01%
M: Administered at home or in a hospital	0	2	6	5	13	0.01%
N: Used a dictionary	0	0	2	0	2	0.00%
O: Examiner presented with MCE or ASL	0	0	0	1	1	0.00%
P: Used audio presentation (CD)	0	0	2	2	4	0.00%
Q: Used a calculator	0	2	20	72	94	0.07%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	3	6	10	0.01%
Y: Leave blank	0	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	5	11	16	0.01%
Accom. or Mod. is in Section 504 Plan	0	2	8	6	16	0.01%
Accom. or Mod. is in IEP	0	6	45	100	151	0.11%
English Learner Test Variation A	0	0	0	2	2	0.00%
English Learner Test Variation B	0	0	1	0	1	0.00%
English Learner Test Variation C	0	1	1	4	6	0.00%
English Learner Test Variation D	0	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	0	14	71	144	229	0.16%
No Accom., Mod., or EL Variation	396	11,213	64,759	64,756	141,124	99.84%

Accommodation Summary for Algebra II						
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	1	1	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	1	1	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	1	1	2	0.01%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	1	3	4	0.02%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	1	1	0.00%
P: Used audio presentation (CD)	0	0	0	1	1	0.00%
Q: Used a calculator	0	0	1	3	4	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%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	2	2	0.01%
Accom. or Mod. is in Section 504 Plan	0	0	1	1	2	0.01%
Accom. or Mod. is in IEP	0	0	2	5	7	0.03%
English Learner Test Variation A	0	0	0	2	2	0.01%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	3	4	0.02%
English Learner Test Variation D	0	0	1	3	4	0.02%
Any Accom., Mod., or EL Variation	0	0	5	15	20	0.08%
No Accom., Mod., or EL Variation	143	3,312	12,578	10,238	26,271	99.92%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	5	11	16	0.09%
L: Most beneficial time of day	0	0	1	2	3	0.02%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%

Accommodation Summary for Algebra II						
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	1	0	1	0.01%
P: Used audio presentation (CD)	0	0	0	4	4	0.02%
Q: Used a calculator	0	0	1	18	19	0.11%
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	3	3	0.02%
Y: Leave blank	0	0	0	5	5	0.03%
Z: Examiner read test questions aloud	0	0	1	2	3	0.02%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	7	34	41	0.23%
English Learner Test Variation A	0	3	15	72	90	0.51%
English Learner Test Variation B	0	1	4	14	19	0.11%
English Learner Test Variation C	0	24	79	144	247	1.41%
English Learner Test Variation D	0	7	49	92	148	0.85%
Any Accom., Mod., or EL Variation	0	27	124	238	389	2.22%
No Accom., Mod., or EL Variation	8	718	5,245	11,152	17,123	97.78%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	2	0	2	0.00%
C: Dictated responses to a scribe	0	0	0	1	1	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	3	0	3	0.01%
H: Used large-print test	0	0	2	4	6	0.01%
J: Tested over more than one day	0	0	0	1	1	0.00%
K: Had supervised breaks	0	1	1	4	6	0.01%
L: Most beneficial time of day	0	0	0	1	1	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	3	3	0.01%
Q: Used a calculator	0	2	1	11	14	0.03%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	1	1	0.00%
Z: Examiner read test questions aloud	0	0	1	0	1	0.00%

Accommodation Summary for Algebra II						
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	3	6	16	25	0.05%
English Learner Test Variation A	0	1	0	1	2	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	1	1	2	4	0.01%
English Learner Test Variation D	0	1	2	0	3	0.01%
Any Accom., Mod., or EL Variation	0	4	12	23	39	0.07%
No Accom., Mod., or EL Variation	154	4,537	24,548	24,908	54,147	99.93%

Table 6.C.24 Accommodation Summary for Summative High School Mathematics

Accommodation Summary for Summative High School Mathematics					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	8	8	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	2	2	0.00%
G: Used braille test	0	0	4	4	0.00%
H: Used large-print test	0	0	10	10	0.01%
J: Tested over more than one day	1	1	3	5	0.00%
K: Had supervised breaks	2	1	8	11	0.01%
L: Most beneficial time of day	0	0	1	1	0.00%
M: Administered at home or in a hospital	0	1	4	5	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	2	2	0.00%
Q: Used a calculator	0	2	18	20	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	4	5	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	2	2	0.00%
Accom. or Mod. is in Section 504 Plan	0	1	5	6	0.01%
Accom. or Mod. is in IEP	2	3	31	36	0.03%
English Learner Test Variation A	0	2	10	12	0.01%
English Learner Test Variation B	0	0	3	3	0.00%
English Learner Test Variation C	2	8	23	33	0.03%
English Learner Test Variation D	0	3	17	20	0.02%
Any Accom., Mod., or EL Variation	4	14	91	109	0.09%
No Accom., Mod., or EL Variation	630	17,103	98,198	115,931	99.91%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	2	2	0.00%

Accommodation Summary for Summative High School Mathematics					
K: Had supervised breaks	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	1	1	0.00%
M: Administered at home or in a hospital	0	1	4	5	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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%
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	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 Plan	0	1	5	6	0.01%
Accom. or Mod. is in IEP	0	1	1	2	0.00%
English Learner Test Variation A	0	2	10	12	0.01%
English Learner Test Variation B	0	0	3	3	0.00%
English Learner Test Variation C	2	8	22	32	0.03%
English Learner Test Variation D	0	3	17	20	0.02%
Any Accom., Mod., or EL Variation	2	11	47	60	0.05%
No Accom., Mod., or EL Variation	617	17,007	97,509	115,133	99.95%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	8	8	0.94%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	2	2	0.24%
G: Used braille test	0	0	4	4	0.47%
H: Used large-print test	0	0	10	10	1.18%
J: Tested over more than one day	1	1	1	3	0.35%
K: Had supervised breaks	2	1	8	11	1.30%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	2	2	0.24%
Q: Used a calculator	0	2	15	17	2.01%
R: Used an arithmetic table	0	0	0	0	0.00%

Accommodation Summary for Summative High School Mathematics					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	4	4	0.47%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.12%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	2	2	30	34	4.01%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.12%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	2	3	44	49	5.79%
No Accom., Mod., or EL Variation	13	96	689	798	94.21%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	8	8	0.01%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	1	1	0.00%
G: Used braille test	0	0	3	3	0.00%
H: Used large-print test	0	0	9	9	0.01%
J: Tested over more than one day	1	1	2	4	0.01%
K: Had supervised breaks	2	1	5	8	0.01%
L: Most beneficial time of day	0	0	1	1	0.00%
M: Administered at home or in a hospital	0	0	3	3	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	1	13	14	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	1	2	3	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 Plan	0	1	4	5	0.01%
Accom. or Mod. is in IEP	2	1	20	23	0.03%

Accommodation Summary for Summative High School Mathematics					
English Learner Test Variation A	0	1	1	2	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	1	1	2	0.00%
English Learner Test Variation D	0	0	1	1	0.00%
Any Accom., Mod., or EL Variation	2	4	40	46	0.07%
No Accom., Mod., or EL Variation	302	9,609	60,455	70,366	99.93%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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	1	0	1	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.01%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	1	1	2	0.01%
English Learner Test Variation A	0	0	1	1	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.01%
English Learner Test Variation D	0	0	1	1	0.01%
Any Accom., Mod., or EL Variation	0	1	5	6	0.04%
No Accom., Mod., or EL Variation	155	3,148	13,366	16,669	99.96%

Accommodation Summary for Summative High School Mathematics					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	1	1	0.03%
K: Had supervised breaks	0	0	3	3	0.10%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	2	2	0.06%
Q: Used a calculator	0	1	2	3	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	0	0	1	1	0.03%
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	1	6	7	0.22%
English Learner Test Variation A	0	1	6	7	0.22%
English Learner Test Variation B	0	0	2	2	0.06%
English Learner Test Variation C	2	7	19	28	0.90%
English Learner Test Variation D	0	3	13	16	0.51%
Any Accom., Mod., or EL Variation	2	9	38	49	1.57%
No Accom., Mod., or EL Variation	25	360	2,682	3,067	98.43%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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	1	1	0.00%
G: Used braille test	0	0	1	1	0.00%
H: Used large-print test	0	0	1	1	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Summative High School Mathematics					
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	1	1	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	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	0.00%
Accom. or Mod. is in IEP	0	0	4	4	0.02%
English Learner Test Variation A	0	0	2	2	0.01%
English Learner Test Variation B	0	0	1	1	0.00%
English Learner Test Variation C	0	0	2	2	0.01%
English Learner Test Variation D	0	0	2	2	0.01%
Any Accom., Mod., or EL Variation	0	0	8	8	0.03%
No Accom., Mod., or EL Variation	148	3,979	21,652	25,779	99.97%

Table 6.C.25 Accommodation Summary for Integrated Mathematics 1

Accommodation Summary for Integrated Mathematics 1						
All Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	2	2	4	0.05%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	1	1	0.01%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	1	2	3	0.03%
J: Tested over more than one day	0	0	5	1	6	0.07%
K: Had supervised breaks	0	14	11	5	30	0.34%
L: Most beneficial time of day	0	2	5	1	8	0.09%
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 with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	1	1	0.01%
Q: Used a calculator	0	13	14	34	61	0.69%
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	10	1	2	13	0.15%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	7	13	20	0.23%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	21	25	40	86	0.97%
English Learner Test Variation A	0	0	4	1	5	0.06%
English Learner Test Variation B	0	1	1	1	3	0.03%
English Learner Test Variation C	0	51	8	3	62	0.70%
English Learner Test Variation D	0	37	17	6	60	0.68%
Any Accom., Mod., or EL Variation	0	72	45	54	171	1.93%
No Accom., Mod., or EL Variation	65	1,689	2,572	4,382	8,708	98.07%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 1						
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 with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	1	0	1	0.01%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	1	0	1	0.01%
English Learner Test Variation A	0	0	4	1	5	0.06%
English Learner Test Variation B	0	1	1	1	3	0.04%
English Learner Test Variation C	0	51	8	3	62	0.79%
English Learner Test Variation D	0	37	17	6	60	0.77%
Any Accom., Mod., or EL Variation	0	51	19	7	77	0.99%
No Accom., Mod., or EL Variation	59	1,534	2,256	3,882	7,731	99.01%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	2	2	4	0.37%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	1	1	0.09%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	1	2	3	0.28%
J: Tested over more than one day	0	0	5	1	6	0.56%
K: Had supervised breaks	0	14	11	5	30	2.80%
L: Most beneficial time of day	0	2	5	1	8	0.75%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	1	1	0.09%
Q: Used a calculator	0	13	14	34	61	5.70%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 1						
X: Used an unlisted accommodation	0	10	1	2	13	1.21%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	6	13	19	1.77%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	21	24	40	85	7.94%
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	21	26	47	94	8.78%
No Accom., Mod., or EL Variation	6	155	316	500	977	91.22%
English-Only Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	2	1	3	0.06%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	1	1	0.02%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	1	0	1	0.02%
J: Tested over more than one day	0	0	4	1	5	0.09%
K: Had supervised breaks	0	8	7	2	17	0.32%
L: Most beneficial time of day	0	2	4	1	7	0.13%
M: Administered at home or in a hospital	0	0	0	1	1	0.02%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	1	1	0.02%
Q: Used a calculator	0	5	11	17	33	0.62%
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	5	0	1	6	0.11%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	5	8	13	0.25%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	11	18	22	51	0.96%
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	11	20	27	58	1.10%
No Accom., Mod., or EL Variation	45	940	1,568	2,676	5,229	98.90%

Accommodation Summary for Integrated Mathematics 1						
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	1	0	1	0.14%
K: Had supervised breaks	0	0	1	0	1	0.14%
L: Most beneficial time of day	0	0	1	0	1	0.14%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	3	4	0.56%
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	2	2	4	0.56%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	2	3	5	0.71%
No Accom., Mod., or EL Variation	3	120	189	391	703	99.29%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	2	2	0.13%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	5	2	1	8	0.52%
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%

Accommodation Summary for Integrated Mathematics 1						
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	8	1	12	21	1.35%
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	5	1	1	7	0.45%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	2	5	7	0.45%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	9	4	13	26	1.68%
English Learner Test Variation A	0	0	4	1	5	0.32%
English Learner Test Variation B	0	1	1	1	3	0.19%
English Learner Test Variation C	0	50	8	3	61	3.93%
English Learner Test Variation D	0	36	17	6	59	3.80%
Any Accom., Mod., or EL Variation	0	59	22	21	102	6.57%
No Accom., Mod., or EL Variation	8	319	424	699	1,450	93.43%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	1	1	2	4	0.31%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	2	3	0.23%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 1						
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	1	1	3	5	0.38%
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	1	0	0	1	0.08%
English Learner Test Variation D	0	1	0	0	1	0.08%
Any Accom., Mod., or EL Variation	0	2	1	3	6	0.46%
No Accom., Mod., or EL Variation	9	287	387	613	1,296	99.54%

Table 6.C.26 Accommodation Summary for Integrated Mathematics 2

Accommodation Summary for Integrated Mathematics 2						
All Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	1	1	0.02%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	2	2	0.05%
J: Tested over more than one day	0	0	1	1	2	0.05%
K: Had supervised breaks	0	0	7	4	11	0.26%
L: Most beneficial time of day	0	0	0	1	1	0.02%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	10	6	16	0.37%
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	4	3	7	0.16%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	5	6	0.14%
Accom. or Mod. is in Section 504 Plan	0	0	1	0	1	0.02%
Accom. or Mod. is in IEP	0	0	14	16	30	0.70%
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	5	5	0.12%
English Learner Test Variation D	0	0	2	5	7	0.16%
Any Accom., Mod., or EL Variation	0	0	18	26	44	1.02%
No Accom., Mod., or EL Variation	75	686	1,586	1,915	4,262	98.98%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	2	0	2	0.05%
L: Most beneficial time of day	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 2						
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	3	2	5	0.12%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	1	0	1	0.02%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	0	1	0.02%
Accom. or Mod. is in Section 504 Plan	0	0	1	0	1	0.02%
Accom. or Mod. is in IEP	0	0	4	2	6	0.15%
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	5	5	0.12%
English Learner Test Variation D	0	0	2	5	7	0.17%
Any Accom., Mod., or EL Variation	0	0	7	8	15	0.37%
No Accom., Mod., or EL Variation	75	667	1,522	1,782	4,046	99.63%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	1	1	0.41%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	2	2	0.82%
J: Tested over more than one day	0	0	1	1	2	0.82%
K: Had supervised breaks	0	0	5	4	9	3.67%
L: Most beneficial time of day	0	0	0	1	1	0.41%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	7	4	11	4.49%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 2						
X: Used an unlisted accommodation	0	0	3	3	6	2.45%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	5	5	2.04%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	10	14	24	9.80%
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	11	18	29	11.84%
No Accom., Mod., or EL Variation	0	19	64	133	216	88.16%
English-Only Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	1	1	0.04%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	1	1	0.04%
J: Tested over more than one day	0	0	1	0	1	0.04%
K: Had supervised breaks	0	0	6	1	7	0.25%
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 with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	8	3	11	0.40%
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	4	3	7	0.25%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	5	6	0.22%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	13	10	23	0.84%
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	0	0	14	13	27	0.98%
No Accom., Mod., or EL Variation	67	515	894	1,245	2,721	99.02%

Accommodation Summary for Integrated Mathematics 2						
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	1	1	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 with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	1	1	0.33%
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	2	2	0.66%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	2	2	0.66%
No Accom., Mod., or EL Variation	6	47	126	122	301	99.34%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	1	1	0.19%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	1	0	1	0.19%
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%

Accommodation Summary for Integrated Mathematics 2						
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	2	3	0.58%
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	1	3	4	0.77%
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	5	5	0.97%
English Learner Test Variation D	0	0	2	5	7	1.35%
Any Accom., Mod., or EL Variation	0	0	3	9	12	2.32%
No Accom., Mod., or EL Variation	2	36	223	245	506	97.68%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	1	1	0.14%
K: Had supervised breaks	0	0	0	2	2	0.27%
L: Most beneficial time of day	0	0	0	1	1	0.14%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	0	1	0.14%
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	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 2						
Accom. or Mod. is in Section 504 Plan	0	0	1	0	1	0.14%
Accom. or Mod. is in IEP	0	0	0	1	1	0.14%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	1	2	3	0.41%
No Accom., Mod., or EL Variation	0	87	341	301	729	99.59%

Table 6.C.27 Accommodation Summary for Integrated Mathematics 3

Accommodation Summary for Integrated Mathematics 3						
All Tested	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	1	1	0.07%
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 with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	5	5	0.34%
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	3	3	0.20%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	8	8	0.54%
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	8	8	0.54%
No Accom., Mod., or EL Variation	3	118	443	916	1,480	99.46%
Students Not in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 3						
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	1	1	0.07%
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	0.07%
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	0.07%
No Accom., Mod., or EL Variation	2	115	433	887	1,437	99.93%
Students in Special Education	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	1	1	2.00%
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 with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	5	5	10.00%
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	2	2	4.00%
Y: Leave blank	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 3						
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	7	7	14.00%
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	7	7	14.00%
No Accom., Mod., or EL Variation	1	3	10	29	43	86.00%
English-Only Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	1	1	0.11%
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 with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	3	3	0.33%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	2	2	0.22%
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	5	5	0.54%
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	5	5	0.54%
No Accom., Mod., or EL Variation	1	100	311	505	917	99.46%

Accommodation Summary for Integrated Mathematics 3						
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	0	9	28	111	148	100.00%
English Learner (EL) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: 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%

Accommodation Summary for Integrated Mathematics 3						
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	2	2	1.92%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0	0.00%
Y: Leave blank	0	0	0	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	2	2	1.92%
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	1.92%
No Accom., Mod., or EL Variation	1	3	20	78	102	98.08%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	0	0	0	0.00%
F: Used non-interfering assistive device	0	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0	0.00%
K: Had supervised breaks	0	0	0	0	0	0.00%
L: Most beneficial time of day	0	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	1	1	0.32%
Y: Leave blank	0	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0	0.00%

Accommodation Summary for Integrated Mathematics 3						
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	0.32%
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	0.32%
No Accom., Mod., or EL Variation	1	6	84	218	309	99.68%

Table 6.C.28 Accommodation Summary for Grade Five Science

Accommodation Summary for Grade Five Science		
All Tested	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	445	0.10%
C: Dictated responses to a scribe	26	0.01%
F: Used non-interfering assistive device	77	0.02%
G: Used braille test	26	0.01%
H: Used large-print test	178	0.04%
J: Tested over more than one day	813	0.18%
K: Had supervised breaks	2,880	0.64%
L: Most beneficial time of day	1,182	0.26%
M: Administered at home or in a hospital	44	0.01%
N: Used a dictionary	7	0.00%
O: Examiner presented with MCE or ASL	41	0.01%
P: Used audio presentation (CD)	225	0.05%
Q: Used a calculator	22	0.00%
R: Used an arithmetic table	34	0.01%
S: Used math manipulatives	10	0.00%
V: Used interfering assistive device	3	0.00%
W: Used an unlisted modification	59	0.01%
X: Used an unlisted accommodation	854	0.19%
Y: Leave blank	38	0.01%
Z: Examiner read test questions aloud	3,632	0.81%
Accom. or Mod. is in Section 504 Plan	192	0.04%
Accom. or Mod. is in IEP	6,339	1.41%
English Learner Test Variation A	594	0.13%
English Learner Test Variation B	44	0.01%
English Learner Test Variation C	225	0.05%
English Learner Test Variation D	84	0.02%
Any Accom., Mod., or EL Variation	8,043	1.78%
No Accom., Mod., or EL Variation	442,702	98.22%
Students Not in Special Education	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	58	0.01%
C: Dictated responses to a scribe	6	0.00%
F: Used non-interfering assistive device	8	0.00%
G: Used braille test	5	0.00%
H: Used large-print test	39	0.01%
J: Tested over more than one day	76	0.02%
K: Had supervised breaks	342	0.08%
L: Most beneficial time of day	110	0.03%
M: Administered at home or in a hospital	13	0.00%
N: Used a dictionary	0	0.00%

Accommodation Summary for Grade Five Science		
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	17	0.00%
Q: Used a calculator	3	0.00%
R: Used an arithmetic table	5	0.00%
S: Used math manipulatives	1	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.00%
X: Used an unlisted accommodation	129	0.03%
Y: Leave blank	7	0.00%
Z: Examiner read test questions aloud	381	0.09%
Accom. or Mod. is in Section 504 Plan	176	0.04%
Accom. or Mod. is in IEP	592	0.14%
English Learner Test Variation A	575	0.14%
English Learner Test Variation B	20	0.00%
English Learner Test Variation C	197	0.05%
English Learner Test Variation D	84	0.02%
Any Accom., Mod., or EL Variation	1,576	0.38%
No Accom., Mod., or EL Variation	412,894	99.62%
Students in Special Education	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	386	1.07%
C: Dictated responses to a scribe	20	0.06%
F: Used non-interfering assistive device	69	0.19%
G: Used braille test	21	0.06%
H: Used large-print test	139	0.38%
J: Tested over more than one day	734	2.03%
K: Had supervised breaks	2,524	6.96%
L: Most beneficial time of day	1,068	2.95%
M: Administered at home or in a hospital	30	0.08%
N: Used a dictionary	7	0.02%
O: Examiner presented with MCE or ASL	39	0.11%
P: Used audio presentation (CD)	208	0.57%
Q: Used a calculator	19	0.05%
R: Used an arithmetic table	29	0.08%
S: Used math manipulatives	9	0.02%
V: Used interfering assistive device	3	0.01%
W: Used an unlisted modification	55	0.15%
X: Used an unlisted accommodation	718	1.98%
Y: Leave blank	31	0.09%
Z: Examiner read test questions aloud	3,240	8.94%
Accom. or Mod. is in Section 504 Plan	16	0.04%
Accom. or Mod. is in IEP	5,719	15.78%

Accommodation Summary for Grade Five Science		
English Learner Test Variation A	19	0.05%
English Learner Test Variation B	24	0.07%
English Learner Test Variation C	28	0.08%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	6,439	17.77%
No Accom., Mod., or EL Variation	29,802	82.23%
English-Only Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	312	0.13%
C: Dictated responses to a scribe	16	0.01%
F: Used non-interfering assistive device	44	0.02%
G: Used braille test	15	0.01%
H: Used large-print test	111	0.05%
J: Tested over more than one day	518	0.21%
K: Had supervised breaks	1,739	0.71%
L: Most beneficial time of day	770	0.32%
M: Administered at home or in a hospital	28	0.01%
N: Used a dictionary	3	0.00%
O: Examiner presented with MCE or ASL	21	0.01%
P: Used audio presentation (CD)	147	0.06%
Q: Used a calculator	16	0.01%
R: Used an arithmetic table	18	0.01%
S: Used math manipulatives	5	0.00%
V: Used interfering assistive device	1	0.00%
W: Used an unlisted modification	45	0.02%
X: Used an unlisted accommodation	552	0.23%
Y: Leave blank	24	0.01%
Z: Examiner read test questions aloud	2,016	0.82%
Accom. or Mod. is in Section 504 Plan	146	0.06%
Accom. or Mod. is in IEP	3,764	1.54%
English Learner Test Variation A	10	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	10	0.00%
English Learner Test Variation D	1	0.00%
Any Accom., Mod., or EL Variation	4,374	1.79%
No Accom., Mod., or EL Variation	239,994	98.21%
Initially Fluent English Proficient (I-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	10	0.03%
C: Dictated responses to a scribe	3	0.01%
F: Used non-interfering assistive device	3	0.01%
G: Used braille test	0	0.00%
H: Used large-print test	7	0.02%

Accommodation Summary for Grade Five Science		
J: Tested over more than one day	16	0.05%
K: Had supervised breaks	62	0.19%
L: Most beneficial time of day	27	0.08%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	4	0.01%
P: Used audio presentation (CD)	2	0.01%
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	2	0.01%
X: Used an unlisted accommodation	28	0.08%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	83	0.25%
Accom. or Mod. is in Section 504 Plan	8	0.02%
Accom. or Mod. is in IEP	149	0.45%
English Learner Test Variation A	2	0.01%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	0	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	178	0.54%
No Accom., Mod., or EL Variation	32,896	99.46%
English Learner (EL) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	110	0.09%
C: Dictated responses to a scribe	5	0.00%
F: Used non-interfering assistive device	28	0.02%
G: Used braille test	9	0.01%
H: Used large-print test	47	0.04%
J: Tested over more than one day	268	0.22%
K: Had supervised breaks	1,023	0.86%
L: Most beneficial time of day	367	0.31%
M: Administered at home or in a hospital	14	0.01%
N: Used a dictionary	4	0.00%
O: Examiner presented with MCE or ASL	16	0.01%
P: Used audio presentation (CD)	76	0.06%
Q: Used a calculator	6	0.01%
R: Used an arithmetic table	14	0.01%
S: Used math manipulatives	5	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	11	0.01%

Accommodation Summary for Grade Five Science		
X: Used an unlisted accommodation	260	0.22%
Y: Leave blank	11	0.01%
Z: Examiner read test questions aloud	1,493	1.25%
Accom. or Mod. is in Section 504 Plan	35	0.03%
Accom. or Mod. is in IEP	2,325	1.94%
English Learner Test Variation A	580	0.48%
English Learner Test Variation B	41	0.03%
English Learner Test Variation C	214	0.18%
English Learner Test Variation D	83	0.07%
Any Accom., Mod., or EL Variation	3,369	2.82%
No Accom., Mod., or EL Variation	116,270	97.18%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 5**	**Pct. of Total**
B: Marked in test booklet	12	0.02%
C: Dictated responses to a scribe	2	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	12	0.02%
J: Tested over more than one day	7	0.01%
K: Had supervised breaks	39	0.07%
L: Most beneficial time of day	12	0.02%
M: Administered at home or in a hospital	1	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	0	0.00%
Q: Used a calculator	0	0.00%
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	1	0.00%
X: Used an unlisted accommodation	9	0.02%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	33	0.06%
Accom. or Mod. is in Section 504 Plan	3	0.01%
Accom. or Mod. is in IEP	76	0.14%
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	0	0.00%
Any Accom., Mod., or EL Variation	95	0.18%
No Accom., Mod., or EL Variation	52,917	99.82%

Table 6.C.29 Accommodation Summary for Grade Eight Science

Accommodation Summary for Grade Eight Science		
All Tested	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	215	0.04%
C: Dictated responses to a scribe	32	0.01%
F: Used non-interfering assistive device	20	0.00%
G: Used braille test	56	0.01%
H: Used large-print test	179	0.04%
J: Tested over more than one day	467	0.10%
K: Had supervised breaks	1,914	0.40%
L: Most beneficial time of day	662	0.14%
M: Administered at home or in a hospital	86	0.02%
N: Used a dictionary	16	0.00%
O: Examiner presented with MCE or ASL	49	0.01%
P: Used audio presentation (CD)	456	0.09%
Q: Used a calculator	136	0.03%
R: Used an arithmetic table	36	0.01%
S: Used math manipulatives	5	0.00%
V: Used interfering assistive device	4	0.00%
W: Used an unlisted modification	77	0.02%
X: Used an unlisted accommodation	819	0.17%
Y: Leave blank	32	0.01%
Z: Examiner read test questions aloud	2,010	0.42%
Accom. or Mod. is in Section 504 Plan	98	0.02%
Accom. or Mod. is in IEP	4,638	0.97%
English Learner Test Variation A	1,208	0.25%
English Learner Test Variation B	29	0.01%
English Learner Test Variation C	919	0.19%
English Learner Test Variation D	476	0.10%
Any Accom., Mod., or EL Variation	7,222	1.50%
No Accom., Mod., or EL Variation	473,159	98.50%
Students Not in Special Education	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	28	0.01%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	5	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	25	0.01%
J: Tested over more than one day	32	0.01%
K: Had supervised breaks	147	0.03%
L: Most beneficial time of day	43	0.01%
M: Administered at home or in a hospital	57	0.01%
N: Used a dictionary	0	0.00%

Accommodation Summary for Grade Eight Science		
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	16	0.00%
Q: Used a calculator	8	0.00%
R: Used an arithmetic table	1	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	21	0.00%
X: Used an unlisted accommodation	87	0.02%
Y: Leave blank	12	0.00%
Z: Examiner read test questions aloud	108	0.02%
Accom. or Mod. is in Section 504 Plan	88	0.02%
Accom. or Mod. is in IEP	297	0.07%
English Learner Test Variation A	1,160	0.27%
English Learner Test Variation B	18	0.00%
English Learner Test Variation C	892	0.20%
English Learner Test Variation D	461	0.11%
Any Accom., Mod., or EL Variation	2,158	0.49%
No Accom., Mod., or EL Variation	434,609	99.51%
Students in Special Education	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	187	0.43%
C: Dictated responses to a scribe	29	0.07%
F: Used non-interfering assistive device	15	0.03%
G: Used braille test	53	0.12%
H: Used large-print test	153	0.35%
J: Tested over more than one day	434	1.00%
K: Had supervised breaks	1,759	4.04%
L: Most beneficial time of day	618	1.42%
M: Administered at home or in a hospital	27	0.06%
N: Used a dictionary	16	0.04%
O: Examiner presented with MCE or ASL	48	0.11%
P: Used audio presentation (CD)	436	1.00%
Q: Used a calculator	128	0.29%
R: Used an arithmetic table	35	0.08%
S: Used math manipulatives	5	0.01%
V: Used interfering assistive device	4	0.01%
W: Used an unlisted modification	56	0.13%
X: Used an unlisted accommodation	730	1.67%
Y: Leave blank	20	0.05%
Z: Examiner read test questions aloud	1,901	4.36%
Accom. or Mod. is in Section 504 Plan	10	0.02%
Accom. or Mod. is in IEP	4,324	9.92%

Accommodation Summary for Grade Eight Science		
English Learner Test Variation A	48	0.11%
English Learner Test Variation B	11	0.03%
English Learner Test Variation C	27	0.06%
English Learner Test Variation D	15	0.03%
Any Accom., Mod., or EL Variation	5,047	11.58%
No Accom., Mod., or EL Variation	38,540	88.42%
English-Only Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	162	0.06%
C: Dictated responses to a scribe	28	0.01%
F: Used non-interfering assistive device	14	0.01%
G: Used braille test	33	0.01%
H: Used large-print test	113	0.04%
J: Tested over more than one day	347	0.13%
K: Had supervised breaks	1,217	0.46%
L: Most beneficial time of day	433	0.16%
M: Administered at home or in a hospital	61	0.02%
N: Used a dictionary	5	0.00%
O: Examiner presented with MCE or ASL	29	0.01%
P: Used audio presentation (CD)	266	0.10%
Q: Used a calculator	91	0.03%
R: Used an arithmetic table	18	0.01%
S: Used math manipulatives	3	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	41	0.02%
X: Used an unlisted accommodation	512	0.19%
Y: Leave blank	27	0.01%
Z: Examiner read test questions aloud	1,042	0.40%
Accom. or Mod. is in Section 504 Plan	85	0.03%
Accom. or Mod. is in IEP	2,791	1.06%
English Learner Test Variation A	20	0.01%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	15	0.01%
English Learner Test Variation D	16	0.01%
Any Accom., Mod., or EL Variation	3,329	1.26%
No Accom., Mod., or EL Variation	260,242	98.74%
Initially Fluent English Proficient (I-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	6	0.01%
C: Dictated responses to a scribe	0	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	2	0.00%
H: Used large-print test	8	0.02%

Accommodation Summary for Grade Eight Science		
J: Tested over more than one day	6	0.01%
K: Had supervised breaks	38	0.09%
L: Most beneficial time of day	11	0.03%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	3	0.01%
P: Used audio presentation (CD)	10	0.02%
Q: Used a calculator	2	0.00%
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	2	0.00%
X: Used an unlisted accommodation	16	0.04%
Y: Leave blank	1	0.00%
Z: Examiner read test questions aloud	52	0.13%
Accom. or Mod. is in Section 504 Plan	2	0.00%
Accom. or Mod. is in IEP	106	0.26%
English Learner Test Variation A	8	0.02%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	2	0.00%
English Learner Test Variation D	0	0.00%
Any Accom., Mod., or EL Variation	139	0.35%
No Accom., Mod., or EL Variation	40,014	99.65%
English Learner (EL) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	34	0.04%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	6	0.01%
G: Used braille test	18	0.02%
H: Used large-print test	44	0.05%
J: Tested over more than one day	107	0.12%
K: Had supervised breaks	605	0.68%
L: Most beneficial time of day	201	0.22%
M: Administered at home or in a hospital	15	0.02%
N: Used a dictionary	11	0.01%
O: Examiner presented with MCE or ASL	16	0.02%
P: Used audio presentation (CD)	165	0.18%
Q: Used a calculator	39	0.04%
R: Used an arithmetic table	12	0.01%
S: Used math manipulatives	2	0.00%
V: Used interfering assistive device	2	0.00%
W: Used an unlisted modification	30	0.03%

Accommodation Summary for Grade Eight Science		
X: Used an unlisted accommodation	268	0.30%
Y: Leave blank	4	0.00%
Z: Examiner read test questions aloud	868	0.97%
Accom. or Mod. is in Section 504 Plan	6	0.01%
Accom. or Mod. is in IEP	1,607	1.79%
English Learner Test Variation A	1,170	1.31%
English Learner Test Variation B	23	0.03%
English Learner Test Variation C	892	1.00%
English Learner Test Variation D	456	0.51%
Any Accom., Mod., or EL Variation	3,573	3.99%
No Accom., Mod., or EL Variation	86,005	96.01%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 8**	**Pct. of Total**
B: Marked in test booklet	11	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	3	0.00%
H: Used large-print test	14	0.02%
J: Tested over more than one day	6	0.01%
K: Had supervised breaks	48	0.06%
L: Most beneficial time of day	15	0.02%
M: Administered at home or in a hospital	4	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	14	0.02%
Q: Used a calculator	3	0.00%
R: Used an arithmetic table	4	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	4	0.00%
X: Used an unlisted accommodation	19	0.02%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	43	0.05%
Accom. or Mod. is in Section 504 Plan	5	0.01%
Accom. or Mod. is in IEP	119	0.14%
English Learner Test Variation A	8	0.01%
English Learner Test Variation B	3	0.00%
English Learner Test Variation C	9	0.01%
English Learner Test Variation D	2	0.00%
Any Accom., Mod., or EL Variation	162	0.19%
No Accom., Mod., or EL Variation	86,174	99.81%

Table 6.C.30 Accommodation Summary for Grade Ten Life Science

Accommodation Summary for Grade Ten Life Science		
All Tested	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	72	0.02%
C: Dictated responses to a scribe	27	0.01%
F: Used non-interfering assistive device	13	0.00%
G: Used braille test	22	0.00%
H: Used large-print test	84	0.02%
J: Tested over more than one day	197	0.04%
K: Had supervised breaks	919	0.20%
L: Most beneficial time of day	251	0.05%
M: Administered at home or in a hospital	54	0.01%
N: Used a dictionary	20	0.00%
O: Examiner presented with MCE or ASL	9	0.00%
P: Used audio presentation (CD)	147	0.03%
Q: Used a calculator	87	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	9	0.00%
X: Used an unlisted accommodation	333	0.07%
Y: Leave blank	21	0.00%
Z: Examiner read test questions aloud	424	0.09%
Accom. or Mod. is in Section 504 Plan	36	0.01%
Accom. or Mod. is in IEP	1,774	0.38%
English Learner Test Variation A	775	0.17%
English Learner Test Variation B	126	0.03%
English Learner Test Variation C	1,162	0.25%
English Learner Test Variation D	858	0.18%
Any Accom., Mod., or EL Variation	3,797	0.82%
No Accom., Mod., or EL Variation	461,609	99.18%
Students Not in Special Education	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	7	0.00%
C: Dictated responses to a scribe	9	0.00%
F: Used non-interfering assistive device	3	0.00%
G: Used braille test	3	0.00%
H: Used large-print test	16	0.00%
J: Tested over more than one day	12	0.00%
K: Had supervised breaks	71	0.02%
L: Most beneficial time of day	15	0.00%
M: Administered at home or in a hospital	37	0.01%
N: Used a dictionary	2	0.00%

Accommodation Summary for Grade Ten Life Science		
O: Examiner presented with MCE or ASL	1	0.00%
P: Used audio presentation (CD)	3	0.00%
Q: Used a calculator	5	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	29	0.01%
Y: Leave blank	3	0.00%
Z: Examiner read test questions aloud	20	0.00%
Accom. or Mod. is in Section 504 Plan	33	0.01%
Accom. or Mod. is in IEP	116	0.03%
English Learner Test Variation A	766	0.18%
English Learner Test Variation B	121	0.03%
English Learner Test Variation C	1,133	0.26%
English Learner Test Variation D	836	0.20%
Any Accom., Mod., or EL Variation	1,879	0.44%
No Accom., Mod., or EL Variation	426,714	99.56%
Students in Special Education	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	65	0.18%
C: Dictated responses to a scribe	18	0.05%
F: Used non-interfering assistive device	10	0.03%
G: Used braille test	19	0.05%
H: Used large-print test	68	0.18%
J: Tested over more than one day	185	0.50%
K: Had supervised breaks	844	2.29%
L: Most beneficial time of day	236	0.64%
M: Administered at home or in a hospital	17	0.05%
N: Used a dictionary	18	0.05%
O: Examiner presented with MCE or ASL	8	0.02%
P: Used audio presentation (CD)	144	0.39%
Q: Used a calculator	81	0.22%
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	9	0.02%
X: Used an unlisted accommodation	304	0.83%
Y: Leave blank	18	0.05%
Z: Examiner read test questions aloud	400	1.09%
Accom. or Mod. is in Section 504 Plan	3	0.01%
Accom. or Mod. is in IEP	1,650	4.49%

Accommodation Summary for Grade Ten Life Science		
English Learner Test Variation A	9	0.02%
English Learner Test Variation B	5	0.01%
English Learner Test Variation C	29	0.08%
English Learner Test Variation D	22	0.06%
Any Accom., Mod., or EL Variation	1,910	5.19%
No Accom., Mod., or EL Variation	34,876	94.81%
English-Only Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	54	0.02%
C: Dictated responses to a scribe	14	0.01%
F: Used non-interfering assistive device	5	0.00%
G: Used braille test	14	0.01%
H: Used large-print test	63	0.02%
J: Tested over more than one day	132	0.05%
K: Had supervised breaks	647	0.24%
L: Most beneficial time of day	181	0.07%
M: Administered at home or in a hospital	39	0.01%
N: Used a dictionary	9	0.00%
O: Examiner presented with MCE or ASL	7	0.00%
P: Used audio presentation (CD)	83	0.03%
Q: Used a calculator	56	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	6	0.00%
X: Used an unlisted accommodation	213	0.08%
Y: Leave blank	15	0.01%
Z: Examiner read test questions aloud	228	0.09%
Accom. or Mod. is in Section 504 Plan	33	0.01%
Accom. or Mod. is in IEP	1,153	0.43%
English Learner Test Variation A	11	0.00%
English Learner Test Variation B	2	0.00%
English Learner Test Variation C	10	0.00%
English Learner Test Variation D	7	0.00%
Any Accom., Mod., or EL Variation	1,373	0.52%
No Accom., Mod., or EL Variation	264,775	99.48%
Initially Fluent English Proficient (I-FEP) Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	2	0.01%
C: Dictated responses to a scribe	1	0.00%
F: Used non-interfering assistive device	0	0.00%
G: Used braille test	0	0.00%
H: Used large-print test	7	0.02%

Accommodation Summary for Grade Ten Life Science		
J: Tested over more than one day	8	0.02%
K: Had supervised breaks	27	0.07%
L: Most beneficial time of day	9	0.02%
M: Administered at home or in a hospital	4	0.01%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	4	0.01%
Q: Used a calculator	4	0.01%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	11	0.03%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	9	0.02%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	57	0.14%
English Learner Test Variation A	10	0.03%
English Learner Test Variation B	0	0.00%
English Learner Test Variation C	5	0.01%
English Learner Test Variation D	4	0.01%
Any Accom., Mod., or EL Variation	76	0.19%
No Accom., Mod., or EL Variation	39,755	99.81%
English Learner (EL) Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	8	0.01%
C: Dictated responses to a scribe	9	0.01%
F: Used non-interfering assistive device	5	0.01%
G: Used braille test	2	0.00%
H: Used large-print test	9	0.01%
J: Tested over more than one day	47	0.06%
K: Had supervised breaks	204	0.28%
L: Most beneficial time of day	52	0.07%
M: Administered at home or in a hospital	7	0.01%
N: Used a dictionary	11	0.01%
O: Examiner presented with MCE or ASL	2	0.00%
P: Used audio presentation (CD)	56	0.08%
Q: Used a calculator	21	0.03%
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	3	0.00%

Accommodation Summary for Grade Ten Life Science		
X: Used an unlisted accommodation	100	0.14%
Y: Leave blank	6	0.01%
Z: Examiner read test questions aloud	168	0.23%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	490	0.67%
English Learner Test Variation A	752	1.02%
English Learner Test Variation B	123	0.17%
English Learner Test Variation C	1,139	1.55%
English Learner Test Variation D	836	1.14%
Any Accom., Mod., or EL Variation	2,244	3.05%
No Accom., Mod., or EL Variation	71,287	96.95%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 10**	**Pct. of Total**
B: Marked in test booklet	8	0.01%
C: Dictated responses to a scribe	3	0.00%
F: Used non-interfering assistive device	2	0.00%
G: Used braille test	6	0.01%
H: Used large-print test	5	0.01%
J: Tested over more than one day	9	0.01%
K: Had supervised breaks	36	0.04%
L: Most beneficial time of day	8	0.01%
M: Administered at home or in a hospital	4	0.00%
N: Used a dictionary	0	0.00%
O: Examiner presented with MCE or ASL	0	0.00%
P: Used audio presentation (CD)	4	0.00%
Q: Used a calculator	6	0.01%
R: Used an arithmetic table	0	0.00%
S: Used math manipulatives	0	0.00%
V: Used interfering assistive device	0	0.00%
W: Used an unlisted modification	0	0.00%
X: Used an unlisted accommodation	9	0.01%
Y: Leave blank	0	0.00%
Z: Examiner read test questions aloud	18	0.02%
Accom. or Mod. is in Section 504 Plan	1	0.00%
Accom. or Mod. is in IEP	69	0.08%
English Learner Test Variation A	2	0.00%
English Learner Test Variation B	1	0.00%
English Learner Test Variation C	8	0.01%
English Learner Test Variation D	11	0.01%
Any Accom., Mod., or EL Variation	96	0.11%
No Accom., Mod., or EL Variation	85,029	99.89%

Table 6.C.31 Accommodation Summary for Biology

Accommodation Summary for Biology					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	28	35	14	77	0.01%
C: Dictated responses to a scribe	4	10	1	15	0.00%
F: Used non-interfering assistive device	5	6	1	12	0.00%
G: Used braille test	8	8	6	22	0.00%
H: Used large-print test	25	43	16	84	0.02%
J: Tested over more than one day	43	124	56	223	0.04%
K: Had supervised breaks	209	519	274	1,002	0.19%
L: Most beneficial time of day	72	140	86	298	0.06%
M: Administered at home or in a hospital	17	30	30	77	0.01%
N: Used a dictionary	0	11	11	22	0.00%
O: Examiner presented with MCE or ASL	6	5	1	12	0.00%
P: Used audio presentation (CD)	21	61	17	99	0.02%
Q: Used a calculator	21	76	37	134	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	5	6	12	0.00%
X: Used an unlisted accommodation	82	161	130	373	0.07%
Y: Leave blank	9	15	19	43	0.01%
Z: Examiner read test questions aloud	106	297	123	526	0.10%
Accom. or Mod. is in Section 504 Plan	7	21	7	35	0.01%
Accom. or Mod. is in IEP	410	1,005	511	1,926	0.37%
English Learner Test Variation A	163	393	185	741	0.14%
English Learner Test Variation B	29	65	15	109	0.02%
English Learner Test Variation C	181	597	290	1,068	0.20%
English Learner Test Variation D	169	558	232	959	0.18%
Any Accom., Mod., or EL Variation	806	2,113	1,028	3,947	0.75%
No Accom., Mod., or EL Variation	177,259	247,887	95,960	521,106	99.25%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	3	3	0	6	0.00%
C: Dictated responses to a scribe	0	2	1	3	0.00%
F: Used non-interfering assistive device	3	0	0	3	0.00%
G: Used braille test	0	0	1	1	0.00%
H: Used large-print test	4	6	3	13	0.00%
J: Tested over more than one day	2	8	2	12	0.00%

Accommodation Summary for Biology					
K: Had supervised breaks	21	40	12	73	0.01%
L: Most beneficial time of day	4	8	4	16	0.00%
M: Administered at home or in a hospital	12	22	15	49	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	4	0	0	4	0.00%
P: Used audio presentation (CD)	1	2	1	4	0.00%
Q: Used a calculator	1	5	2	8	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	1	0	1	0.00%
X: Used an unlisted accommodation	3	14	9	26	0.01%
Y: Leave blank	1	2	2	5	0.00%
Z: Examiner read test questions aloud	5	17	5	27	0.01%
Accom. or Mod. is in Section 504 Plan	7	19	7	33	0.01%
Accom. or Mod. is in IEP	23	67	23	113	0.02%
English Learner Test Variation A	160	388	183	731	0.15%
English Learner Test Variation B	29	63	14	106	0.02%
English Learner Test Variation C	180	586	285	1,051	0.21%
English Learner Test Variation D	166	547	227	940	0.19%
Any Accom., Mod., or EL Variation	369	1,040	458	1,867	0.38%
No Accom., Mod., or EL Variation	169,894	230,075	88,866	488,835	99.62%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	25	32	14	71	0.21%
C: Dictated responses to a scribe	4	8	0	12	0.03%
F: Used non-interfering assistive device	2	6	1	9	0.03%
G: Used braille test	8	8	5	21	0.06%
H: Used large-print test	21	37	13	71	0.21%
J: Tested over more than one day	41	116	54	211	0.61%
K: Had supervised breaks	187	476	259	922	2.69%
L: Most beneficial time of day	68	132	82	282	0.82%
M: Administered at home or in a hospital	5	8	15	28	0.08%
N: Used a dictionary	0	11	11	22	0.06%
O: Examiner presented with MCE or ASL	2	5	1	8	0.02%
P: Used audio presentation (CD)	20	59	16	95	0.28%
Q: Used a calculator	20	71	33	124	0.36%
R: Used an arithmetic table	0	0	0	0	0.00%

Accommodation Summary for Biology					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	4	6	11	0.03%
X: Used an unlisted accommodation	77	147	119	343	1.00%
Y: Leave blank	8	13	17	38	0.11%
Z: Examiner read test questions aloud	101	276	113	490	1.43%
Accom. or Mod. is in Section 504 Plan	0	2	0	2	0.01%
Accom. or Mod. is in IEP	385	931	480	1,796	5.23%
English Learner Test Variation A	3	5	2	10	0.03%
English Learner Test Variation B	0	2	1	3	0.01%
English Learner Test Variation C	1	11	5	17	0.05%
English Learner Test Variation D	3	11	5	19	0.06%
Any Accom., Mod., or EL Variation	435	1,066	562	2,063	6.01%
No Accom., Mod., or EL Variation	7,364	17,802	7,091	32,257	93.99%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	25	27	12	64	0.02%
C: Dictated responses to a scribe	4	5	0	9	0.00%
F: Used non-interfering assistive device	4	2	1	7	0.00%
G: Used braille test	5	3	5	13	0.00%
H: Used large-print test	21	32	12	65	0.02%
J: Tested over more than one day	39	77	47	163	0.05%
K: Had supervised breaks	151	346	204	701	0.24%
L: Most beneficial time of day	52	89	70	211	0.07%
M: Administered at home or in a hospital	12	21	24	57	0.02%
N: Used a dictionary	0	7	2	9	0.00%
O: Examiner presented with MCE or ASL	2	5	1	8	0.00%
P: Used audio presentation (CD)	18	39	12	69	0.02%
Q: Used a calculator	14	47	18	79	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	1	5	6	12	0.00%
X: Used an unlisted accommodation	54	118	82	254	0.09%
Y: Leave blank	4	8	9	21	0.01%
Z: Examiner read test questions aloud	70	151	74	295	0.10%
Accom. or Mod. is in Section 504 Plan	7	19	6	32	0.01%
Accom. or Mod. is in IEP	288	631	346	1,265	0.43%

Accommodation Summary for Biology					
English Learner Test Variation A	2	2	3	7	0.00%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	3	4	2	9	0.00%
English Learner Test Variation D	1	2	7	10	0.00%
Any Accom., Mod., or EL Variation	345	752	420	1,517	0.51%
No Accom., Mod., or EL Variation	101,786	138,830	54,478	295,094	99.49%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	1	1	0	2	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 test	2	0	0	2	0.00%
H: Used large-print test	1	3	0	4	0.01%
J: Tested over more than one day	1	4	1	6	0.01%
K: Had supervised breaks	4	18	10	32	0.07%
L: Most beneficial time of day	3	7	3	13	0.03%
M: Administered at home or in a hospital	0	4	1	5	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	1	0	0	1	0.00%
P: Used audio presentation (CD)	1	2	1	4	0.01%
Q: Used a calculator	1	4	0	5	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	7	3	5	15	0.03%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	2	8	0	10	0.02%
Accom. or Mod. is in Section 504 Plan	0	1	1	2	0.00%
Accom. or Mod. is in IEP	16	33	15	64	0.13%
English Learner Test Variation A	1	6	3	10	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	1	5	3	9	0.02%
English Learner Test Variation D	1	1	1	3	0.01%
Any Accom., Mod., or EL Variation	18	46	21	85	0.18%
No Accom., Mod., or EL Variation	18,445	19,846	9,452	47,743	99.82%

Accommodation Summary for Biology					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	5	2	7	0.01%
C: Dictated responses to a scribe	0	3	1	4	0.01%
F: Used non-interfering assistive device	0	2	0	2	0.00%
G: Used braille test	0	1	0	1	0.00%
H: Used large-print test	1	6	3	10	0.01%
J: Tested over more than one day	3	33	6	42	0.05%
K: Had supervised breaks	49	128	52	229	0.29%
L: Most beneficial time of day	17	37	10	64	0.08%
M: Administered at home or in a hospital	0	3	3	6	0.01%
N: Used a dictionary	0	4	9	13	0.02%
O: Examiner presented with MCE or ASL	3	0	0	3	0.00%
P: Used audio presentation (CD)	2	17	2	21	0.03%
Q: Used a calculator	5	18	18	41	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	19	39	38	96	0.12%
Y: Leave blank	5	5	8	18	0.02%
Z: Examiner read test questions aloud	30	119	46	195	0.25%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	92	288	131	511	0.65%
English Learner Test Variation A	156	381	176	713	0.91%
English Learner Test Variation B	29	63	15	107	0.14%
English Learner Test Variation C	175	579	282	1,036	1.32%
English Learner Test Variation D	167	545	220	932	1.18%
Any Accom., Mod., or EL Variation	419	1,239	555	2,213	2.81%
No Accom., Mod., or EL Variation	20,056	41,164	15,340	76,560	97.19%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	2	2	0	4	0.00%
C: Dictated responses to a scribe	0	2	0	2	0.00%
F: Used non-interfering assistive device	0	2	0	2	0.00%
G: Used braille test	1	4	1	6	0.01%
H: Used large-print test	2	2	1	5	0.00%
J: Tested over more than one day	0	9	2	11	0.01%

Accommodation Summary for Biology					
K: Had supervised breaks	5	25	6	36	0.04%
L: Most beneficial time of day	0	7	3	10	0.01%
M: Administered at home or in a hospital	5	2	2	9	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	3	2	5	0.00%
Q: Used a calculator	1	7	1	9	0.01%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	2	1	4	7	0.01%
Y: Leave blank	0	2	1	3	0.00%
Z: Examiner read test questions aloud	4	16	2	22	0.02%
Accom. or Mod. is in Section 504 Plan	0	1	0	1	0.00%
Accom. or Mod. is in IEP	14	47	15	76	0.08%
English Learner Test Variation A	4	2	3	9	0.01%
English Learner Test Variation B	0	1	0	1	0.00%
English Learner Test Variation C	2	6	3	11	0.01%
English Learner Test Variation D	0	10	3	13	0.01%
Any Accom., Mod., or EL Variation	23	66	27	116	0.11%
No Accom., Mod., or EL Variation	36,741	47,688	16,552	100,981	99.89%

Table 6.C.32 Accommodation Summary for Chemistry

Accommodation Summary for Chemistry					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	7	7	14	0.01%
C: Dictated responses to a scribe	0	4	3	7	0.00%
F: Used non-interfering assistive device	0	0	2	2	0.00%
G: Used braille test	0	0	3	3	0.00%
H: Used large-print test	2	14	16	32	0.01%
J: Tested over more than one day	3	11	12	26	0.01%
K: Had supervised breaks	7	24	37	68	0.03%
L: Most beneficial time of day	3	6	8	17	0.01%
M: Administered at home or in a hospital	0	3	3	6	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	10	10	0.00%
P: Used audio presentation (CD)	0	1	13	14	0.01%
Q: Used a calculator	1	8	25	34	0.01%
R: Used an arithmetic table	0	0	1	1	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	8	19	27	0.01%
Y: Leave blank	0	1	10	11	0.00%
Z: Examiner read test questions aloud	0	1	19	20	0.01%
Accom. or Mod. is in Section 504 Plan	0	7	4	11	0.00%
Accom. or Mod. is in IEP	6	43	122	171	0.07%
English Learner Test Variation A	2	13	27	42	0.02%
English Learner Test Variation B	0	3	7	10	0.00%
English Learner Test Variation C	2	36	46	84	0.04%
English Learner Test Variation D	4	35	61	100	0.04%
Any Accom., Mod., or EL Variation	15	120	247	382	0.16%
No Accom., Mod., or EL Variation	4,066	102,081	125,910	232,057	99.84%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	3	2	5	0.00%
C: Dictated responses to a scribe	0	3	2	5	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0.00%
H: Used large-print test	1	4	1	6	0.00%
J: Tested over more than one day	0	0	1	1	0.00%

Accommodation Summary for Chemistry					
K: Had supervised breaks	2	4	2	8	0.00%
L: Most beneficial time of day	0	0	2	2	0.00%
M: Administered at home or in a hospital	0	3	3	6	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	1	2	2	5	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	3	2	5	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	2	2	0.00%
Accom. or Mod. is in Section 504 Plan	0	7	2	9	0.00%
Accom. or Mod. is in IEP	1	4	6	11	0.00%
English Learner Test Variation A	2	13	26	41	0.02%
English Learner Test Variation B	0	3	7	10	0.00%
English Learner Test Variation C	2	36	45	83	0.04%
English Learner Test Variation D	4	35	60	99	0.04%
Any Accom., Mod., or EL Variation	9	71	107	187	0.08%
No Accom., Mod., or EL Variation	3,983	100,598	122,913	227,494	99.92%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	4	5	9	0.19%
C: Dictated responses to a scribe	0	1	1	2	0.04%
F: Used non-interfering assistive device	0	0	2	2	0.04%
G: Used braille test	0	0	3	3	0.06%
H: Used large-print test	1	10	15	26	0.55%
J: Tested over more than one day	3	11	11	25	0.53%
K: Had supervised breaks	5	20	35	60	1.26%
L: Most beneficial time of day	3	6	6	15	0.32%
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 with MCE or ASL	0	0	10	10	0.21%
P: Used audio presentation (CD)	0	1	13	14	0.29%
Q: Used a calculator	0	6	23	29	0.61%
R: Used an arithmetic table	0	0	1	1	0.02%

Accommodation Summary for Chemistry					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	5	17	22	0.46%
Y: Leave blank	0	1	10	11	0.23%
Z: Examiner read test questions aloud	0	1	17	18	0.38%
Accom. or Mod. is in Section 504 Plan	0	0	2	2	0.04%
Accom. or Mod. is in IEP	5	39	116	160	3.36%
English Learner Test Variation A	0	0	1	1	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.02%
English Learner Test Variation D	0	0	1	1	0.02%
Any Accom., Mod., or EL Variation	6	49	140	195	4.10%
No Accom., Mod., or EL Variation	83	1,483	2,996	4,562	95.90%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	6	6	12	0.01%
C: Dictated responses to a scribe	0	2	1	3	0.00%
F: Used non-interfering assistive device	0	0	2	2	0.00%
G: Used braille test	0	0	3	3	0.00%
H: Used large-print test	1	11	11	23	0.02%
J: Tested over more than one day	3	10	11	24	0.02%
K: Had supervised breaks	6	21	27	54	0.04%
L: Most beneficial time of day	3	4	8	15	0.01%
M: Administered at home or in a hospital	0	3	2	5	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	2	2	0.00%
P: Used audio presentation (CD)	0	0	8	8	0.01%
Q: Used a calculator	1	7	22	30	0.02%
R: Used an arithmetic table	0	0	1	1	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	5	14	19	0.01%
Y: Leave blank	0	0	4	4	0.00%
Z: Examiner read test questions aloud	0	1	11	12	0.01%
Accom. or Mod. is in Section 504 Plan	0	7	3	10	0.01%
Accom. or Mod. is in IEP	4	31	82	117	0.09%

Accommodation Summary for Chemistry					
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	1	1	2	0.00%
English Learner Test Variation C	0	1	1	2	0.00%
English Learner Test Variation D	0	1	0	1	0.00%
Any Accom., Mod., or EL Variation	7	52	106	165	0.12%
No Accom., Mod., or EL Variation	2,377	60,678	71,270	134,325	99.88%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	1	0	1	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0.00%
H: Used large-print test	0	0	1	1	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	1	1	2	0.01%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	1	1	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	1	4	5	0.02%
No Accom., Mod., or EL Variation	540	12,922	13,018	26,480	99.98%

Accommodation Summary for Chemistry					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	1	1	0.01%
C: Dictated responses to a scribe	0	1	2	3	0.02%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used braille test	0	0	0	0	0.00%
H: Used large-print test	0	0	3	3	0.02%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	1	0	7	8	0.05%
L: Most beneficial time of day	0	1	0	1	0.01%
M: Administered at home or in a hospital	0	0	1	1	0.01%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	8	8	0.05%
P: Used audio presentation (CD)	0	1	3	4	0.02%
Q: Used a calculator	0	1	3	4	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	2	4	6	0.04%
Y: Leave blank	0	1	6	7	0.04%
Z: Examiner read test questions aloud	0	0	6	6	0.04%
Accom. or Mod. is in Section 504 Plan	0	0	1	1	0.01%
Accom. or Mod. is in IEP	1	5	35	41	0.24%
English Learner Test Variation A	2	13	26	41	0.24%
English Learner Test Variation B	0	2	6	8	0.05%
English Learner Test Variation C	2	35	44	81	0.48%
English Learner Test Variation D	4	32	61	97	0.57%
Any Accom., Mod., or EL Variation	7	57	130	194	1.14%
No Accom., Mod., or EL Variation	358	5,027	11,453	16,838	98.86%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	1	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 test	0	0	0	0	0.00%
H: Used large-print test	1	3	1	5	0.01%
J: Tested over more than one day	0	1	1	2	0.00%

Accommodation Summary for Chemistry					
K: Had supervised breaks	0	3	3	6	0.01%
L: Most beneficial time of day	0	1	0	1	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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	6	4	11	0.02%
English Learner Test Variation A	0	0	1	1	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	1	0	1	0.00%
Any Accom., Mod., or EL Variation	1	9	7	17	0.03%
No Accom., Mod., or EL Variation	788	23,393	30,072	54,253	99.97%

Table 6.C.33 Accommodation Summary for Earth Science

Accommodation Summary for Earth Science					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	45	15	9	69	0.03%
C: Dictated responses to a scribe	6	4	5	15	0.01%
F: Used non-interfering assistive device	5	0	0	5	0.00%
G: Used braille test	16	2	4	22	0.01%
H: Used large-print test	34	9	6	49	0.02%
J: Tested over more than one day	126	43	38	207	0.09%
K: Had supervised breaks	581	164	172	917	0.41%
L: Most beneficial time of day	182	53	37	272	0.12%
M: Administered at home or in a hospital	18	3	13	34	0.02%
N: Used a dictionary	6	2	4	12	0.01%
O: Examiner presented with MCE or ASL	5	0	0	5	0.00%
P: Used audio presentation (CD)	41	54	34	129	0.06%
Q: Used a calculator	35	5	7	47	0.02%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	4	0	1	5	0.00%
X: Used an unlisted accommodation	126	47	54	227	0.10%
Y: Leave blank	19	2	13	34	0.02%
Z: Examiner read test questions aloud	234	81	103	418	0.19%
Accom. or Mod. is in Section 504 Plan	13	1	3	17	0.01%
Accom. or Mod. is in IEP	938	330	327	1,595	0.71%
English Learner Test Variation A	336	101	94	531	0.24%
English Learner Test Variation B	38	2	10	50	0.02%
English Learner Test Variation C	360	109	103	572	0.25%
English Learner Test Variation D	456	100	96	652	0.29%
Any Accom., Mod., or EL Variation	1,797	563	536	2,896	1.29%
No Accom., Mod., or EL Variation	150,321	31,902	39,413	221,636	98.71%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	3	2	0	5	0.00%
C: Dictated responses to a scribe	1	3	2	6	0.00%
F: Used non-interfering assistive device	1	0	0	1	0.00%
G: Used braille test	4	1	0	5	0.00%
H: Used large-print test	6	2	0	8	0.00%
J: Tested over more than one day	5	2	2	9	0.00%

Accommodation Summary for Earth Science					
K: Had supervised breaks	42	9	3	54	0.03%
L: Most beneficial time of day	5	1	1	7	0.00%
M: Administered at home or in a hospital	11	2	9	22	0.01%
N: Used a dictionary	2	0	0	2	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	4	2	0	6	0.00%
Q: Used a calculator	3	0	1	4	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	15	5	3	23	0.01%
Y: Leave blank	2	0	0	2	0.00%
Z: Examiner read test questions aloud	22	8	2	32	0.02%
Accom. or Mod. is in Section 504 Plan	12	1	3	16	0.01%
Accom. or Mod. is in IEP	76	26	7	109	0.05%
English Learner Test Variation A	330	101	90	521	0.26%
English Learner Test Variation B	31	2	9	42	0.02%
English Learner Test Variation C	346	108	100	554	0.28%
English Learner Test Variation D	439	100	94	633	0.32%
Any Accom., Mod., or EL Variation	813	228	173	1,214	0.61%
No Accom., Mod., or EL Variation	137,466	27,205	34,698	199,369	99.39%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	42	13	9	64	0.27%
C: Dictated responses to a scribe	5	1	3	9	0.04%
F: Used non-interfering assistive device	4	0	0	4	0.02%
G: Used braille test	12	1	4	17	0.07%
H: Used large-print test	28	7	6	41	0.17%
J: Tested over more than one day	120	41	36	197	0.82%
K: Had supervised breaks	537	154	169	860	3.59%
L: Most beneficial time of day	177	52	36	265	1.11%
M: Administered at home or in a hospital	7	1	4	12	0.05%
N: Used a dictionary	4	2	4	10	0.04%
O: Examiner presented with MCE or ASL	5	0	0	5	0.02%
P: Used audio presentation (CD)	37	52	34	123	0.51%
Q: Used a calculator	32	4	6	42	0.18%
R: Used an arithmetic table	0	0	0	0	0.00%

Accommodation Summary for Earth Science					
S: Used math manipulatives	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	4	0	1	5	0.02%
X: Used an unlisted accommodation	110	42	51	203	0.85%
Y: Leave blank	17	2	13	32	0.13%
Z: Examiner read test questions aloud	212	72	101	385	1.61%
Accom. or Mod. is in Section 504 Plan	1	0	0	1	0.00%
Accom. or Mod. is in IEP	860	302	320	1,482	6.19%
English Learner Test Variation A	6	0	4	10	0.04%
English Learner Test Variation B	7	0	1	8	0.03%
English Learner Test Variation C	14	1	3	18	0.08%
English Learner Test Variation D	17	0	2	19	0.08%
Any Accom., Mod., or EL Variation	982	333	363	1,678	7.01%
No Accom., Mod., or EL Variation	12,854	4,695	4,715	22,264	92.99%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	28	9	6	43	0.03%
C: Dictated responses to a scribe	4	2	2	8	0.01%
F: Used non-interfering assistive device	1	0	0	1	0.00%
G: Used braille test	10	1	3	14	0.01%
H: Used large-print test	26	4	5	35	0.03%
J: Tested over more than one day	77	31	32	140	0.11%
K: Had supervised breaks	366	122	122	610	0.46%
L: Most beneficial time of day	127	45	34	206	0.16%
M: Administered at home or in a hospital	18	2	10	30	0.02%
N: Used a dictionary	2	0	2	4	0.00%
O: Examiner presented with MCE or ASL	3	0	0	3	0.00%
P: Used audio presentation (CD)	26	21	14	61	0.05%
Q: Used a calculator	25	4	3	32	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	4	0	1	5	0.00%
X: Used an unlisted accommodation	85	27	30	142	0.11%
Y: Leave blank	7	1	7	15	0.01%
Z: Examiner read test questions aloud	151	56	59	266	0.20%
Accom. or Mod. is in Section 504 Plan	13	1	3	17	0.01%
Accom. or Mod. is in IEP	601	214	206	1,021	0.77%

Accommodation Summary for Earth Science					
English Learner Test Variation A	3	1	3	7	0.01%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	3	1	2	6	0.00%
English Learner Test Variation D	2	0	2	4	0.00%
Any Accom., Mod., or EL Variation	704	235	239	1,178	0.89%
No Accom., Mod., or EL Variation	88,916	18,759	22,963	130,638	99.11%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	1	0	0	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 test	0	0	0	0	0.00%
H: Used large-print test	2	2	1	5	0.03%
J: Tested over more than one day	6	2	1	9	0.06%
K: Had supervised breaks	17	6	8	31	0.19%
L: Most beneficial time of day	5	2	0	7	0.04%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	2	1	0	3	0.02%
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	5	4	6	15	0.09%
Y: Leave blank	1	0	0	1	0.01%
Z: Examiner read test questions aloud	5	2	2	9	0.06%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	28	13	13	54	0.33%
English Learner Test Variation A	3	1	0	4	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	35	15	14	64	0.40%
No Accom., Mod., or EL Variation	11,116	2,045	2,959	16,120	99.60%

Accommodation Summary for Earth Science					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	12	3	3	18	0.04%
C: Dictated responses to a scribe	2	2	3	7	0.02%
F: Used non-interfering assistive device	3	0	0	3	0.01%
G: Used braille test	5	0	1	6	0.01%
H: Used large-print test	2	2	0	4	0.01%
J: Tested over more than one day	33	10	5	48	0.11%
K: Had supervised breaks	163	33	36	232	0.51%
L: Most beneficial time of day	38	5	3	46	0.10%
M: Administered at home or in a hospital	0	1	2	3	0.01%
N: Used a dictionary	4	2	2	8	0.02%
O: Examiner presented with MCE or ASL	2	0	0	2	0.00%
P: Used audio presentation (CD)	13	31	18	62	0.14%
Q: Used a calculator	7	1	4	12	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	1	0	1	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	35	16	16	67	0.15%
Y: Leave blank	10	1	6	17	0.04%
Z: Examiner read test questions aloud	71	23	36	130	0.29%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	268	97	94	459	1.02%
English Learner Test Variation A	327	99	90	516	1.14%
English Learner Test Variation B	37	2	10	49	0.11%
English Learner Test Variation C	352	108	100	560	1.24%
English Learner Test Variation D	451	100	93	644	1.43%
Any Accom., Mod., or EL Variation	1,001	306	265	1,572	3.48%
No Accom., Mod., or EL Variation	28,493	7,308	7,777	43,578	96.52%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	4	3	0	7	0.02%
C: Dictated responses to a scribe	0	0	0	0	0.00%
F: Used non-interfering assistive device	1	0	0	1	0.00%
G: Used braille test	1	1	0	2	0.01%
H: Used large-print test	4	1	0	5	0.02%
J: Tested over more than one day	9	0	0	9	0.03%

Accommodation Summary for Earth Science					
K: Had supervised breaks	29	1	6	36	0.12%
L: Most beneficial time of day	8	0	0	8	0.03%
M: Administered at home or in a hospital	0	0	1	1	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	1	2	3	0.01%
Q: Used a calculator	1	0	0	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	1	0	2	3	0.01%
Y: Leave blank	1	0	0	1	0.00%
Z: Examiner read test questions aloud	7	0	5	12	0.04%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	39	5	14	58	0.19%
English Learner Test Variation A	1	0	1	2	0.01%
English Learner Test Variation B	1	0	0	1	0.00%
English Learner Test Variation C	4	0	1	5	0.02%
English Learner Test Variation D	3	0	1	4	0.01%
Any Accom., Mod., or EL Variation	48	5	17	70	0.23%
No Accom., Mod., or EL Variation	21,514	3,702	5,633	30,849	99.77%

Table 6.C.34 Accommodation Summary for Physics

Accommodation Summary for Physics					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	4	1	5	10	0.02%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used non-interfering assistive device	0	0	1	1	0.00%
G: Used braille test	1	0	1	2	0.00%
H: Used large-print test	3	0	7	10	0.02%
J: Tested over more than one day	0	2	4	6	0.01%
K: Had supervised breaks	7	4	30	41	0.06%
L: Most beneficial time of day	1	4	3	8	0.01%
M: Administered at home or in a hospital	0	0	1	1	0.00%
N: Used a dictionary	0	1	1	2	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	1	0	5	6	0.01%
Q: Used a calculator	3	4	14	21	0.03%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	1	0.00%
X: Used an unlisted accommodation	2	1	2	5	0.01%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	4	0	5	9	0.01%
Accom. or Mod. is in Section 504 Plan	1	1	1	3	0.00%
Accom. or Mod. is in IEP	15	7	55	77	0.12%
English Learner Test Variation A	27	10	16	53	0.08%
English Learner Test Variation B	0	0	2	2	0.00%
English Learner Test Variation C	5	7	39	51	0.08%
English Learner Test Variation D	26	10	39	75	0.12%
Any Accom., Mod., or EL Variation	48	23	125	196	0.31%
No Accom., Mod., or EL Variation	11,786	7,867	44,331	63,984	99.69%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	1	1	0.00%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used non-interfering assistive device	0	0	1	1	0.00%
G: Used braille test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Physics					
K: Had supervised breaks	2	0	0	2	0.00%
L: Most beneficial time of day	0	0	2	2	0.00%
M: Administered at home or in a hospital	0	0	1	1	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	1	1	0.00%
Q: Used a calculator	0	0	1	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	1	1	0	2	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	1	1	0.00%
Accom. or Mod. is in Section 504 Plan	1	1	1	3	0.00%
Accom. or Mod. is in IEP	2	0	2	4	0.01%
English Learner Test Variation A	27	10	16	53	0.09%
English Learner Test Variation B	0	0	2	2	0.00%
English Learner Test Variation C	5	7	39	51	0.08%
English Learner Test Variation D	26	10	39	75	0.12%
Any Accom., Mod., or EL Variation	32	15	59	106	0.17%
No Accom., Mod., or EL Variation	11,259	7,592	43,363	62,214	99.83%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	4	1	4	9	0.48%
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 test	1	0	1	2	0.11%
H: Used large-print test	3	0	7	10	0.54%
J: Tested over more than one day	0	2	4	6	0.32%
K: Had supervised breaks	5	4	30	39	2.10%
L: Most beneficial time of day	1	4	1	6	0.32%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	1	1	2	0.11%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	1	0	4	5	0.27%
Q: Used a calculator	3	4	13	20	1.08%
R: Used an arithmetic table	0	0	0	0	0.00%

Accommodation Summary for Physics					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	1	1	0.05%
X: Used an unlisted accommodation	1	0	2	3	0.16%
Y: Leave blank	0	0	1	1	0.05%
Z: Examiner read test questions aloud	4	0	4	8	0.43%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	13	7	53	73	3.93%
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	16	8	66	90	4.84%
No Accom., Mod., or EL Variation	526	275	968	1,769	95.16%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	4	1	3	8	0.02%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used non-interfering assistive device	0	0	0	0	0.00%
G: Used braille test	1	0	1	2	0.01%
H: Used large-print test	3	0	4	7	0.02%
J: Tested over more than one day	0	2	4	6	0.02%
K: Had supervised breaks	5	3	21	29	0.08%
L: Most beneficial time of day	1	3	2	6	0.02%
M: Administered at home or in a hospital	0	0	1	1	0.00%
N: Used a dictionary	0	1	1	2	0.01%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	1	0	1	2	0.01%
Q: Used a calculator	3	3	10	16	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	2	1	1	4	0.01%
Y: Leave blank	0	0	1	1	0.00%
Z: Examiner read test questions aloud	2	0	2	4	0.01%
Accom. or Mod. is in Section 504 Plan	1	1	1	3	0.01%
Accom. or Mod. is in IEP	11	6	35	52	0.14%

Accommodation Summary for Physics					
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	0	0	0.00%
Any Accom., Mod., or EL Variation	15	8	47	70	0.18%
No Accom., Mod., or EL Variation	6,889	4,817	26,442	38,148	99.82%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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	1	1	0.01%
G: Used braille test	0	0	0	0	0.00%
H: Used large-print test	0	0	1	1	0.01%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	0	2	2	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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	1	1	0.01%
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	1	1	0.01%
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	0	0	2	2	0.03%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	6	6	0.08%
English Learner Test Variation A	5	2	1	8	0.11%
English Learner Test Variation B	0	0	1	1	0.01%
English Learner Test Variation C	0	0	1	1	0.01%
English Learner Test Variation D	5	2	1	8	0.11%
Any Accom., Mod., or EL Variation	5	2	12	19	0.26%
No Accom., Mod., or EL Variation	1,336	772	5,314	7,422	99.74%

Accommodation Summary for Physics					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	1	6	7	0.16%
L: Most beneficial time of day	0	1	1	2	0.05%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	3	3	0.07%
Q: Used a calculator	0	1	3	4	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	0	0	0	0.00%
Z: Examiner read test questions aloud	2	0	1	3	0.07%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	2	1	13	16	0.37%
English Learner Test Variation A	22	8	13	43	0.99%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	5	7	34	46	1.06%
English Learner Test Variation D	21	8	35	64	1.47%
Any Accom., Mod., or EL Variation	26	13	59	98	2.25%
No Accom., Mod., or EL Variation	1,114	649	2,486	4,249	97.75%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	2	2	0.01%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Physics					
K: Had supervised breaks	2	0	1	3	0.02%
L: Most beneficial time of day	0	0	0	0	0.00%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	2	0	1	3	0.02%
English Learner Test Variation A	0	0	2	2	0.01%
English Learner Test Variation B	0	0	1	1	0.01%
English Learner Test Variation C	0	0	3	3	0.02%
English Learner Test Variation D	0	0	3	3	0.02%
Any Accom., Mod., or EL Variation	2	0	7	9	0.06%
No Accom., Mod., or EL Variation	2,440	1,620	10,062	14,122	99.94%

Table 6.C.35 Accommodation Summary for Integrated/Coordinated Science 1

Accommodation Summary for Integrated/Coordinated Science 1					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	13	3	1	17	0.02%
C: Dictated responses to a scribe	0	0	2	2	0.00%
F: Used non-interfering assistive device	1	1	1	3	0.00%
G: Used braille test	4	0	4	8	0.01%
H: Used large-print test	12	0	3	15	0.02%
J: Tested over more than one day	3	3	3	9	0.01%
K: Had supervised breaks	105	23	29	157	0.21%
L: Most beneficial time of day	28	3	4	35	0.05%
M: Administered at home or in a hospital	12	1	2	15	0.02%
N: Used a dictionary	11	5	4	20	0.03%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	26	7	9	42	0.06%
Q: Used a calculator	42	11	12	65	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	6	0	2	8	0.01%
X: Used an unlisted accommodation	17	6	3	26	0.03%
Y: Leave blank	3	0	1	4	0.01%
Z: Examiner read test questions aloud	158	33	33	224	0.29%
Accom. or Mod. is in Section 504 Plan	2	0	1	3	0.00%
Accom. or Mod. is in IEP	316	67	87	470	0.62%
English Learner Test Variation A	57	32	7	96	0.13%
English Learner Test Variation B	13	12	4	29	0.04%
English Learner Test Variation C	153	60	52	265	0.35%
English Learner Test Variation D	154	28	36	218	0.29%
Any Accom., Mod., or EL Variation	628	153	174	955	1.26%
No Accom., Mod., or EL Variation	58,514	7,593	8,936	75,043	98.74%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	1	0	1	2	0.00%

Accommodation Summary for Integrated/Coordinated Science 1					
K: Had supervised breaks	5	0	1	6	0.01%
L: Most beneficial time of day	7	0	0	7	0.01%
M: Administered at home or in a hospital	2	0	1	3	0.00%
N: Used a dictionary	0	0	1	1	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	0	1	1	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	1	0	0	1	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	3	1	0	4	0.01%
Accom. or Mod. is in Section 504 Plan	2	0	1	3	0.00%
Accom. or Mod. is in IEP	8	1	3	12	0.02%
English Learner Test Variation A	57	31	7	95	0.14%
English Learner Test Variation B	13	12	4	29	0.04%
English Learner Test Variation C	152	59	50	261	0.39%
English Learner Test Variation D	148	28	33	209	0.31%
Any Accom., Mod., or EL Variation	260	79	79	418	0.62%
No Accom., Mod., or EL Variation	53,376	6,312	7,648	67,336	99.38%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	12	3	1	16	0.19%
C: Dictated responses to a scribe	0	0	2	2	0.02%
F: Used non-interfering assistive device	1	1	1	3	0.04%
G: Used braille test	4	0	4	8	0.10%
H: Used large-print test	12	0	3	15	0.18%
J: Tested over more than one day	2	3	2	7	0.08%
K: Had supervised breaks	100	23	28	151	1.83%
L: Most beneficial time of day	21	3	4	28	0.34%
M: Administered at home or in a hospital	10	1	1	12	0.15%
N: Used a dictionary	11	5	3	19	0.23%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	26	7	9	42	0.51%
Q: Used a calculator	42	11	11	64	0.78%
R: Used an arithmetic table	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 1					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	6	0	2	8	0.10%
X: Used an unlisted accommodation	15	6	3	24	0.29%
Y: Leave blank	3	0	1	4	0.05%
Z: Examiner read test questions aloud	154	32	33	219	2.66%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	306	66	84	456	5.54%
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	1	2	4	0.05%
English Learner Test Variation D	6	0	3	9	0.11%
Any Accom., Mod., or EL Variation	366	74	95	535	6.50%
No Accom., Mod., or EL Variation	5,136	1,280	1,286	7,702	93.50%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	13	3	1	17	0.05%
C: Dictated responses to a scribe	0	0	1	1	0.00%
F: Used non-interfering assistive device	1	1	0	2	0.01%
G: Used braille test	1	0	3	4	0.01%
H: Used large-print test	10	0	1	11	0.03%
J: Tested over more than one day	2	2	2	6	0.02%
K: Had supervised breaks	60	15	24	99	0.28%
L: Most beneficial time of day	19	2	3	24	0.07%
M: Administered at home or in a hospital	10	1	1	12	0.03%
N: Used a dictionary	6	4	3	13	0.04%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	18	5	8	31	0.09%
Q: Used a calculator	14	7	8	29	0.08%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	5	0	2	7	0.02%
X: Used an unlisted accommodation	12	5	2	19	0.05%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	79	16	17	112	0.32%
Accom. or Mod. is in Section 504 Plan	2	0	1	3	0.01%
Accom. or Mod. is in IEP	168	40	58	266	0.75%

Accommodation Summary for Integrated/Coordinated Science 1					
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	2	0	2	4	0.01%
English Learner Test Variation D	1	0	0	1	0.00%
Any Accom., Mod., or EL Variation	217	46	67	330	0.93%
No Accom., Mod., or EL Variation	26,037	4,061	4,976	35,074	99.07%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	1	0	0	1	0.02%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	7	0	0	7	0.12%
L: Most beneficial time of day	0	1	1	2	0.04%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	1	0	1	0.02%
Q: Used a calculator	0	1	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%
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	1	0	0	1	0.02%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	6	2	1	9	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	0	0	0.00%
Any Accom., Mod., or EL Variation	8	2	1	11	0.20%
No Accom., Mod., or EL Variation	4,593	424	597	5,614	99.80%

Accommodation Summary for Integrated/Coordinated Science 1					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked in test booklet	0	0	0	0	0.00%
C: Dictated responses to a scribe	0	0	1	1	0.01%
F: Used non-interfering assistive device	0	0	1	1	0.01%
G: Used braille test	1	0	1	2	0.01%
H: Used large-print test	1	0	1	2	0.01%
J: Tested over more than one day	0	1	1	2	0.01%
K: Had supervised breaks	36	7	3	46	0.26%
L: Most beneficial time of day	6	0	0	6	0.03%
M: Administered at home or in a hospital	2	0	1	3	0.02%
N: Used a dictionary	5	1	1	7	0.04%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	8	0	1	9	0.05%
Q: Used a calculator	25	3	4	32	0.18%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	5	1	1	7	0.04%
Y: Leave blank	3	0	1	4	0.02%
Z: Examiner read test questions aloud	75	17	16	108	0.60%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	135	23	25	183	1.02%
English Learner Test Variation A	56	32	7	95	0.53%
English Learner Test Variation B	12	12	4	28	0.16%
English Learner Test Variation C	149	59	50	258	1.43%
English Learner Test Variation D	152	28	36	216	1.20%
Any Accom., Mod., or EL Variation	388	102	103	593	3.30%
No Accom., Mod., or EL Variation	13,165	2,082	2,153	17,400	96.70%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	1	0	0	1	0.01%
H: Used large-print test	1	0	1	2	0.01%
J: Tested over more than one day	1	0	0	1	0.01%

Accommodation Summary for Integrated/Coordinated Science 1					
K: Had supervised breaks	2	1	1	4	0.02%
L: Most beneficial time of day	2	0	0	2	0.01%
M: Administered at home or in a hospital	0	0	0	0	0.00%
N: Used a dictionary	0	0	0	0	0.00%
O: Examiner presented with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	1	0	1	0.01%
Q: Used a calculator	3	0	0	3	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	1	0	0	1	0.01%
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	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	7	2	2	11	0.07%
English Learner Test Variation A	1	0	0	1	0.01%
English Learner Test Variation B	1	0	0	1	0.01%
English Learner Test Variation C	2	1	0	3	0.02%
English Learner Test Variation D	1	0	0	1	0.01%
Any Accom., Mod., or EL Variation	14	3	2	19	0.11%
No Accom., Mod., or EL Variation	14,632	1,002	1,181	16,815	99.89%

Table 6.C.36 Accommodation Summary for Integrated/Coordinated Science 2

Accommodation Summary for Integrated/Coordinated Science 2					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	7	1	0	8	0.10%
K: Had supervised breaks	7	8	1	16	0.21%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	2	1	3	0.04%
Q: Used a calculator	2	4	6	12	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	4	6	1	11	0.14%
Y: Leave blank	0	0	1	1	0.01%
Z: Examiner read test questions aloud	7	0	0	7	0.09%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	13	17	10	40	0.51%
English Learner Test Variation A	20	10	4	34	0.44%
English Learner Test Variation B	0	0	4	4	0.05%
English Learner Test Variation C	2	13	11	26	0.33%
English Learner Test Variation D	0	2	2	4	0.05%
Any Accom., Mod., or EL Variation	35	45	22	102	1.31%
No Accom., Mod., or EL Variation	2,336	3,705	1,647	7,688	98.69%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 2					
K: Had supervised breaks	0	2	0	2	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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	2	0	2	0.03%
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	4	0	4	0.06%
English Learner Test Variation A	20	9	4	33	0.48%
English Learner Test Variation B	0	0	4	4	0.06%
English Learner Test Variation C	2	13	11	26	0.38%
English Learner Test Variation D	0	2	2	4	0.06%
Any Accom., Mod., or EL Variation	22	28	12	62	0.90%
No Accom., Mod., or EL Variation	2,131	3,265	1,441	6,837	99.10%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	7	1	0	8	0.90%
K: Had supervised breaks	7	6	1	14	1.57%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	2	1	3	0.34%
Q: Used a calculator	2	4	6	12	1.35%
R: Used an arithmetic table	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 2					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	4	4	1	9	1.01%
Y: Leave blank	0	0	1	1	0.11%
Z: Examiner read test questions aloud	7	0	0	7	0.79%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	13	13	10	36	4.04%
English Learner Test Variation A	0	1	0	1	0.11%
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	13	17	10	40	4.49%
No Accom., Mod., or EL Variation	205	440	206	851	95.51%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	7	1	0	8	0.20%
K: Had supervised breaks	7	7	0	14	0.34%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	2	1	3	0.07%
Q: Used a calculator	2	3	6	11	0.27%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	3	6	1	10	0.24%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	7	0	0	7	0.17%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	12	15	8	35	0.86%

Accommodation Summary for Integrated/Coordinated Science 2					
English Learner Test Variation A	1	0	0	1	0.02%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	13	18	8	39	0.95%
No Accom., Mod., or EL Variation	1,535	1,625	887	4,047	99.05%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	204	392	146	742	100.00%

Accommodation Summary for Integrated/Coordinated Science 2					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	0	1	1	2	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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	1	0	1	0.06%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	1	0	0	1	0.06%
Y: Leave blank	0	0	1	1	0.06%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	2	2	5	0.32%
English Learner Test Variation A	19	10	4	33	2.10%
English Learner Test Variation B	0	0	4	4	0.25%
English Learner Test Variation C	2	13	11	26	1.65%
English Learner Test Variation D	0	2	2	4	0.25%
Any Accom., Mod., or EL Variation	22	27	14	63	4.01%
No Accom., Mod., or EL Variation	317	823	368	1,508	95.99%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 2					
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	863	243	1,375	100.00%

Table 6.C.37 Accommodation Summary for Integrated/Coordinated Science 3

Accommodation Summary for Integrated/Coordinated Science 3					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	2	2	1	5	0.25%
L: Most beneficial time of day	2	1	1	4	0.20%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	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	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	2	5	0.25%
English Learner Test Variation A	0	0	1	1	0.05%
English Learner Test Variation B	0	0	1	1	0.05%
English Learner Test Variation C	0	0	2	2	0.10%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	2	2	5	9	0.46%
No Accom., Mod., or EL Variation	240	220	1,494	1,954	99.54%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 3					
K: Had supervised breaks	1	0	1	2	0.12%
L: Most beneficial time of day	1	0	1	2	0.12%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	1	0	1	2	0.12%
English Learner Test Variation A	0	0	1	1	0.06%
English Learner Test Variation B	0	0	1	1	0.06%
English Learner Test Variation C	0	0	1	1	0.06%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	0	2	3	0.17%
No Accom., Mod., or EL Variation	202	193	1,339	1,734	99.83%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	1	2	0	3	1.33%
L: Most beneficial time of day	1	1	0	2	0.88%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	0.88%
R: Used an arithmetic table	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 3					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	1	1	1	3	1.33%
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	0.44%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	1	2	3	6	2.65%
No Accom., Mod., or EL Variation	38	27	155	220	97.35%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%
K: Had supervised breaks	2	2	1	5	0.40%
L: Most beneficial time of day	2	1	1	4	0.32%
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	0	2	2	0.16%
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	2	1	2	5	0.40%

Accommodation Summary for Integrated/Coordinated Science 3					
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	0.08%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	2	2	4	8	0.64%
No Accom., Mod., or EL Variation	173	142	932	1,247	99.36%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	10	17	93	120	100.00%

Accommodation Summary for Integrated/Coordinated Science 3					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	1	1	0.41%
English Learner Test Variation B	0	0	1	1	0.41%
English Learner Test Variation C	0	0	1	1	0.41%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	1	1	0.41%
No Accom., Mod., or EL Variation	29	28	188	245	99.59%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 3					
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	28	32	278	338	100.00%

Table 6.C.38 Accommodation Summary for Integrated/Coordinated Science 4

Accommodation Summary for Integrated/Coordinated Science 4					
All Tested	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	131	182	118	431	100.00%
Students Not in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 4					
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	113	171	113	397	100.00%
Students in Special Education	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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%

Accommodation Summary for Integrated/Coordinated Science 4					
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	18	11	5	34	100.00%
English-Only Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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%

Accommodation Summary for Integrated/Coordinated Science 4					
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	95	116	98	309	100.00%
Initially Fluent English Proficient (I-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	0	0	0	0	0.00%
Q: Used a calculator	0	0	0	0	0.00%
R: Used an arithmetic table	0	0	0	0	0.00%
S: Used math manipulatives	0	0	0	0	0.00%
V: Used interfering assistive device	0	0	0	0	0.00%
W: Used an unlisted modification	0	0	0	0	0.00%
X: Used an unlisted accommodation	0	0	0	0	0.00%
Y: Leave blank	0	0	0	0	0.00%
Z: Examiner read test questions aloud	0	0	0	0	0.00%
Accom. or Mod. is in Section 504 Plan	0	0	0	0	0.00%
Accom. or Mod. is in IEP	0	0	0	0	0.00%
English Learner Test Variation A	0	0	0	0	0.00%
English Learner Test Variation B	0	0	0	0	0.00%
English Learner Test Variation C	0	0	0	0	0.00%
English Learner Test Variation D	0	0	0	0	0.00%
Any Accom., Mod., or EL Variation	0	0	0	0	0.00%
No Accom., Mod., or EL Variation	7	15	10	32	100.00%

Accommodation Summary for Integrated/Coordinated Science 4					
English Learner (EL) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over 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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	6	16	5	27	100.00%
Reclassified Fluent English Proficient (R-FEP) Students	**Grade 9**	**Grade 10**	**Grade 11**	**Total**	**Pct. of Total**
B: Marked 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 test	0	0	0	0	0.00%
H: Used large-print test	0	0	0	0	0.00%
J: Tested over more than one day	0	0	0	0	0.00%

Accommodation Summary for Integrated/Coordinated Science 4					
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 with MCE or ASL	0	0	0	0	0.00%
P: Used audio presentation (CD)	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	23	35	5	63	100.00%

Appendix 6.D—DIF Tables

Table 6.D.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
ELA Grade 2	CSR13877.OSA	6	A-	A-	C+	A+	C+	C+	A+	A+	A+
ELA Grade 2	CSL10030.OSA	56	A+	A+	C+	B+	B+	B+	A+	A+	A+
ELA Grade 2	CSL00059.OSA	64	A+	A+	C+	B+	C+	B+	A+	A+	A+
ELA Grade 3	CSR00087.OSA	9	A+	A+	C+	B+	B+	C+	A+	A+	A+
ELA Grade 3	CSL20592.087	53	A-	A+	C+	A+	B+	B+	A+	A+	A+
ELA Grade 4	CSL12078.151	49	A+	A+	C+	A+	B+	B+	A+	A+	A-
ELA Grade 4	CSR30149.OSA	63	A-	A-	C-	A-	C-	C-	A-	A-	A-
ELA Grade 4	CSL10901.100	68	A+	A+	C+	B+	C+	C+	A+	A+	A+
ELA Grade 5	CSR40466.022	2	A-	A-	A-	A-	A-	A-	B-	A-	C-
ELA Grade 5	CSR12988.017	8	A-	A-	A-	A-	A-	A-	A-	A-	C-
ELA Grade 5	CSL10963.106	47	A-	A+	C+	B+	C+	C+	A+	A+	A-
ELA Grade 5	CSL40141.007	58	A+	A+	C+	B+	C+	B+	A+	B+	A+
ELA Grade 5	CSL20064.048	67	B+	A+	C+	B+	C+	C+	B+	B+	A+
ELA Grade 5	CSL12160.162	81	B+	A+	C+	B+	C+	C+	A+	B+	A+
ELA Grade 6	CSL12240.138	40	A+	A-	C+	B+	C+	C+	A+	A+	A+
ELA Grade 6	CSW10613.070	72	A+	A-	C+	A+	B+	B+	A+	A+	A+
ELA Grade 6	CSR00048.OSA	74	C-	A-	A-	A-	A-	A-	A-	A-	A-
ELA Grade 6	CSW10927.032	80	A+	A+	C+	B+	C+	C+	A+	B+	A+
ELA Grade 7	CSR40327.004	4	C-	A+	A-	A-	A-	A-	A-	A-	A-
ELA Grade 7	CSL11025.113	42	A-	A+	C+	C+	C+	C+	A+	A+	A-
ELA Grade 7	CSL11197.128	63	A+	A+	C+	A+	C+	C+	A+	A+	A+
ELA Grade 8	CSL00216.OSA	74	A+	A+	C+	C+	C+	C+	A+	A+	A+
ELA Grade 9	CSR10565.141	10	C-	A-	B-	B-	B-	B-	B-	A-	A-
ELA Grade 9	CSL20772.075	72	A+	A-	B+	A+	C+	C+	A+	A+	A+
ELA Grade 11	CSR00276.OSA	73	A-	A+	A-	A-	A-	A-	B-	A-	C-
ELA Grade 11	CSR12539.0SA	79	A-	A-	A+	A+	A+	A+	C+	A-	B+
History–SS Grade 8	CSV20242	8	C-	A+	A-	A+	A+	A+	A+	A+	A-
Integrated Mathematics 2	CSA30034	3	A-	‡	A-	‡	A+	A-	A-	A-	C-
Integrated Mathematics 2	CSA40006	13	A+	‡	C+	‡	A+	B+	A+	A+	B+
Integrated Mathematics 2	CSG20089	48	A+	‡	A-	‡	C+	A+	A+	A+	A+
Integrated Mathematics 2	CST00052	67	A-	‡	B-	‡	A-	B-	C-	B-	A-
Integrated Mathematics 3	CST40004	14	A+	‡	B+	‡	‡	B+	C+	B+	‡
Integrated Mathematics 3	CST20146	60	A-	‡	B-	‡	‡	B-	C-	A+	‡
Integrated Science 3	CSP10223	33	A-	‡	‡	‡	‡	A-	A-	C-	A+

‡ Minimum sample size for DIF analysis not met.

Table 6.D.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
ELA Grade 2	CSR50281.136	1	44	A+	A-	A-	A-	B-	A-	B-	B-	C-
ELA Grade 2	CSR50345.134	6	46	A-	A-	A-	C-	A-	A-	A-	B-	A-
ELA Grade 2	CSL50171.OSA	10	61	A+	A-	A-	C-	A-	A-	A-	A-	A-
ELA Grade 2	CSL50185.OSA	12	61	A-	A+	C+	B+	B+	C+	A+	A+	A+
ELA Grade 3	CSR50029.OSA	4	68	A-	A+	C+	B+	C+	C+	A+	A+	A+
ELA Grade 3	CSL50383.054	10	42	A+	A+	C+	A+	C+	C+	B+	A+	A+
ELA Grade 3	CSL50091.OSA	12	68	A+	A-	C+	A+	A+	B+	A+	A-	A-
ELA Grade 3	CSL50087.OSA	14	68	A-	A+	C-	A-	B-	C-	A-	B-	A-
ELA Grade 4	CSR50275.141	6	39	A-	A-	A+	C-	A-	A-	A-	A-	A-
ELA Grade 4	CSL50276.056	11	39	A+	A-	B+	A+	C+	B+	A+	A+	A+
ELA Grade 4	CSL50260.050	13	39	A+	A+	C+	A+	B+	B+	A+	A+	A+
ELA Grade 4	CSL50401.OSA	14	65	A+	B+	C+	B+	C+	C+	A+	A+	A+
ELA Grade 5	CSL50012.046	7	76	A+	A+	C+	B+	C+	C+	A+	A+	A+
ELA Grade 5	CSL50024.048	11	76	A+	A+	C+	A+	C+	C+	A+	B+	A-
ELA Grade 6	CSR50069.OSA	12	76	A+	A+	A+	A+	A+	A+	C+	A+	A+
ELA Grade 6	CSL50070.OSA	13	76	A+	A+	C-	A-	C-	C-	A+	A-	A+
ELA Grade 7	CSR50621.126	4	37	C-	A-	A-	A-	A-	A-	B-	A-	A-
ELA Grade 7	CSL50308.057	11	40	A+	A+	C+	B+	C+	C+	A+	A+	A-
ELA Grade 8	CSR50557.154	4	45	A+	A+	C-	B-	C-	C-	B-	B-	B-
ELA Grade 8	CSR50090.OSA	6	71	C-	A+	A+	A-	A-	A+	A+	A-	A-
ELA Grade 8	CSR50091.OSA	7	71	A-	A-	C-	A-	A-	B-	A-	A-	A-
ELA Grade 8	CSL50213.042	11	45	A+	A-	C+	A+	C+	C+	A+	A+	A-
ELA Grade 8	CSL50078.OSA	11	71	A+	A+	A+	B+	C+	B+	A+	A+	A-
ELA Grade 8	CSL50126.044	14	42	A+	A-	C+	A+	C+	C+	A+	A+	A-
ELA Grade 8	CSL50075.OSA	14	71	A+	A+	C+	A+	B+	B+	A+	A+	A-
ELA Grade 9	CSR50580.156	2	40	A-	A+	B-	C-	C-	B-	A-	A-	A-
ELA Grade 9	CSR40885.082	8	37	A-	A-	B-	B-	C-	B-	B-	A-	A-
ELA Grade 9	CSL50387.049	11	39	A+	A-	B-	B-	C-	B-	A+	A-	A-
ELA Grade 9	CSL50239.033	14	41	A+	A+	B+	B+	C+	B+	B+	B+	B+
ELA Grade 10	CSR40506.040	9	42	A-	A+	C-	B-	C-	C-	C-	B-	A+
ELA Grade 10	CSL40408.027	12	43	A+	A-	C+	A+	C+	B+	A+	A+	A+
ELA Grade 10	CSL40490.030	13	39	B-	A-	A-	A-	B-	A-	C-	B-	A-
ELA Grade 11	CSR50193.162	3	40	C-	A-	C-	C-	B-	C-	C-	C-	C-
History–SS Grade 11	CSV50022	7	27	A-	A+	A+	A+	C+	A+	A-	A-	A+
Mathematics Grade 2	CSM50285	1	49	A+	A-	A-	A-	A-	A-	B-	C-	B-
Mathematics Grade 2	CSM50293	1	64	A+	A-	A-	B-	B-	A-	C-	B-	C-
Mathematics Grade 3	CSM50309	3	34	A+	A+	A+	A+	C+	B+	A+	A+	A+
Mathematics Grade 3	CSM50001	9	33	C-	A-	A+	A-	A-	A-	A-	A-	A-
Mathematics Grade 3	CSM50129	12	49	B-	A-	A-	B-	A-	A-	A-	C-	A-
Mathematics Grade 5	CSM50038	1	31	B-	A-	A-	B-	A-	A-	B-	C-	B-
Mathematics Grade 5	CSM50667	9	30	A-	A-	A-	C-	A-	A-	A-	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
Mathematics Grade 5	CSM50666	13	30	C-	A+	A-	B-	A-	A-	B-	C-	B-
Mathematics Grade 6	CSM50515	12	27	A+	A-	C+	A+	B+	B+	A+	A+	A-
Mathematics Grade 6	CSM50168	13	47	A+	A+	B+	B+	C+	B+	A+	A+	A+
Mathematics Grade 7	CSM50190	5	23	C-	A-	A-	A+	A-	A-	A-	A-	A-
Algebra II	CST50038	1	20	A-	A-	A+	A+	A-	A-	A-	A-	C-
Summ. H.S. Mathematics	CSG50061	1	20	A-	‡	A-	‡	A-	A-	A-	B-	C-
Summ. H.S. Mathematics	CSA50035	5	19	A-	‡	B-	‡	C-	B-	B-	A-	B-
Integrated Mathematics 2	CSG50012	1	55	A-	‡	C-	‡	B-	C-	C-	A-	A-
Science Grade 5	CSZ50396	11	12	A-	A-	A-	A-	A-	A-	A-	A-	C-
Science Grade 5	CSZ60410	15	45	A+	A-	A-	‡	A-	A-	A-	A-	C-
Science Grade 8	CSZ60436	12	8	A+	A-	C+	A+	B+	B+	A+	A+	A-
Science Grade 8	CSZ60042	16	56	A+	A-	C+	A+	A+	B+	A+	A+	A-
Grade 10 Life Science	CSZ60319	2	53	C+	A+	A+	A-	A+	A+	A+	A+	A+
Grade 10 Life Science	CSZ30078	19	27	A-	A+	B-	B-	C-	B-	A-	A-	A-
Earth Science	CSY20773	16	16	A-	A-	B-	‡	C-	B-	B-	C-	A-
Physics	CSP60062	1	29	C-	‡	A-	‡	A+	A-	A-	A-	A-
Physics	CSP20644	6	53	A-	‡	A+	‡	A+	A+	A-	A-	C-
Physics	CSP20716	11	41	C-	‡	A-	‡	A-	A-	A-	A-	A+
Physics	CSP60061	14	28	C-	‡	A+	‡	A+	A+	A-	A-	A+
Integrated Science 2	CSY20773	1	23	A-	‡	B-	‡	C-	C-	C-	C-	A-

‡ Minimum sample size for DIF analysis not met.

Table 6.D.3 DIF Classifications for English–Language Arts Grade Two Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	1	2	0	0	2	3	1	2	0	0	0	0	0	0	3	5
A-	30	46	32	49	27	42	29	45	25	38	26	40	30	46	30	46	30	46	27	42
A+	34	52	33	51	30	46	34	52	32	49	32	49	35	54	35	54	35	54	27	42
B+	0	0	0	0	4	6	2	3	4	6	5	8	0	0	0	0	0	0	5	8
C+	0	0	0	0	3	5	0	0	2	3	1	2	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
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 6.D.4 DIFClassifications for English–Language Arts Grade Three Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	2	3	0	0	1	2	0	0	0	0	0	0	1	2	5	8
A-	31	48	31	48	28	43	33	51	31	48	30	46	34	52	31	48	32	49	25	38
A+	32	49	34	52	32	49	31	48	28	43	31	48	31	48	34	52	32	49	29	45
B+	1	2	0	0	1	2	1	2	5	8	3	5	0	0	0	0	0	0	4	6
C+	0	0	0	0	2	3	0	0	0	0	1	2	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
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 6.D.5 DIF Classifications for English–Language Arts Grade Four Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	3	4	5
A-	33	43	40	53	37	49	41	54	37	49	37	49	37	49	38	50	31	41	34	45
A+	42	55	36	47	33	43	34	45	32	42	33	43	39	51	37	49	43	57	30	39
B+	1	1	0	0	3	4	1	1	4	5	4	5	0	0	0	0	0	0	5	7
C+	0	0	0	0	2	3	0	0	1	1	1	1	0	0	0	0	0	0	2	3
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100

Table 6.D.6 DIF Classifications for English–Language Arts Grade Five Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	2	3	2	3
B-	1	1	0	0	1	1	0	0	1	1	1	1	1	1	0	0	0	0	3	4
A-	32	43	36	48	37	49	40	53	38	51	38	51	31	41	38	51	29	39	32	43
A+	40	53	39	52	32	43	30	40	31	41	31	41	42	56	34	45	44	59	31	41
B+	2	3	0	0	1	1	5	7	1	1	2	3	1	1	3	4	0	0	3	4
C+	0	0	0	0	4	5	0	0	4	5	3	4	0	0	0	0	0	0	4	5
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 6.D.7 DIF Classifications for English–Language Arts Grade Six Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	1	1	0	0	2	3	0	0	3	4	2	3	1	1	0	0	0	0	4	5
A-	34	45	39	52	34	45	32	43	28	37	34	45	32	43	32	43	33	44	26	35
A+	38	51	36	48	35	47	41	55	39	52	36	48	42	56	42	56	42	56	38	51
B+	1	1	0	0	1	1	2	3	3	4	1	1	0	0	1	1	0	0	3	4
C+	0	0	0	0	3	4	0	0	2	3	2	3	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
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 6.D.8 DIF Classifications for English–Language Arts Grade Seven Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	3	4	0	0	4	5	1	1	1	1	2	3	0	0	0	0	0	0	7	9
A-	31	41	34	45	31	41	38	50	39	51	33	43	37	49	35	46	37	49	27	36
A+	39	51	42	55	34	45	36	47	32	42	36	47	39	51	41	54	39	51	32	42
B+	2	3	0	0	5	7	0	0	2	3	3	4	0	0	0	0	0	0	7	9
C+	0	0	0	0	2	3	1	1	2	3	2	3	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
TOTAL	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100	76	100

Table 6.D.9 DIF Classifications for English–Language Arts Grade Eight Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	3	4	2	3	2	3	3	4	0	0	0	0	0	0	4	5
A-	38	51	39	52	34	45	33	44	34	45	33	44	34	45	37	49	35	47	33	44
A+	36	48	36	48	35	47	39	52	35	47	38	51	40	53	38	51	40	53	31	41
B+	1	1	0	0	2	3	0	0	3	4	0	0	1	1	0	0	0	0	6	8
C+	0	0	0	0	1	1	1	1	1	1	1	1	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
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 6.D.10 DIF Classifications for English–Language Arts Grade Nine Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	1	1	0	0	5	7	1	1	3	4	3	4	1	1	0	0	1	1	7	9
A-	32	43	35	47	30	40	36	48	33	44	31	41	35	47	34	45	33	44	29	39
A+	41	55	40	53	35	47	38	51	33	44	36	48	38	51	41	55	41	55	30	40
B+	0	0	0	0	5	7	0	0	5	7	4	5	1	1	0	0	0	0	7	9
C+	0	0	0	0	0	0	0	0	1	1	1	1	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
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 6.D.11 DIF Classifications for English–Language Arts Grade Ten Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	1	0	0	1	1	0	0	4	5	1	1	0	0	0	0	3	4	8	11
A-	39	52	37	49	35	47	35	47	31	41	33	44	32	43	35	47	36	48	30	40
A+	34	45	38	51	37	49	40	53	40	53	41	55	42	56	40	53	35	47	33	44
B+	1	1	0	0	2	3	0	0	0	0	0	0	1	1	0	0	1	1	4	5
C+	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
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 6.D.12 DIF Classifications for English–Language Arts Grade Eleven Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	1	1
B-	2	3	0	0	0	0	0	0	1	1	0	0	2	3	0	0	0	0	2	3
A-	28	37	38	51	37	49	38	51	38	51	38	51	31	41	32	43	35	47	36	48
A+	45	60	37	49	35	47	37	49	34	45	35	47	41	55	43	57	38	51	32	43
B+	0	0	0	0	3	4	0	0	2	3	2	3	0	0	0	0	1	1	3	4
C+	0	0	0	0	0	0	0	0	0	0	0	0	1	1	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
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 6.D.13 DIF Classifications for History–Social Science Grade Eight Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
A-	34	45	36	48	37	49	39	52	39	52	36	48	36	48	39	52	29	39	32	43
A+	38	51	39	52	36	48	36	48	36	48	38	51	39	52	35	47	46	61	37	49
B+	2	3	0	0	1	1	0	0	0	0	1	1	0	0	1	1	0	0	4	5
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.14 DIF Classifications for World History Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	2	3
A-	27	45	30	50	31	52	32	53	25	42	28	47	28	47	27	45	30	50	28	47
A+	30	50	30	50	27	45	28	47	35	58	30	50	31	52	33	55	30	50	27	45
B+	1	2	0	0	2	3	0	0	0	0	2	3	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
Small N	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

Table 6.D.15 DIF Classifications for History–Social Science Grade Eleven Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	27	45	31	52	29	48	31	52	28	47	28	47	27	45	34	57	27	45	32	53
A+	33	55	29	48	30	50	29	48	31	52	31	52	33	55	25	42	33	55	26	43
B+	0	0	0	0	1	2	0	0	1	2	1	2	0	0	1	2	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
Small N	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

Table 6.D.16 DIF Classifications for Mathematics Grade Two Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	0	0	0	0	1	2	1	2	1	2	0	0	2	3	4	6
A-	29	45	33	52	30	47	31	48	29	45	28	44	26	41	29	45	21	33	24	38
A+	34	53	31	48	33	52	31	48	33	52	35	55	37	58	35	55	41	64	33	52
B+	0	0	0	0	1	2	2	3	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
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	64	100	64	100	64	100	64	100	64	100	64	100	64	100	64	100	64	100	64	100

Table 6.D.17 DIF Classifications for Mathematics Grade Three Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	3	0	0	0	0	0	0	3	5	0	0	0	0	1	2	2	3	5	8
A-	29	45	32	49	33	51	28	43	20	31	31	48	27	42	25	38	26	40	25	38
A+	32	49	33	51	32	49	37	57	42	65	34	52	37	57	38	58	36	55	32	49
B+	2	3	0	0	0	0	0	0	0	0	0	0	1	2	1	2	1	2	3	5
C+	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
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 6.D.18 DIF Classifications for Mathematics Grade Four Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2	3	5
A-	28	43	35	54	35	54	30	46	28	43	30	46	32	49	31	48	28	43	26	40
A+	34	52	30	46	30	46	35	54	37	57	35	54	33	51	33	51	36	55	34	52
B+	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.19 DIF Classifications for Mathematics Grade Five Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	1	2	2	3	1	2	1	2	0	0	1	2	0	0	3	5
A-	26	40	31	48	31	48	26	40	23	35	29	45	30	46	28	43	32	49	25	38
A+	38	58	34	52	33	51	37	57	41	63	35	54	35	54	36	55	33	51	37	57
B+	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
Small N	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

Table 6.D.20 DIF Classifications for Mathematics Grade Six Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	3	0	0	3	5	0	0	1	2	1	2	0	0	0	0	1	2	6	9
A-	30	46	27	42	29	45	30	46	28	43	30	46	32	49	33	51	32	49	23	35
A+	33	51	38	58	32	49	35	54	35	54	33	51	33	51	32	49	32	49	35	54
B+	0	0	0	0	1	2	0	0	1	2	1	2	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
Small N	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

Table 6.D.21 DIF Classifications for Mathematics Grade Seven Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	4	6	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	5	8
A-	25	38	29	45	34	52	34	52	26	40	30	46	31	48	37	57	30	46	24	37
A+	35	54	36	55	29	45	31	48	37	57	35	54	34	52	28	43	35	54	33	51
B+	1	2	0	0	2	3	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
Small N	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

Table 6.D.22 DIF Classifications for General Mathematics Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	3	0	0	1	2	1	2	0	0	1	2	0	0	1	2	0	0	3	5
A-	26	40	29	45	30	46	28	43	30	46	29	45	30	46	30	46	29	45	27	42
A+	35	54	36	55	33	51	36	55	34	52	34	52	35	54	34	52	36	55	32	49
B+	2	3	0	0	1	2	0	0	1	2	1	2	0	0	0	0	0	0	3	5
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.23 DIF Classifications for Algebra I Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	1	2	1	2	1	2	0	0	0	0	0	0	1	2	3	5
A-	23	35	29	45	31	48	25	38	26	40	31	48	26	40	30	46	24	37	25	38
A+	42	65	36	55	33	51	39	60	38	58	34	52	39	60	35	54	40	62	37	57
B+	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
Small N	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

Table 6.D.24 DIF Classifications for Geometry Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2
A-	29	45	33	51	31	48	34	52	28	43	31	48	29	45	31	48	23	35	30	46
A+	36	55	32	49	34	52	31	48	37	57	34	52	36	55	34	52	41	63	34	52
B+	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
Small N	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

Table 6.D.25 DIF Classifications for Algebra II Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	3
A-	22	34	33	51	30	46	27	42	25	38	26	40	31	48	26	40	24	37	29	45
A+	43	66	32	49	35	54	38	58	40	62	39	60	34	52	39	60	39	60	34	52
B+	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
Small N	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

Table 6.D.26 DIF Classifications for Summative High School Mathematics Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	3	0	0	1	2	0	0	2	3	1	2	0	0	0	0	7	11	10	15
A-	25	38	32	49	26	40	29	45	24	37	25	38	31	48	32	49	24	37	22	34
A+	36	55	33	51	38	58	36	55	39	60	39	60	34	52	33	51	33	51	30	46
B+	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	5
C+	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
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 6.D.27 DIF Classifications for Integrated Mathematics 1 Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	1	2	0	0	0	0	0	0	0	0	1	2	0	0	3	5
A-	31	48	0	0	33	51	0	0	33	51	33	51	31	48	31	48	30	46	32	49
A+	33	51	0	0	30	46	0	0	32	49	31	48	34	52	33	51	35	54	29	45
B+	0	0	0	0	1	2	0	0	0	0	1	2	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
Small N	0	0	65	100	0	0	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

Table 6.D.28 DIF Classifications for Integrated Mathematics 2 Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	2	0	0	1	2	2	3
B-	2	3	0	0	2	3	0	0	6	9	2	3	1	2	2	3	2	3	11	17
A-	30	46	0	0	32	49	0	0	23	35	29	45	28	43	32	49	24	37	23	35
A+	32	49	0	0	29	45	0	0	33	51	32	49	35	54	30	46	37	57	23	35
B+	1	2	0	0	1	2	0	0	2	3	2	3	0	0	1	2	1	2	4	6
C+	0	0	0	0	1	2	0	0	1	2	0	0	0	0	0	0	0	0	2	3
Small N	0	0	65	100	0	0	65	100	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 6.D.29 DIF Classifications for Integrated Mathematics 3 Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	2	0	0	0	0	1	2
B-	1	2	0	0	5	8	0	0	0	0	5	8	6	9	3	5	0	0	12	18
A-	28	43	0	0	29	45	0	0	0	0	27	42	23	35	28	43	0	0	21	32
A+	36	55	0	0	26	40	0	0	0	0	28	43	28	43	30	46	0	0	20	31
B+	0	0	0	0	5	8	0	0	0	0	5	8	6	9	4	6	0	0	10	15
C+	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	2
Small N	0	0	65	100	0	0	65	100	65	100	0	0	0	0	0	0	65	100	0	0
TOTAL	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100	65	100

Table 6.D.30 DIF Classifications for Science Grade Five Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	1	2	0	0	0	0	1	2	0	0	0	0	1	2	2	3
A-	31	52	27	45	27	45	32	53	25	42	28	47	26	43	29	48	26	43	25	42
A+	29	48	33	55	32	53	28	47	35	58	31	52	34	57	31	52	33	55	33	55
B+	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
Small N	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

Table 6.D.31 DIF Classifications for Science Grade Eight Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	3	5	0	0	1	2	0	0	1	2	1	2	0	0	0	0	1	2	5	8
A-	25	42	33	55	29	48	27	45	28	47	28	47	27	45	28	47	25	42	24	40
A+	28	47	27	45	28	47	33	55	31	52	30	50	33	55	32	53	34	57	27	45
B+	4	7	0	0	2	3	0	0	0	0	1	2	0	0	0	0	0	0	4	7
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.32 DIF Classifications for Grade Ten Life Science Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	1	2	0	0	1	2	1	2	0	0	0	0	0	0	1	2
A-	30	50	28	47	30	50	29	48	25	42	30	50	29	48	33	55	29	48	30	50
A+	28	47	32	53	29	48	31	52	34	57	29	48	31	52	27	45	31	52	27	45
B+	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.33 DIF Classifications for Biology Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	1	2	0	0	1	2	1	2	0	0	0	0	0	0	1	2
A-	31	52	28	47	28	47	31	52	29	48	29	48	29	48	30	50	29	48	30	50
A+	29	48	32	53	30	50	29	48	29	48	29	48	31	52	30	50	31	52	28	47
B+	0	0	0	0	1	2	0	0	1	2	1	2	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
Small N	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

Table 6.D.34 DIF Classifications for Chemistry Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	1	2	1	2	1	2	1	2	0	0	0	0	0	0	2	3
A-	25	42	32	53	24	40	25	42	25	42	22	37	27	45	28	47	27	45	25	42
A+	34	57	28	47	35	58	34	57	34	57	37	62	33	55	32	53	33	55	33	55
B+	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
Small N	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

Table 6.D.35 DIF Classifications for Earth Science Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	3	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	5
A-	25	42	28	47	29	48	27	45	28	47	26	43	27	45	28	47	28	47	23	38
A+	33	55	32	53	31	52	33	55	31	52	34	57	33	55	32	53	32	53	34	57
B+	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
Small N	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

Table 6.D.36 DIF Classifications for Physics Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	3	5	0	0	0	0	0	0	2	3	0	0	0	0	1	2	1	2	5	8
A-	28	47	32	53	31	52	31	52	29	48	33	55	26	43	29	48	29	48	30	50
A+	27	45	28	47	26	43	29	48	28	47	26	43	34	57	30	50	30	50	21	35
B+	2	3	0	0	3	5	0	0	1	2	1	2	0	0	0	0	0	0	4	7
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.37 DIF Classifications for Integrated/Coordinated Science 1 Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	3	5	0	0	1	2	1	2	0	0	0	0	1	2	4	7
A-	24	40	29	48	27	45	33	55	25	42	28	47	25	42	30	50	28	47	25	42
A+	35	58	31	52	29	48	27	45	34	57	31	52	35	58	30	50	31	52	30	50
B+	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.38 DIF Classifications for Integrated/Coordinated Science 2 Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	3	0	0	6	10	0	0	4	7	2	3	2	3	1	2	0	0	10	17
A-	26	43	0	0	21	35	0	0	23	38	25	42	26	43	26	43	28	47	20	33
A+	30	50	0	0	29	48	0	0	30	50	32	53	31	52	33	55	32	53	22	37
B+	2	3	0	0	4	7	0	0	3	5	1	2	1	2	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
Small N	0	0	60	100	0	0	60	100	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 6.D.39 DIF Classifications for Integrated/Coordinated Science 3 Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	2
B-	2	3	0	0	0	0	0	0	0	0	4	7	0	0	0	0	1	2	7	12
A-	29	48	0	0	0	0	0	0	0	0	27	45	33	55	29	48	28	47	19	32
A+	28	47	0	0	0	0	0	0	0	0	26	43	27	45	28	47	30	50	27	45
B+	1	2	0	0	0	0	0	0	0	0	3	5	0	0	2	3	1	2	6	10
C+	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	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

Table 6.D.40 DIF Classifications for Integrated/Coordinated Science 4 Operational Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	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
A+	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
C+	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
TOTAL	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100	60	100

Table 6.D.41 DIF Classifications for English–Language Arts Grade Two Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	1	1	3	4
B-	1	1	0	0	1	1	10	14	2	3	0	0	1	1	2	3	3	4	13	18
A-	37	50	45	61	42	57	29	39	41	55	44	59	50	68	50	68	50	68	31	42
A+	36	49	29	39	26	35	31	42	25	34	26	35	23	31	21	28	20	27	19	26
B+	0	0	0	0	4	5	2	3	6	8	3	4	0	0	1	1	0	0	7	9
C+	0	0	0	0	1	1	0	0	0	0	1	1	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
TOTAL	74	100	74	100	74	100	74	100	74	100	74	100	74	100	74	100	74	100	74	100

Table 6.D.42 DIF Classifications for English–Language Arts Grade Three Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	1
B-	0	0	0	0	1	1	2	2	2	2	0	0	0	0	1	1	0	0	4	5
A-	36	43	49	58	15	18	37	44	33	39	22	26	43	51	45	54	54	64	32	38
A+	48	57	35	42	61	73	43	51	45	54	56	67	40	48	38	45	30	36	39	46
B+	0	0	0	0	3	4	2	2	2	2	3	4	1	1	0	0	0	0	5	6
C+	0	0	0	0	3	4	0	0	2	2	2	2	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
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 6.D.43 DIF Classifications for English–Language Arts Grade Four Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
B-	1	1	3	4	0	0	5	6	3	4	0	0	0	0	0	0	0	0	12	15
A-	36	44	40	49	26	32	44	54	42	51	30	37	43	52	52	63	36	44	31	38
A+	45	55	37	45	53	65	31	38	32	39	49	60	39	48	30	37	46	56	32	39
B+	0	0	2	2	1	1	1	1	3	4	2	2	0	0	0	0	0	0	3	4
C+	0	0	0	0	2	2	0	0	2	2	1	1	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
TOTAL	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100

Table 6.D.44 Classifications for English–Language Arts Grade Five Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	3	4	3	4	6	7	3	4	2	2	1	1	0	0	2	2	13	15
A-	24	29	50	60	22	26	35	42	32	38	23	27	49	58	57	68	56	67	34	40
A+	59	70	31	37	52	62	30	36	46	55	55	65	34	40	26	31	26	31	30	36
B+	1	1	0	0	5	6	1	1	1	1	2	2	0	0	1	1	0	0	5	6
C+	0	0	0	0	2	2	0	0	2	2	2	2	0	0	0	0	0	0	2	2
Small N	0	0	0	0	0	0	12	14	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

Table 6.D.45 DIF Classifications for English–Language Arts Grade Six Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	1	1	1	2	3	0	0	1	1	1	1	1	1	0	0	2	3	8	10
A-	33	42	50	64	26	33	44	56	38	49	27	35	50	64	58	74	47	60	34	44
A+	44	56	27	35	48	62	34	44	37	47	49	63	26	33	20	26	29	37	32	41
B+	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	2	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	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
TOTAL	78	100	78	100	78	100	78	100	78	100	78	100	78	100	78	100	78	100	78	100

Table 6.D.46 DIF Classifications for English–Language Arts Grade Seven Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	6	7	1	1	1	1	3	4	3	4	3	4	3	4	1	1	2	2	8	10
A-	25	30	38	45	32	38	38	45	39	46	31	37	40	48	50	60	56	67	25	30
A+	52	62	45	54	50	60	40	48	38	45	47	56	41	49	33	39	26	31	46	55
B+	0	0	0	0	0	0	3	4	3	4	2	2	0	0	0	0	0	0	3	4
C+	0	0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0	1	1
Small N	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

Table 6.D.47 DIF Classifications for English–Language Arts Grade Eight Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	2	2	0	0	1	1	1	1	0	0	0	0	0	0	3	4
B-	3	4	1	1	1	1	4	5	3	4	1	1	2	2	2	2	5	6	13	16
A-	39	48	41	50	30	37	39	48	36	44	35	43	44	54	51	62	57	70	26	32
A+	39	48	40	49	43	52	35	43	37	45	40	49	35	43	29	35	20	24	28	34
B+	0	0	0	0	3	4	4	5	2	2	3	4	1	1	0	0	0	0	8	10
C+	0	0	0	0	3	4	0	0	3	4	2	2	0	0	0	0	0	0	4	5
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100

Table 6.D.48 DIF Classifications for English–Language Arts Grade Nine Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	1	1	3	4	0	0	0	0	0	0	0	0	3	4
B-	0	0	0	0	9	11	4	5	4	5	7	8	4	5	0	0	2	2	9	11
A-	34	40	51	61	32	38	50	60	40	48	37	44	37	44	56	67	56	67	37	44
A+	50	60	33	39	41	49	28	33	36	43	39	46	42	50	27	32	25	30	33	39
B+	0	0	0	0	2	2	1	1	0	0	1	1	1	1	1	1	1	1	1	1
C+	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 6.D.49 DIF Classifications for English–Language Arts Grade Ten Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	2	2	0	0	0	0	2	2
B-	1	1	0	0	2	2	5	6	3	4	1	1	2	2	3	4	1	1	9	11
A-	36	44	41	50	36	44	42	51	37	45	38	46	44	54	42	51	60	73	32	39
A+	44	54	41	50	40	49	34	41	39	48	40	49	34	41	37	45	21	26	34	41
B+	1	1	0	0	2	2	1	1	1	1	2	2	0	0	0	0	0	0	4	5
C+	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100	82	100

Table 6.D.50 DIF Classifications for English–Language Arts Grade Eleven Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1
B-	0	0	0	0	2	3	1	1	3	4	1	1	0	0	0	0	1	1	6	8
A-	25	33	44	59	28	37	42	56	38	51	30	40	35	47	41	55	46	61	21	28
A+	46	61	31	41	44	59	29	39	33	44	43	57	39	52	33	44	27	36	42	56
B+	3	4	0	0	0	0	2	3	1	1	0	0	0	0	0	0	0	0	5	7
C+	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
TOTAL	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100	75	100

Table 6.D.51 DIF Classifications for History–Social Science Grade Eight Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	5	1	2	1	2	0	0	0	0	1	2	0	0	1	2	0	0	3	7
A-	27	64	20	48	21	50	15	36	20	48	23	55	23	55	23	55	17	40	22	52
A+	13	31	21	50	19	45	20	48	20	48	17	40	19	45	18	43	25	60	15	36
B+	0	0	0	0	1	2	1	2	2	5	1	2	0	0	0	0	0	0	2	5
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	0	0	0	0	6	14	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100

Table 6.D.52 DIF Classifications for World History Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	0	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	2	5
A-	19	45	26	62	19	45	28	67	22	52	21	50	31	74	33	79	30	71	28	67
A+	22	52	16	38	23	55	13	31	19	45	21	50	11	26	9	21	12	29	12	29
B+	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
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100

Table 6.D.53 DIF Classifications for History–Social Science Grade Eleven Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	2	1	2	0	0	1	2	2	5	0	0	1	2	1	2	4	10	9	21
A-	16	38	20	48	19	45	27	64	23	55	19	45	29	69	26	62	26	62	16	38
A+	23	55	21	50	23	55	14	33	15	36	23	55	12	29	15	36	12	29	15	36
B+	2	5	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	2
C+	0	0	0	0	0	0	0	0	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
TOTAL	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100

Table 6.D.54 DIF Classifications for Mathematics Grade Two Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	1	1	1	1	1	2	2
B-	1	1	1	1	0	0	7	8	2	2	1	1	2	2	4	5	2	2	10	12
A-	29	35	45	54	30	36	43	51	39	46	36	43	46	55	51	61	42	50	34	40
A+	53	63	37	44	52	62	34	40	41	49	46	55	35	42	28	33	39	46	34	40
B+	1	1	1	1	2	2	0	0	2	2	1	1	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
Small N	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

Table 6.D.55 DIF Classifications for Mathematics Grade Three Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	0	0	2	2
B-	6	7	4	5	0	0	7	8	7	8	0	0	2	2	9	11	6	7	20	24
A-	51	61	44	52	33	39	42	50	38	45	35	42	50	60	44	52	49	58	26	31
A+	25	30	36	43	48	57	33	39	36	43	48	57	32	38	30	36	29	35	27	32
B+	1	1	0	0	3	4	2	2	2	2	1	1	0	0	0	0	0	0	8	10
C+	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 6.D.56 DIF Classifications for Mathematics Grade Four Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	1	1	0	0	6	7	1	1	0	0	2	2	2	2	0	0	8	10
A-	45	54	50	60	24	29	41	49	43	51	30	36	51	61	56	67	56	67	41	49
A+	37	44	33	39	60	71	36	43	40	48	54	64	31	37	26	31	28	33	32	38
B+	2	2	0	0	0	0	1	1	0	0	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
Small N	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

Table 6.D.57 DIF Classifications for Mathematics Grade Five Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	3	4
B-	3	4	2	2	0	0	2	2	0	0	0	0	4	5	4	5	3	4	10	12
A-	39	46	49	58	28	33	40	48	41	49	32	38	47	56	49	58	45	54	35	42
A+	41	49	32	38	56	67	27	32	43	51	52	62	33	39	29	35	36	43	33	39
B+	0	0	1	1	0	0	2	2	0	0	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
Small N	0	0	0	0	0	0	12	14	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

Table 6.D.58 DIF Classifications for Mathematics Grade Six Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	1	1	1	1	2	2	7	8	2	2	2	2	0	0	0	0	2	2	10	12
A-	35	42	52	62	22	26	44	52	28	33	22	26	48	57	52	62	53	63	35	42
A+	45	54	31	37	52	62	32	38	49	58	57	68	36	43	32	38	29	35	28	33
B+	3	4	0	0	7	8	1	1	4	5	3	4	0	0	0	0	0	0	9	11
C+	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	2	2
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 6.D.59 DIF Classifications for Mathematics Grade Seven Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
B-	1	1	0	0	1	1	3	4	1	1	1	1	0	0	0	0	1	1	5	6
A-	36	43	48	57	27	32	45	54	35	42	29	35	56	67	58	69	53	63	42	50
A+	45	54	36	43	54	64	31	37	47	56	53	63	28	33	26	31	30	36	28	33
B+	1	1	0	0	2	2	5	6	1	1	1	1	0	0	0	0	0	0	8	10
C+	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
TOTAL	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100	84	100

Table 6.D.60 DIF Classifications for General Mathematics Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	3	50	4	67	2	33	2	33	3	50	1	17	3	50	2	33	4	67	3	50
A+	3	50	2	33	4	67	4	67	3	50	5	83	3	50	4	67	2	33	3	50
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	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
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Table 6.D.61 DIF Classifications for Algebra I Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	2
A-	22	52	28	67	9	21	20	48	10	24	10	24	26	62	28	67	18	43	17	40
A+	20	48	14	33	33	79	22	52	31	74	32	76	16	38	14	33	24	57	24	57
B+	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
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100

Table 6.D.62 DIF Classifications for Geometry Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	1	2	1	2	1	2	1	2	1	2	0	0	0	0	1	2
A-	23	55	28	67	15	36	27	64	19	45	16	38	27	64	30	71	30	71	25	60
A+	19	45	14	33	26	62	14	33	22	52	25	60	14	33	12	29	12	29	16	38
B+	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
Small N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100

Table 6.D.63 DIF Classifications for Algebra II Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	2
B-	2	5	0	0	0	0	1	2	0	0	0	0	1	2	0	0	0	0	2	5
A-	19	45	25	60	19	45	23	55	26	62	24	57	28	67	30	71	27	64	27	64
A+	21	50	17	40	23	55	16	38	16	38	18	43	13	31	12	29	14	33	10	24
B+	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0	0	2	5
C+	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
TOTAL	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100

Table 6.D.64 DIF Classifications for Summative High School Mathematics Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2	2	5
B-	0	0	0	0	1	2	0	0	0	0	1	2	2	5	1	2	2	5	2	5
A-	16	38	0	0	14	33	0	0	17	40	14	33	14	33	18	43	15	36	13	31
A+	21	50	0	0	27	64	0	0	24	57	27	64	25	60	20	48	23	55	19	45
B+	5	12	0	0	0	0	0	0	0	0	0	0	1	2	3	7	1	2	6	14
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	42	100	0	0	42	100	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100	42	100

Table 6.D.65 DIF Classifications for Integrated Mathematics 1 Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	4	67	0	0	1	17	0	0	3	50	1	17	2	33	2	33	2	33	1	17
A+	2	33	0	0	5	83	0	0	3	50	5	83	4	67	4	67	4	67	5	83
B+	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
Small N	0	0	6	100	0	0	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

Table 6.D.66 DIF Classifications for Integrated Mathematics 2 Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	17	1	17	0	0	0	0	1	17
B-	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0
A-	4	67	0	0	1	17	0	0	3	50	1	17	3	50	3	50	1	17	3	50
A+	2	33	0	0	4	67	0	0	1	17	4	67	2	33	3	50	5	83	1	17
B+	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	0	0	0	1	17
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	100	0	0	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

Table 6.D.67 DIF Classifications for Integrated Mathematics 3 Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	0	0	1	17	1	17	0	0	1	17
A-	5	83	0	0	4	67	0	0	0	0	3	50	3	50	1	17	0	0	2	33
A+	1	17	0	0	2	33	0	0	0	0	3	50	2	33	4	67	0	0	3	50
B+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C+	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	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

Table 6.D.68 DIF Classifications for Science Grade Five Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	2	2	2	2
B-	2	2	4	3	0	0	1	1	1	1	0	0	1	1	4	3	0	0	12	10
A-	56	47	82	68	36	30	59	49	53	44	40	33	81	68	70	58	89	74	55	46
A+	62	52	32	27	83	69	35	29	66	55	80	67	38	32	46	38	29	24	47	39
B+	0	0	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	4	3
C+	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	24	20	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100

Table 6.D.69 DIF Classifications for Science Grade Eight Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	6	5	4	3	2	2	6	5	3	3	2	2	0	0	0	0	3	3	17	14
A-	51	43	76	63	45	38	60	50	66	55	51	43	87	73	82	68	82	68	63	53
A+	61	51	39	33	67	56	46	38	49	41	63	53	33	28	38	32	34	28	28	23
B+	2	2	1	1	4	3	2	2	2	2	4	3	0	0	0	0	1	1	10	8
C+	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Small N	0	0	0	0	0	0	6	5	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100

Table 6.D.70 DIF Classifications for Grade Ten Life Science Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	1	1
B-	0	0	2	2	2	2	8	7	2	2	2	2	1	1	0	0	3	3	11	9
A-	59	49	62	52	57	48	77	64	59	49	62	52	72	60	77	64	74	62	69	58
A+	58	48	54	45	61	51	34	28	58	48	56	47	47	39	43	36	43	36	33	28
B+	2	2	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	5	4
C+	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
TOTAL	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100

Table 6.D.71 DIF Classifications for Biology Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	2	1	1	2	2	3	3	3	3	2	2	2	2	0	0	3	3	11	9
A-	57	48	74	62	31	26	54	45	49	41	33	28	61	51	70	58	65	54	44	37
A+	61	51	45	38	85	71	60	50	65	54	83	69	57	48	50	42	52	43	59	49
B+	0	0	0	0	2	2	3	3	3	3	2	2	0	0	0	0	0	0	6	5
C+	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
TOTAL	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100

Table 6.D.72 DIF Classifications for Chemistry Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	2	2	0	0	0	0	0	0	2	2	0	0	0	0	2	2	2	2	7	6
A-	50	42	0	0	44	37	0	0	56	47	51	43	75	63	73	61	58	48	54	45
A+	68	57	0	0	76	63	0	0	62	52	69	58	45	38	45	38	60	50	59	49
B+	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
Small N	0	0	120	100	0	0	120	100	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100

Table 6.D.73 DIF Classifications for Earth Science Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	1
B-	3	3	2	2	4	3	0	0	6	5	2	2	1	1	2	2	0	0	13	11
A-	81	68	45	38	54	45	0	0	59	49	60	50	74	62	81	68	73	61	74	62
A+	36	30	37	31	60	50	0	0	52	43	58	48	45	38	36	30	47	39	28	23
B+	0	0	0	0	2	2	0	0	2	2	0	0	0	0	0	0	0	0	4	3
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	36	30	0	0	120	100	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100

Table 6.D.74 DIF Classifications for Physics Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
C-	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	3
B-	4	3	0	0	2	2	0	0	8	7	1	1	3	3	5	4	7	6	21	18
A-	69	58	0	0	43	36	0	0	50	42	44	37	70	58	70	58	68	57	41	34
A+	41	34	0	0	73	61	0	0	53	44	73	61	47	39	44	37	41	34	37	31
B+	3	3	0	0	2	2	0	0	9	8	2	2	0	0	1	1	3	3	17	14
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	120	100	0	0	120	100	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100	120	100

Table 6.D.75 DIF Classifications for Integrated/Coordinated Science 1 Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-	2	33	4	67	1	17	2	33	2	33	2	33	2	33	5	83	3	50	3	50
A+	4	67	2	33	4	67	4	67	4	67	4	67	4	67	1	17	3	50	2	33
B+	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	0	1	17
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	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

Table 6.D.76 DIF Classifications for Integrated/Coordinated Science 2 Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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	17	1	17	1	17	1	17	0	0	1	17
B-	1	17	0	0	1	17	0	0	1	17	0	0	0	0	1	17	0	0	2	33
A-	3	50	0	0	3	50	0	0	2	33	3	50	3	50	2	33	6	100	1	17
A+	2	33	0	0	1	17	0	0	1	17	1	17	2	33	2	33	0	0	1	17
B+	0	0	0	0	1	17	0	0	1	17	1	17	0	0	0	0	0	0	1	17
C+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small N	0	0	6	100	0	0	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

Table 6.D.77 DIF Classifications for Integrated/Coordinated Science 3 Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	0	0	0	0	0	0	0	0	0	0	1	17	1	17	1	17	1	17	2	33
A-	3	50	0	0	0	0	0	0	0	0	4	67	3	50	3	50	3	50	3	50
A+	3	50	0	0	0	0	0	0	0	0	1	17	2	33	2	33	2	33	1	17
B+	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
Small N	0	0	6	100	6	100	6	100	6	100	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

Table 6.D.78 DIF Classifications for Integrated/Coordinated Science 4 Field-Test Items

DIF category	M-F		W-AmI		W-Asn		W-PacI		W-Fil		W-ComA		W-His		W-AfrA		E-ELnr		Total	
	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
B-	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
A+	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
C+	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
TOTAL	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100	6	100

Chapter 7: Item Quality

This chapter summarizes the item-level statistics obtained for the California standards-testing program administered during spring of 2008. This includes items on ten grade-specific CSTs for ELA for grades two through eleven; two CSTs for history–social science for grades eight and eleven; six grade-specific CSTs for mathematics for grades two through seven; eight end-of-course CSTs for mathematics including three integrated tests; three grade-specific CSTs for science for grades five, eight, and ten; and eight end-of-course CSTs for science including four integrated tests. Students in grades nine, ten, and eleven who were enrolled in a World History course took the EOC CST for World History.

The CSTs for integrated mathematics and science consisted of questions that were also administered in content-specific CSTs. Each CST was composed of dichotomously scored multiple-choice (MC) items except for ELA, where a polytomously scored writing task was also presented as part of the grades four and seven tests.

The CSTs also included six field-test items that were embedded in the test and were not included in the operational test scores. Different sets of field-test items were presented in each form (version)[1] for the various CSTs. Larger numbers of items were field-tested for the CST science tests (20 versions), and the CST ELA and grade-level mathematics tests (14 versions). The CSTs for history–social science and EOC mathematics tests were administered in seven forms with the exception of the CST for General Mathematics, which was tested in one form. The CSTs for Integrated Mathematics and Integrated/Coordinated Science were also presented in a single form.

As described in Chapter 1, various CST analyses were conducted at different times in the testing process and involved different proportions of the full CST data. The item-level IRT information presented in this chapter is based on the sample of student data that was used in the final item analyses (FIA), which comprised about 81–84 percent for the lower- to middle-level tests and 85–90 percent for the higher-level tests[2] of the full CST data. Beginning in 2008, the IRT analyses for the end-of-course CSTs for mathematics were **not** limited to the students in targeted grades (that is, grade eight for Algebra I, grade nine for Geometry, grade ten for Algebra II, and grade eleven for Summative High School Mathematics).[3] Instead, similar to other CSTs, all students taking those tests were included in the equating sample and hence, were also included in the FIA sample.

The classical item-analysis statistics reported in this chapter were calculated on the P1+ data file. This file contained more than 99 percent of the test results of the overall population, and about 99.6 percent of the P2 sample that was used for August 15 reporting. A definition for the P1+ file is presented in Chapter 6. For readers' interest, the results of the classical item analyses for the four CSTs for end-of-course mathematics and the World History test are also presented for the grade-specific population in addition to the overall test-taking population. Prior to 2007, the CST for World History was a grade-level test taken by students in grade ten.

Table 7.1, on the next page, summarizes information about the test forms and students included in the item analyses, including the numbers of test forms, operational items, field-test items and the approximate number of students taking operational and field-test items in the P1+ and FIA samples.

[1] A version of a test is one that has the same operational form of the test with different field-test item sets. These are considered different *forms* of the same test. A form is counted as a field-test form if it contains one or more field-test items.

[2] An exception was Algebra I for which the data was sampled down to 500,000 records using random sampling procedures due to the limitations of the Genasys IRT software in handling more than 500,000 cases. The actual sample size received for this test, as part of FIA data, was 639,725.

[3] The students in this population will be referred to as "grade-specific" population.

Table 7.1 Summary of Items and Forms Presented in 2008 CSTs

Subject	CST	Operational			Field Test			
		# Items	# Examinees FIA Sample	# Examinees Total (P1+)	# Forms	# Items	# Examinees FIA Sample	# Examinees Total (P1+)
English-Language Arts	**2**	64	380,119	461,134	14	74	25,835–29,766	31,450–33,806
	3	65	364,601	444,585	14	84	24,474–27,346	21,874–135,483
	4	76	361,207	444,610	14	82	24,915–26,640	30,240–32,669
	5	75	364,059	449,549	14	84	17,881–120,040	21,880–146,869
	6	75	383,816	468,113	14	78	27,155–28,141	32,901–34,036
	7	76	396,399	476,518	14	84	26,926–29,235	31,871–34,782
	8	75	398,989	480,891	14	82	19,995–134,301	23,901–160,966
	9	75	430,613	504,080	14	84	30,176–31,882	34,578–37,017
	10	75	412,524	475,930	14	82	19,921–138,296	22,638–157,067
	11	75	387,917	443,198	14	75	27,151–31,205	30,541–35,229
History–Social Science	**Grade 8**	75	398,229	480,113	7	42	20,347–275,292	24,300–329,539
	World History	60	415,031	480,698	7	42	59,117–59,958	67,300–68,376
	Grade 11	60	378,803	432,489	7	42	26,477–218,518	29,794–246,148
Mathematics	**2**	64	380,789	461,864	14	84	25,902–29,823	31,535–33,843
	3	65	366,278	446,504	14	84	24,560–27,457	21,985–136,193
	4	65	363,276	447,141	14	84	25,058–26,885	30,396–32,968
	5	65	365,286	451,039	14	84	17,920–120,565	21,923–147,449
	6	65	384,038	468,590	14	84	27,165–28,234	32,922–34,172
	7	65	364,308	438,983	14	84	24,690–26,947	29,298–32,098
	General Math	65	241,583	286,258	1	6	241,583	286,258
	Algebra I	65	500,000	742,363	7	42	71,000–73,140	104,334–108,311
	Geometry	65	332,627	382,108	7	42	47,114–47,865	54,033–55,265
	Algebra II	65	210,330	239,083	7	42	29,956–30,279	33,996–34,419
	Summ. H.S. Math	65	102,726	115,855	7	42	14,592–14,738	16,466–16,631
	Integrated Math 1	65	8,112	8,772	1	6	8,112	8,772
	Integrated Math 2	65	3,863	4,275	1	6	3,863	4,275
	Integrated Math 3	65	1,462	1,480	1	6	1,462	1,480
Science	**Science Grade 5**	60	364,436	449,999	20	120	14,750–19,368	18,171–23,657
	Science Grade 8	60	397,427	479,113	20	120	15,752–21,347	19,021–25,593
	Life Science	60	401,981	463,012	20	120	17,720–22,644	20,078–25,821
	Biology	60	456,724	523,638	20	120	20,649–24,246	23,736–27,880
	Chemistry	60	202,379	232,120	20	120	9,098–10,767	10,412–12,360
	Earth Science	60	201,031	223,770	20	120	8,681–11,606	9,655–13,025
	Physics	60	57,510	64,041	20	120	2,400–3,285	2,672–3,659
	Integrated Science	60	58,328	75,603	1	6	58,328	75,603
	Integrated Science	60	6,967	7,746	1	6	6,967	7,746
	Integrated Science	60	1,672	1,955	1	6	1,672	1,955
	Integrated Science	60	411	429	1	6	411	429

For tests that were administered in a single form, the counts for the operational and field-test sections are the same. The field-test items were used as placeholders to make the tests of uniform length. The statistics used for the assembly of these CSTs were based on the content-specific results.

The number of items field-tested varied from content area to content area depending on the need for new items in the item pools used for test assembly.

The statistics presented in this chapter are divided into two sections as follows:

1. Summaries of classical item-level analyses, including item proportion correct (*p*-value), point-biserial correlations (Pt-Rbis) for each operational item, and summaries of overall *p*-value and point-biserial correlation statistics across operational items. These statistics are presented in Appendix 7.A.
2. Summaries of Rasch model item difficulty statistics (*b*-values) for operational and field-test items, and summaries of item classifications based on the fit of the Rasch model to the data, reported in letter categories of A, B, C, D, and F (IRT flag) for operational and field-test items. These statistics are presented in Appendix 7.B.

Differential Item Functioning (DIF) analyses were also performed on all operational items and all field-test items for which sufficient student samples were available. Those results were presented earlier, in Appendix 6.D of Chapter 6.

Item Analyses

This section describes the overall and item-by-item proportion correct indices as well as the point-biserial correlation indices for the operational items. The point-biserial correlation is a special case of the Pearson product-moment correlation used to measure 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:

$$R_{it} = \frac{Cov(i,t)}{\sigma_{xi}\sigma_t} \qquad (1)$$

where,

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

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

σ_t is the standard deviation for *t*

Table Table 7.1 presents summary indices for each operational test. Both the mean and median are provided. Detailed tables are provided in Appendix 7.A.

The data in Table 7.2 indicate that most of the CSTs were medium-difficulty tests—24 tests exhibited the average *p*-values between 0.5 and 0.65.[4] The CSTs that were most difficult for these students (*p*-value <= 0.50) were Algebra I, General Mathematics, and the Integrated Mathematics and Integrated/Coordinated Science CSTs. The CSTs that were least difficult for California students were mathematics administered at grades two, three, and four, as well as Summative High School Mathematics (*p*-value = 0.69). The CST for Grade 5 Science also proved to be slightly less difficult in 2008 with an average *p*-value of 0.66. The CSTs have generally followed a consistent pattern of average difficulty for the past several years. Attempts have been made to reduce the item difficulty for the grade level as well as end-of-course science tests; hence the average proportion correct for these tests has followed an increasing trend over the past few years.

The average item-total correlations indicated levels of item discrimination that were similar to expectations. This index was greater than or equal to 0.40 for 27 out of 38 CSTs and was between

[4] The average *p*-value can differ from one test to another for many reasons. These include the perspective of the Test Development committee, the available items in the assembly pool, the use of items assembled for one population being used with another (e.g., Integrated/Coordinated Science tests), historically different assembly targets for different tests, changes in the population taking the test from the population used to develop the target, and discrepancies between the target and the assembled test.

0.35 and 0.39 for six CSTs. The point-biserial correlations were slightly lower for the CSTs for General Mathematics, Algebra I, Algebra II, and Earth Science compared to the other end-of-course CSTs. The General Mathematics test exhibited a value of 0.38, while the other three tests had a point-biserial correlation of 0.39. The point-biserial correlations for items appearing in most of the CSTs for Integrated Mathematics and Integrated/Coordinated Science were much lower compared to the point-biserials obtained for these items when administered in the content-specific tests. This is likely due to the lower scores and lower variability in the student samples taking the integrated CSTs compared with those taking the content-specific CSTs. The point-biserial correlations for the majority of the CSTs in all subject areas (36 out of 38 tests) either stayed the same as 2007 or differed negligibly by .01 to .03 points in 2008.

The item-by-item values for the indices are presented in Table 7.A.1 through Table 7.A.8, which start on page 460.

Table 7.2 Average and Median Proportion Correct and Point-Biserial

				Mean		Median	
Subject	**CST**	**No. of Items**	**No. of Examinees**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
English–Language Arts	2	65	461,134	0.63	0.45	0.63	0.45
	3	65	444,585	0.64	0.42	0.63	0.42
	4	75	444,610	0.63	0.43	0.61	0.44
	5	75	449,549	0.63	0.41	0.63	0.41
	6	75	468,113	0.62	0.42	0.63	0.42
	7	75	476,518	0.61	0.43	0.64	0.45
	8	75	480,891	0.62	0.41	0.61	0.42
	9	75	504,080	0.59	0.43	0.61	0.43
	10	75	475,930	0.62	0.45	0.61	0.46
	11	75	443,198	0.57	0.43	0.59	0.46
History-Social Science	8	75	480,113	0.52	0.40	0.50	0.41
	World History	60	480,695	0.51	0.42	0.51	0.42
	11	60	432,488	0.52	0.42	0.52	0.42
Mathematics	2	64	461,864	0.73	0.44	0.76	0.46
	3	65	446,504	0.75	0.45	0.79	0.45
	4	65	447,141	0.74	0.46	0.75	0.47
	5	65	451,039	0.64	0.45	0.63	0.45
	6	65	468,590	0.61	0.44	0.62	0.45
	7	65	438,983	0.56	0.42	0.57	0.44
	General Math	65	286,258	0.49	0.38	0.47	0.40
	Algebra I	65	742,363	0.46	0.39	0.46	0.40
	Geometry	65	382,108	0.52	0.43	0.52	0.45
	Algebra II	65	239,083	0.52	0.39	0.50	0.40
	Summ. H.S. Math	65	115,855	0.69	0.43	0.69	0.44
	Integrated Math 1	65	8,772	0.39	0.31	0.39	0.33
	Integrated Math 2	65	4,275	0.43	0.36	0.43	0.35
	Integrated Math 3	65	1,480	0.45	0.37	0.45	0.38

				Mean		Median	
Subject	**CST**	**No. of Items**	**No. of Examinees**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
Science	Grade 5 Science	60	449,999	0.66	0.40	0.66	0.41
	Grade 8 Science	60	479,113	0.65	0.43	0.66	0.46
	Grade 10 Life Science	60	463,012	0.59	0.45	0.60	0.47
	Biology	60	523,638	0.59	0.43	0.58	0.45
	Chemistry	60	232,120	0.60	0.42	0.62	0.41
	Earth Science	60	223,770	0.55	0.39	0.55	0.38
	Physics	60	64,041	0.58	0.42	0.59	0.41
	Integrated Science 1	60	75,603	0.45	0.34	0.46	0.35
	Integrated Science 2	60	7,746	0.45	0.33	0.45	0.35
	Integrated Science 3	60	1,955	0.42	0.31	0.41	0.32
	Integrated Science 4	60	429	0.43	0.33	0.44	0.34
Grade-Specific	Algebra I – 8	65	247,372	0.54	0.42	0.54	0.42
	Geometry – 9	65	120,304	0.63	0.43	0.63	0.44
	Algebra II – 10	65	107,292	0.57	0.39	0.57	0.40
	High School Math – 11	65	98,124	0.67	0.42	0.68	0.44
	World History – 10	60	425,438	0.52	0.41	0.52	0.40

IRT Analyses

The results of the IRT analyses are presented in Appendix 7.B, which starts on page 479. Tables Table 7.B.1 through Table 7.B.44 present summary univariate statistics (mean, standard deviation, minimum, and maximum) and distributions for the IRT b-values after scaling. These statistics are listed for the operational test, by cluster scores, and for the field-test items. Table 7.B.45 through Table 7.B.54 present the results of the IRT fit analyses for the CSTs. The tables are presented for all grade-level and end-of-course CSTs. 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.[5]

Summaries of IRT b-values

The summary of IRT *b*-values for the operational and field test items are presented in Table 7.B.1 through Table 7.B.34 in Appendix 7.B. Consistent with previous years, the average item difficulty of the field test items was higher than the operational items. The exceptions were ELA grade two, mathematics grade two and the CST for Integrated Mathematics 3, where the average difficulty was slightly lower for the field-test items. The average difficulty level for the operational items ranged from –0.80 for Geometry to 0.24 for grade seven ELA. The index of average difficulty for the field-test items ranged from –0.71 for Summative High School Mathematics to 1.01 for General Mathematics (after excluding the three CSTs mentioned above).

Table 7.B.35 to Table 7.B.44 depict a more detailed presentation of IRT *b*-values for the operational and field-test items. The tables show the distribution of items at 16 IRT *b*-value intervals, where the b-values ranged from “less than –3.5” to “greater than or equal to 3.5” points within each interval. These distributions indicated that most of the items had difficulty levels in the range of –2.0 and 2.0 for majority of CSTs (97–100 percent of the total number of items). A few of the mathematics tests offered exceptions to this pattern, with CSTs at grade two and grade three being the most obvious examples where items exhibited lower difficulty levels. For these two tests, 9 percent of items for grade two mathematics (6 items) and 15 percentof items for grade three mathematics (10 items) had difficulty levels below –2.0.

[5] For further details, refer to "Scaling the CSTs for Integrated Science on page 70 of Chapter 3.

IRT Model-Data Fit Analyses

Because the Rasch model is used in equating and scaling the CSTs, an important part of IRT item analyses is the assessment of model-data fit. ETS psychometricians classified 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 below. As an illustration, the IRT item characteristic curves and empirical data (item-ability regressions) for five items recently field-tested in 2005 are shown in Figure 7.1. 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.

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—test developers are asked to avoid these items if possible and to carefully review them if they must be used. Test developers are instructed to avoid using items rated F for operational test assembly without a review by a psychometrician.

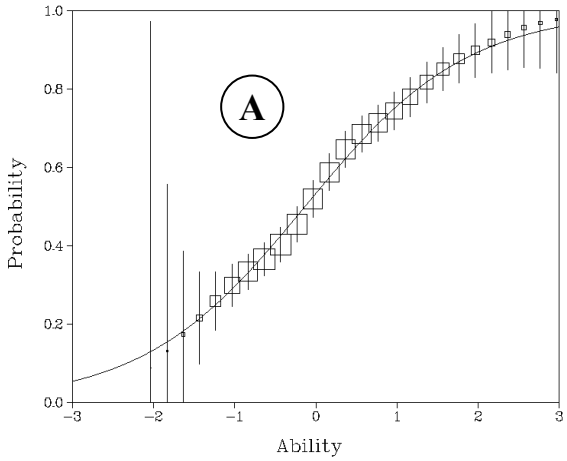
The results of the IRT model data fit classifications are presented in Table 7.B.45 through Table 7.B.49 for operational items and in Table 7.B.50 through Table 7.B.54 for the field-test items. In general, only one operational item was rated as an F item for any of the 38 CSTs. For English–language arts, history–social science, and science, none of the items were flagged as F items. For mathematics, one item was flagged as an F item, for the CST for Integrated Mathematics 3. It should

be noted that this test is administered to a fairly small group of students, giving the item statistics higher standard errors.

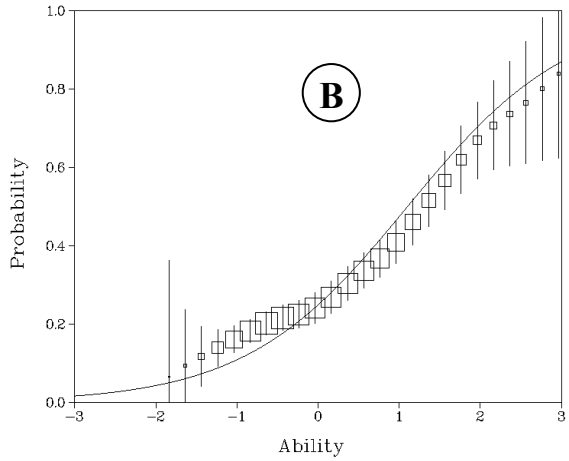
Summary of Item-Level Analyses

The item-level analyses of the 2008 CSTs presented in this chapter included classical item analyses and IRT analyses. Overall, these analyses indicate that the CSTs administered in 2008 meet the technical criteria established in professional standards for high-stakes tests, and that the items field-tested as part of the 2008 administration have statistical characteristics that are appropriate for use in future administrations.

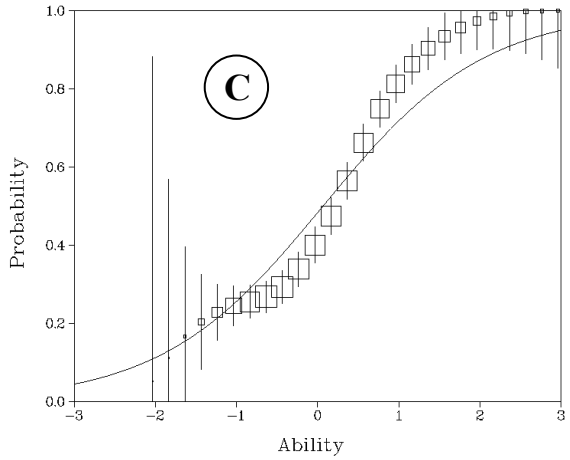
Figure 7.1 Items from the 2005 History–Social Science Grade Ten Field-Test Calibration



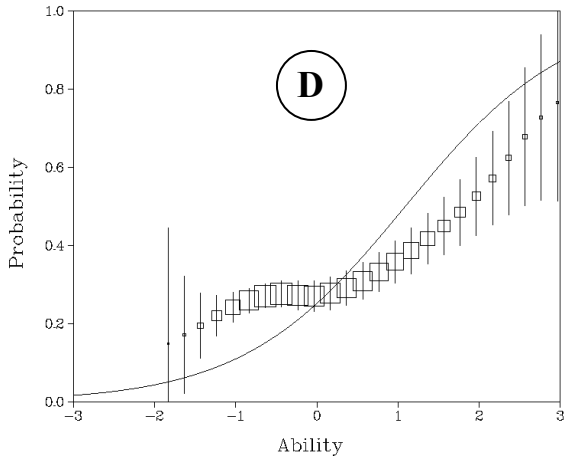
Version 30, Seq 29 (#236) CSV23487 4-Choice P+ = 0.563
a = 0.588 F, b = –0.135, c = 0.000 F, CHI = 5.41, N = 5,912



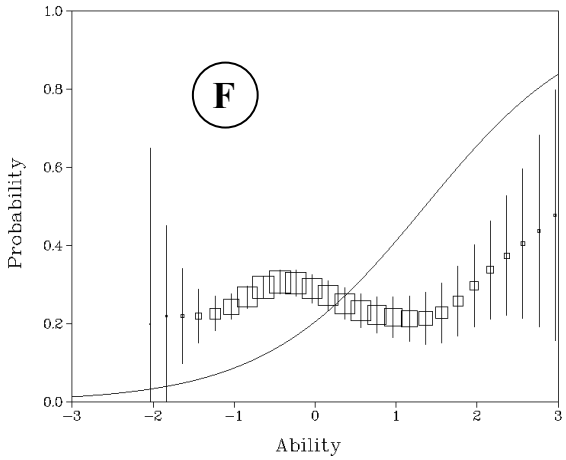
Version 1, Seq 28 (#61) CSV22589 4 Choice P+ = 0.307
a = 0.588 F, b = 1.104, c = 0.000 F, CHI = 66.70, N = 6,348



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

References

Holland, P. W. and Thayer, D. T. An alternative definition of the ETS delta scale of item difficulty. RR-85–43, 1985.

Hambleton, R. K. and Swaminathan, H. Item Response Theory: Principles and Applications. Boston, MA: Kluwer-Nijhoff, 1985.

Appendix 7.A—Item-by-Item *p*-value and Point-Biserial Tables

Table 7.A.1 Item-by-item *p*-value and Point-Biserial for English–Language Arts

Item-by-item *p*-value and Point-Biserial for English–Language Arts										
CSTs	2		3		4		5		6	
Items	*p*-value	Pt-Rbis	*p*-value	Pt-Rbis	*p*-value	Pt-Rbis	*p*-value	Pt-Rbis	*p*-value	Pt-Rbis
1	0.80	0.48	0.64	0.41	0.84	0.46	0.75	0.47	0.73	0.49
2	0.86	0.48	0.63	0.54	0.74	0.40	0.48	0.41	0.78	0.42
3	0.83	0.41	0.86	0.40	0.93	0.29	0.64	0.35	0.73	0.43
4	0.61	0.45	0.55	0.46	0.69	0.48	0.77	0.41	0.70	0.39
5	0.73	0.39	0.84	0.45	0.68	0.43	0.48	0.33	0.56	0.35
6	0.65	0.31	0.87	0.34	0.70	0.29	0.54	0.30	0.51	0.41
7	0.87	0.33	0.58	0.46	0.67	0.52	0.93	0.27	0.68	0.45
8	0.86	0.51	0.77	0.50	0.63	0.57	0.89	0.44	0.50	0.30
9	0.70	0.46	0.84	0.35	0.60	0.44	0.73	0.38	0.52	0.54
10	0.53	0.41	0.77	0.33	0.52	0.36	0.77	0.53	0.66	0.38
11	0.57	0.40	0.49	0.49	0.81	0.53	0.39	0.29	0.63	0.36
12	0.60	0.43	0.54	0.32	0.57	0.51	0.82	0.41	0.74	0.47
13	0.66	0.42	0.52	0.44	0.50	0.50	0.85	0.39	0.64	0.38
14	0.65	0.36	0.65	0.25	0.68	0.43	0.54	0.48	0.70	0.47
15	0.57	0.48	0.46	0.34	0.48	0.34	0.45	0.30	0.50	0.27
16	0.58	0.40	0.31	0.34	0.57	0.42	0.59	0.44	0.72	0.48
17	0.77	0.57	0.88	0.44	0.78	0.47	0.41	0.36	0.53	0.37
18	0.62	0.45	0.60	0.50	0.35	0.38	0.73	0.47	0.51	0.25
19	0.36	0.24	0.59	0.41	0.47	0.38	0.59	0.46	0.69	0.48
20	0.44	0.42	0.79	0.53	0.53	0.45	0.79	0.45	0.42	0.36
21	0.69	0.48	0.62	0.53	0.58	0.42	0.59	0.48	0.69	0.33
22	0.44	0.37	0.62	0.51	0.36	0.31	0.79	0.42	0.63	0.34
23	0.58	0.46	0.88	0.42	0.77	0.40	0.51	0.35	0.47	0.42
24	0.52	0.43	0.73	0.42	0.58	0.47	0.52	0.34	0.36	0.32
25	0.68	0.49	0.75	0.46	0.57	0.35	0.58	0.40	0.51	0.45
26	0.67	0.39	0.72	0.57	0.37	0.30	0.83	0.40	0.34	0.36
27	0.51	0.43	0.68	0.48	0.47	0.46	0.73	0.55	0.55	0.40
28	0.53	0.47	0.71	0.50	0.73	0.55	0.52	0.40	0.58	0.31
29	0.74	0.53	0.80	0.49	0.74	0.40	0.55	0.43	0.60	0.39
30	0.53	0.48	0.64	0.49	0.49	0.27	0.52	0.40	0.63	0.46
31	0.62	0.48	0.65	0.51	0.67	0.46	0.35	0.29	0.63	0.49
32	0.65	0.40	0.63	0.52	0.80	0.52	0.65	0.54	0.51	0.36
33	0.62	0.50	0.87	0.46	0.71	0.52	0.54	0.41	0.45	0.45

Item-by-item *p*-value and Point-Biserial for English–Language Arts										
CSTs	**2**		**3**		**4**		**5**		**6**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
34	0.66	0.42	0.47	0.34	0.64	0.53	0.56	0.40	0.56	0.35
35	0.52	0.44	0.61	0.51	0.78	0.55	0.63	0.42	0.68	0.41
36	0.63	0.53	0.52	0.44	0.69	0.57	0.66	0.53	0.47	0.39
37	0.78	0.51	0.50	0.21	0.65	0.47	0.47	0.43	0.57	0.47
38	0.68	0.45	0.47	0.29	0.40	0.23	0.70	0.34	0.72	0.42
39	0.55	0.55	0.44	0.37	0.55	0.26	0.36	0.29	0.80	0.43
40	0.76	0.56	0.74	0.36	0.47	0.39	0.54	0.22	0.71	0.50
41	0.68	0.47	0.62	0.43	0.86	0.44	0.76	0.34	0.80	0.35
42	0.83	0.57	0.44	0.31	0.87	0.47	0.75	0.39	0.62	0.43
43	0.65	0.53	0.61	0.56	0.58	0.34	0.64	0.33	0.54	0.27
44	0.56	0.41	0.53	0.30	0.80	0.44	0.44	0.27	0.69	0.39
45	0.43	0.37	0.44	0.44	0.56	0.40	0.54	0.45	0.72	0.47
46	0.49	0.50	0.44	0.37	0.52	0.32	0.66	0.45	0.71	0.54
47	0.50	0.44	0.65	0.52	0.46	0.37	0.63	0.41	0.39	0.35
48	0.49	0.36	0.71	0.41	0.38	0.28	0.53	0.42	0.65	0.47
49	0.63	0.41	0.72	0.50	0.50	0.40	0.69	0.48	0.69	0.43
50	0.58	0.39	0.51	0.37	0.55	0.38	0.51	0.26	0.65	0.48
51	0.77	0.55	0.71	0.38	0.63	0.43	0.66	0.49	0.43	0.30
52	0.62	0.52	0.69	0.50	0.55	0.48	0.63	0.50	0.51	0.37
53	0.62	0.39	0.56	0.34	0.81	0.52	0.88	0.38	0.70	0.49
54	0.68	0.53	0.81	0.49	0.61	0.51	0.70	0.51	0.77	0.31
55	0.77	0.46	0.60	0.29	0.82	0.51	0.46	0.30	0.54	0.42
56	0.63	0.44	0.57	0.41	0.56	0.39	0.81	0.42	0.62	0.51
57	0.66	0.49	0.70	0.40	0.86	0.50	0.86	0.44	0.71	0.50
58	0.81	0.57	0.58	0.45	0.57	0.48	0.79	0.46	0.33	0.35
59	0.69	0.58	0.56	0.38	0.83	0.51	0.59	0.40	0.77	0.42
60	0.39	0.39	0.73	0.26	0.58	0.43	0.31	0.30	0.77	0.47
61	0.64	0.44	0.62	0.38	0.71	0.48	0.76	0.52	0.54	0.40
62	0.56	0.47	0.79	0.33	0.76	0.45	0.86	0.46	0.42	0.30
63	0.22	0.25	0.61	0.28	0.62	0.32	0.63	0.49	0.60	0.30
64	0.78	0.53	0.85	0.37	0.81	0.50	0.47	0.35	0.89	0.47
65	0.61	0.48	0.66	0.38	0.58	0.32	0.41	0.29	0.55	0.50
66	–	–	–	–	0.71	0.51	0.85	0.45	0.83	0.56
67	–	–	–	–	0.76	0.36	0.78	0.44	0.71	0.49
68	–	–	–	–	0.81	0.46	0.59	0.55	0.78	0.47
69	–	–	–	–	0.60	0.55	0.73	0.51	0.62	0.53

Item-by-item *p*-value and Point-Biserial for English–Language Arts										
CSTs	**2**		**3**		**4**		**5**		**6**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
70	–	–	–	–	0.51	0.46	0.51	0.39	0.58	0.40
71	–	–	–	–	0.56	0.50	0.74	0.42	0.58	0.45
72	–	–	–	–	0.59	0.50	0.54	0.35	0.80	0.49
73	–	–	–	–	0.49	0.31	0.64	0.43	0.86	0.48
74	–	–	–	–	0.67	0.52	0.53	0.49	0.75	0.43
75	–	–	–	–	0.35	0.31	0.85	0.47	0.57	0.46

Table 7.A.2 Item-by-item *p*-value and Point-Biserial for English–Language Arts [continued]

Item-by-item *p*-value and Point-Biserial for English–Language Arts [continued]										
CSTs	**7**		**8**		**9**		**10**		**11**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
1	0.26	0.39	0.84	0.35	0.75	0.52	0.69	0.31	0.53	0.28
2	0.82	0.47	0.64	0.39	0.57	0.53	0.83	0.25	0.72	0.49
3	0.50	0.37	0.51	0.33	0.56	0.28	0.37	0.41	0.69	0.35
4	0.75	0.50	0.63	0.27	0.59	0.31	0.53	0.50	0.65	0.44
5	0.71	0.42	0.78	0.46	0.27	0.22	0.48	0.38	0.40	0.39
6	0.54	0.52	0.66	0.38	0.61	0.40	0.73	0.47	0.52	0.39
7	0.77	0.48	0.61	0.46	0.70	0.39	0.74	0.33	0.71	0.47
8	0.73	0.38	0.61	0.36	0.74	0.48	0.50	0.35	0.83	0.51
9	0.70	0.49	0.61	0.52	0.37	0.29	0.83	0.43	0.78	0.46
10	0.58	0.45	0.71	0.45	0.53	0.38	0.54	0.48	0.53	0.40
11	0.63	0.38	0.61	0.40	0.66	0.57	0.62	0.50	0.72	0.45
12	0.77	0.52	0.69	0.41	0.73	0.53	0.51	0.37	0.55	0.38
13	0.68	0.50	0.80	0.45	0.88	0.48	0.77	0.38	0.63	0.54
14	0.44	0.41	0.85	0.50	0.57	0.45	0.58	0.53	0.53	0.41
15	0.46	0.42	0.87	0.44	0.66	0.41	0.50	0.46	0.54	0.48
16	0.57	0.34	0.76	0.37	0.57	0.39	0.85	0.49	0.47	0.35
17	0.57	0.36	0.44	0.28	0.73	0.39	0.68	0.38	0.68	0.54
18	0.77	0.42	0.41	0.38	0.52	0.30	0.74	0.55	0.31	0.17
19	0.64	0.51	0.46	0.32	0.80	0.51	0.68	0.44	0.59	0.48
20	0.70	0.46	0.49	0.39	0.62	0.49	0.63	0.48	0.79	0.56
21	0.50	0.38	0.45	0.29	0.62	0.48	0.60	0.39	0.54	0.51
22	0.36	0.24	0.69	0.40	0.81	0.43	0.48	0.46	0.51	0.47
23	0.77	0.52	0.65	0.51	0.71	0.45	0.52	0.35	0.58	0.47
24	0.55	0.51	0.51	0.36	0.58	0.48	0.52	0.39	0.71	0.51
25	0.52	0.52	0.67	0.42	0.61	0.48	0.68	0.44	0.61	0.57
26	0.67	0.56	0.44	0.34	0.63	0.48	0.61	0.46	0.52	0.40
27	0.65	0.50	0.61	0.36	0.72	0.51	0.64	0.62	0.31	0.17
28	0.72	0.47	0.36	0.27	0.50	0.45	0.59	0.45	0.59	0.27
29	0.18	–.06	0.53	0.39	0.55	0.55	0.60	0.49	0.68	0.47
30	0.80	0.52	0.63	0.51	0.66	0.51	0.53	0.46	0.58	0.44
31	0.53	0.39	0.71	0.52	0.68	0.49	0.57	0.52	0.59	0.44
32	0.81	0.44	0.44	0.46	0.62	0.52	0.46	0.47	0.73	0.48
33	0.79	0.50	0.56	0.49	0.68	0.42	0.54	0.45	0.53	0.47
34	0.66	0.47	0.42	0.34	0.56	0.46	0.58	0.50	0.45	0.37

Item-by-item *p*-value and Point-Biserial for English–Language Arts [continued]										
CSTs	**7**		**8**		**9**		**10**		**11**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
35	0.56	0.36	0.57	0.45	0.51	0.31	0.45	0.48	0.37	0.29
36	0.67	0.46	0.69	0.46	0.54	0.47	0.60	0.48	0.40	0.19
37	0.84	0.50	0.74	0.47	0.45	0.36	0.45	0.37	0.32	0.32
38	0.78	0.42	0.43	0.38	0.62	0.37	0.68	0.55	0.61	0.36
39	0.78	0.36	0.71	0.45	0.53	0.39	0.79	0.51	0.69	0.52
40	0.46	0.40	0.57	0.47	0.57	0.45	0.73	0.46	0.51	0.48
41	0.55	0.32	0.74	0.47	0.40	0.28	0.75	0.45	0.56	0.42
42	0.48	0.42	0.75	0.44	0.52	0.43	0.52	0.39	0.70	0.50
43	0.49	0.48	0.80	0.37	0.46	0.41	0.75	0.48	0.68	0.48
44	0.35	0.30	0.56	0.30	0.48	0.38	0.51	0.39	0.64	0.51
45	0.58	0.42	0.69	0.50	0.66	0.56	0.66	0.27	0.20	0.18
46	0.63	0.52	0.49	0.42	0.67	0.53	0.77	0.41	0.61	0.52
47	0.68	0.58	0.63	0.32	0.44	0.48	0.63	0.53	0.29	0.22
48	0.54	0.39	0.73	0.40	0.38	0.33	0.72	0.53	0.64	0.42
49	0.72	0.38	0.73	0.42	0.33	0.42	0.45	0.41	0.63	0.52
50	0.35	0.30	0.44	0.29	0.55	0.44	0.66	0.55	0.60	0.43
51	0.67	0.50	0.56	0.16	0.69	0.52	0.73	0.45	0.52	0.46
52	0.53	0.46	0.56	0.45	0.65	0.43	0.53	0.56	0.56	0.52
53	0.60	0.53	0.43	0.53	0.48	0.33	0.58	0.41	0.53	0.43
54	0.55	0.49	0.78	0.36	0.55	0.42	0.68	0.56	0.59	0.50
55	0.65	0.48	0.52	0.42	0.57	0.54	0.46	0.54	0.60	0.46
56	0.81	0.42	0.60	0.49	0.61	0.46	0.64	0.54	0.65	0.60
57	0.69	0.46	0.51	0.42	0.65	0.39	0.61	0.46	0.44	0.37
58	0.41	0.34	0.48	0.38	0.62	0.46	0.77	0.40	0.53	0.38
59	0.47	0.43	0.22	0.13	0.77	0.36	0.52	0.37	0.45	0.50
60	0.70	0.54	0.49	0.33	0.52	0.35	0.58	0.55	0.64	0.56
61	0.65	0.47	0.47	0.47	0.68	0.50	0.37	0.35	0.73	0.57
62	0.68	0.41	0.48	0.41	0.72	0.49	0.57	0.54	0.63	0.53
63	0.46	0.33	0.51	0.32	0.57	0.41	0.71	0.42	0.57	0.56
64	0.81	0.46	0.46	0.44	0.66	0.38	0.52	0.52	0.58	0.43
65	0.78	0.52	0.70	0.43	0.50	0.40	0.75	0.50	0.68	0.50
66	0.67	0.53	0.68	0.51	0.65	0.40	0.73	0.35	0.70	0.48
67	0.43	0.42	0.88	0.47	0.61	0.49	0.73	0.52	0.48	0.36
68	0.67	0.49	0.83	0.44	0.49	0.38	0.55	0.39	0.66	0.51
69	0.79	0.52	0.75	0.55	0.48	0.43	0.76	0.53	0.69	0.46
70	0.53	0.37	0.69	0.38	0.70	0.50	0.75	0.55	0.60	0.49

Item-by-item *p*-value and Point-Biserial for English–Language Arts [continued]										
CSTs	**7**		**8**		**9**		**10**		**11**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
71	0.75	0.55	0.88	0.45	0.79	0.50	0.53	0.41	0.48	0.47
72	0.54	0.33	0.76	0.56	0.41	0.24	0.56	0.45	0.77	0.49
73	0.52	0.40	0.68	0.50	0.46	0.31	0.61	0.47	0.56	0.34
74	0.47	0.31	0.61	0.50	0.54	0.33	0.46	0.31	0.59	0.33
75	0.40	0.35	0.72	0.54	0.77	0.54	0.63	0.51	0.36	0.27

Table 7.A.3 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	**8**		**World History**		**11**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
1	0.58	0.26	0.69	0.22	0.79	0.26
2	0.80	0.30	0.57	0.41	0.64	0.45
3	0.47	0.43	0.54	0.39	0.40	0.36
4	0.54	0.42	0.58	0.31	0.44	0.35
5	0.72	0.43	0.55	0.51	0.48	0.42
6	0.49	0.43	0.40	0.38	0.49	0.42
7	0.48	0.36	0.42	0.40	0.52	0.36
8	0.43	0.35	0.44	0.33	0.54	0.48
9	0.46	0.37	0.53	0.47	0.52	0.38
10	0.44	0.20	0.58	0.32	0.73	0.35
11	0.46	0.40	0.45	0.41	0.40	0.41
12	0.48	0.32	0.50	0.41	0.56	0.44
13	0.44	0.34	0.60	0.49	0.38	0.34
14	0.58	0.40	0.44	0.40	0.43	0.41
15	0.40	0.30	0.57	0.54	0.40	0.34
16	0.61	0.30	0.49	0.31	0.55	0.48
17	0.38	0.35	0.52	0.46	0.54	0.49
18	0.44	0.53	0.58	0.48	0.66	0.53
19	0.59	0.30	0.45	0.40	0.52	0.36
20	0.38	0.28	0.57	0.41	0.68	0.46
21	0.65	0.49	0.57	0.53	0.52	0.43
22	0.43	0.38	0.49	0.42	0.46	0.35
23	0.47	0.49	0.60	0.43	0.57	0.36
24	0.64	0.47	0.52	0.43	0.44	0.48
25	0.47	0.32	0.47	0.42	0.58	0.47
26	0.41	0.29	0.28	0.36	0.50	0.47
27	0.56	0.35	0.65	0.54	0.57	0.44
28	0.55	0.49	0.49	0.43	0.48	0.35
29	0.77	0.43	0.52	0.45	0.64	0.38
30	0.53	0.49	0.58	0.39	0.48	0.32
31	0.53	0.46	0.55	0.49	0.38	0.45
32	0.47	0.40	0.40	0.50	0.58	0.41
33	0.53	0.45	0.51	0.37	0.58	0.41
34	0.43	0.47	0.62	0.49	0.59	0.52

Item-by-item *p*-value and Point-Biserial for History–Social Science						
CSTs	**8**		**World History**		**11**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
35	0.49	0.35	0.54	0.37	0.46	0.51
36	0.51	0.42	0.46	0.40	0.62	0.31
37	0.36	0.28	0.49	0.42	0.56	0.50
38	0.70	0.31	0.50	0.38	0.39	0.42
39	0.53	0.42	0.37	0.39	0.54	0.44
40	0.51	0.37	0.43	0.50	0.59	0.43
41	0.43	0.41	0.46	0.42	0.35	0.49
42	0.50	0.33	0.40	0.41	0.51	0.45
43	0.50	0.49	0.50	0.38	0.69	0.56
44	0.66	0.41	0.66	0.40	0.46	0.44
45	0.74	0.41	0.45	0.36	0.53	0.54
46	0.54	0.52	0.51	0.54	0.54	0.43
47	0.48	0.29	0.56	0.45	0.35	0.40
48	0.36	0.31	0.48	0.33	0.69	0.50
49	0.34	0.37	0.63	0.42	0.58	0.52
50	0.46	0.41	0.51	0.42	0.48	0.40
51	0.47	0.35	0.39	0.42	0.48	0.45
52	0.49	0.35	0.37	0.30	0.43	0.34
53	0.63	0.45	0.43	0.53	0.43	0.32
54	0.49	0.33	0.51	0.50	0.49	0.31
55	0.53	0.52	0.49	0.41	0.62	0.52
56	0.49	0.43	0.60	0.52	0.53	0.41
57	0.64	0.49	0.53	0.45	0.43	0.40
58	0.60	0.43	0.38	0.33	0.39	0.29
59	0.60	0.38	0.54	0.44	0.38	0.42
60	0.46	0.42	0.56	0.50	0.62	0.43
61	0.60	0.33	–	–	–	–
62	0.47	0.51	–	–	–	–
63	0.58	0.54	–	–	–	–
64	0.53	0.47	–	–	–	–
65	0.53	0.42	–	–	–	–
66	0.55	0.43	–	–	–	–
67	0.62	0.45	–	–	–	–
68	0.53	0.44	–	–	–	–
69	0.49	0.48	–	–	–	–
70	0.61	0.47	–	–	–	–

Item-by-item *p*-value and Point-Biserial for History–Social Science						
CSTs	**8**		**World History**		**11**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
71	0.51	0.46	–	–	–	–
72	0.44	0.31	–	–	–	–
73	0.48	0.31	–	–	–	–
74	0.57	0.44	–	–	–	–
75	0.43	0.35	–	–	–	–

Table 7.A.4 Item-by-item *p*-value and Point-Biserial for Mathematics

Item-by-item *p*-value and Point-Biserial for Mathematics														
CSTs	**2**		**3**		**4**		**5**		**6**		**7**		**General Math**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
1	0.96	0.35	0.93	0.39	0.97	0.22	0.90	0.33	0.90	0.26	0.48	0.45	0.38	0.40
2	0.84	0.45	0.88	0.46	0.90	0.38	0.78	0.38	0.86	0.33	0.61	0.45	0.42	0.32
3	0.86	0.42	0.84	0.38	0.89	0.35	0.83	0.27	0.62	0.36	0.36	0.40	0.73	0.44
4	0.80	0.55	0.85	0.42	0.93	0.27	0.80	0.45	0.57	0.42	0.54	0.52	0.37	0.32
5	0.78	0.47	0.59	0.52	0.90	0.45	0.62	0.40	0.52	0.39	0.66	0.49	0.29	0.36
6	0.71	0.41	0.61	0.47	0.91	0.30	0.72	0.41	0.68	0.47	0.71	0.37	0.71	0.43
7	0.76	0.49	0.79	0.44	0.73	0.49	0.57	0.52	0.80	0.36	0.76	0.51	0.51	0.41
8	0.81	0.44	0.87	0.48	0.91	0.32	0.83	0.42	0.74	0.41	0.78	0.34	0.78	0.32
9	0.57	0.50	0.84	0.43	0.75	0.40	0.72	0.40	0.64	0.49	0.58	0.50	0.37	0.38
10	0.49	0.47	0.71	0.51	0.67	0.51	0.58	0.54	0.56	0.44	0.67	0.49	0.41	0.36
11	0.78	0.41	0.81	0.58	0.80	0.40	0.70	0.48	0.49	0.40	0.59	0.24	0.59	0.48
12	0.70	0.49	0.91	0.42	0.68	0.46	0.47	0.37	0.51	0.43	0.48	0.37	0.38	0.44
13	0.91	0.36	0.88	0.48	0.75	0.56	0.61	0.52	0.46	0.46	0.36	0.24	0.44	0.42
14	0.81	0.55	0.86	0.44	0.60	0.49	0.67	0.40	0.27	0.38	0.66	0.49	0.40	0.40
15	0.84	0.45	0.60	0.45	0.68	0.55	0.52	0.56	0.40	0.49	0.47	0.37	0.36	0.38
16	0.71	0.46	0.54	0.49	0.52	0.52	0.40	0.51	0.37	0.28	0.45	0.38	0.51	0.41
17	0.70	0.50	0.86	0.49	0.67	0.46	0.78	0.39	0.49	0.49	0.57	0.47	0.46	0.46
18	0.66	0.42	0.52	0.49	0.68	0.51	0.36	0.38	0.53	0.45	0.64	0.32	0.58	0.45
19	0.54	0.37	0.43	0.41	0.73	0.47	0.54	0.32	0.59	0.37	0.59	0.52	0.50	0.47
20	0.74	0.51	0.57	0.58	0.67	0.45	0.56	0.45	0.53	0.47	0.46	0.44	0.22	0.29
21	0.57	0.50	0.61	0.51	0.64	0.47	0.70	0.46	0.60	0.44	0.28	0.45	0.35	0.38
22	0.45	0.38	0.68	0.55	0.89	0.40	0.62	0.42	0.72	0.52	0.45	0.52	0.45	0.36
23	0.49	0.45	0.69	0.54	0.71	0.52	0.50	0.39	0.68	0.45	0.58	0.47	0.26	0.37
24	0.65	0.39	0.68	0.39	0.68	0.56	0.60	0.55	0.70	0.53	0.73	0.43	0.29	0.35
25	0.79	0.50	0.69	0.55	0.52	0.41	0.61	0.50	0.54	0.47	0.74	0.51	0.65	0.41
26	0.86	0.53	0.76	0.49	0.72	0.48	0.66	0.50	0.92	0.36	0.45	0.47	0.53	0.29
27	0.92	0.34	0.90	0.40	0.73	0.54	0.59	0.52	0.75	0.47	0.55	0.34	0.71	0.51
28	0.83	0.34	0.70	0.55	0.78	0.49	0.39	0.47	0.68	0.55	0.38	0.26	0.32	0.34
29	0.78	0.56	0.74	0.50	0.80	0.41	0.57	0.46	0.74	0.44	0.57	0.40	0.53	0.33
30	0.67	0.51	0.75	0.37	0.83	0.45	0.89	0.36	0.67	0.46	0.63	0.46	0.71	0.54
31	0.73	0.51	0.55	0.50	0.80	0.55	0.80	0.43	0.57	0.45	0.58	0.49	0.69	0.46
32	0.75	0.49	0.89	0.50	0.82	0.52	0.75	0.44	0.44	0.45	0.74	0.47	0.59	0.46
33	0.87	0.42	0.94	0.41	0.80	0.49	0.50	0.35	0.68	0.44	0.58	0.47	0.56	0.41
34	0.84	0.51	0.87	0.41	0.70	0.45	0.69	0.47	0.58	0.49	0.24	0.22	0.52	0.43

Item-by-item *p*-value and Point-Biserial for Mathematics														
CSTs	**2**		**3**		**4**		**5**		**6**		**7**		**General Math**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
35	0.83	0.47	0.84	0.42	0.89	0.48	0.70	0.46	0.59	0.45	0.65	0.48	0.57	0.41
36	0.59	0.44	0.54	0.48	0.80	0.41	0.46	0.32	0.67	0.42	0.61	0.50	0.47	0.29
37	0.80	0.51	0.71	0.54	0.57	0.46	0.75	0.52	0.31	0.49	0.43	0.23	0.74	0.46
38	0.84	0.54	0.86	0.46	0.73	0.53	0.65	0.50	0.57	0.34	0.45	0.40	0.26	0.19
39	0.68	0.48	0.59	0.52	0.54	0.34	0.49	0.41	0.68	0.53	0.74	0.39	0.71	0.49
40	0.88	0.43	0.92	0.44	0.78	0.52	0.69	0.54	0.64	0.46	0.53	0.54	0.64	0.52
41	0.61	0.50	0.50	0.36	0.81	0.55	0.63	0.43	0.72	0.58	0.53	0.42	0.72	0.47
42	0.84	0.45	0.52	0.44	0.75	0.53	0.66	0.48	0.73	0.41	0.65	0.51	0.56	0.46
43	0.81	0.41	0.80	0.55	0.81	0.50	0.63	0.58	0.67	0.51	0.59	0.37	0.45	0.23
44	0.84	0.46	0.86	0.45	0.79	0.52	0.86	0.39	0.70	0.56	0.76	0.48	0.40	0.42
45	0.77	0.36	0.92	0.37	0.60	0.42	0.58	0.38	0.55	0.43	0.55	0.31	0.48	0.35
46	0.93	0.32	0.91	0.28	0.76	0.50	0.84	0.36	0.61	0.35	0.52	0.34	0.54	0.49
47	0.76	0.47	0.74	0.40	0.80	0.59	0.63	0.45	0.54	0.48	0.38	0.26	0.56	0.35
48	0.76	0.34	0.90	0.34	0.87	0.51	0.74	0.55	0.68	0.47	0.47	0.44	0.30	0.25
49	0.77	0.38	0.71	0.51	0.85	0.43	0.36	0.50	0.54	0.53	0.75	0.33	0.49	0.45
50	0.65	0.40	0.57	0.47	0.83	0.35	0.79	0.37	0.32	0.32	0.71	0.38	0.36	0.39
51	0.19	0.26	0.91	0.35	0.58	0.43	0.68	0.52	0.51	0.36	0.36	0.32	0.45	0.32
52	0.70	0.30	0.92	0.43	0.66	0.47	0.52	0.48	0.67	0.51	0.52	0.43	0.40	0.30
53	0.82	0.46	0.46	0.48	0.79	0.38	0.63	0.51	0.66	0.31	0.43	0.33	0.45	0.37
54	0.58	0.39	0.93	0.39	0.70	0.48	0.58	0.63	0.61	0.42	0.56	0.47	0.33	0.30
55	0.51	0.36	0.84	0.37	0.37	0.40	0.75	0.37	0.72	0.36	0.59	0.55	0.35	0.21
56	0.73	0.49	0.70	0.37	0.68	0.52	0.50	0.51	0.75	0.39	0.63	0.35	0.39	0.40
57	0.89	0.36	0.51	0.41	0.75	0.44	0.44	0.34	0.69	0.52	0.46	0.35	0.44	0.22
58	0.90	0.47	0.77	0.38	0.59	0.50	0.68	0.48	0.43	0.43	0.62	0.50	0.63	0.41
59	0.69	0.50	0.76	0.38	0.60	0.45	0.62	0.60	0.38	0.48	0.52	0.44	0.35	0.24
60	0.90	0.47	0.92	0.29	0.75	0.49	0.46	0.44	0.42	0.35	0.41	0.43	0.59	0.47
61	0.80	0.48	0.84	0.44	0.82	0.49	0.56	0.50	0.70	0.50	0.71	0.42	0.33	0.33
62	0.58	0.40	0.84	0.51	0.59	0.43	0.90	0.36	0.60	0.52	0.71	0.46	0.36	0.33
63	0.45	0.41	0.61	0.51	0.65	0.42	0.85	0.42	0.71	0.47	0.68	0.52	0.65	0.42
64	0.74	0.52	0.90	0.46	0.69	0.41	0.65	0.52	0.67	0.58	0.45	0.38	0.63	0.49
65*	–	–	0.94	0.39	0.90	0.45	0.62	0.44	0.77	0.55	0.52	0.46	0.51	0.41

* An item was pinned for the CST for Grade 2 Mathematics; the test length was reduced from 65 to 64 items.

Table 7.A.5 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**		**Summ. H.S. Math**		**Integrated Math 1**		**Integrated Math 2**		**Integrated Math 3**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
1	0.76	0.37	0.81	0.31	0.84	0.38	0.92	0.40	0.72	0.32	0.37	0.44	0.48	0.24
2	0.73	0.40	0.81	0.37	0.80	0.40	0.79	0.44	0.42	0.35	0.53	0.39	0.76	0.32
3	0.54	0.39	0.57	0.38	0.82	0.32	0.70	0.47	0.37	0.37	0.42	0.46	0.75	0.40
4	0.44	0.43	0.53	0.38	0.64	0.46	0.65	0.35	0.63	0.38	0.48	0.29	0.31	0.42
5	0.57	0.41	0.48	0.50	0.63	0.43	0.66	0.30	0.51	0.31	0.31	0.36	0.48	0.30
6	0.40	0.47	0.55	0.41	0.59	0.50	0.77	0.53	0.49	0.33	0.50	0.26	0.76	0.43
7	0.42	0.46	0.45	0.54	0.82	0.46	0.64	0.58	0.66	0.41	0.28	0.33	0.84	0.45
8	0.36	0.23	0.56	0.40	0.55	0.45	0.77	0.54	0.46	0.39	0.21	0.21	0.57	0.49
9	0.53	0.46	0.71	0.50	0.49	0.52	0.66	0.49	0.56	0.44	0.59	0.39	0.47	0.41
10	0.55	0.40	0.25	0.17	0.37	0.42	0.67	0.42	0.55	0.40	0.71	0.39	0.31	0.27
11	0.44	0.42	0.45	0.26	0.56	0.50	0.75	0.46	0.39	0.37	0.71	0.44	0.60	0.56
12	0.67	0.46	0.44	0.49	0.37	0.32	0.69	0.46	0.51	0.44	0.32	0.30	0.38	0.34
13	0.63	0.37	0.50	0.28	0.73	0.51	0.69	0.54	0.60	0.42	0.34	0.43	0.71	0.45
14	0.52	0.39	0.38	0.55	0.50	0.52	0.89	0.36	0.37	0.41	0.39	0.23	0.39	0.44
15	0.57	0.48	0.42	0.48	0.81	0.39	0.76	0.38	0.44	0.32	0.43	0.33	0.45	0.41
16	0.53	0.44	0.65	0.54	0.60	0.29	0.79	0.43	0.53	0.33	0.56	0.52	0.52	0.41
17	0.65	0.42	0.57	0.48	0.93	0.31	0.59	0.45	0.31	0.21	0.42	0.30	0.63	0.46
18	0.54	0.49	0.47	0.46	0.43	0.32	0.71	0.54	0.45	0.31	0.43	0.34	0.30	0.36
19	0.32	0.39	0.63	0.51	0.57	0.47	0.76	0.47	0.32	0.28	0.32	0.31	0.43	0.28
20	0.47	0.31	0.29	0.45	0.76	0.36	0.66	0.47	0.47	0.38	0.55	0.29	0.28	0.34
21	0.50	0.40	0.31	0.34	0.43	0.37	0.68	0.45	0.35	0.33	0.23	0.31	0.27	0.24
22	0.38	0.33	0.61	0.50	0.45	0.33	0.90	0.30	0.43	0.33	0.39	0.41	0.44	0.39
23	0.54	0.36	0.83	0.33	0.43	0.32	0.45	0.23	0.32	0.18	0.48	0.50	0.61	0.49
24	0.37	0.35	0.45	0.41	0.46	0.47	0.47	0.23	0.47	0.44	0.29	0.29	0.53	0.30
25	0.40	0.30	0.61	0.45	0.57	0.41	0.78	0.27	0.61	0.47	0.40	0.26	0.59	0.36
26	0.53	0.43	0.51	0.45	0.71	0.34	0.69	0.44	0.39	0.30	0.46	0.43	0.53	0.41
27	0.55	0.31	0.38	0.38	0.35	0.30	0.87	0.41	0.36	0.24	0.49	0.50	0.46	0.31
28	0.38	0.22	0.24	0.43	0.47	0.31	0.73	0.43	0.30	0.38	0.31	0.38	0.32	0.45
29	0.54	0.43	0.34	0.33	0.28	0.38	0.42	0.33	0.40	0.21	0.43	0.44	0.65	0.39
30	0.42	0.41	0.63	0.46	0.39	0.50	0.88	0.39	0.56	0.49	0.68	0.48	0.28	0.34
31	0.35	0.43	0.56	0.40	0.63	0.36	0.53	0.41	0.23	0.24	0.62	0.47	0.56	0.47
32	0.49	0.29	0.56	0.51	0.62	0.52	0.76	0.54	0.34	0.32	0.32	0.43	0.45	0.48
33	0.66	0.52	0.44	0.29	0.34	0.42	0.71	0.36	0.27	0.39	0.54	0.55	0.27	0.28
34	0.43	0.46	0.62	0.42	0.62	0.44	0.81	0.47	0.23	0.29	0.31	0.17	0.25	0.22

Item-by-item *p*-value and Point-Biserial for Mathematics [continued]														
CSTs	**Algebra I**		**Geometry**		**Algebra II**		**Summ. H.S. Math**		**Integrated Math 1**		**Integrated Math 2**		**Integrated Math 3**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
35	0.25	0.25	0.33	0.34	0.38	0.46	0.78	0.50	0.29	0.34	0.23	0.22	0.34	0.48
36	0.64	0.47	0.63	0.31	0.59	0.47	0.68	0.38	0.30	0.33	0.25	0.34	0.38	0.29
37	0.22	0.32	0.76	0.42	0.35	0.26	0.70	0.48	0.43	0.46	0.45	0.23	0.49	0.34
38	0.53	0.46	0.46	0.53	0.61	0.41	0.78	0.53	0.52	0.44	0.45	0.35	0.53	0.39
39	0.53	0.52	0.67	0.56	0.45	0.46	0.86	0.46	0.43	0.37	0.44	0.36	0.42	0.35
40	0.55	0.33	0.48	0.25	0.49	0.41	0.61	0.44	0.17	0.20	0.40	0.22	0.36	0.42
41	0.48	0.40	0.43	0.48	0.24	0.38	0.72	0.44	0.30	0.19	0.42	0.42	0.49	0.49
42	0.34	0.44	0.35	0.35	0.37	0.39	0.47	0.57	0.17	0.20	0.71	0.42	0.38	0.23
43	0.46	0.41	0.37	0.46	0.49	0.40	0.57	0.42	0.20	0.22	0.46	0.40	0.56	0.38
44	0.30	0.31	0.65	0.48	0.62	0.42	0.51	0.43	0.45	0.40	0.49	0.37	0.37	0.36
45	0.48	0.30	0.44	0.35	0.30	0.42	0.74	0.52	0.43	0.25	0.63	0.48	0.47	0.48
46	0.35	0.45	0.56	0.28	0.48	0.38	0.71	0.43	0.42	0.39	0.27	0.25	0.43	0.38
47	0.66	0.40	0.52	0.42	0.48	0.45	0.48	0.41	0.25	0.09	0.34	0.26	0.37	0.49
48	0.38	0.44	0.58	0.47	0.56	0.37	0.46	0.36	0.25	0.16	0.52	0.50	0.50	0.50
49	0.36	0.44	0.40	0.38	0.58	0.51	0.72	0.45	0.33	0.20	0.48	0.25	0.34	0.33
50	0.42	0.41	0.63	0.49	0.53	0.48	0.65	0.53	0.24	0.31	0.40	0.24	0.48	0.47
51	0.37	0.48	0.66	0.52	0.60	0.45	0.82	0.45	0.35	0.35	0.42	0.29	0.44	0.30
52	0.40	0.29	0.51	0.48	0.60	0.29	0.66	0.39	0.45	0.33	0.43	0.33	0.40	0.40
53	0.62	0.41	0.55	0.48	0.38	0.37	0.77	0.47	0.29	0.13	0.34	0.34	0.28	0.20
54	0.38	0.37	0.65	0.52	0.40	0.39	0.59	0.35	0.28	0.12	0.45	0.52	0.54	0.43
55	0.24	0.36	0.46	0.48	0.61	0.50	0.67	0.41	0.46	0.33	0.45	0.42	0.61	0.45
56	0.49	0.48	0.46	0.29	0.43	0.41	0.68	0.44	0.15	0.16	0.48	0.42	0.36	0.43
57	0.42	0.38	0.43	0.55	0.65	0.30	0.75	0.46	0.23	0.29	0.54	0.52	0.46	0.44
58	0.27	0.36	0.41	0.42	0.31	0.38	0.57	0.30	0.35	0.23	0.38	0.38	0.24	0.11
59	0.33	0.26	0.59	0.49	0.26	0.30	0.83	0.45	0.47	0.33	0.60	0.53	0.33	0.31
60	0.28	0.24	0.61	0.49	0.35	0.31	0.52	0.37	0.39	0.28	0.39	0.34	0.32	0.33
61	0.42	0.31	0.35	0.53	0.41	0.40	0.67	0.48	0.30	0.25	0.29	0.29	0.27	0.19
62	0.47	0.36	0.51	0.43	0.32	0.32	0.64	0.47	0.39	0.29	0.28	0.30	0.49	0.35
63	0.18	0.20	0.66	0.51	0.60	0.20	0.35	0.29	0.23	0.12	0.22	0.25	0.19	0.19
64	0.49	0.47	0.53	0.43	0.71	0.33	0.80	0.43	0.38	0.33	0.61	0.35	0.36	0.36
65	0.26	0.38	0.64	0.40	0.28	0.27	0.63	0.43	0.31	0.21	0.54	0.35	0.53	0.36

Table 7.A.6 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-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
1	0.87	0.36	0.56	0.18	0.58	0.31	0.72	0.34	0.76	0.41	0.84	0.31	0.93	0.25
2	0.67	0.37	0.71	0.38	0.73	0.47	0.60	0.36	0.69	0.44	0.61	0.33	0.72	0.36
3	0.80	0.38	0.68	0.35	0.57	0.52	0.84	0.40	0.44	0.30	0.76	0.26	0.28	0.41
4	0.66	0.33	0.75	0.51	0.61	0.38	0.62	0.46	0.58	0.42	0.55	0.53	0.84	0.39
5	0.81	0.40	0.83	0.45	0.42	0.40	0.58	0.35	0.49	0.41	0.61	0.24	0.61	0.50
6	0.73	0.48	0.62	0.47	0.66	0.43	0.57	0.39	0.73	0.46	0.25	0.26	0.70	0.44
7	0.73	0.43	0.58	0.37	0.49	0.38	0.42	0.36	0.31	0.35	0.37	0.33	0.61	0.34
8	0.65	0.47	0.71	0.40	0.60	0.45	0.51	0.35	0.78	0.38	0.71	0.41	0.48	0.34
9	0.66	0.52	0.70	0.50	0.69	0.40	0.59	0.41	0.59	0.40	0.71	0.37	0.61	0.46
10	0.77	0.41	0.74	0.31	0.62	0.51	0.45	0.45	0.74	0.44	0.51	0.40	0.50	0.30
11	0.66	0.39	0.63	0.49	0.74	0.47	0.57	0.33	0.51	0.40	0.47	0.39	0.69	0.44
12	0.52	0.45	0.77	0.47	0.58	0.37	0.49	0.34	0.73	0.47	0.65	0.47	0.48	0.31
13	0.58	0.36	0.70	0.34	0.40	0.44	0.60	0.45	0.69	0.40	0.82	0.27	0.52	0.35
14	0.63	0.38	0.72	0.52	0.38	0.33	0.84	0.49	0.68	0.41	0.62	0.45	0.76	0.51
15	0.73	0.38	0.65	0.46	0.65	0.40	0.48	0.42	0.67	0.38	0.43	0.38	0.59	0.39
16	0.80	0.50	0.63	0.38	0.69	0.41	0.57	0.53	0.66	0.58	0.45	0.30	0.74	0.39
17	0.76	0.32	0.82	0.48	0.84	0.53	0.64	0.49	0.60	0.41	0.58	0.41	0.75	0.50
18	0.61	0.50	0.67	0.49	0.58	0.45	0.66	0.50	0.79	0.44	0.55	0.29	0.68	0.53
19	0.80	0.36	0.58	0.32	0.43	0.33	0.47	0.42	0.62	0.53	0.60	0.38	0.68	0.54
20	0.59	0.39	0.76	0.46	0.55	0.41	0.81	0.48	0.49	0.44	0.72	0.41	0.63	0.56
21	0.60	0.51	0.66	0.39	0.76	0.52	0.49	0.23	0.70	0.40	0.63	0.36	0.64	0.50
22	0.66	0.41	0.59	0.47	0.30	0.26	0.71	0.50	0.46	0.39	0.66	0.42	0.56	0.48
23	0.41	0.34	0.59	0.53	0.62	0.38	0.65	0.50	0.75	0.44	0.73	0.47	0.48	0.35
24	0.62	0.49	0.82	0.52	0.62	0.50	0.57	0.37	0.53	0.34	0.75	0.49	0.48	0.36
25	0.80	0.43	0.71	0.45	0.60	0.35	0.54	0.52	0.65	0.42	0.67	0.38	0.50	0.46
26	0.79	0.31	0.54	0.39	0.69	0.53	0.49	0.50	0.47	0.30	0.51	0.35	0.37	0.45
27	0.63	0.51	0.56	0.48	0.69	0.49	0.73	0.54	0.67	0.48	0.50	0.42	0.47	0.36
28	0.66	0.34	0.53	0.38	0.59	0.43	0.74	0.42	0.68	0.57	0.41	0.45	0.60	0.50
29	0.32	0.17	0.52	0.41	0.47	0.34	0.47	0.40	0.63	0.35	0.49	0.45	0.65	0.44
30	0.43	0.29	0.66	0.47	0.72	0.54	0.62	0.45	0.68	0.54	0.57	0.38	0.57	0.40
31	0.83	0.26	0.82	0.38	0.76	0.41	0.82	0.42	0.76	0.52	0.68	0.42	0.57	0.39
32	0.83	0.35	0.46	0.30	0.72	0.49	0.51	0.29	0.64	0.38	0.68	0.40	0.77	0.41
33	0.76	0.38	0.78	0.51	0.54	0.49	0.46	0.40	0.37	0.39	0.60	0.51	0.64	0.51

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-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
34	0.48	0.29	0.79	0.53	0.69	0.59	0.47	0.39	0.65	0.37	0.65	0.49	0.54	0.52
35	0.80	0.43	0.57	0.38	0.55	0.44	0.71	0.46	0.51	0.38	0.52	0.39	0.60	0.50
36	0.52	0.46	0.47	0.34	0.81	0.51	0.67	0.45	0.35	0.40	0.52	0.54	0.28	0.37
37	0.60	0.45	0.53	0.37	0.41	0.39	0.56	0.45	0.48	0.31	0.73	0.53	0.69	0.39
38	0.37	0.25	0.56	0.47	0.63	0.48	0.62	0.52	0.61	0.33	0.48	0.36	0.66	0.30
39	0.43	0.23	0.69	0.50	0.57	0.44	0.53	0.45	0.65	0.52	0.50	0.42	0.56	0.34
40	0.88	0.44	0.59	0.38	0.62	0.50	0.59	0.51	0.53	0.32	0.39	0.24	0.75	0.49
41	0.66	0.50	0.70	0.43	0.60	0.51	0.45	0.32	0.48	0.35	0.56	0.36	0.65	0.46
42	0.71	0.48	0.54	0.30	0.64	0.58	0.54	0.49	0.42	0.35	0.47	0.35	0.69	0.44
43	0.28	0.23	0.75	0.51	0.53	0.48	0.53	0.34	0.37	0.38	0.52	0.37	0.36	0.35
44	0.62	0.31	0.52	0.46	0.65	0.50	0.64	0.49	0.63	0.54	0.33	0.24	0.47	0.37
45	0.73	0.46	0.76	0.51	0.55	0.27	0.71	0.53	0.58	0.49	0.44	0.37	0.65	0.35
46	0.58	0.42	0.78	0.47	0.56	0.47	0.55	0.43	0.61	0.43	0.48	0.45	0.59	0.33
47	0.79	0.43	0.62	0.46	0.66	0.41	0.77	0.49	0.55	0.49	0.51	0.46	0.59	0.50
48	0.64	0.43	0.69	0.44	0.50	0.48	0.53	0.47	0.67	0.47	0.56	0.52	0.24	0.24
49	0.61	0.33	0.51	0.36	0.54	0.51	0.52	0.41	0.74	0.52	0.64	0.51	0.37	0.39
50	0.73	0.52	0.60	0.46	0.59	0.42	0.58	0.45	0.66	0.49	0.53	0.32	0.30	0.22
51	0.42	0.30	0.66	0.51	0.61	0.51	0.54	0.46	0.54	0.42	0.42	0.35	0.57	0.43
52	0.47	0.37	0.61	0.33	0.52	0.50	0.51	0.45	0.40	0.38	0.48	0.34	0.62	0.59
53	0.49	0.24	0.47	0.46	0.50	0.41	0.66	0.53	0.49	0.34	0.44	0.38	0.70	0.43
54	0.70	0.43	0.57	0.39	0.67	0.48	0.52	0.38	0.62	0.35	0.40	0.39	0.45	0.38
55	0.80	0.32	0.72	0.47	0.59	0.60	0.60	0.53	0.51	0.37	0.55	0.40	0.41	0.39
56	0.79	0.41	0.38	0.14	0.45	0.51	0.47	0.31	0.44	0.35	0.56	0.33	0.33	0.26
57	0.65	0.58	0.71	0.49	0.54	0.56	0.69	0.38	0.63	0.37	0.56	0.42	0.46	0.55
58	0.68	0.47	0.67	0.48	0.72	0.49	0.58	0.48	0.61	0.46	0.34	0.32	0.49	0.42
59	0.76	0.48	0.68	0.46	0.63	0.54	0.63	0.52	0.69	0.44	0.33	0.37	0.67	0.49
60	0.80	0.49	0.62	0.47	0.36	0.30	0.63	0.49	0.76	0.50	0.54	0.51	0.77	0.53

Table 7.A.7 Item-by-item *p*-value and Point-Biserial for Science [continued]

Item-by-item *p*-value and Point-Biserial for Science [continued]								
CSTs	**Integrated Science 1**		**Integrated Science 2**		**Integrated Science 3**		**Integrated Science 4**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
1	0.59	0.37	0.49	0.24	0.32	0.30	0.41	0.37
2	0.48	0.35	0.48	0.29	0.37	0.21	0.40	0.19
3	0.49	0.32	0.46	0.36	0.49	0.37	0.56	0.28
4	0.54	0.40	0.38	0.40	0.63	0.45	0.44	0.42
5	0.41	0.34	0.47	0.31	0.43	0.23	0.56	0.50
6	0.60	0.42	0.52	0.34	0.34	0.31	0.65	0.50
7	0.40	0.32	0.75	0.43	0.51	0.38	0.57	0.46
8	0.42	0.35	0.68	0.45	0.57	0.44	0.47	0.33
9	0.55	0.36	0.45	0.27	0.51	0.40	0.38	0.28
10	0.51	0.31	0.32	0.30	0.60	0.42	0.45	0.38
11	0.35	0.31	0.51	0.42	0.32	0.12	0.51	0.44
12	0.48	0.31	0.45	0.35	0.31	0.18	0.48	0.28
13	0.32	0.31	0.56	0.39	0.50	0.43	0.18	0.15
14	0.42	0.43	0.53	0.40	0.30	0.17	0.55	0.42
15	0.70	0.40	0.46	0.39	0.20	0.10	0.45	0.15
16	0.69	0.44	0.58	0.31	0.29	0.38	0.45	0.48
17	0.46	0.35	0.61	0.48	0.52	0.37	0.69	0.37
18	0.47	0.40	0.26	0.23	0.35	0.19	0.32	0.28
19	0.51	0.30	0.67	0.36	0.41	0.33	0.58	0.49
20	0.62	0.44	0.57	0.36	0.31	0.19	0.53	0.39
21	0.63	0.52	0.18	0.10	0.55	0.40	0.41	0.34
22	0.50	0.34	0.57	0.38	0.43	0.31	0.42	0.40
23	0.53	0.39	0.27	0.08	0.49	0.30	0.19	0.19
24	0.57	0.39	0.34	0.13	0.58	0.46	0.31	0.43
25	0.28	0.13	0.31	0.21	0.49	0.40	0.14	–.08
26	0.41	0.33	0.40	0.19	0.42	0.24	0.36	0.27
27	0.22	0.12	0.33	0.29	0.36	0.35	0.22	0.11
28	0.46	0.30	0.52	0.35	0.31	0.13	0.49	0.37
29	0.34	0.38	0.71	0.49	0.27	0.15	0.30	0.25
30	0.41	0.29	0.57	0.44	0.60	0.50	0.44	0.36
31	0.55	0.39	0.42	0.44	0.45	0.42	0.48	0.32
32	0.40	0.34	0.39	0.35	0.38	0.23	0.69	0.51
33	0.46	0.40	0.68	0.47	0.70	0.49	0.54	0.50
34	0.51	0.41	0.50	0.42	0.41	0.34	0.55	0.52

Item-by-item *p*-value and Point-Biserial for Science [continued]								
CSTs	**Integrated Science 1**		**Integrated Science 2**		**Integrated Science 3**		**Integrated Science 4**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
35	0.44	0.29	0.44	0.39	0.41	0.45	0.62	0.30
36	0.48	0.41	0.48	0.30	0.45	0.36	0.60	0.44
37	0.52	0.50	0.63	0.42	0.45	0.40	0.46	0.49
38	0.36	0.27	0.51	0.49	0.39	0.23	0.42	0.25
39	0.43	0.34	0.36	0.35	0.29	0.08	0.44	0.22
40	0.47	0.42	0.52	0.53	0.55	0.47	0.19	0.06
41	0.46	0.30	0.38	0.40	0.46	0.32	0.18	0.07
42	0.21	0.11	0.30	0.21	0.30	0.11	0.38	0.35
43	0.31	0.13	0.53	0.39	0.40	0.38	0.39	0.33
44	0.36	0.34	0.54	0.50	0.42	0.38	0.51	0.33
45	0.65	0.45	0.33	0.31	0.28	0.30	0.53	0.47
46	0.54	0.39	0.44	0.44	0.39	0.31	0.53	0.39
47	0.44	0.35	0.62	0.44	0.34	0.10	0.57	0.47
48	0.40	0.24	0.43	0.38	0.41	0.43	0.52	0.48
49	0.55	0.36	0.45	0.33	0.35	0.24	0.42	0.45
50	0.39	0.36	0.52	0.35	0.27	0.26	0.34	0.33
51	0.34	0.31	0.28	0.26	0.34	0.24	0.52	0.42
52	0.58	0.46	0.28	0.19	0.35	0.34	0.41	0.26
53	0.41	0.42	0.33	0.22	0.45	0.40	0.49	0.39
54	0.48	0.46	0.40	0.33	0.64	0.50	0.24	0.24
55	0.38	0.19	0.31	0.21	0.65	0.48	0.19	0.15
56	0.43	0.40	0.30	0.18	0.37	0.30	0.28	0.04
57	0.35	0.22	0.31	0.14	0.35	0.15	0.41	0.23
58	0.31	0.27	0.36	0.35	0.20	0.07	0.37	0.25
59	0.28	0.19	0.36	0.31	0.33	0.19	0.34	0.39
60	0.30	0.18	0.18	0.02	0.41	0.40	0.23	0.31

Table 7.A.8 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)**		**H.S. Math (Grade 11)**		**World History (Grade 10)**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
1	0.83	0.37	0.87	0.26	0.88	0.35	0.92	0.40	0.70	0.19
2	0.81	0.40	0.88	0.34	0.85	0.37	0.78	0.44	0.58	0.39
3	0.61	0.42	0.68	0.38	0.87	0.29	0.68	0.46	0.55	0.38
4	0.55	0.45	0.63	0.42	0.70	0.43	0.64	0.34	0.59	0.29
5	0.66	0.42	0.62	0.52	0.68	0.43	0.64	0.30	0.56	0.50
6	0.52	0.47	0.66	0.40	0.65	0.49	0.75	0.53	0.40	0.37
7	0.49	0.48	0.60	0.54	0.87	0.44	0.61	0.57	0.42	0.39
8	0.40	0.27	0.67	0.38	0.62	0.43	0.75	0.53	0.45	0.32
9	0.59	0.50	0.83	0.43	0.56	0.52	0.64	0.49	0.54	0.46
10	0.63	0.41	0.28	0.19	0.41	0.43	0.65	0.41	0.59	0.29
11	0.54	0.45	0.52	0.31	0.62	0.48	0.74	0.46	0.46	0.40
12	0.76	0.47	0.57	0.50	0.41	0.32	0.68	0.45	0.51	0.40
13	0.71	0.35	0.57	0.32	0.79	0.49	0.67	0.53	0.61	0.48
14	0.62	0.36	0.53	0.57	0.57	0.51	0.88	0.36	0.45	0.39
15	0.65	0.51	0.55	0.46	0.86	0.35	0.75	0.38	0.58	0.53
16	0.64	0.44	0.81	0.50	0.63	0.25	0.78	0.42	0.50	0.30
17	0.74	0.42	0.70	0.46	0.96	0.28	0.57	0.44	0.53	0.45
18	0.63	0.51	0.59	0.47	0.48	0.32	0.69	0.54	0.60	0.47
19	0.40	0.43	0.77	0.48	0.62	0.48	0.75	0.47	0.46	0.40
20	0.53	0.34	0.40	0.49	0.81	0.33	0.65	0.47	0.58	0.40
21	0.57	0.42	0.38	0.41	0.46	0.37	0.66	0.45	0.58	0.52
22	0.44	0.37	0.74	0.46	0.48	0.32	0.90	0.30	0.50	0.41
23	0.62	0.37	0.90	0.25	0.47	0.32	0.44	0.22	0.61	0.43
24	0.44	0.37	0.56	0.42	0.52	0.46	0.46	0.22	0.53	0.42
25	0.46	0.35	0.74	0.44	0.63	0.41	0.77	0.27	0.48	0.41
26	0.62	0.45	0.65	0.44	0.75	0.32	0.68	0.44	0.29	0.36
27	0.62	0.32	0.48	0.41	0.36	0.32	0.86	0.41	0.67	0.53
28	0.42	0.28	0.33	0.49	0.50	0.31	0.71	0.42	0.50	0.42
29	0.63	0.46	0.41	0.38	0.30	0.41	0.41	0.32	0.53	0.44
30	0.50	0.44	0.76	0.44	0.45	0.50	0.88	0.39	0.59	0.38
31	0.45	0.50	0.67	0.42	0.68	0.34	0.51	0.40	0.55	0.48
32	0.56	0.33	0.70	0.50	0.69	0.50	0.74	0.54	0.41	0.50
33	0.77	0.50	0.51	0.30	0.39	0.42	0.69	0.36	0.52	0.37
34	0.54	0.47	0.74	0.41	0.67	0.43	0.79	0.47	0.63	0.48

Item-by-item *p*-value and Point-Biserial for Grade-Specific CSTs										
CSTs	**Algebra I (Grade 8)**		**Geometry (Grade 9)**		**Algebra II (Grade 10)**		**H.S. Math (Grade 11)**		**World History (Grade 10)**	
Items	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**	***p*-value**	**Pt-Rbis**
35	0.27	0.33	0.40	0.37	0.44	0.45	0.77	0.49	0.55	0.36
36	0.73	0.48	0.71	0.35	0.65	0.46	0.67	0.37	0.47	0.40
37	0.28	0.40	0.86	0.36	0.37	0.25	0.68	0.47	0.50	0.41
38	0.61	0.49	0.61	0.52	0.66	0.40	0.76	0.52	0.50	0.37
39	0.64	0.56	0.82	0.53	0.51	0.47	0.85	0.46	0.37	0.39
40	0.62	0.33	0.53	0.26	0.54	0.42	0.59	0.43	0.44	0.50
41	0.59	0.44	0.56	0.42	0.27	0.38	0.70	0.44	0.47	0.41
42	0.42	0.53	0.43	0.37	0.42	0.40	0.44	0.55	0.40	0.40
43	0.56	0.44	0.48	0.51	0.53	0.39	0.56	0.41	0.51	0.36
44	0.37	0.32	0.77	0.45	0.68	0.41	0.49	0.42	0.67	0.38
45	0.54	0.31	0.53	0.39	0.33	0.44	0.72	0.52	0.46	0.36
46	0.46	0.49	0.63	0.29	0.52	0.38	0.70	0.42	0.52	0.53
47	0.75	0.36	0.62	0.43	0.54	0.46	0.46	0.39	0.57	0.44
48	0.47	0.51	0.71	0.47	0.61	0.36	0.44	0.35	0.49	0.31
49	0.47	0.49	0.48	0.39	0.65	0.50	0.70	0.45	0.65	0.40
50	0.51	0.43	0.76	0.45	0.59	0.46	0.63	0.52	0.52	0.41
51	0.49	0.52	0.79	0.48	0.66	0.44	0.80	0.45	0.40	0.41
52	0.46	0.35	0.64	0.50	0.64	0.27	0.64	0.38	0.37	0.30
53	0.73	0.42	0.68	0.48	0.44	0.35	0.76	0.47	0.44	0.52
54	0.47	0.41	0.79	0.48	0.44	0.38	0.58	0.34	0.52	0.50
55	0.31	0.42	0.60	0.51	0.68	0.48	0.66	0.41	0.50	0.40
56	0.59	0.51	0.53	0.31	0.48	0.41	0.66	0.44	0.62	0.50
57	0.51	0.42	0.58	0.57	0.70	0.27	0.74	0.46	0.54	0.44
58	0.33	0.46	0.51	0.39	0.34	0.41	0.56	0.29	0.39	0.33
59	0.41	0.25	0.72	0.50	0.29	0.30	0.81	0.45	0.55	0.43
60	0.31	0.29	0.74	0.43	0.38	0.30	0.50	0.35	0.57	0.49
61	0.49	0.33	0.48	0.55	0.46	0.40	0.65	0.47	.	.
62	0.55	0.39	0.63	0.44	0.35	0.32	0.62	0.47	.	.
63	0.21	0.25	0.80	0.47	0.65	0.15	0.35	0.29	.	.
64	0.59	0.50	0.65	0.44	0.76	0.30	0.79	0.43	.	.
65	0.32	0.47	0.74	0.37	0.31	0.28	0.61	0.42	.	.

Appendix 7.B—IRT Tables

Table 7.B.1 IRT *b*-values for English–Language Arts, Grade Two

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	22	–0.28	0.65	–1.65	0.68
Reading Comprehension	15	0.19	0.65	–1.29	1.42
Literary Response and Analysis	6	–0.32	0.69	–1.51	0.58
Written Conventions	14	–0.12	0.57	–1.09	0.80
Writing Strategies	8	0.71	0.74	–0.03	2.27
All operational items	65	–0.02	0.73	–1.65	2.27
Field-test items	74	–0.13	0.79	–1.85	1.64

Table 7.B.2 IRT *b*-values for English–Language Arts, Grade Three

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	20	–0.67	0.88	–1.83	1.33
Reading Comprehension	15	–0.23	0.68	–1.97	0.60
Literary Response and Analysis	8	–0.52	0.64	–1.95	–0.01
Written Conventions	13	–0.44	0.54	–1.34	0.68
Writing Strategies	9	0.12	0.48	–0.72	0.70
All operational items	65	–0.39	0.74	–1.97	1.33
Field-test items	84	–0.12	0.86	–2.22	1.86

Table 7.B.3 IRT *b*-values for English–Language Arts, Grade Four

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	18	–0.36	0.91	–2.20	1.48
Reading Comprehension	15	0.35	0.69	–1.04	1.51
Literary Response and Analysis	9	–0.10	0.41	–0.56	0.81
Written Conventions	18	–0.10	0.86	–1.52	1.51
Writing Strategies	15	0.39	0.59	–1.43	1.30
Writing Applications	1	–0.22	N/A	–0.22	–0.22
All operational mulitple-choice items	75	0.03	0.81	–2.20	1.51
Field-test items	82	0.75	0.86	–1.27	2.86

Table 7.B.4 IRT *b*-values for English–Language Arts, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	14	–0.55	1.03	–2.48	1.01
Reading Comprehension	16	0.18	0.66	–1.33	1.30
Literary Response and Analysis	12	–0.26	0.72	–1.24	1.13
Written Conventions	17	–0.61	0.78	–1.74	1.27
Writing Strategies	16	0.28	0.53	–0.81	1.49
All operational items	75	–0.18	0.85	–2.48	1.49
Field-test items	84	0.39	0.93	–1.87	2.36

Table 7.B.5 IRT *b*-values for English–Language Arts, Grade Six

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	13	–0.28	0.75	–1.88	0.95
Reading Comprehension	17	0.05	0.50	–0.75	0.94
Literary Response and Analysis	12	0.29	0.65	–0.66	1.32
Written Conventions	16	–0.62	0.52	–1.61	0.35
Writing Strategies	17	0.13	0.63	–0.63	1.44
All operational items	75	–0.10	0.69	–1.88	1.44
Field-test items	78	0.58	0.76	–1.14	2.68

Table 7.B.6 IRT *b*-values for English–Language Arts, Grade Seven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	11	0.02	0.65	–0.95	1.05
Reading Comprehension	18	0.06	0.83	–0.99	2.13
Literary Response and Analysis	13	0.39	0.93	–0.85	2.77
Written Conventions	16	0.20	0.86	–1.19	1.35
Writing Strategies	17	0.49	0.57	–0.20	1.65
Writing Applications	1	–0.51	N/A	–0.51	–0.51
All operational mulitple-choice items	75	0.24	0.80	–1.19	2.77
Field-test items	84	0.64	0.90	–1.56	2.44

Table 7.B.7 IRT *b*-values for English–Language Arts, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	9	–0.31	0.73	–1.57	0.72
Reading Comprehension	18	–0.18	0.84	–1.83	0.87
Literary Response and Analysis	15	–0.16	0.52	–1.13	1.11
Written Conventions	16	–0.65	0.77	–1.93	0.47
Writing Strategies	17	0.18	0.70	–0.94	1.95
All operational items	75	–0.21	0.78	–1.93	1.95
Field-test items	82	0.22	0.93	–1.66	3.57

Table 7.B.8 IRT *b*-values for English–Language Arts, Grade Nine

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	–0.27	0.38	–0.95	0.41
Reading Comprehension	18	–0.07	0.80	–1.87	1.71
Literary Response and Analysis	16	–0.17	0.47	–1.24	0.53
Written Conventions	13	0.09	0.38	–0.48	0.64
Writing Strategies	20	0.32	0.66	–1.08	1.35
All operational items	75	0.02	0.63	–1.87	1.71
Field-test items	84	0.46	0.87	–1.55	2.37

Table 7.B.9 IRT *b*-values for English–Language Arts, Grade Ten

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	–0.78	0.47	–1.57	0.22
Reading Comprehension	18	–0.15	0.58	–1.72	0.61
Literary Response and Analysis	16	–0.08	0.63	–1.56	1.02
Written Conventions	13	–0.49	0.56	–1.13	0.60
Writing Strategies	20	–0.18	0.60	–1.30	1.03
All operational items	75	–0.27	0.62	–1.72	1.03
Field-test items	82	0.47	1.02	–1.81	2.67

Table 7.B.10 IRT *b*-values for English–Language Arts, Grade Eleven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Word Analysis and Vocabulary Development	8	–0.21	0.63	–1.23	0.96
Reading Comprehension	19	–0.01	0.75	–1.39	1.22
Literary Response and Analysis	17	–0.29	0.65	–1.65	1.27
Written Conventions	9	–0.23	0.43	–0.78	0.46
Writing Strategies	22	–0.10	0.65	–0.99	1.94
All operational items	75	–0.15	0.66	–1.65	1.94
Field-test items	75	0.20	0.71	–1.16	2.01

Table 7.B.11 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	0.16	0.54	–1.30	0.79
Late Antiquity and the Middle Ages	14	0.18	0.55	–1.14	0.87
Renaissance/Reformation	10	0.24	0.41	–0.72	0.96
U.S. Constitution and the Early Republic	22	0.17	0.46	–0.92	1.06
Civil War and Its Aftermath	13	0.16	0.28	–0.28	0.59
All operational items	75	0.18	0.47	–1.30	1.06
Field-test items	42	1.00	0.66	–0.29	2.21

Table 7.B.12 IRT *b*-values for World History

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Development of Modern Political Thought	13	0.03	0.38	–0.77	0.64
Industrial Expansion and Imperialism	10	0.03	0.27	–0.30	0.47
Causes and Effects of the First World War	14	0.14	0.44	–0.61	1.28
Causes and Effects of the Second World War	13	0.18	0.39	–0.62	0.81
International Developments in the Post-WW II Era	10	0.26	0.39	–0.34	0.82
All operational items	60	0.12	0.39	–0.77	1.28
Field-test items	42	0.58	0.59	–1.19	2.12

Table 7.B.13 IRT *b*-values for History–Social Science, Grade Eleven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Foundations of Amer. Pol. & Social Thought	10	–0.09	0.55	–1.43	0.60
Industrialization and the U.S. Role as a World Power	13	–0.01	0.54	–1.03	0.71
United States Between the World Wars	12	–0.00	0.35	–0.57	0.70
World War II and Foreign Affairs	12	0.06	0.50	–0.85	0.87
Post-World War II Domestic Issues	13	0.09	0.46	–0.82	0.73
All operational items	60	0.01	0.49	–1.43	0.87
Field-test items	42	0.20	0.71	–1.66	1.82

Table 7.B.14 IRT *b*-values for Mathematics, Grade Two

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Addition, and Subtraction	15	–0.94	0.88	–3.17	0.68
Multiplication, Division, and Fractions	23	–0.78	0.86	–2.36	0.93
Algebra and Functions	6	–1.02	0.68	–1.88	0.08
Measurement and Geometry	13	–0.55	1.17	–2.45	2.48
Statistics, Data Analysis, and Probability	7	–0.76	1.02	–2.09	0.89
All operational items	64	–0.79	0.95	–3.17	2.48
Field-test items	84	–0.91	1.09	–2.79	2.38

Table 7.B.15 IRT *b*-values for Mathematics, Grade Three

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Place Value, Fractions, and Decimals	16	–0.77	0.94	–1.97	0.78
Addition, Subtraction, Multiplication, Division	16	–0.44	0.92	–2.40	1.23
Algebra and Functions	12	–0.73	1.13	–2.44	0.89
Measurement and Geometry	16	–0.98	1.13	–2.29	1.07
Statistics, Data Analysis, and Probability	5	–1.31	0.93	–2.49	0.29
All operational items	65	–0.78	1.05	–2.49	1.23
Field-test items	84	–0.33	1.40	–3.11	3.73

Table 7.B.16 IRT *b*-values for Mathematics, Grade Four

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Decimals, Fractions, and Negative Numbers	17	–1.01	1.04	–3.11	0.80
Operations and Factoring	14	–0.45	0.63	–1.97	0.76
Algebra and Functions	18	–0.68	0.65	–1.77	0.71
Measurement and Geometry	12	–0.13	0.74	–1.17	1.59
Statistics, Data Analysis, and Probability	4	–0.40	0.88	–1.89	0.37
All operational items	65	–0.60	0.86	–3.11	1.59
Field-test items	84	0.36	0.96	–1.83	2.58

Table 7.B.17 IRT *b*-values for Mathematics, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Estimation, Percents, and Factoring	12	–0.12	0.88	–2.03	1.07
Operations with Fractions and Decimals	17	–0.14	0.70	–1.31	1.35
Algebra and Functions	17	–0.42	0.76	–1.94	0.82
Measurement and Geometry	15	0.08	0.65	–1.05	1.33
Statistics, Data Analysis, and Probability	4	–0.94	0.85	–2.02	–0.03
All operational items	65	–0.21	0.79	–2.03	1.35
Field-test items	84	0.61	1.13	–2.04	2.86

Table 7.B.18 IRT *b*-values for Mathematics, Grade Six

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Ratios, Proportions, Percentages, Neg. Fractions	15	–0.00	0.80	–1.83	1.61
Operations and Problem Solving with Fractions	10	–0.45	0.85	–2.24	0.52
Algebra and Functions	19	–0.49	0.74	–2.53	1.32
Measurement and Geometry	10	–0.01	0.53	–0.61	1.29
Statistics, Data Analysis, and Probability	11	–0.34	0.74	–1.21	0.92
All operational items	65	–0.27	0.77	–2.53	1.61
Field-test items	84	0.17	0.86	–1.80	2.42

Table 7.B.19 IRT *b*-values for Mathematics, Grade Seven

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	–0.12	0.69	–1.22	1.02
Exponents, Powers, and Roots	8	0.29	0.56	–0.56	1.45
Quant. Relationships and Evaluating Expressions	10	–0.06	0.57	–0.98	0.93
Multistep Problems, Graphing, and Functions	15	–0.03	0.73	–1.06	1.74
Measurement and Geometry	13	0.09	0.58	–1.03	1.01
Statistics, Data Analysis, and Probability	5	–0.29	0.55	–0.80	0.52
All operational items	65	–0.01	0.65	–1.22	1.74
Field-test items	84	0.89	0.85	–0.77	2.78

Table 7.B.20 IRT *b*-values for General Mathematics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Rational Numbers	14	0.26	0.75	–1.23	1.20
Exponents, Powers, and Roots	10	0.63	0.57	–0.19	1.63
Quant. Relationships and Evaluating Expressions	11	–0.21	0.56	–0.92	1.04
Multistep Problems, Graphing, and Functions	10	–0.07	0.72	–1.03	1.34
Measurement and Geometry	11	0.54	0.39	–0.12	1.16
Statistics, Data Analysis, and Probability	9	0.16	0.59	–0.54	0.96
All operational items	65	0.22	0.68	–1.23	1.63
Field-test items	6	1.01	0.57	0.43	2.15

Table 7.B.21 IRT *b*-values for Algebra I

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Number Properties, Operations, and Linear Equations	17	–0.49	0.54	–1.57	0.42
Graphing and Systems of Linear Equations	14	–0.01	0.38	–0.49	0.62
Quadratics and Polynomials	21	0.03	0.61	–1.05	1.23
Functions and Rational Expressions	13	0.38	0.65	–0.84	1.52
All operational items	65	–0.05	0.64	–1.57	1.52
Field-test items	42	0.16	0.70	–1.29	1.40

Table 7.B.22 IRT *b*-values for Geometry

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Logic and Geometric Proofs	23	–0.87	0.84	–2.54	0.70
Volume and Area Formulas	11	–0.61	0.62	–1.32	0.71
Angle Relationships, Constructions, and Lines	16	–0.77	0.63	–2.05	0.21
Trigonometry	15	–0.87	0.48	–1.52	0.08
All operational items	65	–0.80	0.69	–2.54	0.71
Field-test items	42	–0.24	0.51	–2.00	0.91

Table 7.B.23 IRT *b*-values for Algebra II

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Polynomials and Rational Expressions	19	–1.09	0.94	–3.27	0.30
Quadratics, Conics, and Complex Numbers	16	–0.31	0.68	–1.69	0.81
Exponents and Logarithms	16	–0.25	0.57	–0.94	1.02
Series, Combinatorics, Probability and Statistics	14	–0.09	0.73	–1.39	0.91
All operational items	65	–0.48	0.85	–3.27	1.02
Field-test items	42	–0.15	0.96	–2.54	1.59

Table 7.B.24 IRT *b*-values for Summative High School Mathematics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Algebra I	18	–0.96	0.61	–2.65	–0.14
Geometry	19	–0.81	0.85	–2.35	0.74
Algebra II	23	–0.53	0.68	–1.88	0.55
Probability and Statistics	5	–0.32	0.79	–1.38	1.07
All operational items	65	–0.72	0.75	–2.65	1.07
Field-test items	42	–0.71	0.90	–2.55	1.58

Table 7.B.25 IRT *b*-values for Integrated Mathematics 1

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Number Properties, Operations, and Linear Equations	15	–0.51	0.47	–1.46	0.14
Graphing	9	–0.03	0.35	–0.61	0.40
Quadratics and Polynomials	14	0.14	0.55	–0.95	0.90
Functions and Rational Expressions	7	0.52	0.64	–0.22	1.30
Geometry	20	0.38	0.45	–0.30	1.48
All operational items	65	0.08	0.61	–1.46	1.48
Field-test items	6	0.20	0.55	–0.67	0.89

Table 7.B.26 IRT *b*-values for Integrated Mathematics 2

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Algebra I	20	–0.23	0.64	–1.53	1.01
Logic and Geometric Proofs	22	–0.12	0.64	–1.47	0.90
Angle Relationships, Constructions, and Lines	8	–0.24	0.51	–1.11	0.64
Trigonometry	10	–0.28	0.34	–0.97	0.23
Algebra II/ Probability and Statistics	5	0.03	0.76	–1.03	0.89
All operational items	65	–0.18	0.61	–1.53	1.01
Field-test items	6	0.69	0.39	0.18	1.48

Table 7.B.27 IRT *b*-values for Integrated Mathematics 3

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Geometry	5	–0.71	0.86	–1.74	0.50
Polynomials and Rational Expressions	19	–0.43	0.82	–2.30	0.76
Quadratics, Conics, and Complex Numbers	16	–0.07	0.57	–1.13	0.85
Exponents and Logarithms	16	–0.13	0.42	–0.94	0.66
Series, Combinatorics, Probability and Statistics	9	0.31	0.57	–0.57	1.23
All operational items	65	–0.19	0.71	–2.30	1.23
Field-test items	6	–0.60	0.79	–1.69	0.48

Table 7.B.28 IRT *b*-values for Science, Grade Five

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Physical Science 5	11	–1.01	0.51	–2.05	–0.26
Physical Science 4	8	–0.86	0.51	–1.56	0.03
Life Science 5	13	–0.57	0.94	–2.14	1.06
Life Science 4	9	–0.44	0.79	–1.53	0.58
Earth Science 5	11	–0.52	0.85	–1.50	1.26
Earth Science 4	8	–0.74	0.52	–1.50	0.27
All operational items	60	–0.68	0.76	–2.14	1.26
Field-test items	120	0.14	0.96	–2.49	2.42

Table 7.B.29 IRT *b*-values for Science, Grade Eight

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion	8	–0.69	0.49	–1.57	–0.04
Forces, Density, and Buoyancy	13	–0.68	0.41	–1.52	–0.03
Structure of Matter and Periodic Table	16	–0.37	0.57	–1.29	0.59
Earth in the Solar system	7	–0.48	0.62	–1.46	0.33
Reactions and the Chemistry of Living Systems	10	0.03	0.53	–0.77	0.98
Investigation and Experimentation	6	–0.33	0.39	–0.75	0.17
All operational items	60	–0.42	0.57	–1.57	0.98
Field-test items	120	0.08	0.78	–2.29	1.95

Table 7.B.30 IRT *b*-values for Grade Ten, Life Science

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Cell Biology	10	–0.07	0.43	–0.66	0.70
Genetics	12	–0.24	0.74	–1.20	1.30
Physiology	10	–0.55	0.50	–1.22	0.37
Ecology	11	–0.35	0.52	–1.56	0.67
Evolution	11	–0.01	0.43	–0.68	0.93
Investigation and Experimentation	6	–0.78	0.54	–1.78	–0.28
All operational items	60	–0.29	0.59	–1.78	1.30
Field-test items	120	0.02	0.77	–1.71	2.97

Table 7.B.31 IRT *b*-values for Biology

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Cell Biology	9	–0.15	0.33	–0.54	0.48
Genetics	18	–0.51	0.73	–1.88	0.26
Ecology and Evolution	16	–0.28	0.36	–1.02	0.32
Physiology	11	–0.70	0.56	–1.87	0.26
Investigation and Experimentation	6	–0.40	0.41	–1.06	0.03
All operational items	60	–0.42	0.56	–1.88	0.48
Field-test items	120	0.10	0.79	–1.54	2.52

Table 7.B.32 IRT *b*-values for Chemistry

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Atomic and Molecular Structure	8	–0.56	0.77	–1.49	1.02
Chemical Bonds, Biochemistry	9	–0.81	0.43	–1.55	0.01
Kinetics, Thermodynamics	14	–0.45	0.52	–1.36	0.37
Chemical Reactions	13	–0.12	0.60	–0.79	0.84
Conservation of Matter and Stoichiometry	10	–0.20	0.51	–1.36	0.53
Investigation and Experimentation	6	–0.86	0.49	–1.34	0.10
All operational items	60	–0.45	0.62	–1.55	1.02
Field-test items	120	0.08	0.85	–1.80	2.81

Table 7.B.33 IRT *b*-values for Earth Science

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Astronomy and Cosmology	12	–0.33	0.88	–1.67	1.47
Solid Earth	14	–0.26	0.51	–1.12	0.50
The Earth's Energy	28	0.19	0.44	–0.71	1.00
Investigation and Experimentation	6	–0.37	0.43	–0.95	0.12
All operational items	60	–0.08	0.62	–1.67	1.47
Field-test items	120	0.66	0.65	–1.12	2.21

Table 7.B.34 IRT *b*-values for Physics

Content Area	Number of items	Mean	Standard Deviation	Minimum	Maximum
Motion and Forces	12	–0.39	1.03	–2.72	1.41
Conservation of Energy and Momentum	12	–0.15	0.52	–1.04	0.87
Heat and Thermodynamics	9	–0.19	0.69	–1.23	1.37
Waves	10	–0.25	0.54	–1.09	0.91
Electric and Magnetic Phenomena	11	0.33	0.84	–1.21	1.66
Investigation and Experimentation	6	–0.50	0.61	–1.15	0.66
All operational items	60	–0.17	0.79	–2.72	1.66
Field-test items	120	0.33	0.84	–2.46	2.96

Table 7.B.35 Distribution of IRT *b*-values for English–Language Arts

IRT b-value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
>=3.5										
3.0 - < 3.5										
2.5 - < 3.0						1				
2.0 - < 2.5	1					1				
1.5 - < 2.0			2			3	1	1		1
1.0 - < 1.5	3	1	4	5	4	8	1	4	2	4
0.5 - < 1.0	11	7	14	9	12	17	14	10	6	5
0.0 - < 0.5	18	11	22	21	17	11	15	22	20	19
–0.5 - < 0.0	17	20	12	14	20	17	14	25	20	24
–1.0 - < –	8	12	11	12	15	16	20	9	15	18
–1.5 - < –	4	6	8	8	5	1	5	3	9	3
–2.0 - < –	3	8	1	5	2		5	1	3	1
–2.5 - < –			1	1						
–3.0 - < –										
–3.5 - < –										
< –3.5										
Total	65	65	75	75	75	75	75	75	75	75

Table 7.B.36 Distribution of IRT *b*-values for History–Social Science

IRT b-value	Grade 8	World History	Grade 11
>=3.5			
3.0 - < 3.5			
2.5 - < 3.0			
2.0 - < 2.5			
1.5 - < 2.0			
1.0 - < 1.5	1	1	
0.5 - < 1.0	15	8	10
0.0 - < 0.5	37	28	22
–0.5 - < 0.0	16	19	20
–1.0 - < –0.5	4	4	6
–1.5 - < –1.0	2		2
–2.0 - < –1.5			
–2.5 - < –2.0			
–3.0 - < –2.5			
–3.5 - < –3.0			
< –3.5			
Total	75	60	60

Table 7.B.37 Distribution of IRT *b*-values for Mathematics Grades Two through Seven

IRT b-value	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
>=3.5						
3.0 - < 3.5						
2.5 - < 3.0						
2.0 - < 2.5	1					
1.5 - < 2.0			1		1	1
1.0 - < 1.5		2		4	3	4
0.5 - < 1.0	5	8	4	8	6	10
0.0 - < 0.5	7	7	9	13	12	16
–0.5 - < 0.0	9	10	17	21	14	19
–1.0 - < –0.5	13	7	19	8	22	11
–1.5 - < –1.0	18	13	4	6	4	4
–2.0 - < –1.5	5	8	8	3	1	
–2.5 - < –2.0	5	10	2	2	1	
–3.0 - < –2.5					1	
–3.5 - < –3.0	1		1			
< –3.5						
Total	64	65	65	65	65	65

Table 7.B.38 Distribution of IRT *b*-values for Mathematics End-of-Course CSTs

IRT b-value	General Math	Algebra I	Geometry	Algebra II	Summative H.S. Math	Integrated Math 1	Integrated Math 2	Integrated Math 3
>=3.5								
3.0 - < 3.5								
2.5 - < 3.0								
2.0 - < 2.5								
1.5 - < 2.0	1	1						
1.0 - < 1.5	6	3		1	1	4	1	1
0.5 - < 1.0	18	8	2	6	3	11	8	10
0.0 - < 0.5	17	20	6	13	6	22	13	16
–0.5 - < 0.0	11	22	15	14	13	16	27	18
–1.0 - < –0.5	10	6	17	19	19	9	9	13
–1.5 - < –1.0	2	4	18	5	15	3	5	3
–2.0 - < –1.5		1	3	2	4		2	3
–2.5 - < –2.0			3	4	3			1
–3.0 - < –2.5			1		1			
–3.5 - < –3.0				1				
< –3.5								
Total	65	65	65	65	65	65	65	65

Table 7.B.39 Distribution of IRT *b*-values for Science

IRT b-value	Grade 5 Science	Grade 8 Science	Life Science	Biology	Chemistry	Earth Science	Physics
>=3.5							
3.0 - < 3.5							
2.5 - < 3.0							
2.0 - < 2.5							
1.5 - < 2.0							1
1.0 - < 1.5	2		1		1	1	4
0.5 - < 1.0	4	4	6		4	9	4
0.0 - < 0.5	6	11	7	15	12	18	13
–0.5 - < 0.0	11	18	26	22	10	16	17
–1.0 - < –0.5	13	16	14	12	23	12	14
–1.5 - < –1.0	16	9	4	7	9	2	5
–2.0 - < –1.5	6	2	2	4	1	2	1
–2.5 - < –2.0	2						
–3.0 - < –2.5							1
–3.5 - < –3.0							
< –3.5							
Total	60	60	60	60	60	60	60

Table 7.B.40 Distribution of IRT *b*-values for English–Language Arts (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							1			
3.0 - < 3.5							1			
2.5 - < 3.0			1		1				2	
2.0 - < 2.5			6	5	2	4	1	3	5	1
1.5 - < 2.0	1	4	9	7	6	15	3	7	11	5
1.0 - < 1.5	7	5	16	10	13	9	6	15	6	4
0.5 - < 1.0	11	13	18	13	19	22	18	17	8	13
0.0 - < 0.5	7	14	16	19	20	16	15	16	19	18
–0.5 - < 0.0	26	18	10	18	12	5	20	12	20	24
–1.0 - < –0.5	14	17	3	8	3	11	12	11	5	8
–1.5 - < –1.0	3	9	3	2	2	1	3	1	5	2
–2.0 - < –1.5	5	3		2		1	2	2	1	
–2.5 - < –2.0		1								
–3.0 - < –2.5										
–3.5 - < –3.0										
< –3.5										
Total	74	84	82	84	78	84	82	84	82	75

Table 7.B.41 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			
2.0 - < 2.5	3	2	
1.5 - < 2.0	10		1
1.0 - < 1.5	8	8	5
0.5 - < 1.0	9	15	9
0.0 - < 0.5	9	12	11
–0.5 - < 0.0	3	4	10
–1.0 - < –0.5			5
–1.5 - < –1.0		1	
–2.0 - < –1.5			1
–2.5 - < –2.0			
–3.0 - < –2.5			
–3.5 - < –3.0			
< –3.5			
Total	42	42	42

Table 7.B.42 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		1				
3.0 - < 3.5						
2.5 - < 3.0		1	1	3		3
2.0 - < 2.5	2	2	3	7	1	8
1.5 - < 2.0		4	9	8	4	8
1.0 - < 1.5	3	4	6	15	10	20
0.5 - < 1.0	1	12	15	17	16	14
0.0 - < 0.5	7	11	22	12	14	16
–0.5 - < 0.0	18	12	10	6	22	11
–1.0 - < –0.5	13	6	13	7	8	4
–1.5 - < –1.0	14	12	4	7	7	
–2.0 - < –1.5	9	8	1	1	2	
–2.5 - < –2.0	10	7		1		
–3.0 - < –2.5	7	3				
–3.5 - < –3.0		1				
< –3.5						
Total	84	84	84	84	84	84

Table 7.B.43 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	Int. Math 1	Int. Math 2	Int. Math 3
>=3.5								
3.0 - < 3.5								
2.5 - < 3.0								
2.0 - < 2.5	1							
1.5 - < 2.0				1	1			
1.0 - < 1.5	1	5		2	2		1	
0.5 - < 1.0	3	10	1	7	2	3	4	
0.0 - < 0.5	1	12	11	12	4	1	1	2
–0.5 - < 0.0		6	18	8	5	1		1
–1.0 - < –0.5		6	10	3	12	1		1
–1.5 - < –1.0		3	1	3	8			
–2.0 - < –1.5			1	4	6			2
–2.5 - < –2.0				1	1			
–3.0 - < –2.5				1	1			
–3.5 - < –3.0								
< –3.5								
Total	6	42	42	42	42	6	6	6

Table 7.B.44 Distribution of IRT *b*-values for Science (field-test items)

IRT b-value	Grade 5 Science	Grade 8 Science	Life Science	Biology	Chemistry	Earth Science	Physics
>=3.5							
3.0 - < 3.5							
2.5 - < 3.0			1	1	1		1
2.0 - < 2.5	4				2	4	4
1.5 - < 2.0	6	5	3	5	1	8	3
1.0 - < 1.5	12	11	7	10	12	19	12
0.5 - < 1.0	22	23	21	22	23	41	30
0.0 - < 0.5	21	20	25	26	23	35	27
–0.5 - < 0.0	19	32	35	28	26	8	25
–1.0 - < –0.5	23	21	19	18	17	2	12
–1.5 - < –1.0	10	7	7	9	12	3	5
–2.0 - < –1.5	1		2	1	3		
–2.5 - < –2.0	2	1					1
–3.0 - < –2.5							
–3.5 - < –3.0							
< –3.5							
Total	120	120	120	120	120	120	120

Table 7.B.45 IRT Model Data Fit Distribution for English–Language Arts

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	33	51%	27	42%	23	30%	33	44%	36	48%	26	34%	31	41%	29	39%	26	35%	22	29%
B	10	15%	13	20%	16	21%	14	19%	12	16%	18	24%	13	17%	11	15%	16	21%	16	21%
C	18	28%	23	35%	33	43%	24	32%	22	29%	30	39%	28	37%	33	44%	32	43%	28	37%
D	4	6%	2	3%	4	5%	4	5%	5	7%	1	1%	2	3%	2	3%	1	1%	9	12%
F	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	1	1%	0	0%	0	0%	0	0%
Total	65	100%	65	100%	76	100%	75	100%	75	100%	76	100%	75	100%	75	100%	75	100%	75	100%

Table 7.B.46 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	35	47%	35	58%	29	48%
B	18	24%	3	5%	15	25%
C	21	28%	22	37%	14	23%
D	1	1%	0	0%	2	3%
F	0	0%	0	0%	0	0%
Total	75	100%	60	100%	60	100%

Table 7.B.47 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	36	56%	32	49%	45	69%	39	60%	31	48%	26	40%
B	12	19%	21	32%	10	15%	10	15%	11	17%	16	25%
C	15	23%	10	15%	8	12%	13	20%	18	28%	15	23%
D	1	2%	2	3%	2	3%	3	5%	5	8%	8	12%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	64	100%	65	100%	65	100%	65	100%	65	100%	65	100%

Table 7.B.48 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	36	55%	27	42%	27	42%	30	46%	29	45%	24	37%	17	26%	20	31%
B	14	22%	11	17%	14	22%	24	37%	25	38%	22	34%	22	34%	14	22%
C	11	17%	20	31%	20	31%	10	15%	9	14%	17	26%	21	32%	25	38%
D	4	6%	7	11%	4	6%	1	2%	2	3%	2	3%	5	8%	5	8%
F	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%
Total	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%	65	100%

Table 7.B.49 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	26	43%	26	43%	28	47%	24	40%	25	42%	28	47%	16	27%
B	14	23%	13	22%	10	17%	12	20%	23	38%	17	28%	24	40%
C	15	25%	19	32%	18	30%	23	38%	12	20%	15	25%	20	33%
D	5	8%	2	3%	4	7%	1	2%	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 7.B.50 IRT Model Data Fit Distribution for English–Language Arts (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	12%	7	8%	8	10%	9	11%	4	5%	12	14%	15	18%	11	13%	7	9%	11	15%
B	12	16%	20	24%	8	10%	16	19%	9	12%	11	13%	16	20%	14	17%	12	15%	18	24%
C	47	64%	47	56%	46	56%	42	50%	50	64%	43	51%	37	45%	33	39%	37	45%	35	47%
D	5	7%	6	7%	14	17%	10	12%	12	15%	13	15%	9	11%	15	18%	16	20%	5	7%
F	1	1%	4	5%	6	7%	7	8%	3	4%	5	6%	5	6%	11	13%	10	12%	6	8%
Total	74	100%	84	100%	82	100%	84	100%	78	100%	84	100%	82	100%	84	100%	82	100%	75	100%

Table 7.B.51 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	12%	8	19%	4	10%
B	2	5%	12	29%	10	24%
C	12	29%	16	38%	17	40%
D	13	31%	4	10%	9	21%
F	10	24%	2	5%	2	5%
Total	42	100%	42	100%	42	100%

Table 7.B.52 IRT Model Data Fit Distribution for Mathematics, Grade 2 through 7 (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	16	19%	10	12%	8	10%	10	12%	6	7%	11	13%
B	27	32%	17	20%	17	20%	29	35%	17	20%	8	10%
C	37	44%	46	55%	47	56%	28	33%	50	60%	36	43%
D	4	5%	7	8%	10	12%	12	14%	7	8%	22	26%
F	0	0%	4	5%	2	2%	5	6%	4	5%	7	8%
Total	84	100%	84	100%	84	100%	84	100%	84	100%	84	100%

Table 7.B.53 IRT Model Data Fit Distribution for Mathematics End-of-Course Tests (field-test items)

Field Test Items	General Math		Algebra I		Geometry		Algebra II		Summative High School Math		Integrated Math 1		Integrated Math 2		Integrated Math 3	
Flag	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.	N	Pct.
A	1	17%	8	19%	6	14%	7	17%	19	45%	0	0%	2	33%	1	17%
B	0	0%	9	21%	10	24%	7	17%	10	24%	1	17%	1	17%	1	17%
C	1	17%	9	21%	21	50%	19	45%	7	17%	3	50%	2	33%	4	67%
D	2	33%	10	24%	3	7%	7	17%	5	12%	2	33%	1	17%	0	0%
F	2	33%	6	14%	2	5%	2	5%	1	2%	0	0%	0	0%	0	0%
Total	6	100%	42	100%	42	100%	42	100%	42	100%	6	100%	6	100%	6	100%

Table 7.B.54 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	18	15%	18	15%	19	16%	12	10%	34	28%	21	18%	21	18%
B	28	23%	22	18%	28	23%	20	17%	28	23%	33	28%	23	19%
C	39	33%	64	53%	52	43%	63	53%	37	31%	35	29%	54	45%
D	22	18%	16	13%	18	15%	16	13%	13	11%	15	13%	14	12%
F	13	11%	0	0%	3	3%	9	8%	8	7%	16	13%	8	7%
Total	120	100%	120	100%	120	100%	120	100%	120	100%	120	100%	120	100%

Chapter 8: Reliability

This chapter summarizes the evidence of reliability for the California Standardized Tests for the spring 2008 administration. These analyses were conducted for each of the 38 operational CSTs. The reliability analyses included the computation of overall and subscore reliabilities, standard errors of measurement (SEMs) and intercorrelations of reporting cluster subscores. IRT-based conditional SEMs were computed, and the analyses of accuracy and consistency of proficiency level classifications were also performed for the overall examinee population. Reliability analyses are also reported at the subgroup level.

Reliability

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

$$\alpha = \frac{n}{n-1}\left[1 - \frac{\sum_{i=1}^{n}\sigma_i^2}{\sigma_t^2}\right] \tag{8.1}$$

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 provides a measure of score instability in the score metric. The SEM was computed as follows:

$$\sigma_e = \sigma_t\sqrt{1-\alpha} \tag{8.2}$$

where,

α is the reliability estimated using (8.1) above, and

σ_t^2 is the standard deviation of the total raw scores.

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).

The reliability analyses were conducted for all valid cases of the overall P1 examinee population with valid scores (99.6 percent of the data that was used for the August 15 reporting and more than 99 percent of the total examinee population). Table 8.1 presents the results of reliability analyses on 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,that is, 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 Table 8.1.

Table 8.1 Reliabilities and Standard Errors of Measurement for the CSTs

Subject Area	CST	No. of Items	No. of Examinees	Reliab.	Scale Score			Raw Score		
					Mean	Std. Dev.	SEM	Mean	Std. Dev.	SEM
English–Language Arts	**2**	65	461,134	0.94	348	60	14.70	40.92	13.55	3.32
	3	65	444,585	0.92	333	58	16.40	41.91	12.36	3.50
	4*	75	444,610	0.94	358	56	13.72	47.16	14.74	3.61
	5	75	449,549	0.93	348	52	13.76	47.44	13.90	3.68
	6	75	468,113	0.93	345	53	14.02	46.61	14.46	3.83
	7*	75	476,518	0.94	349	62	15.19	45.79	15.05	3.69
	8	75	480,891	0.93	341	58	15.35	46.15	14.24	3.77
	9	75	504,080	0.94	348	61	14.94	44.58	15.29	3.75
	10	75	475,930	0.95	336	61	13.64	46.23	16.00	3.58
	11	75	443,198	0.94	327	65	15.92	43.07	15.54	3.81
**Multiple choice only*										
History–Social Science	**8**	75	480,113	0.93	334	60	15.87	39.05	14.57	3.85
	World History	60	480,695	0.92	325	67	18.95	30.50	12.48	3.53
	11	60	432,488	0.92	331	66	18.67	31.21	12.32	3.48
Mathematics	**2**	64	461,864	0.93	372	81	21.43	47.03	11.75	3.11
	3	65	446,504	0.94	379	86	21.07	49.06	11.74	2.88
	4	65	447,141	0.94	374	75	18.37	48.10	12.55	3.07
	5	65	451,039	0.94	365	87	21.31	41.75	13.47	3.30
	6	65	468,590	0.94	348	71	17.39	39.61	13.49	3.30
	7	65	438,983	0.93	339	65	17.20	36.39	13.02	3.44
	General Mathematics	65	286,258	0.91	315	56	16.80	31.69	12.00	3.60
	Algebra I	65	742,363	0.91	315	67	20.10	29.75	12.15	3.64
	Geometry	65	382,108	0.93	311	68	17.99	33.87	13.39	3.54
	Algebra II	65	239,083	0.92	316	67	18.95	33.97	12.14	3.43
	Summ. H.S. Math	65	115,855	0.93	350	74	19.58	44.62	12.37	3.27
	Integrated Math 1	65	8,772	0.86	282	53	19.83	25.18	9.56	3.58
	Integrated Math 2	65	4,275	0.90	316	58	18.34	28.20	11.37	3.60
	Integrated Math 3	65	1,480	0.90	305	72	22.77	29.39	11.59	3.67
Science	**Grade 5 Science**	60	449,999	0.91	345	60	18.00	39.37	10.71	3.21
	Grade 8 Science	60	479,113	0.92	355	93	26.30	38.81	11.86	3.35
	Grade 10 Life Science	60	463,012	0.93	337	67	17.73	35.56	12.89	3.41
	Biology	60	523,638	0.93	340	57	15.08	35.63	12.46	3.30
	Chemistry	60	232,120	0.92	331	54	15.27	35.74	11.91	3.37
	Earth Science	60	223,770	0.91	323	47	14.10	33.12	11.27	3.38
	Physics	60	64,041	0.92	341	54	15.27	34.58	11.79	3.33
	Integrated Science 1	60	75,603	0.87	300	38	13.70	27.13	9.92	3.58
	Integrated Science 2	60	7,746	0.87	303	37	13.34	27.00	9.65	3.48
	Integrated Science 3	60	1,955	0.84	298	35	14.00	24.95	8.99	3.60
	Integrated Science 4	60	429	0.87	291	40	14.42	25.76	9.61	3.46

Subject Area	CST	No. of Items	No. of Examinees	Reliab.	Scale Score Mean	Scale Score Std. Dev.	Scale Score SEM	Raw Score Mean	Raw Score Std. Dev.	Raw Score SEM
Grade-Specific	**Algebra I – 8**	65	247,372	0.93	343	74	19.58	35.00	12.96	3.43
	Geometry – 9	65	120,304	0.93	345	69	18.26	41.08	12.74	3.37
	Algebra II – 10	65	107,292	0.91	332	64	19.20	37.08	11.70	3.51
	High School Math – 11	65	98,124	0.93	343	72	19.05	43.56	12.41	3.28
	World History – 10	60	425,438	0.92	327	65	18.38	31.01	12.16	3.44

The results in Table 8.1 indicated that all grade-level CSTs for ELA, mathematics, history–social science, and science were highly reliable, with reliabilities ranging from 0.91 to 0.95. The reliabilities for the higher-level CSTs for mathematics and science were also high and ranged from 0.91 to 0.93. The reliabilities were highly consistent across all CSTs within the subject areas of ELA and history–social science and across the majority of the CSTs for mathematics and science. CSTs for Grade 5 Science and Grade 8 Science proved to be more reliable than the previous years, with a reliability of 0.91 and 0.92 respectively.

Reliability estimates for a few of the end-of-course CSTs were more variable. Such tests included the integrated CSTs where the reliabilities were comparatively lower, in general, ranging from 0.86 to 0.90 for the integrated mathematics CSTs and from 0.84 to 0.87 for the integrated/coordinated science CSTs. The CST for Integrated Science 4 that had exhibited lower reliability in 2007 exhibited a higher reliability in 2008; the reliability was increased from 0.83 in 2007 to 0.87 in 2008. Integrated/Coordinated Science 2 has shown a consistent increase in the reliability due to efforts made to improve the reliability of this CST. The reliability of this CST increased from 0.78 in 2006 to 0.83 in 2007, and .87 in 2008.

Intercorrelations, Reliabilities, and SEMs for Reporting Clusters

For each CST, number-correct scores are computed for four to six reporting clusters.[1] Intercorrelations and reliability estimates for the reporting clusters are presented in Table 8.A.1 through Table 8.A.4 for the 38 CSTs. Results are also reported in Table 8.A.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. For example, the reliabilities for three of the reporting clusters in Summative High School Mathematics were among the highest of all end-of-course CSTs. However, the fourth reporting cluster, Probability and Statistics, consisting of only five items, had a coefficient alpha of 0.57. Similar results were observed for intercorrelations among reporting clusters; that is, the reporting clusters based on fewer items tended to have lower intercorrelations with the other clusters.

Subgroup Reliabilities and SEMs

The reliabilities of the 38 operational CSTs and the five grade-specific CSTs (as described earlier) were also examined for various subgroups of the examinee population. The subgroups included in these analyses were gender, ethnicity, enrollment in the National School Lunch Program (NSLP), provision of special services, and language proficiency. Beginning 2008, the reliability analyses are also presented for the subgroups categorized by whether or not examinees belonging to a certain ethnic background participated in NSLP.

For each subgroup analysis, reliability and SEM information is first reported for the test overall and then at the cluster score level. The tables also include the corresponding sample sizes and the number of items used to compute those reliabilities and errors of measurement. Table 8.A.6 through Table 8.A.19 present the overall reliabilities, while Table 8.A.20 through Table 8.A.44 present the cluster-based reliabilities for the various subgroups. Table Table 8.A.20 through Table 8.A.24 present the

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

cluster-based reliabilities for the subgroups based on Gender and NSLP enrollment. The next set of tables, Table 8.A.25 through Table 8.A.29, show the same analyses for the subgroups based on provision of special services and the language fluency. Table 8.A.30 through Table 8.A.34 present results for the subgroups based on primary ethnicity of the examinees. The last set of tables, Table 8.A.35 through Table 8.A.44, present the cluster-based reliabilities for the subgroups based on primary ethnicity categorized within an economic status.

The overall reliabilities for the various subgroups are compiled in Table 8.A.45 and Table 8.A.46. The overall reliabilities for the subgroups based on ethnicity by NSLP status are presented in Table 8.A.47 and Table 8.A.48.

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

Conditional Standard Errors of Measurement

As part of the IRT-based equating procedures, scale score conversion tables and conditional standard errors of measurement (CSEMs) are produced. CSEMs for CST scale scores are based on item response theory and are calculated by the IRTEQUATE module in GENASYS.

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

$$\mathrm{CSEM}(\hat{\theta}) = \frac{1}{\sqrt{\mathrm{I}(\theta)}} a, \tag{8.3}$$

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 8.2, on the next page, presents the scale score CSEMs at the lowest score defining below basic, basic, proficient, and advanced levels for each CST.[2] 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 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.

[2] Scale score CSEMs are not provided for the Integrated Science tests because these tests were not scaled using the same procedures as the other CSTs. See Chapter 3 for additional details.

Table 8.2 Scale Score Conditional Standard Error of Measurement at Cut Points

Subject 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	17
	3	259	15	300	14	350	16	402	21
	4*	269	14	300	13	350	13	393	15
	5	271	13	300	13	350	13	395	15
	6	268	13	300	12	350	13	394	15
	7*	263	15	300	14	350	14	401	16
	8	266	15	300	14	350	14	395	17
	9	265	15	300	13	350	14	397	17
	10	263	13	300	13	350	14	392	17
	11	259	15	300	14	350	15	396	18
** Multiple choice only*									
History–Social Science	**8**	271	16	300	15	350	15	396	17
	World History	275	17	300	18	350	17	400	20
	11	270	19	300	18	350	17	401	20
Mathematics	**2**	236	18	300	17	350	19	414	25
	3	236	17	300	17	350	19	414	23
	4	245	15	300	14	350	15	401	19
	5	248	19	300	18	350	19	430	23
	6	253	17	300	15	350	16	415	20
	7	257	17	300	16	350	17	414	20
	General Mathematics	257	17	300	16	350	17	414	20
	Algebra I†	253	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	24
	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‡	**Grade 5 Science**	268	16	300	16	350	17	410	22
	Grade 8 Science	253	23	300	22	350	24	403	27
	Grade 10 Life Science	269	16	300	15	350	16	399	19
	Biology	276	14	300	13	350	14	394	17
	Chemistry	276	14	300	13	350	15	394	18
	Earth Science	277	14	300	14	350	14	393	18
	Physics	276	14	300	14	350	14	393	16

† Grade-Specific

‡ 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 4.12). RELCLASS-COMP estimates decision consistency using an

estimated multivariate distribution of reported classifications on the current form of the exam and classifications on a hypothetical alternate form using the reliability of the test and strong true score theory. RELCLASS-COMP also estimates decision accuracy using an estimated multivariate distribution of reported classifications on the current form of the exam and the classifications based on an all-forms average (true score). In each case, the proportion of classifications with exact agreement is the sum of the entries in the diagonal of the contingency table representing the multivariate distribution. Reliability of classification at a cut score is estimated by collapsing the multivariate distribution at the passing score boundary into an *n* by *n* table (where *n* is the number of performance levels) and summing the entries in the diagonal. Figure 8.1 and Figure 8.2 present the two scenarios pictorially.

Figure 8.1 Decision Accuracy for Achieving a Performance Level

		Decision made on a form actually taken	
		Does not achieve a performance level	Achieves a performance level
True status on all-forms average	Does not achieve a performance level	Correct classification	Mis-classification
	Achieves a performance level	Mis-classification	Correct classification

Figure 8.2 Decision Consistency for Achieving a Performance Level

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

The results of these analyses are presented in Table 8.B.1 through Table 8.B.40 in Appendix 8.B, which starts on page 609. Tables Table 8.B.41 through Table 8.B.45 present same analyses for the five grade-specific CSTs. For ELA grades four and seven, two sets of tables are presented for the decision classification analyses; a table for all examinees who attempted MC items and a second table for examinees who attempted MC as well as the Writing Application section of the respective tests.

Each table includes the contingency tables for the various performance level classifications. The proportion of accurately classified students can be determined by summing across the diagonals of the upper tables; these proportions ranged from 0.69 to 0.80 across all of the CSTs. The proportion of students that were classified consistently (diagonals of the lower tables) ranged from 0.59 to 0.72 across all proficiency levels for these CSTs. These lower overall magnitudes of decision accuracy and decision consistency are not surprising considering the numbers of performance levels that are reported for CST results.

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 0.89 to 0.96 across all CSTs. Similarly, the proportion of students that were classified consistently ranged from 0.85 to 0.95 for students classified into below proficient versus proficient and advanced.

References

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Appendix 8.A—Reliabilities and SEM Tables

Table 8.A.1 Subscore Reliabilities and Correlations for English–Language Arts

Subscore Reliabilities and Correlations for English–Language Arts								
Subscore Area	**# of Items**	**Correlation**					***Reliab.***	***SEM***
Grade 2		1	2	3	4	5		
1. Word Analysis and Vocabulary	22	1.00	0.76	0.69	0.79	0.64	0.84	1.92
2. Reading Comprehension	15	0.76	1.00	0.67	0.73	0.64	0.77	1.68
3. Literary Response and Analysis	6	0.69	0.67	1.00	0.64	0.55	0.64	0.98
4. Written and Oral Language Conventions	14	0.79	0.73	0.64	1.00	0.65	0.81	1.52
5. Writing Strategies	8	0.64	0.64	0.55	0.65	1.00	0.59	1.25
Grade 3		1	2	3	4	5		
1. Word Analysis and Vocabulary	20	1.00	0.72	0.72	0.69	0.67	0.79	1.79
2. Reading Comprehension	15	0.72	1.00	0.71	0.65	0.67	0.73	1.69
3. Literary Response and Analysis	8	0.72	0.71	1.00	0.63	0.66	0.72	1.13
4. Written and Oral Language Conventions	13	0.69	0.65	0.63	1.00	0.64	0.68	1.55
5. Writing Strategies	9	0.67	0.67	0.66	0.64	1.00	0.66	1.33
Grade 4		1	2	3	4	5		
1. Word Analysis and Vocabulary	18	1.00	0.77	0.72	0.75	0.74	0.82	1.65
2. Reading Comprehension	15	0.77	1.00	0.68	0.70	0.73	0.77	1.68
3. Literary Response and Analysis	9	0.72	0.68	1.00	0.66	0.65	0.67	1.27
4. Written and Oral Language Conventions	18	0.75	0.70	0.66	1.00	0.72	0.79	1.74
5. Writing Strategies	15	0.74	0.73	0.65	0.72	1.00	0.73	1.73
Grade 5		1	2	3	4	5		
1. Word Analysis and Vocabulary	14	1.00	0.69	0.69	0.70	0.66	0.75	1.48
2. Reading Comprehension	16	0.69	1.00	0.71	0.66	0.68	0.74	1.77
3. Literary Response and Analysis	12	0.69	0.71	1.00	0.68	0.67	0.73	1.43
4. Written and Oral Language Conventions	17	0.70	0.66	0.68	1.00	0.69	0.80	1.60
5. Writing Strategies	16	0.66	0.68	0.67	0.69	1.00	0.70	1.82
Grade 6		1	2	3	4	5		
1. Word Analysis and Vocabulary	13	1.00	0.70	0.67	0.74	0.72	0.73	1.51
2. Reading Comprehension	17	0.70	1.00	0.69	0.70	0.72	0.74	1.84
3. Literary Response and Analysis	12	0.67	0.69	1.00	0.65	0.70	0.70	1.53
4. Written and Oral Language Conventions	16	0.74	0.70	0.65	1.00	0.73	0.80	1.58
5. Writing Strategies	17	0.72	0.72	0.70	0.73	1.00	0.77	1.80

Subscore Reliabilities and Correlations for English–Language Arts

Subscore Area	# of Items	Correlation					*Reliab.*	*SEM*
Grade 7		1	2	3	4	5		
1. Word Analysis and Vocabulary	11	1.00	0.72	0.66	0.70	0.69	0.70	1.39
2. Reading Comprehension	18	0.72	1.00	0.74	0.71	0.75	0.82	1.73
3. Literary Response and Analysis	13	0.66	0.74	1.00	0.68	0.72	0.74	1.51
4. Written and Oral Language Conventions	16	0.70	0.71	0.68	1.00	0.74	0.77	1.68
5. Writing Strategies	17	0.69	0.75	0.72	0.74	1.00	0.81	1.79
Grade 8		1	2	3	4	5		
1. Word Analysis and Vocabulary	9	1.00	0.68	0.65	0.65	0.64	0.62	1.28
2. Reading Comprehension	18	0.68	1.00	0.73	0.71	0.73	0.79	1.80
3. Literary Response and Analysis	15	0.65	0.73	1.00	0.68	0.69	0.72	1.71
4. Written and Oral Language Conventions	16	0.65	0.71	0.68	1.00	0.72	0.80	1.59
5. Writing Strategies	17	0.64	0.73	0.69	0.72	1.00	0.74	1.83
Grade 9		1	2	3	4	5		
1. Word Analysis and Vocabulary	8	1.00	0.68	0.71	0.66	0.69	0.68	1.19
2. Reading Comprehension	18	0.68	1.00	0.76	0.69	0.74	0.78	1.81
3. Literary Response and Analysis	16	0.71	0.76	1.00	0.71	0.75	0.81	1.69
4. Written and Oral Language Conventions	13	0.66	0.69	0.71	1.00	0.75	0.74	1.59
5. Writing Strategies	20	0.69	0.74	0.75	0.75	1.00	0.80	1.97
Grade 10		1	2	3	4	5		
1. Word Analysis and Vocabulary	8	1.00	0.66	0.63	0.66	0.67	0.62	1.15
2. Reading Comprehension	18	0.66	1.00	0.76	0.72	0.80	0.84	1.80
3. Literary Response and Analysis	16	0.63	0.76	1.00	0.67	0.75	0.79	1.72
4. Written and Oral Language Conventions	13	0.66	0.72	0.67	1.00	0.77	0.76	1.50
5. Writing Strategies	20	0.67	0.80	0.75	0.77	1.00	0.85	1.89
Grade 11		1	2	3	4	5		
1. Word Analysis and Vocabulary	8	1.00	0.64	0.63	0.63	0.68	0.61	1.24
2. Reading Comprehension	19	0.64	1.00	0.76	0.71	0.78	0.79	1.90
3. Literary Response and Analysis	17	0.63	0.76	1.00	0.69	0.76	0.77	1.79
4. Written and Oral Language Conventions	9	0.63	0.71	0.69	1.00	0.77	0.74	1.26
5. Writing Strategies	22	0.68	0.78	0.76	0.77	1.00	0.85	2.01

Table 8.A.2 Subscore Reliabilities and Correlations for History–Social Science

Subscore Reliabilities and Correlations for History–Social Science								
Subscore Area	**# of items**	**Correlation**					***Reliab***	***SEM***
Grade 8		1	2	3	4	5		
1. World History and Geography: Ancient Civilizations	16	1.00	0.68	0.63	0.68	0.61	0.69	1.83
2. Late Antiquity and the Middle Ages	14	0.68	1.00	0.67	0.71	0.64	0.73	1.67
3. Renaissance/Reformation	10	0.63	0.67	1.00	0.69	0.63	0.63	1.44
4. U.S. Constitution and the Early Republic	22	0.68	0.71	0.69	1.00	0.74	0.82	2.10
5. Civil War and Its Aftermath	13	0.61	0.64	0.63	0.74	1.00	0.72	1.63
World History		1	2	3	4	5		
1. Development of Modern Political Thought	13	1.00	0.66	0.66	0.65	0.63	0.69	1.64
2. Industrial Expansion and Imperialism	10	0.66	1.00	0.68	0.66	0.65	0.70	1.41
3. Causes and Effects of World War I	14	0.66	0.68	1.00	0.71	0.67	0.76	1.67
4. Causes and Effects of World War II	13	0.65	0.66	0.71	1.00	0.68	0.72	1.63
5. International Developments in the Post-World War II Era	10	0.63	0.65	0.67	0.68	1.00	0.71	1.40
Grade 11 (U.S. History)		1	2	3	4	5		
1. Foundations of American Political and Social Thought	10	1.00	0.66	0.64	0.65	0.62	0.63	1.42
2. Industrialization and the U.S. role as a World Power	13	0.66	1.00	0.68	0.71	0.67	0.73	1.60
3. United States between the World Wars	12	0.64	0.68	1.00	0.68	0.67	0.70	1.57
4. World War II and Foreign Affairs	12	0.65	0.71	0.68	1.00	0.70	0.75	1.52
5. Post-World War II Domestic Affairs	13	0.62	0.67	0.67	0.70	1.00	0.71	1.62

Table 8.A.3 Subscore Reliabilities and Correlations for Mathematics

Subscore Reliabilities and Correlations for Mathematics									
Subscore Area	**# of items**	**Correlation**						***Rel.***	***SEM***
Grade 2		**1**	**2**	**3**	**4**	**5**	**6**		
1. Number Sense: Place Value, Addition, and Subtraction	15	1.00	0.80	0.68	0.69	0.68	–	0.81	1.41
2. Number Sense: Multiplication, Division, and Fractions	23	0.80	1.00	0.68	0.70	0.69	–	0.84	1.82
3. Algebra and Functions	6	0.68	0.68	1.00	0.60	0.61	–	0.60	0.89
4. Measurement and Geometry	13	0.69	0.70	0.60	1.00	0.63	–	0.67	1.42
5. Statistics, Data Analysis, and Probability	7	0.68	0.69	0.61	0.63	1.00	–	0.65	0.99
Grade 3		1	2	3	4	5			
1. Number Sense: Place Value, Fractions, and Decimals	16	1.00	0.78	0.75	0.70	0.61	–	0.80	1.46
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.78	1.00	0.74	0.69	0.59	–	0.83	1.51
3. Algebra and Functions	12	0.75	0.74	1.00	0.67	0.59	–	0.75	1.26
4. Measurement and Geometry	16	0.70	0.69	0.67	1.00	0.61	–	0.74	1.42
5. Statistics, Data Analysis, and Probability	5	0.61	0.59	0.59	0.61	1.00	–	0.63	0.70
Grade 4		1	2	3	4	5			
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	1.00	0.73	0.74	0.69	0.54	–	0.79	1.47
2. Number Sense: Operations and Factoring	14	0.73	1.00	0.76	0.68	0.54	–	0.82	1.42
3. Algebra and Functions	18	0.74	0.76	1.00	0.71	0.57	–	0.84	1.55
4. Measurement and Geometry	12	0.69	0.68	0.71	1.00	0.56	–	0.76	1.38
5. Statistics, Data Analysis, and Probability	4	0.54	0.54	0.57	0.56	1.00	–	0.48	0.79
Grade 5		1	2	3	4	5			
1. Number Sense: Estimation, Percents, and Factoring	12	1.00	0.72	0.69	0.70	0.52	–	0.74	1.45
2. Number Sense: Operations with Fractions and Decimals	17	0.72	1.00	0.73	0.75	0.57	–	0.81	1.72
3. Algebra and Functions	17	0.69	0.73	1.00	0.74	0.61	–	0.80	1.67
4. Measurement and Geometry	15	0.70	0.75	0.74	1.00	0.59	–	0.83	1.61
5. Statistics, Data Analysis, and Probability	4	0.52	0.57	0.61	0.59	1.00	–	0.50	0.74

Subscore Reliabilities and Correlations for Mathematics

Subscore Area	# of items	Correlation						*Rel.*	*SEM*
Grade 6		1	2	3	4	5	**6**		
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	1.00	0.70	0.76	0.68	0.69	–	0.76	1.67
2. Number Sense: Operations and Problem Solving with Fractions	10	0.70	1.00	0.72	0.62	0.65	–	0.67	1.33
3. Algebra and Functions	19	0.76	0.72	1.00	0.71	0.74	–	0.84	1.79
4. Measurement and Geometry	10	0.68	0.62	0.71	1.00	0.66	–	0.67	1.40
5. Statistics, Data Analysis, and Probability	11	0.69	0.65	0.74	0.66	1.00	–	0.76	1.35
Grade 7		1	2	3	4	5	6		
1. Number Sense: Rational Numbers	14	1.00	0.66	0.63	0.73	0.68	0.58	0.75	1.61
2. Number Sense: Exponent, Powers and Roots	8	0.66	1.00	0.57	0.65	0.61	0.52	0.63	1.25
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.63	0.57	1.00	0.64	0.58	0.54	0.61	1.42
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.73	0.65	0.64	1.00	0.71	0.60	0.77	1.67
5. Measurement and Geometry	13	0.68	0.61	0.58	0.71	1.00	0.57	0.72	1.60
6. Statistics, Data Analysis, and Probability	5	0.58	0.52	0.54	0.60	0.57	1.00	0.59	0.94
General Mathematics		1	2	3	4	5	6		
1. Number Sense: Rational Numbers	14	1.00	0.63	0.60	0.60	0.59	0.53	0.72	1.64
2. Number Sense: Exponent, Powers and Roots	10	0.63	1.00	0.58	0.54	0.51	0.49	0.67	1.38
3. Algebra and Functions: Quantitative Relationships, and Evaluating Expressions	11	0.60	0.58	1.00	0.63	0.52	0.56	0.70	1.45
4. Algebra and Functions: Multi-step Problems, Graphing, and Functions	10	0.60	0.54	0.63	1.00	0.57	0.55	0.64	1.39
5. Measurement and Geometry	11	0.59	0.51	0.52	0.57	1.00	0.53	0.61	1.51
6. Statistics, Data Analysis, and Probability	9	0.53	0.49	0.56	0.55	0.53	1.00	0.61	1.34
Algebra I		1	2	3	4	5	6		
1. Number Properties, Operations, and Linear Equations	17	1.00	0.65	0.70	0.61	–	–	0.78	1.82
2. Graphing and Systems of Linear Equations	14	0.65	1.00	0.69	0.60	–	–	0.68	1.71
3. Quadratics and Polynomials	21	0.70	0.69	1.00	0.67	–	–	0.79	2.03
4. Functions and Rational Expressions	13	0.61	0.60	0.67	1.00	–	–	0.65	1.58

Subscore Reliabilities and Correlations for Mathematics

Subscore Area	# of items	Correlation						*Rel.*	*SEM*
Geometry		1	2	3	4	5	6		
1. Logic and Geometric Proofs	23	1.00	0.70	0.76	0.76	–	–	0.82	2.07
2. Volume and Area Formulas	11	0.70	1.00	0.68	0.68	–	–	0.69	1.47
3. Angle Relationships, Constructions, and Lines	16	0.76	0.68	1.00	0.74	–	–	0.75	1.78
4. Trigonometry	15	0.76	0.68	0.74	1.00	–	–	0.81	1.67
Algebra II		1	2	3	4	5	6		
1. Polynomials and Rational Expressions	19	1.00	0.70	0.68	0.62	–	–	0.81	1.79
2. Quadratics, Conics, and Complex Numbers	16	0.70	1.00	0.68	0.61	–	–	0.74	1.77
3. Exponents and Logarithms	16	0.68	0.68	1.00	0.62	–	–	0.77	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.62	0.61	0.62	1.00	–	–	0.65	1.67
Summative High School Math Mathematics		1	2	3	4	5	6		
1. Algebra I	18	1.00	0.74	0.80	0.57	–	–	0.82	1.66
2. Geometry	19	0.74	1.00	0.74	0.57	–	–	0.77	1.76
3. Algebra II	23	0.80	0.74	1.00	0.58	–	–	0.83	2.00
4. Probability and Statistics	5	0.57	0.57	0.58	1.00	–	–	0.57	0.92
Integrated Mathematics 1		1	2	3	4	5	6		
1. Algebra I: Number Properties, Operations and Linear Equations	15	1.00	0.52	0.58	0.32	0.47	–	0.73	1.74
2. Algebra I: Graphing	9	0.52	1.00	0.49	0.30	0.38	–	0.50	1.38
3. Algebra I: Quadratics and Polynomials	14	0.58	0.49	1.00	0.43	0.48	–	0.66	1.65
4. Algebra I: Functions and Relations Expressions	7	0.32	0.30	0.43	1.00	0.29	–	0.44	1.11
5. Geometry	20	0.47	0.38	0.48	0.29	1.00	–	0.57	1.99

Subscore Reliabilities and Correlations for Mathematics

Subscore Area	# of items	Correlation						*Rel.*	*SEM*
Integrated Mathematics 2		1	2	3	4	5	6		
1. Algebra I	20	1.00	0.69	0.53	0.59	0.50	–	0.73	2.01
2. Geometry: Logic and Geometric Proofs	22	0.69	1.00	0.60	0.62	0.47	–	0.77	2.08
3. Geometry: Angle Relationships, Construction and Lines	8	0.53	0.60	1.00	0.54	0.37	–	0.50	1.30
4. Trigonometry	10	0.59	0.62	0.54	1.00	0.40	–	0.70	1.40
5. Algebra II/Probability and Statistics	5	0.50	0.47	0.37	0.40	1.00	–	0.31	0.99
Integrated Mathematics 3		1	2	3	4	5	6		
1. Geometry	5	1.00	0.49	0.46	0.44	0.37	–	0.42	0.97
2. Algebra II: Polynomials and Relations Expressions	19	0.49	1.00	0.70	0.63	0.52	–	0.78	1.90
3. Algebra II: Quadratics, Conics and Complex Numbers	16	0.46	0.70	1.00	0.66	0.54	–	0.71	1.80
4. Algebra II: Exponents and Logarithms	16	0.44	0.63	0.66	1.00	0.53	–	0.76	1.79
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.37	0.52	0.54	0.53	1.00	–	0.45	1.34

Table 8.A.4 Subscore Reliabilities and Correlations for Science

Subscore Reliabilities and Correlations for Science									
Subscore Area	**# of items**	**Correlation**						***Reliab***	***SEM***
Grade 5 Science		1	2	3	4	5	6		
1. Physical Science (Grade 5)	11	1.00	0.63	0.63	0.60	0.60	0.62	0.67	1.35
2. Physical Science (Grade 4)	8	0.63	1.00	0.59	0.56	0.55	0.57	0.63	1.16
3. Life Science (Grade 5)	13	0.63	0.59	1.00	0.61	0.61	0.62	0.63	1.53
4. Life Science (Grade 4)	9	0.60	0.56	0.61	1.00	0.58	0.60	0.59	1.30
5. Earth Science (Grade 5)	11	0.60	0.55	0.61	0.58	1.00	0.64	0.61	1.41
6. Earth Science (Grade 4)	8	0.62	0.57	0.62	0.60	0.64	1.00	0.67	1.16
Grade 8 Science		1	2	3	4	5	6		
1. Motion	8	1.00	0.66	0.65	0.55	0.59	0.54	0.61	1.17
2. Forces, Density, and Buoncy	13	0.66	1.00	0.72	0.63	0.65	0.59	0.75	1.48
3. Structure of Matter and Periodic Table	16	0.65	0.72	1.00	0.64	0.70	0.59	0.79	1.69
4. Earth in the Solar System	7	0.55	0.63	0.64	1.00	0.58	0.49	0.62	1.10
5. Reactions and the Chemistry of Living Systems	10	0.59	0.65	0.70	0.58	1.00	0.55	0.64	1.41
6. Investigation and Experimentation	6	0.54	0.59	0.59	0.49	0.55	1.00	0.51	1.08
Grade 10 Life Science		1	2	3	4	5	6		
1. Cell Biology	10	1.00	0.66	0.65	0.63	0.65	0.60	0.68	1.41
2. Genetics	12	0.66	1.00	0.64	0.64	0.65	0.62	0.70	1.50
3. Physiology	10	0.65	0.64	1.00	0.71	0.69	0.66	0.75	1.31
4. Ecology	11	0.63	0.64	0.71	1.00	0.71	0.67	0.74	1.42
5. Evolution	11	0.65	0.65	0.69	0.71	1.00	0.68	0.76	1.43
6. Investigation and Experimentation	6	0.60	0.62	0.66	0.67	0.68	1.00	0.65	0.98

Subscore Reliabilities and Correlations for Science

Subscore Area	# of items	Correlation						*Reliab*	*SEM*
Biology		1	2	3	4	5	6		
1. Cell Biology	9	1.00	0.67	0.64	0.59	0.53	–	0.61	1.37
2. Genetics	18	0.67	1.00	0.75	0.72	0.65	–	0.80	1.81
3. Ecology and Evolution	16	0.64	0.75	1.00	0.73	0.65	–	0.78	1.78
4. Physiology	11	0.59	0.72	0.73	1.00	0.63	–	0.76	1.37
5. Investigation and Experimentation	6	0.53	0.65	0.65	0.63	1.00	–	0.57	1.08
Chemistry		1	2	3	4	5	6		
1. Atomic and Molecular Structure	8	1.00	0.63	0.63	0.61	0.58	0.54	0.63	1.19
2. Chemical Bonds, Biochemistry	9	0.63	1.00	0.67	0.65	0.60	0.60	0.68	1.26
3. Kinetics, Thermodynamics	14	0.63	0.67	1.00	0.70	0.65	0.62	0.72	1.65
4. Chemical Reactions	13	0.61	0.65	0.70	1.00	0.64	0.61	0.71	1.61
5. Conservation of Matter and Stoichiometry	10	0.58	0.60	0.65	0.64	1.00	0.56	0.67	1.40
6. Investigation and Experimentation	6	0.54	0.60	0.62	0.61	0.56	1.00	0.60	1.01
Earth Science		1	2	3	4	5	6		
1. Astronomy and Cosmology	12	1.00	0.66	0.68	0.56	–	–	0.67	1.47
2. Solid Earth	14	0.66	1.00	0.73	0.62	–	–	0.70	1.67
3. The Earth's Energy	28	0.68	0.73	1.00	0.64	–	–	0.82	2.41
4. Investigation and Experimentation	6	0.56	0.62	0.64	1.00	–	–	0.53	1.08
Physics		1	2	3	4	5	6		
1. Motion and Forces	12	1.00	0.66	0.63	0.57	0.62	0.58	0.64	1.48
2. Conservation of Energy and Momentum	12	0.66	1.00	0.66	0.62	0.66	0.60	0.76	1.49
3. Heat and Thermodynamics	9	0.63	0.66	1.00	0.61	0.64	0.61	0.69	1.28
4. Waves	10	0.57	0.62	0.61	1.00	0.60	0.54	0.65	1.39
5. Electric and Magnetic Phenomena	11	0.62	0.66	0.64	0.60	1.00	0.59	0.67	1.44
6. Investigation and Experimentation	6	0.58	0.60	0.61	0.54	0.59	1.00	0.58	1.03

Subscore Reliabilities and Correlations for Science

Subscore Area	# of items	Correlation						*Reliab*	*SEM*
Integrated Science 1		1	2	3	4	5	6		
1. Biology/Life Sciences	10	1.00	0.53	0.64	0.43	0.53	–	0.59	1.46
2. Chemistry	15	0.53	1.00	0.59	0.46	0.49	–	0.62	1.78
3. Earth Sciences	17	0.64	0.59	1.00	0.47	0.58	–	0.74	1.86
4. Physics	12	0.43	0.46	0.47	1.00	0.40	–	0.44	1.59
5. Investigation and Experimentation	6	0.53	0.49	0.58	0.40	1.00	–	0.50	1.12
Integrated/Coordinated Science 2		1	2	3	4	5	6		
1. Biology/Life Sciences	15	1.00	0.50	0.63	0.53	0.54	–	0.71	1.75
2. Chemistry	6	0.50	1.00	0.47	0.41	0.38	–	0.40	1.13
3. Earth Sciences	15	0.63	0.47	1.00	0.50	0.56	–	0.71	1.75
4. Physics	18	0.53	0.41	0.50	1.00	0.43	–	0.49	1.91
5. Investigation and Experimentation	6	0.54	0.38	0.56	0.43	1.00	–	0.46	1.12
Integrated/Coordinated Science 3		1	2	3	4	5	6		
1. Biology/Life Sciences	16	1.00	0.59	0.53	0.39	0.59	–	0.66	1.85
2. Chemistry	23	0.59	1.00	0.48	0.38	0.55	–	0.60	2.21
3. Earth Sciences	7	0.53	0.48	1.00	0.38	0.51	–	0.46	1.23
4. Physics	8	0.39	0.38	0.38	1.00	0.36	–	0.25	1.29
5. Investigation and Experimentation	6	0.59	0.55	0.51	0.36	1.00	–	0.56	1.07
Integrated/Coordinated Science 4		1	2	3	4	5	6		
1. Biology/Life Sciences	13	1.00	0.41	0.73	0.41	0.53	–	0.75	1.60
2. Chemistry	10	0.41	1.00	0.46	0.38	0.42	–	0.35	1.43
3. Earth Sciences	15	0.73	0.46	1.00	0.48	0.53	–	0.71	1.76
4. Physics	16	0.41	0.38	0.48	1.00	0.46	–	0.51	1.75
5. Investigation and Experimentation	6	0.53	0.42	0.53	0.46	1.00	–	0.46	1.14

Table 8.A.5 Subscore Reliabilities and Correlations for Grade-Specific Tests

Subscore Reliabilities and Correlations for Grade-Specific Tests									
Subscore Area	**# of items**	**Correlation**						***Rel.***	***SEM***
Algebra I – 8		1	2	3	4	5	6		
1. Number Properties, Operations, and Linear Equations	17	1.00	0.69	0.73	0.64	–	–	0.79	1.75
2. Graphing and Systems of Linear Equations	14	0.69	1.00	0.72	0.65	–	–	0.72	1.69
3. Quadratics and Polynomials	21	0.73	0.72	1.00	0.71	–	–	0.82	2.00
4. Functions and Rational Expressions	13	0.64	0.65	0.71	1.00	–	–	0.71	1.58
Geometry – 9		1	2	3	4	5	6		
1. Logic and Geometric Proofs	23	1.00	0.70	0.76	0.74	–	–	0.82	1.98
2. Volume and Area Formulas	11	0.70	1.00	0.68	0.68	–	–	0.70	1.42
3. Angle Relationships, Constructions, and Lines	16	0.76	0.68	1.00	0.73	–	–	0.75	1.71
4. Trigonometry	15	0.74	0.68	0.73	1.00	–	–	0.80	1.59
Algebra II – 10		1	2	3	4	5	6		
1. Polynomials and Rational Expressions	19	1.00	0.69	0.67	0.60	–	–	0.79	1.73
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.00	0.66	0.59	–	–	0.74	1.76
3. Exponents and Logarithms	16	0.67	0.66	1.00	0.59	–	–	0.77	1.76
4. Series, Combinatorics, and Probability and Statistics	14	0.60	0.59	0.59	1.00	–	–	0.63	1.68
Summative High School Mathematics – 11		1	2	3	4	5	6		
1. Algebra I	18	1.00	0.74	0.79	0.56	–	–	0.81	1.69
2. Geometry	19	0.74	1.00	0.73	0.57	–	–	0.77	1.78
3. Algebra II	23	0.79	0.73	1.00	0.58	–	–	0.83	2.02
4. Probability and Statistics	5	0.56	0.57	0.58	1.00	–	–	0.57	0.93

Subscore Reliabilities and Correlations for Grade-Specific Tests

Subscore Area	# of items	Correlation						*Rel.*	*SEM*
World History – 10		1	2	3	4	5	6		
1. Development of Modern Political Thought	13	1.00	0.64	0.64	0.63	0.61	–	0.67	1.65
2. Industrial Expansion and Imperialism	10	0.64	1.00	0.66	0.64	0.64	–	0.69	1.42
3. Causes and Effects of World War I	14	0.64	0.66	1.00	0.70	0.66	–	0.75	1.67
4. Causes and Effects of World War II	13	0.63	0.64	0.70	1.00	0.67	–	0.71	1.63
5. International Developments in the Post-World War II Era	10	0.61	0.64	0.66	0.67	1.00	–	0.70	1.41

Table 8.A.6 Reliabilities and SEM for the CSTs by GENDER

Subject Area	CST	Male			Female		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	2	235,826	0.94	3.38	225,092	0.94	3.23
	3	225,523	0.93	3.34	218,860	0.92	3.40
	4*	224,925	0.94	3.69	219,518	0.94	3.50
	5	227,581	0.93	3.78	221,813	0.93	3.55
	6	238,979	0.94	3.66	228,962	0.93	3.64
	7*	243,458	0.94	3.78	232,901	0.94	3.52
	8	245,708	0.93	3.88	235,008	0.93	3.57
	9	259,180	0.94	3.84	244,677	0.94	3.59
	10	242,638	0.95	3.69	233,097	0.94	3.72
	11	224,145	0.94	3.89	218,864	0.94	3.65
** Multiple choice only*							
History–Social Science	8	245,297	0.94	3.76	234,645	0.92	3.87
	World History	245,402	0.93	3.51	235,106	0.91	3.47
	11	218,132	0.93	3.40	214,193	0.91	3.52
Mathematics	2	236,475	0.94	2.94	225,171	0.93	3.03
	3	227,076	0.94	2.95	219,220	0.93	3.02
	4	226,895	0.94	3.18	220,079	0.94	2.96
	5	228,821	0.94	3.41	222,060	0.93	3.43
	6	239,363	0.94	3.42	229,056	0.93	3.44
	7	223,157	0.93	3.54	215,686	0.92	3.57
	General Math	155,984	0.92	3.50	130,106	0.90	3.65
	Algebra I	383,658	0.91	3.69	358,389	0.91	3.58
	Geometry	186,596	0.93	3.64	195,436	0.93	3.44
	Algebra II	112,712	0.92	3.56	126,328	0.91	3.51
	Summ. H.S. Mathematics	54,691	0.93	3.23	61,148	0.93	3.26
	Integrated Mathematics 1	4,726	0.86	3.67	4,042	0.85	3.58
	Integrated Mathematics 2	2,126	0.90	3.69	2,147	0.89	3.66
	Integrated Mathematics 3	735	0.91	3.62	744	0.89	3.66
Science	**Grade 5 Science**	228,051	0.92	3.16	221,790	0.90	3.23
	Grade 8 Science	244,671	0.93	3.31	234,272	0.91	3.34
	Grade 10 Life Science	235,521	0.94	3.33	227,322	0.92	3.43
	Biology	259,834	0.93	3.47	263,630	0.92	3.32
	Chemistry	108,386	0.93	3.32	123,701	0.91	3.37
	Earth Science	119,549	0.92	3.36	104,117	0.89	3.48
	Physics	33,459	0.93	3.26	30,570	0.90	3.47
	Integrated Science 1	40,006	0.88	3.59	35,568	0.85	3.64
	Integrated Science 2	4,206	0.88	3.50	3,540	0.85	3.52
	Integrated Science 3	1,063	0.86	3.57	891	0.81	3.61
	Integrated Science 4	245	0.89	3.42	184	0.83	3.56
Grade-Specific	**Algebra I – 8**	120,895	0.93	3.50	126,422	0.92	3.59
	Geometry – 9	56,398	0.93	3.41	63,888	0.93	3.33
	Algebra II – 10	49,659	0.92	3.40	57,620	0.90	3.60
	Summ. H.S. Math – 11	45,639	0.93	3.26	52,472	0.92	3.48
	World History – 10	215,546	0.93	3.41	209,740	0.90	3.55

Table 8.A.7 Reliabilities and SEM for the CSTs by NSLP

Subject Area	CST	Not in NSLP			NSLP		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	197,679	0.93	3.28	262,317	0.93	3.44
	3	192,118	0.92	3.15	251,166	0.91	3.54
	4*	195,710	0.93	3.53	248,021	0.92	3.91
	5	200,492	0.92	3.56	248,122	0.92	3.72
	6	212,423	0.93	3.50	254,704	0.92	3.87
	7*	227,970	0.94	3.43	247,420	0.93	3.74
	8	238,147	0.93	3.56	241,586	0.92	3.80
	9	274,109	0.94	3.64	228,699	0.92	3.99
	10	276,130	0.95	3.49	198,598	0.94	3.68
	11	270,176	0.94	3.80	171,966	0.92	3.98
** Multiple choice only*							
History–Social Science	**8**	237,845	0.93	3.85	241,127	0.90	4.07
	World History	279,204	0.93	3.37	200,299	0.89	3.63
	11	264,105	0.92	3.52	167,415	0.90	3.48
Mathematics	**2**	197,970	0.93	2.72	262,740	0.93	3.15
	3	192,810	0.93	2.73	252,366	0.93	3.15
	4	196,533	0.94	2.72	249,718	0.94	3.12
	5	200,757	0.94	3.14	249,334	0.93	3.40
	6	212,489	0.94	3.18	255,118	0.92	3.53
	7	204,613	0.93	3.39	233,354	0.91	3.63
	General Mathematics	128,622	0.92	3.47	156,584	0.90	3.56
	Algebra I	384,369	0.92	3.63	356,149	0.88	3.72
	Geometry	228,924	0.93	3.60	152,591	0.90	3.69
	Algebra II	159,054	0.92	3.44	79,749	0.90	3.55
	Summ. H.S. Mathematics	87,618	0.93	3.12	28,165	0.92	3.58
	Integrated Mathematics 1	4,844	0.86	3.67	3,911	0.84	3.57
	Integrated Mathematics 2	2,459	0.90	3.67	1,808	0.88	3.63
	Integrated Mathematics 3	1,022	0.90	3.62	457	0.91	3.51
Science	**Grade 5 Science**	200,487	0.90	3.05	248,580	0.89	3.37
	Grade 8 Science	237,406	0.92	3.17	240,573	0.91	3.40
	Grade 10 Life Science	269,510	0.94	3.14	192,400	0.91	3.55
	Biology	307,044	0.93	3.25	215,493	0.91	3.43
	Chemistry	153,014	0.92	3.26	78,880	0.90	3.51
	Earth Science	120,940	0.91	3.42	102,156	0.89	3.46
	Physics	43,257	0.92	3.22	20,712	0.89	3.52
	Integrated Science 1	33,451	0.89	3.50	41,978	0.84	3.56
	Integrated Science 2	4,202	0.88	3.53	3,530	0.82	3.52
	Integrated Science 3	1,225	0.85	3.55	720	0.82	3.59
	Integrated Science 4	270	0.89	3.42	157	0.78	3.56
Grade-Specific	**Algebra I – 8**	129,376	0.93	3.41	117,632	0.91	3.58
	Geometry – 9	79,099	0.92	3.39	41,058	0.92	3.48
	Algebra II – 10	74,388	0.91	3.41	32,800	0.90	3.62
	Summ. H.S. Math – 11	73,673	0.92	3.37	24,387	0.92	3.54
	World History – 10	248,905	0.92	3.48	175,567	0.89	3.57

Table 8.A.8 Reliabilities and SEM for the CSTs by SPECIAL SERVICES

Subject Area	CST	No Special Services			Special Services		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	425,266	0.93	3.48	35,834	0.94	3.47
	3	412,340	0.92	3.41	32,193	0.93	3.63
	4*	411,525	0.94	3.52	33,049	0.94	3.89
	5	414,622	0.93	3.56	34,897	0.93	3.84
	6	422,474	0.93	3.62	45,605	0.92	3.85
	7*	432,371	0.94	3.52	44,123	0.91	3.94
	8	437,860	0.93	3.59	43,005	0.90	3.97
	9	462,610	0.94	3.63	41,448	0.89	4.03
	10	437,971	0.94	3.79	37,934	0.91	3.86
	11	408,549	0.94	3.72	34,629	0.88	4.01
** Multiple choice only*							
History–Social Science	**8**	436,626	0.93	3.80	43,460	0.89	3.91
	World History	442,577	0.92	3.51	38,093	0.88	3.45
	11	398,924	0.92	3.45	33,544	0.86	3.50
Mathematics	**2**	425,067	0.93	2.95	36,762	0.95	3.24
	3	412,212	0.93	2.98	34,229	0.95	3.23
	4	411,492	0.94	2.96	35,609	0.95	3.25
	5	414,515	0.94	3.22	36,492	0.93	3.56
	6	422,197	0.93	3.44	46,354	0.91	3.54
	7	397,272	0.92	3.58	41,689	0.88	3.69
	General Mathematics	238,312	0.91	3.52	47,922	0.86	3.64
	Algebra I	684,007	0.91	3.65	58,328	0.81	3.65
	Geometry	366,381	0.93	3.53	15,719	0.89	3.60
	Algebra II	234,697	0.92	3.43	4,386	0.90	3.65
	Summ. H.S. Mathematics	115,029	0.93	3.26	824	0.95	3.43
	Integrated Mathematics 1	7,770	0.86	3.62	1,002	0.75	3.60
	Integrated Mathematics 2	4,042	0.90	3.62	233	0.79	3.59
	Integrated Mathematics 3	1,435	0.90	3.67	45	0.78	3.58
Science	**Grade 5 Science**	413,939	0.90	3.29	36,027	0.92	3.35
	Grade 8 Science	435,966	0.92	3.21	43,121	0.90	3.54
	Grade 10 Life Science	426,774	0.93	3.34	36,212	0.89	3.51
	Biology	489,670	0.92	3.46	33,939	0.89	3.50
	Chemistry	227,406	0.92	3.35	4,713	0.92	3.40
	Earth Science	200,049	0.90	3.51	23,715	0.88	3.52
	Physics	62,215	0.92	3.30	1,825	0.90	3.48
	Integrated Science 1	67,521	0.87	3.57	8,075	0.79	3.56
	Integrated Science 2	6,875	0.87	3.48	871	0.79	3.51
	Integrated Science 3	1,731	0.84	3.58	224	0.79	3.51
	Integrated Science 4	395	0.86	3.57	34	0.83	3.43
Grade-Specific	**Algebra I – 8**	236,918	0.92	3.64	10,451	0.90	3.54
	Geometry – 9	118,404	0.93	3.35	1,899	0.94	3.50
	Algebra II – 10	106,039	0.91	3.50	1,253	0.92	3.60
	Summ. H.S. – 11	97,410	0.93	3.28	714	0.95	3.33
	World History – 10	392,840	0.92	3.41	32,578	0.87	3.55

Table 8.A.9 Reliabilities and SEM for the CSTs by ENGLISH-LANGUAGE FLUENCY

Subject Area	CST	English only			Initially Desig. Fluent		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	251,001	0.94	3.23	30,770	0.93	3.07
	3	243,789	0.92	3.34	33,665	0.91	3.19
	4*	244,090	0.94	3.49	36,905	0.93	3.42
	5	243,848	0.93	3.54	33,079	0.92	3.48
	6	255,298	0.93	3.72	32,265	0.92	3.60
	7*	261,930	0.94	3.61	40,126	0.93	3.57
	8	264,060	0.93	3.70	40,226	0.92	3.61
	9	282,232	0.94	3.69	41,953	0.93	3.73
	10	272,506	0.95	3.56	40,453	0.94	3.63
	11	260,250	0.94	3.85	39,676	0.94	3.63
** Multiple choice only*							
History–Social Science	**8**	263,447	0.93	3.88	40,171	0.93	3.83
	World History	274,358	0.93	3.36	41,259	0.92	3.55
	11	253,941	0.92	3.53	39,023	0.92	3.47
Mathematics	**2**	251,401	0.93	3.00	30,769	0.91	2.78
	3	244,839	0.94	2.79	33,696	0.92	2.73
	4	245,473	0.94	2.99	36,965	0.93	2.84
	5	244,404	0.94	3.27	33,090	0.94	3.11
	6	255,447	0.94	3.29	32,271	0.94	3.15
	7	239,897	0.93	3.45	35,321	0.93	3.37
	General Mathematics	158,768	0.91	3.67	16,788	0.91	3.54
	Algebra I	404,599	0.91	3.67	60,561	0.93	3.56
	Geometry	216,846	0.93	3.52	36,299	0.94	3.48
	Algebra II	141,070	0.91	3.54	26,255	0.93	3.43
	Summ. H.S. Mathematics	70,288	0.92	3.36	16,656	0.93	3.21
	Integrated Mathematics 1	5,228	0.86	3.61	699	0.89	3.63
	Integrated Mathematics 2	2,726	0.90	3.62	301	0.93	3.58
	Integrated Mathematics 3	917	0.89	3.61	148	0.94	3.42
Science	**Grade 5 Science**	243,943	0.91	3.10	33,057	0.89	3.13
	Grade 8 Science	262,809	0.92	3.32	40,110	0.92	3.05
	Grade 10 Life Science	264,748	0.94	3.17	39,698	0.93	3.28
	Biology	295,800	0.93	3.28	47,720	0.93	3.19
	Chemistry	134,292	0.92	3.26	26,454	0.92	3.37
	Earth Science	131,312	0.91	3.46	16,143	0.90	3.40
	Physics	38,134	0.92	3.30	7,429	0.92	3.24
	Integrated Science 1	35,191	0.88	3.62	5,610	0.88	3.61
	Integrated Science 2	4,057	0.87	3.52	738	0.90	3.45
	Integrated Science 3	1,250	0.85	3.55	120	0.81	3.58
	Integrated Science 4	308	0.88	3.51	32	0.82	3.53
Grade-Specific	**Algebra I – 8**	135,824	0.92	3.61	24,150	0.93	3.52
	Geometry – 9	71,563	0.92	3.42	13,835	0.93	3.37
	Algebra II – 10	64,756	0.90	3.57	12,570	0.92	3.39
	Summ. H.S. Math – 11	60,385	0.92	3.38	13,354	0.93	3.27
	World History – 10	243,617	0.92	3.48	36,464	0.92	3.43

Table 8.A.10 Reliabilities and SEM for the CSTs by ENGLISH-LANGUAGE FLUENCY [continued]

Subject Area	CST	Learner			Redesignated Fluent		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	172,890	0.93	3.43	5,765	0.90	3.07
	3	147,865	0.90	3.60	18,288	0.84	3.18
	4*	130,002	0.90	4.00	32,969	0.87	3.49
	5	118,951	0.89	3.88	53,025	0.87	3.49
	6	109,317	0.89	3.89	70,523	0.88	3.57
	7*	94,707	0.88	3.94	78,999	0.90	3.56
	8	89,466	0.86	4.02	86,391	0.88	3.71
	9	91,710	0.86	3.98	87,248	0.90	3.83
	10	75,797	0.88	3.95	86,339	0.92	3.67
	11	63,200	0.84	4.04	79,361	0.91	3.83
** Multiple choice only*							
History–Social Science	**8**	89,484	0.83	4.00	86,272	0.90	4.01
	World History	76,194	0.82	3.54	88,043	0.90	3.56
	11	60,648	0.81	3.51	78,245	0.90	3.49
Mathematics	**2**	173,209	0.93	3.16	5,763	0.90	2.61
	3	148,669	0.93	3.14	18,294	0.89	2.45
	4	131,099	0.93	3.32	32,957	0.90	2.63
	5	119,869	0.91	3.53	53,028	0.92	3.07
	6	109,648	0.89	3.63	70,515	0.91	3.33
	7	90,876	0.87	3.73	72,205	0.90	3.56
	General Mathematics	75,729	0.87	3.66	34,309	0.89	3.57
	Algebra I	143,451	0.83	3.62	132,433	0.91	3.57
	Geometry	48,170	0.88	3.61	80,391	0.92	3.58
	Algebra II	17,455	0.91	3.56	54,100	0.91	3.59
	Summ. H.S. Mathematics	3,105	0.95	3.29	25,756	0.93	3.40
	Integrated Mathematics 1	1,520	0.72	3.61	1,295	0.86	3.61
	Integrated Mathematics 2	513	0.84	3.61	730	0.88	3.67
	Integrated Mathematics 3	102	0.87	3.66	309	0.91	3.53
Science	**Grade 5 Science**	119,378	0.86	3.52	52,972	0.84	3.15
	Grade 8 Science	89,223	0.87	3.60	86,240	0.88	3.30
	Grade 10 Life Science	72,975	0.85	3.57	84,828	0.91	3.34
	Biology	78,451	0.85	3.56	100,927	0.90	3.44
	Chemistry	16,998	0.87	3.57	54,215	0.91	3.38
	Earth Science	44,990	0.83	3.61	30,867	0.87	3.48
	Physics	4,329	0.87	3.49	14,106	0.90	3.36
	Integrated Science 1	17,866	0.75	3.57	16,796	0.84	3.58
	Integrated Science 2	1,563	0.73	3.58	1,372	0.85	3.51
	Integrated Science 3	244	0.64	3.49	337	0.83	3.62
	Integrated Science 4	26	0.68	3.37	63	0.73	3.53
Grade-Specific	**Algebra I – 8**	32,756	0.88	3.69	54,389	0.92	3.46
	Geometry – 9	7,739	0.93	3.55	27,064	0.92	3.53
	Algebra II – 10	5,356	0.93	3.41	24,532	0.91	3.52
	Summ. H.S. Math – 11	2,710	0.94	3.56	21,632	0.93	3.38
	World History – 10	65,269	0.81	3.60	79,435	0.89	3.63

Table 8.A.11 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY

Subject Area	CST	American Indian			Asian		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	3,599	0.93	3.53	40,317	0.93	3.12
	3	3,533	0.92	3.43	36,841	0.92	3.16
	4*	3,541	0.94	3.59	37,063	0.94	3.29
	5	3,581	0.92	3.75	39,135	0.93	3.44
	6	3,831	0.93	3.74	40,249	0.93	3.51
	7*	4,012	0.94	3.63	40,890	0.94	3.39
	8	3,965	0.92	3.90	41,503	0.93	3.47
	9	4,204	0.94	3.67	43,477	0.94	3.48
	10	4,224	0.94	3.82	43,872	0.95	3.30
	11	3,746	0.94	3.71	43,063	0.94	3.65
** Multiple choice only*							
History–Social Science	**8**	3,948	0.91	4.04	41,482	0.94	3.57
	World History	4,188	0.91	3.58	44,796	0.93	3.26
	11	3,634	0.91	3.55	42,468	0.93	3.24
Mathematics	**2**	3,616	0.93	3.14	40,381	0.93	2.51
	3	3,556	0.93	3.17	36,913	0.93	2.42
	4	3,574	0.94	3.15	37,185	0.93	2.52
	5	3,587	0.93	3.45	39,223	0.94	2.93
	6	3,829	0.92	3.61	40,287	0.94	2.98
	7	3,699	0.91	3.70	32,867	0.93	3.30
	General Mathematics	3,040	0.91	3.53	11,371	0.93	3.37
	Algebra I	6,541	0.89	3.59	54,934	0.94	3.43
	Geometry	2,671	0.92	3.49	41,446	0.95	3.16
	Algebra II	1,431	0.89	3.59	36,350	0.93	3.32
	Summ. H.S. Mathematics	535	0.92	3.51	29,520	0.92	3.01
	Integrated Mathematics 1	67	0.88	3.65	471	0.90	3.69
	Integrated Mathematics 2	39	0.86	3.67	503	0.93	3.47
	Integrated Mathematics 3	13	0.89	3.48	228	0.94	3.44
Science	**Grade 5 Science**	3,574	0.90	3.28	39,124	0.91	3.01
	Grade 8 Science	3,923	0.92	3.31	41,471	0.92	2.91
	Grade 10 Life Science	4,037	0.93	3.35	43,376	0.93	3.17
	Biology	4,011	0.92	3.39	52,308	0.93	3.06
	Chemistry	1,266	0.91	3.32	35,924	0.92	3.20
	Earth Science	2,312	0.90	3.56	12,592	0.91	3.34
	Physics	359	0.92	3.46	10,900	0.91	3.21
	Integrated Science 1	637	0.88	3.57	4,219	0.90	3.47
	Integrated Science 2	67	0.86	3.51	467	0.93	3.22
	Integrated Science 3	10	-	-	101	0.86	3.56
	Integrated Science 4	10	-	-	12	0.88	3.39
Grade-Specific	**Algebra I – 8**	1,839	0.91	3.55	25,791	0.93	3.33
	Geometry – 9	660	0.91	3.46	19,130	0.93	3.13
	Algebra II – 10	571	0.88	3.64	18,723	0.91	3.39
	Summ. H.S. Math – 11	465	0.92	3.47	22,769	0.92	3.11
	World History – 10	3,727	0.91	3.52	38,866	0.92	3.39

Table 8.A.12 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY [continued]

Subject Area	CST	Pacific Islander			Filipino		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	2,966	0.92	3.46	12,541	0.92	3.16
	3	2,927	0.91	3.41	12,824	0.90	3.25
	4*	3,047	0.93	3.67	13,034	0.92	3.52
	5	2,994	0.92	3.69	13,307	0.91	3.57
	6	2,957	0.92	3.83	13,510	0.91	3.62
	7*	3,248	0.93	3.72	13,630	0.92	3.57
	8	3,214	0.92	3.74	13,302	0.91	3.54
	9	3,380	0.93	3.82	14,400	0.92	3.69
	10	3,355	0.94	3.72	14,011	0.93	3.57
	11	3,089	0.93	3.86	13,994	0.92	3.75
** Multiple choice only*							
History–Social Science	**8**	3,202	0.91	4.04	13,292	0.91	3.93
	World History	3,387	0.91	3.49	14,361	0.91	3.42
	11	3,008	0.90	3.56	13,734	0.90	3.44
Mathematics	**2**	2,972	0.92	3.17	12,550	0.92	2.78
	3	2,928	0.93	2.96	12,833	0.92	2.66
	4	3,060	0.93	3.19	13,064	0.93	2.71
	5	3,012	0.93	3.35	13,308	0.93	3.20
	6	2,955	0.93	3.44	13,502	0.93	3.19
	7	3,051	0.91	3.65	12,308	0.92	3.39
	General Mathematics	1,813	0.90	3.63	5,162	0.91	3.56
	Algebra I	5,303	0.89	3.71	19,807	0.92	3.48
	Geometry	2,780	0.91	3.69	13,726	0.92	3.61
	Algebra II	1,561	0.90	3.51	10,132	0.90	3.54
	Summ. H.S. Mathematics	589	0.92	3.36	5,205	0.91	3.44
	Integrated Mathematics 1	74	0.86	3.63	331	0.89	3.57
	Integrated Mathematics 2	28	0.90	3.68	153	0.92	3.66
	Integrated Mathematics 3	7	–	–	89	0.93	3.51
Science	**Grade 5 Science**	3,004	0.89	3.36	13,292	0.88	3.08
	Grade 8 Science	3,194	0.91	3.44	13,276	0.9	3.09
	Grade 10 Life Science	3,256	0.92	3.48	13,834	0.92	3.17
	Biology	3,620	0.92	3.36	17,058	0.9	3.38
	Chemistry	1,495	0.9	3.5	9,915	0.9	3.32
	Earth Science	1,579	0.89	3.51	4,938	0.89	3.41
	Physics	457	0.9	3.46	2,790	0.89	3.36
	Integrated Science 1	538	0.86	3.6	2,066	0.86	3.58
	Integrated Science 2	54	0.82	3.55	187	0.85	3.55
	Integrated Science 3	8	–	–	36	0.84	3.57
	Integrated Science 4	4	–	–	10	–	–
Grade-Specific	**Algebra I – 8**	1,738	0.92	3.47	8,389	0.92	3.40
	Geometry – 9	777	0.92	3.58	5,465	0.92	3.35
	Algebra II – 10	683	0.90	3.46	4,772	0.89	3.59
	Summ. H.S. Math – 11	526	0.91	3.53	4,564	0.91	3.45
	World History – 10	3,017	0.90	3.56	12,994	0.90	3.49

Table 8.A.13 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY [continued]

Subject Area	CST	Hispanic			African American			White		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	239,510	0.93	3.43	32,773	0.93	3.53	122,862	0.93	3.31
	3	227,925	0.91	3.54	32,120	0.92	3.42	122,377	0.92	3.12
	4*	226,132	0.92	3.91	32,718	0.93	3.81	124,273	0.93	3.49
	5	225,853	0.92	3.71	33,157	0.92	3.81	127,034	0.92	3.52
	6	233,764	0.92	3.85	35,226	0.93	3.74	134,104	0.93	3.46
	7*	234,584	0.93	3.72	36,586	0.93	3.84	138,822	0.94	3.35
	8	234,366	0.92	3.77	38,142	0.92	3.91	142,215	0.93	3.45
	9	244,660	0.92	3.97	40,076	0.93	3.81	148,554	0.94	3.45
	10	218,419	0.93	3.95	36,818	0.94	3.78	150,209	0.95	3.38
	11	193,096	0.92	3.96	33,512	0.93	3.84	148,230	0.94	3.72
** Multiple choice only*										
History–Social Science	**8**	234,032	0.90	4.04	37,986	0.91	3.91	142,011	0.93	3.76
	World History	219,992	0.89	3.61	37,022	0.89	3.56	151,918	0.93	3.33
	11	187,837	0.90	3.48	32,108	0.89	3.56	145,452	0.92	3.49
Mathematics	**2**	239,845	0.93	3.12	32,820	0.93	3.30	123,092	0.92	2.84
	3	229,048	0.93	3.10	32,189	0.94	3.07	122,952	0.93	2.73
	4	227,595	0.93	3.32	32,902	0.94	3.26	124,951	0.93	2.94
	5	226,910	0.93	3.36	33,255	0.93	3.44	127,243	0.94	3.12
	6	234,119	0.92	3.49	35,290	0.92	3.54	134,134	0.93	3.36
	7	222,418	0.91	3.59	34,356	0.90	3.73	125,960	0.92	3.54
	General Mathematics	156,983	0.90	3.54	26,075	0.89	3.66	78,743	0.92	3.46
	Algebra I	379,928	0.87	3.72	60,945	0.87	3.58	207,792	0.92	3.51
	Geometry	165,949	0.89	3.71	27,611	0.88	3.71	124,541	0.93	3.41
	Algebra II	84,904	0.88	3.66	14,072	0.88	3.57	88,579	0.91	3.45
	H.S Mathematics	27,187	0.91	3.61	4,035	0.92	3.52	47,907	0.92	3.21
	Integrated Mathematics 1	4,140	0.82	3.62	687	0.82	3.61	2,915	0.86	3.63
	Integrated Mathematics 2	1,630	0.86	3.63	366	0.89	3.59	1,482	0.89	3.67
	Integrated Mathematics 3	434	0.87	3.68	133	0.89	3.61	530	0.87	3.62
Science	**Grade 5 Science**	226,295	0.89	3.34	33,220	0.90	3.36	127,008	0.90	2.98
	Grade 8 Science	233,506	0.90	3.53	37,878	0.91	3.45	141,731	0.92	3.05
	Grade 10 Life Science	211,936	0.91	3.50	34,735	0.91	3.58	147,190	0.93	3.28
	Biology	238,624	0.90	3.58	39,129	0.90	3.60	164,049	0.92	3.32
	Chemistry	85,211	0.89	3.57	14,675	0.89	3.55	81,743	0.91	3.24
	Earth Science	111,981	0.88	3.59	18,332	0.88	3.56	69,848	0.91	3.38
	Physics	21,233	0.89	3.44	3,958	0.88	3.48	23,732	0.91	3.32
	Integrated Science 1	45,934	0.83	3.62	6,631	0.84	3.56	14,934	0.89	3.51
	Integrated Science 2	4,026	0.82	3.56	572	0.79	3.53	2,198	0.86	3.52
	Integrated Science 3	853	0.82	3.55	158	0.78	3.56	780	0.86	3.49
	Integrated Science 4	148	0.79	3.53	23	0.91	3.31	220	0.89	3.47
Grade-Specific	**Algebra I – 8**	113,865	0.90	3.67	17,946	0.90	3.62	75,831	0.92	3.47
	Geometry – 9	42,071	0.91	3.60	6,289	0.91	3.60	44,796	0.91	3.31
	Algebra II – 10	33,897	0.89	3.64	5,191	0.89	3.62	42,496	0.90	3.44
	Summ. H.S. Math – 11	24,125	0.91	3.59	3,621	0.91	3.67	41,285	0.92	3.24
	World History – 10	193,931	0.89	3.56	31,974	0.89	3.50	136,803	0.92	3.43

Table 8.A.14 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY NOT IN NSLP

Subject Area	CST	American Indian			Asian		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	1,493	0.93	3.40	26,702	0.92	2.92
	3	1,493	0.92	3.31	24,156	0.91	2.96
	4*	1,471	0.94	3.53	24,362	0.93	3.11
	5	1,624	0.92	3.59	25,234	0.92	3.19
	6	1,694	0.93	3.57	25,394	0.92	3.24
	7*	1,923	0.94	3.53	25,842	0.93	3.16
	8	1,941	0.92	3.78	26,284	0.92	3.30
	9	2,509	0.94	3.62	28,307	0.93	3.37
	10	2,674	0.94	3.77	28,743	0.94	3.28
	11	2,504	0.94	3.70	28,512	0.94	3.39
** Multiple choice only*							
History–Social Science	**8**	1,936	0.92	3.89	26,273	0.93	3.57
	World History	2,685	0.92	3.46	29,477	0.92	3.34
	11	2,442	0.92	3.43	28,180	0.92	3.32
Mathematics	**2**	1,501	0.93	2.92	26,735	0.91	2.44
	3	1,502	0.93	2.99	24,174	0.91	2.32
	4	1,480	0.94	3.02	24,426	0.92	2.30
	5	1,629	0.93	3.42	25,254	0.94	2.60
	6	1,695	0.93	3.42	25,414	0.93	2.85
	7	1,766	0.92	3.54	19,802	0.93	2.98
	General Mathematics	1,427	0.91	3.60	5,804	0.93	3.31
	Algebra I	3,819	0.89	3.71	33,688	0.94	3.35
	Geometry	1,835	0.92	3.50	27,307	0.95	3.02
	Algebra II	1,092	0.89	3.59	25,341	0.93	3.25
	Summ. H.S. Mathematics	426	0.93	3.30	22,355	0.92	2.81
	Integrated Mathematics 1	39	0.90	3.60	275	0.91	3.61
	Integrated Mathematics 2	20	0.89	3.61	218	0.94	3.40
	Integrated Mathematics 3	11	0.91	3.40	131	0.94	3.41
Science	**Grade 5 Science**	1,621	0.90	3.10	25,219	0.90	2.77
	Grade 8 Science	1,928	0.92	3.25	26,273	0.91	2.71
	Grade 10 Life Science	2,580	0.93	3.35	28,494	0.93	2.94
	Biology	2,652	0.92	3.35	34,852	0.92	3.04
	Chemistry	982	0.91	3.29	25,407	0.92	3.06
	Earth Science	1,364	0.91	3.40	6,552	0.91	3.27
	Physics	255	0.92	3.34	7,981	0.91	3.06
	Integrated Science 1	354	0.89	3.55	2,625	0.90	3.49
	Integrated Science 2	43	0.84	3.47	363	0.93	3.19
	Integrated Science 3	7	–	–	62	0.88	3.45
	Integrated Science 4	8	–	–	7	–	–
Grade-Specific	**Algebra I – 8**	956	0.91	3.64	16,433	0.93	3.11
	Geometry – 9	462	0.91	3.36	13,403	0.92	3.11
	Algebra II – 10	438	0.88	3.55	13,313	0.91	3.29
	Summ. H.S. Math – 11	368	0.93	3.30	17,027	0.92	2.92
	World History – 10	2,440	0.91	3.61	25,157	0.92	3.24

Table 8.A.15 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY NOT IN NSLP [continued]

Subject Area	CST	Pacific Islander			Filipino		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	1,301	0.92	3.31	8,570	0.91	3.18
	3	1,318	0.91	3.25	8,706	0.89	3.24
	4*	1,391	0.93	3.52	8,925	0.92	3.36
	5	1,445	0.91	3.67	9,099	0.91	3.39
	6	1,451	0.92	3.77	9,363	0.91	3.43
	7*	1,652	0.93	3.60	9,743	0.92	3.41
	8	1,694	0.92	3.68	9,714	0.90	3.57
	9	1,985	0.93	3.79	10,947	0.92	3.55
	10	2,084	0.94	3.67	10,981	0.93	3.48
	11	1,959	0.93	3.91	11,188	0.92	3.69
** Multiple choice only*							
History–Social Science	**8**	1,689	0.92	3.88	9,703	0.91	3.84
	World History	2,093	0.91	3.57	11,248	0.91	3.39
	11	1,910	0.91	3.48	10,991	0.90	3.42
Mathematics	**2**	1,302	0.92	2.94	8,577	0.91	2.80
	3	1,325	0.93	2.74	8,713	0.91	2.62
	4	1,403	0.93	3.02	8,940	0.92	2.73
	5	1,449	0.93	3.25	9,094	0.93	3.08
	6	1,449	0.93	3.43	9,359	0.92	3.31
	7	1,524	0.92	3.43	8,714	0.92	3.31
	General Mathematics	904	0.91	3.50	3,652	0.91	3.50
	Algebra I	3,010	0.90	3.69	14,671	0.92	3.47
	Geometry	1,764	0.92	3.61	10,749	0.92	3.60
	Algebra II	1,053	0.90	3.58	8,229	0.90	3.54
	Summ. H.S. Mathematics	435	0.92	3.41	4,342	0.91	3.42
	Integrated Mathematics 1	49	0.86	3.61	242	0.88	3.68
	Integrated Mathematics 2	15	0.89	3.54	115	0.93	3.46
	Integrated Mathematics 3	4	–	–	64	0.92	3.56
Science	**Grade 5 Science**	1,449	0.89	3.19	9,086	0.87	3.05
	Grade 8 Science	1,691	0.92	3.18	9,697	0.89	3.11
	Grade 10 Life Science	2,019	0.93	3.26	10,851	0.91	3.31
	Biology	2,251	0.92	3.39	13,429	0.90	3.34
	Chemistry	1,021	0.90	3.51	8,003	0.89	3.46
	Earth Science	895	0.90	3.47	3,686	0.89	3.34
	Physics	310	0.90	3.47	2,285	0.89	3.32
	Integrated Science 1	324	0.87	3.59	1,466	0.86	3.58
	Integrated Science 2	38	0.83	3.47	156	0.85	3.56
	Integrated Science 3	8	–	–	29	0.85	3.52
	Integrated Science 4	4	–	–	8	–	–
Grade-Specific	**Algebra I – 8**	525	0.92	3.52	6,162	0.92	3.37
	Geometry – 9	525	0.93	3.37	4,310	0.92	3.29
	Algebra II – 10	482	0.90	3.50	3,854	0.89	3.57
	Summ. H.S. Math – 11	383	0.92	3.38	3,794	0.91	3.44
	World History – 10	1,877	0.91	3.46	10,179	0.90	3.46

Table 8.A.16 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY NOT IN NSLP [continued]

Subject Area	CST	Hispanic			African American			White		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	49,962	0.93	3.42	10,396	0.93	3.43	95,024	0.93	3.09
	3	47,558	0.91	3.49	10,486	0.92	3.33	94,636	0.91	3.07
	4*	48,524	0.93	3.66	11,106	0.93	3.71	96,768	0.92	3.44
	5	49,483	0.92	3.66	11,432	0.92	3.74	99,295	0.91	3.47
	6	54,497	0.92	3.84	12,666	0.93	3.69	104,471	0.92	3.42
	7*	61,779	0.93	3.75	14,302	0.93	3.82	109,746	0.93	3.37
	8	66,605	0.92	3.82	15,553	0.93	3.65	113,658	0.92	3.46
	9	84,816	0.93	3.83	18,679	0.93	3.88	123,354	0.93	3.54
	10	82,590	0.94	3.74	18,766	0.94	3.84	126,832	0.94	3.56
	11	77,879	0.93	3.85	17,844	0.93	3.95	127,106	0.94	3.63
** Multiple choice only*										
History–Social Science	**8**	66,488	0.91	4.06	15,508	0.92	3.85	113,559	0.92	3.89
	World History	82,668	0.90	3.63	18,861	0.90	3.58	128,710	0.92	3.51
	11	75,486	0.91	3.44	17,115	0.90	3.54	124,925	0.92	3.44
Mathematics	**2**	50,020	0.93	2.98	10,411	0.93	3.13	95,177	0.91	2.76
	3	47,801	0.93	2.95	10,515	0.94	2.91	95,000	0.92	2.69
	4	48,777	0.93	3.15	11,141	0.94	3.09	97,197	0.93	2.71
	5	49,590	0.93	3.37	11,458	0.93	3.49	99,403	0.93	3.21
	6	54,530	0.93	3.35	12,677	0.93	3.41	104,478	0.93	3.20
	7	58,035	0.91	3.66	13,333	0.91	3.64	98,744	0.92	3.41
	General Mathematics	47,075	0.90	3.65	10,303	0.90	3.63	57,667	0.91	3.60
	Algebra I	128,266	0.88	3.68	27,906	0.88	3.66	168,410	0.92	3.52
	Geometry	61,262	0.90	3.70	14,562	0.90	3.56	108,845	0.93	3.39
	Algebra II	32,912	0.89	3.57	8,155	0.89	3.52	80,599	0.91	3.44
	Summ. H.S. Math	11,702	0.91	3.59	2,666	0.92	3.52	44,939	0.92	3.18
	Integrated Math 1	1,549	0.82	3.64	306	0.84	3.65	2,330	0.86	3.65
	Integrated Math 2	620	0.86	3.60	169	0.91	3.52	1,245	0.89	3.64
	Integrated Math 3	187	0.87	3.59	81	0.87	3.56	502	0.87	3.60
Science	**Grade 5 Science**	49,520	0.89	3.28	11,439	0.90	3.30	99,278	0.89	2.90
	Grade 8 Science	66,327	0.91	3.39	15,456	0.91	3.44	113,357	0.91	3.03
	Grade 10 Life Science	79,960	0.92	3.43	17,805	0.92	3.46	124,573	0.93	3.19
	Biology	89,217	0.91	3.51	20,139	0.91	3.50	141,060	0.92	3.24
	Chemistry	33,022	0.90	3.46	8,448	0.90	3.47	74,600	0.91	3.20
	Earth Science	42,453	0.89	3.56	8,863	0.89	3.52	55,741	0.91	3.30
	Physics	8,086	0.90	3.42	2,212	0.89	3.44	21,610	0.91	3.26
	Integrated Science 1	13,858	0.85	3.56	2,725	0.86	3.52	11,686	0.89	3.47
	Integrated Science 2	1,335	0.84	3.50	273	0.82	3.53	1,860	0.86	3.51
	Integrated Science 3	375	0.81	3.57	88	0.81	3.53	649	0.86	3.52
	Integrated Science 4	44	0.85	3.47	15	0.92	3.31	182	0.90	3.39
Grade-Specific	**Algebra I – 8**	32,589	0.91	3.58	7,702	0.91	3.57	63,228	0.92	3.41
	Geometry – 9	15,269	0.92	3.41	3,496	0.91	3.64	40,721	0.91	3.24
	Algebra II – 10	13,210	0.90	3.47	3,123	0.89	3.65	39,168	0.90	3.42
	Summ. H.S. Math – 11	10,383	0.91	3.58	2,371	0.92	3.48	38,693	0.92	3.21
	World History – 10	73,320	0.90	3.56	16,515	0.90	3.49	116,512	0.92	3.38

Table 8.A.17 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY IN NSLP

Subject Area	CST	American Indian			Asian		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	2,098	0.92	3.63	13,541	0.93	3.33
	3	2,032	0.91	3.53	12,616	0.92	3.29
	4*	2,058	0.93	3.71	12,634	0.93	3.68
	5	1,950	0.91	3.85	13,830	0.93	3.59
	6	2,124	0.92	3.86	14,806	0.93	3.64
	7*	2,079	0.93	3.77	14,991	0.94	3.56
	8	2,006	0.92	3.78	15,151	0.93	3.57
	9	1,683	0.93	3.80	15,090	0.94	3.57
	10	1,528	0.93	3.97	15,072	0.94	3.76
	11	1,229	0.93	3.82	14,510	0.94	3.62
** Multiple choice only*							
History–Social Science	**8**	1,994	0.89	4.07	15,140	0.93	3.77
	World History	1,484	0.89	3.53	15,244	0.92	3.40
	11	1,181	0.89	3.53	14,249	0.92	3.41
Mathematics	**2**	2,107	0.92	3.36	13,570	0.93	2.85
	3	2,046	0.93	3.17	12,665	0.93	2.78
	4	2,083	0.93	3.37	12,690	0.93	2.88
	5	1,951	0.92	3.55	13,897	0.94	3.14
	6	2,121	0.91	3.57	14,824	0.93	3.34
	7	1,926	0.90	3.65	13,014	0.93	3.35
	General Mathematics	1,600	0.90	3.59	5,524	0.92	3.49
	Algebra I	2,694	0.87	3.61	21,157	0.93	3.55
	Geometry	829	0.91	3.56	14,083	0.94	3.37
	Algebra II	336	0.88	3.60	10,969	0.92	3.48
	Summ. H.S. Mathematics	109	0.91	3.51	7,153	0.92	3.30
	Integrated Mathematics 1	28	0.84	3.59	196	0.89	3.62
	Integrated Mathematics 2	19	0.83	3.60	284	0.91	3.58
	Integrated Mathematics 3	2	–	–	97	0.94	3.38
Science	**Grade 5 Science**	1,946	0.89	3.36	13,834	0.90	3.30
	Grade 8 Science	1,979	0.90	3.55	15,130	0.92	3.09
	Grade 10 Life Science	1,439	0.91	3.54	14,829	0.93	3.24
	Biology	1,348	0.91	3.44	17,384	0.92	3.33
	Chemistry	281	0.90	3.45	10,493	0.91	3.41
	Earth Science	936	0.90	3.46	6,026	0.90	3.40
	Physics	103	0.90	3.41	2,893	0.91	3.28
	Integrated Science 1	282	0.86	3.62	1,583	0.89	3.47
	Integrated Science 2	24	0.88	3.46	101	0.86	3.56
	Integrated Science 3	3	–	–	39	0.84	3.52
	Integrated Science 4	2	–	–	5	–	–
Grade-Specific	**Algebra I – 8**	878	0.89	3.65	9,325	0.93	3.39
	Geometry – 9	197	0.91	3.51	5,695	0.93	3.24
	Algebra II – 10	132	0.89	3.54	5,396	0.91	3.45
	Summ. H.S. Math – 11	97	0.90	3.58	5,733	0.92	3.36
	World History – 10	1,269	0.88	3.62	13,658	0.91	3.49

Table 8.A.18 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY IN NSLP [continued]

Subject Area	CST	Pacific Islander			Filipino		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	1,656	0.92	3.40	3,954	0.92	3.34
	3	1,602	0.90	3.53	4,101	0.90	3.39
	4*	1,650	0.92	3.79	4,090	0.92	3.65
	5	1,547	0.91	3.79	4,195	0.91	3.73
	6	1,492	0.91	3.86	4,133	0.92	3.60
	7*	1,593	0.92	3.82	3,868	0.92	3.74
	8	1,514	0.91	3.78	3,573	0.91	3.73
	9	1,387	0.92	3.84	3,427	0.92	3.84
	10	1,266	0.93	3.86	3,002	0.93	3.71
	11	1,125	0.92	3.84	2,783	0.92	3.82
** Multiple choice only*							
History–Social Science	**8**	1,507	0.89	4.09	3,574	0.91	3.95
	World History	1,290	0.89	3.53	3,088	0.90	3.58
	11	1,093	0.88	3.54	2,720	0.89	3.60
Mathematics	**2**	1,661	0.92	3.21	3,958	0.92	2.99
	3	1,597	0.93	3.02	4,103	0.93	2.75
	4	1,651	0.93	3.22	4,103	0.93	2.93
	5	1,561	0.92	3.49	4,200	0.93	3.35
	6	1,493	0.92	3.49	4,129	0.93	3.27
	7	1,525	0.90	3.69	3,576	0.92	3.45
	General Mathematics	903	0.89	3.70	1,497	0.91	3.51
	Algebra I	2,278	0.87	3.71	5,099	0.91	3.62
	Geometry	1,015	0.89	3.63	2,964	0.92	3.52
	Algebra II	508	0.88	3.57	1,887	0.90	3.50
	Summ. H.S. Mathematics	154	0.90	3.54	861	0.90	3.60
	Integrated Mathematics 1	25	0.88	3.46	89	0.90	3.53
	Integrated Mathematics 2	13	0.93	3.46	38	0.92	3.51
	Integrated Mathematics 3	3	–	–	25	0.93	3.31
Science	**Grade 5 Science**	1,553	0.88	3.38	4,193	0.88	3.23
	Grade 8 Science	1,498	0.90	3.52	3,565	0.90	3.26
	Grade 10 Life Science	1,232	0.91	3.45	2,956	0.91	3.44
	Biology	1,362	0.90	3.47	3,605	0.90	3.40
	Chemistry	473	0.89	3.49	1,902	0.89	3.49
	Earth Science	678	0.87	3.50	1,240	0.89	3.45
	Physics	146	0.88	3.47	501	0.88	3.47
	Integrated Science 1	213	0.83	3.61	595	0.85	3.63
	Integrated Science 2	16	0.84	3.41	31	0.85	3.48
	Integrated Science 3	0	–	–	7	–	–
	Integrated Science 4	0	–	–	2	–	–
Grade-Specific	**Algebra I – 8**	803	0.90	3.62	2,220	0.92	3.42
	Geometry – 9	252	0.90	3.59	1,148	0.92	3.40
	Algebra II – 10	201	0.88	3.57	912	0.90	3.46
	Summ. H.S. Math – 11	143	0.90	3.55	768	0.90	3.58
	World History – 10	1,136	0.88	3.56	2,795	0.90	3.48

Table 8.A.19 Reliabilities and SEM for the CSTs by PRIMARY ETHNICITY IN NSLP [continued]

Subject Area	CST	Hispanic			African American			White		
		N	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*	*N*	*Rel.*	*SEM*
English–Language Arts	**2**	189,123	0.92	3.62	22,262	0.93	3.46	27,591	0.93	3.50
	3	180,033	0.91	3.47	21,531	0.91	3.55	27,530	0.91	3.52
	4*	177,321	0.92	3.82	21,521	0.92	3.93	27,295	0.93	3.71
	5	176,057	0.91	3.85	21,627	0.91	3.90	27,514	0.92	3.74
	6	178,932	0.92	3.77	22,444	0.92	3.85	29,411	0.93	3.66
	7*	172,427	0.92	3.88	22,144	0.92	3.94	28,783	0.93	3.82
	8	167,329	0.91	3.92	22,466	0.92	3.77	28,258	0.93	3.64
	9	159,394	0.92	3.84	21,252	0.92	3.87	24,889	0.93	3.90
	10	135,388	0.93	3.85	17,916	0.93	3.89	23,071	0.94	3.86
	11	114,826	0.92	3.82	15,564	0.92	3.84	20,828	0.94	3.72
** Multiple choice only*										
History–Social Science	**8**	167,122	0.89	4.07	22,354	0.89	4.01	28,156	0.91	4.07
	World History	136,916	0.88	3.61	18,031	0.87	3.52	22,896	0.91	3.53
	11	111,982	0.89	3.52	14,903	0.87	3.56	20,257	0.91	3.50
Mathematics	**2**	189,397	0.93	3.12	22,290	0.93	3.30	27,663	0.93	3.01
	3	180,913	0.93	3.11	21,574	0.93	3.31	27,734	0.93	3.07
	4	178,530	0.93	3.33	21,665	0.93	3.49	27,541	0.93	3.27
	5	177,004	0.92	3.55	21,697	0.92	3.53	27,611	0.93	3.43
	6	179,253	0.91	3.62	22,497	0.91	3.53	29,437	0.92	3.58
	7	164,042	0.90	3.73	20,896	0.89	3.69	26,945	0.91	3.67
	General Mathematics	109,463	0.89	3.64	15,671	0.88	3.67	20,815	0.91	3.58
	Algebra I	250,975	0.87	3.65	32,815	0.84	3.70	38,955	0.89	3.63
	Geometry	104,508	0.89	3.57	12,990	0.86	3.64	15,519	0.91	3.60
	Algebra II	51,917	0.88	3.59	5,898	0.86	3.60	7,897	0.89	3.65
	Summ. H.S. Math	15,470	0.91	3.56	1,366	0.91	3.55	2,940	0.92	3.43
	Integrated Math 1	2,586	0.82	3.59	379	0.79	3.58	578	0.85	3.62
	Integrated Math 2	1,007	0.86	3.64	196	0.87	3.54	234	0.88	3.62
	Integrated Math 3	247	0.88	3.60	52	0.92	3.48	27	0.87	3.45
Science	**Grade 5 Science**	176,463	0.88	3.43	21,684	0.89	3.41	27,505	0.90	3.20
	Grade 8 Science	166,756	0.90	3.48	22,300	0.90	3.52	28,079	0.92	3.27
	Grade 10 Life Science	131,559	0.90	3.58	16,816	0.90	3.56	22,339	0.93	3.34
	Biology	149,035	0.90	3.47	18,861	0.89	3.58	22,695	0.92	3.39
	Chemistry	52,123	0.89	3.47	6,203	0.87	3.61	7,079	0.90	3.50
	Earth Science	69,271	0.88	3.48	9,394	0.87	3.50	13,945	0.91	3.42
	Physics	13,138	0.87	3.54	1,739	0.85	3.50	2,106	0.91	3.36
	Integrated Science 1	31,989	0.82	3.63	3,893	0.82	3.55	3,216	0.87	3.57
	Integrated Science 2	2,688	0.81	3.57	299	0.74	3.55	334	0.83	3.57
	Integrated Science 3	474	0.82	3.61	70	0.71	3.53	127	0.83	3.55
	Integrated Science 4	102	0.76	3.51	8	–	–	38	0.84	3.47
Grade-Specific	**Algebra I – 8**	81,169	0.90	3.60	10,202	0.89	3.57	12,503	0.90	3.70
	Geometry – 9	26,777	0.91	3.52	2,781	0.90	3.57	4,031	0.91	3.43
	Algebra II – 10	20,662	0.89	3.61	2,058	0.88	3.58	3,296	0.89	3.63
	Summ. H.S. Math – 11	13,727	0.91	3.53	1,247	0.90	3.67	2,568	0.92	3.42
	World History – 10	120,264	0.88	3.56	15,351	0.86	3.62	20,044	0.90	3.64

Table 8.A.20 Subscore Reliabilities and SEM for English–Language Arts by GENDER/NSLP

Subscore Reliabilities and SEM for English–Language Arts by GENDER/NSLP									
Subscore Area	**# of items**	**Male**		**Female**		**Not in NSLP**		**NSLP**	
		Reliab.	***SEM***	***Reliab.***	***SEM***	***Reliab.***	***SEM***	***Reliab.***	***SEM***
Grade 2									
1. Word Analysis and Vocabulary	22	0.85	1.93	0.84	1.90	0.83	1.80	0.83	2.00
2. Reading Comprehension	15	0.77	1.69	0.76	1.66	0.76	1.59	0.72	1.73
3. Literary Response and Analysis	6	0.64	0.99	0.62	0.97	0.63	0.89	0.59	1.04
4. Written and Oral Language Conventions	14	0.81	1.55	0.81	1.49	0.80	1.43	0.79	1.59
5. Writing Strategies	8	0.59	1.25	0.59	1.25	0.60	1.22	0.52	1.27
Grade 3									
1. Word Analysis and Vocabulary	20	0.80	1.80	0.78	1.78	0.77	1.66	0.77	1.88
2. Reading Comprehension	15	0.72	1.70	0.72	1.67	0.72	1.61	0.68	1.74
3. Literary Response and Analysis	8	0.72	1.15	0.72	1.12	0.71	1.03	0.67	1.20
4. Written and Oral Language Conventions	13	0.68	1.57	0.66	1.53	0.66	1.47	0.64	1.61
5. Writing Strategies	9	0.66	1.33	0.65	1.33	0.64	1.29	0.61	1.36
Grade 4									
1. Word Analysis and Vocabulary	18	0.83	1.66	0.81	1.64	0.81	1.50	0.79	1.76
2. Reading Comprehension	15	0.77	1.68	0.76	1.68	0.76	1.59	0.71	1.74
3. Literary Response and Analysis	9	0.68	1.27	0.66	1.26	0.65	1.17	0.63	1.33
4. Written and Oral Language Conventions	18	0.79	1.78	0.77	1.71	0.77	1.64	0.76	1.82
5. Writing Strategies	15	0.74	1.73	0.73	1.72	0.73	1.66	0.68	1.77
Grade 5									
1. Word Analysis and Vocabulary	14	0.75	1.48	0.74	1.48	0.71	1.37	0.72	1.55
2. Reading Comprehension	16	0.74	1.78	0.73	1.76	0.74	1.70	0.67	1.82
3. Literary Response and Analysis	12	0.74	1.44	0.72	1.42	0.72	1.34	0.70	1.50
4. Written and Oral Language Conventions	17	0.81	1.64	0.78	1.56	0.79	1.47	0.78	1.70
5. Writing Strategies	16	0.69	1.83	0.69	1.80	0.68	1.77	0.64	1.85

Subscore Reliabilities and SEM for English–Language Arts by GENDER/NSLP

Subscore Area	# of items	Male		Female		Not in NSLP		NSLP	
		Reliab.	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
Grade 6									
1. Word Analysis and Vocabulary	13	0.74	1.52	0.71	1.49	0.71	1.41	0.68	1.58
2. Reading Comprehension	17	0.75	1.84	0.72	1.83	0.72	1.76	0.70	1.89
3. Literary Response and Analysis	12	0.70	1.53	0.69	1.52	0.68	1.49	0.65	1.56
4. Written and Oral Language Conventions	16	0.81	1.62	0.78	1.53	0.78	1.45	0.79	1.67
5. Writing Strategies	17	0.77	1.82	0.76	1.78	0.76	1.73	0.72	1.86
Grade 7									
1. Word Analysis and Vocabulary	11	0.72	1.39	0.68	1.39	0.69	1.30	0.65	1.47
2. Reading Comprehension	18	0.83	1.74	0.81	1.71	0.81	1.63	0.79	1.81
3. Literary Response and Analysis	13	0.75	1.54	0.73	1.49	0.74	1.43	0.71	1.58
4. Written and Oral Language Conventions	16	0.77	1.71	0.75	1.66	0.75	1.61	0.73	1.74
5. Writing Strategies	17	0.81	1.80	0.80	1.77	0.81	1.71	0.76	1.85
Grade 8									
1. Word Analysis and Vocabulary	9	0.63	1.28	0.60	1.27	0.60	1.23	0.58	1.32
2. Reading Comprehension	18	0.80	1.81	0.78	1.78	0.78	1.73	0.75	1.86
3. Literary Response and Analysis	15	0.73	1.72	0.71	1.69	0.72	1.63	0.67	1.77
4. Written and Oral Language Conventions	16	0.81	1.63	0.77	1.54	0.78	1.50	0.78	1.67
5. Writing Strategies	17	0.75	1.84	0.73	1.81	0.75	1.78	0.70	1.86
Grade 9									
1. Word Analysis and Vocabulary	8	0.70	1.18	0.64	1.19	0.67	1.13	0.64	1.25
2. Reading Comprehension	18	0.79	1.82	0.76	1.80	0.78	1.75	0.74	1.88
3. Literary Response and Analysis	16	0.81	1.71	0.80	1.67	0.81	1.61	0.77	1.78
4. Written and Oral Language Conventions	13	0.73	1.61	0.73	1.57	0.75	1.54	0.67	1.66
5. Writing Strategies	20	0.81	1.97	0.78	1.97	0.80	1.94	0.76	2.01

Subscore Reliabilities and SEM for English–Language Arts by GENDER/NSLP

Subscore Area	# of items	Male		Female		Not in NSLP		NSLP	
		Reliab.	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
Grade 10									
1. Word Analysis and Vocabulary	8	0.65	1.16	0.57	1.14	0.62	1.11	0.59	1.21
2. Reading Comprehension	18	0.85	1.80	0.83	1.79	0.84	1.74	0.81	1.86
3. Literary Response and Analysis	16	0.80	1.74	0.78	1.71	0.80	1.68	0.75	1.78
4. Written and Oral Language Conventions	13	0.78	1.52	0.74	1.47	0.76	1.44	0.74	1.57
5. Writing Strategies	20	0.85	1.91	0.84	1.87	0.85	1.83	0.81	1.97
Grade 11									
1. Word Analysis and Vocabulary	8	0.65	1.23	0.56	1.24	0.63	1.20	0.51	1.29
2. Reading Comprehension	19	0.79	1.91	0.78	1.89	0.80	1.87	0.73	1.96
3. Literary Response and Analysis	17	0.78	1.80	0.75	1.77	0.77	1.74	0.74	1.85
4. Written and Oral Language Conventions	9	0.74	1.28	0.74	1.24	0.76	1.22	0.67	1.33
5. Writing Strategies	22	0.85	2.02	0.84	1.99	0.86	1.96	0.81	2.09

Table 8.A.21 Subscore Reliabilities and SEM for History–Social Science by GENDER/NSLP

Subscore Area	# of items	Male		Female		Not in NSLP		NSLP	
		Reliab.	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
Grade 8									
1. World History and Geography: Ancient Civilizations	16	0.71	1.82	0.65	1.84	0.69	1.80	0.61	1.85
2. Late Antiquity and the Middle Ages	14	0.76	1.65	0.69	1.69	0.73	1.64	0.68	1.70
3. Renaissance/Reformation	10	0.67	1.42	0.58	1.46	0.65	1.42	0.55	1.46
4. U.S. Constitution and the Early Republic	22	0.84	2.08	0.80	2.11	0.83	2.05	0.77	2.14
5. Civil War and Its Aftermath	13	0.74	1.62	0.70	1.64	0.73	1.60	0.67	1.66
World History									
1. Development of Modern Political Thought	13	0.72	1.63	0.66	1.65	0.71	1.62	0.62	1.67
2. Industrial Expansion and Imperialism	10	0.72	1.39	0.67	1.43	0.71	1.39	0.63	1.45
3. Causes and Effects of World War I	14	0.79	1.63	0.71	1.69	0.77	1.64	0.70	1.70
4. Causes and Effects of World War II	13	0.75	1.60	0.67	1.65	0.73	1.61	0.64	1.65
5. International Developments in the Post-World War II Era	10	0.74	1.38	0.65	1.42	0.72	1.39	0.63	1.42
Grade 11 (U.S. History)									
1. Foundations of American Political and Social Thought	10	0.66	1.41	0.61	1.43	0.65	1.40	0.57	1.45
2. Industrialization and the U.S. role as a World Power	13	0.75	1.59	0.70	1.61	0.75	1.57	0.66	1.63
3. United States between the World Wars	12	0.72	1.56	0.69	1.57	0.71	1.55	0.66	1.59
4. World War II and Foreign Affairs	12	0.77	1.50	0.71	1.54	0.76	1.50	0.69	1.55
5. Post-World War II Domestic Affairs	13	0.73	1.61	0.69	1.63	0.72	1.61	0.66	1.64

Table 8.A.22 Subscore Reliabilities and SEM for Mathematics by GENDER/NSLP

Subscore Reliabilities and SEM for Mathematics by GENDER/NSLP									
Subscore Area	**# of items**	**Male**		**Female**		**Not in NSLP**		**NSLP**	
		Reliab.	***SEM***	***Reliab.***	***SEM***	***Reliab.***	***SEM***	***Reliab.***	***SEM***
Grade 2									
1. Number Sense: Place Value, Addition, and Subtraction	15	0.82	1.39	0.81	1.43	0.79	1.27	0.80	1.50
2. Number Sense: Multiplication, Division, and Fractions	23	0.85	1.81	0.83	1.84	0.83	1.69	0.83	1.91
3. Algebra and Functions	6	0.63	0.88	0.58	0.89	0.60	0.80	0.58	0.95
4. Measurement and Geometry	13	0.68	1.41	0.65	1.42	0.64	1.32	0.64	1.48
5. Statistics, Data Analysis, and Probability	7	0.67	0.99	0.62	0.99	0.63	0.91	0.62	1.04
Grade 3									
1. Number Sense: Place Value, Fractions, and Decimals	16	0.81	1.44	0.79	1.47	0.77	1.34	0.79	1.54
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.84	1.52	0.83	1.50	0.83	1.40	0.82	1.58
3. Algebra and Functions	12	0.76	1.25	0.74	1.28	0.73	1.15	0.72	1.33
4. Measurement and Geometry	16	0.76	1.43	0.73	1.42	0.72	1.33	0.73	1.48
5. Statistics, Data Analysis, and Probability	5	0.65	0.72	0.61	0.69	0.60	0.62	0.63	0.75
Grade 4									
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.80	1.44	0.76	1.49	0.77	1.32	0.77	1.57
2. Number Sense: Operations and Factoring	14	0.82	1.44	0.82	1.40	0.81	1.31	0.81	1.50
3. Algebra and Functions	18	0.85	1.55	0.83	1.54	0.83	1.41	0.84	1.64
4. Measurement and Geometry	12	0.77	1.38	0.75	1.39	0.76	1.29	0.74	1.45
5. Statistics, Data Analysis, and Probability	4	0.51	0.79	0.44	0.79	0.47	0.74	0.45	0.83
Grade 5									
1. Number Sense: Estimation, Percents, and Factoring	12	0.76	1.43	0.71	1.46	0.74	1.38	0.70	1.49
2. Number Sense: Operations with Fractions and Decimals	17	0.82	1.72	0.80	1.71	0.81	1.63	0.78	1.78
3. Algebra and Functions	17	0.81	1.67	0.79	1.67	0.80	1.56	0.78	1.75
4. Measurement and Geometry	15	0.83	1.60	0.82	1.62	0.83	1.53	0.79	1.67
5. Statistics, Data Analysis, and Probability	4	0.53	0.74	0.46	0.73	0.50	0.68	0.47	0.78

Subscore Reliabilities and SEM for Mathematics by GENDER/NSLP

Subscore Area	# of items	Male		Female		Not in NSLP		NSLP	
		Reliab.	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
Grade 6									
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.77	1.66	0.75	1.68	0.77	1.61	0.71	1.72
2. Number Sense: Operations and Problem Solving with Fractions	10	0.70	1.31	0.64	1.34	0.68	1.25	0.60	1.39
3. Algebra and Functions	19	0.85	1.77	0.82	1.80	0.84	1.67	0.81	1.87
4. Measurement and Geometry	10	0.69	1.39	0.66	1.40	0.69	1.34	0.61	1.44
5. Statistics, Data Analysis, and Probability	11	0.79	1.35	0.74	1.36	0.76	1.27	0.73	1.42
Grade 7									
1. Number Sense: Rational Numbers	14	0.76	1.61	0.74	1.61	0.75	1.56	0.72	1.66
2. Number Sense: Exponent, Powers and Roots	8	0.63	1.25	0.63	1.25	0.65	1.24	0.58	1.26
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.63	1.42	0.59	1.42	0.62	1.38	0.57	1.45
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.78	1.66	0.75	1.68	0.78	1.60	0.73	1.72
5. Measurement and Geometry	13	0.74	1.59	0.71	1.60	0.73	1.56	0.67	1.63
6. Statistics, Data Analysis, and Probability	5	0.61	0.94	0.56	0.93	0.59	0.90	0.55	0.97
General Mathematics									
1. Number Sense: Rational Numbers	14	0.73	1.64	0.70	1.63	0.73	1.63	0.69	1.64
2. Number Sense: Exponent, Powers and Roots	10	0.67	1.39	0.67	1.37	0.68	1.38	0.64	1.37
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.72	1.45	0.67	1.44	0.70	1.41	0.68	1.47
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.66	1.38	0.61	1.40	0.65	1.36	0.62	1.41
5. Measurement and Geometry	11	0.63	1.51	0.59	1.51	0.64	1.51	0.55	1.51
6. Statistics, Data Analysis, and Probability	9	0.62	1.35	0.60	1.33	0.64	1.32	0.56	1.36

Algebra I									
1. Number Properties, Operations, and Linear Equations	17	0.79	1.82	0.77	1.81	0.80	1.78	0.74	1.86
2. Graphing and Systems of Linear Equations	14	0.69	1.71	0.66	1.72	0.71	1.70	0.61	1.72
3. Quadratics and Polynomials	21	0.79	2.03	0.79	2.03	0.81	2.02	0.74	2.04
4. Functions and Rational Expressions	13	0.65	1.58	0.66	1.58	0.69	1.58	0.55	1.58
Geometry									
1. Logic and Geometric Proofs	23	0.84	2.06	0.81	2.08	0.83	2.03	0.77	2.12
2. Volume and Area Formulas	11	0.70	1.47	0.68	1.47	0.71	1.45	0.60	1.49
3. Angle Relationships, Constructions, and Lines	16	0.77	1.77	0.73	1.78	0.76	1.75	0.68	1.81
4. Trigonometry	15	0.82	1.67	0.80	1.68	0.82	1.64	0.76	1.72
Algebra II									
1. Polynomials and Rational Expressions	19	0.82	1.78	0.80	1.79	0.80	1.76	0.80	1.84
2. Quadratics, Conics, and Complex Numbers	16	0.75	1.77	0.72	1.78	0.75	1.76	0.70	1.78
3. Exponents and Logarithms	16	0.79	1.76	0.76	1.77	0.78	1.76	0.73	1.79
4. Series, Combinatorics, and Probability and Statistics	14	0.68	1.68	0.62	1.66	0.66	1.68	0.59	1.66
Summative High School Mathematics									
1. Algebra I	18	0.82	1.61	0.81	1.70	0.81	1.61	0.81	1.78
2. Geometry	19	0.77	1.72	0.77	1.79	0.76	1.72	0.77	1.87
3. Algebra II	23	0.84	1.95	0.82	2.03	0.83	1.96	0.82	2.09
4. Probability and Statistics	5	0.59	0.89	0.53	0.95	0.55	0.91	0.53	0.97
Integrated Mathematics 1									
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.74	1.74	0.71	1.75	0.73	1.73	0.71	1.76
2. Algebra I: Graphing	9	0.52	1.37	0.48	1.39	0.51	1.39	0.48	1.37
3. Algebra I: Quadratics and Polynomials	14	0.67	1.65	0.65	1.65	0.68	1.65	0.62	1.65
4. Algebra I: Functions and Relations Expressions	7	0.38	1.13	0.51	1.10	0.47	1.12	0.40	1.11
5. Geometry	20	0.60	2.00	0.52	1.99	0.60	2.01	0.51	1.98

Integrated Mathematics 2									
1. Algebra I	20	0.74	2.01	0.72	2.01	0.74	2.01	0.70	2.01
2. Geometry: Logic and Geometric Proofs	22	0.79	2.08	0.75	2.08	0.78	2.08	0.73	2.08
3. Geometry: Angle Relationships, Construction and Lines	8	0.51	1.29	0.48	1.30	0.51	1.29	0.47	1.30
4. Trigonometry	10	0.70	1.40	0.69	1.41	0.70	1.40	0.68	1.40
5. Algebra II/Probability and Statistics	5	0.30	1.01	0.31	0.97	0.38	0.99	0.11	0.99
Integrated Mathematics 3									
1. Geometry	5	0.47	0.96	0.37	0.98	0.41	0.98	0.44	0.97
2. Algebra II: Polynomials and Relations Expressions	19	0.79	1.88	0.76	1.91	0.77	1.89	0.79	1.90
3. Algebra II: Quadratics, Conics and Statistics	16	0.72	1.79	0.69	1.80	0.69	1.80	0.73	1.77
4. Algebra II: Exponents and Logarithms	16	0.78	1.78	0.74	1.79	0.76	1.79	0.75	1.77
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.43	1.36	0.46	1.31	0.43	1.35	0.48	1.31

Table 8.A.23 Subscore Reliabilities and SEM for Science by GENDER/NSLP

Subscore Reliabilities and SEM for Science by GENDER/NSLP									
	# of	Male		Female		Not in NSLP		NSLP	
Subscore Area	items	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
Grade 5 Science									
1. Physical Science (Grade 5)	11	0.69	1.33	0.65	1.36	0.63	1.23	0.64	1.44
2. Physical Science (Grade 4)	8	0.65	1.15	0.60	1.17	0.61	1.07	0.59	1.22
3. Life Science (Grade 5)	13	0.66	1.51	0.60	1.55	0.63	1.45	0.57	1.59
4. Life Science (Grade 4)	9	0.62	1.29	0.56	1.30	0.58	1.22	0.51	1.35
5. Earth Science (Grade 5)	11	0.64	1.41	0.57	1.41	0.60	1.34	0.55	1.47
6. Earth Science (Grade 4)	8	0.70	1.14	0.64	1.18	0.66	1.06	0.62	1.23
Grade 8 Science									
1. Motion	8	0.65	1.15	0.57	1.19	0.61	1.10	0.57	1.24
2. Forces, Density, and Buoncy	13	0.78	1.44	0.71	1.52	0.75	1.38	0.71	1.57
3. Structure of Matter and Periodic Table	16	0.81	1.68	0.76	1.71	0.79	1.60	0.75	1.78
4. Earth in the Solar System	7	0.66	1.07	0.58	1.13	0.61	1.04	0.59	1.15
5. Reactions and the Chemistry of Living Systems	10	0.67	1.41	0.61	1.42	0.65	1.37	0.57	1.46
6. Investigation and Experimentation	6	0.56	1.07	0.45	1.08	0.51	1.04	0.47	1.11
Grade 10 Life Science									
1. Cell Biology	10	0.71	1.39	0.64	1.43	0.70	1.38	0.61	1.45
2. Genetics	12	0.72	1.50	0.67	1.50	0.71	1.46	0.65	1.55
3. Physiology	10	0.77	1.29	0.71	1.33	0.75	1.25	0.70	1.38
4. Ecology	11	0.78	1.39	0.69	1.45	0.74	1.37	0.69	1.48
5. Evolution	11	0.77	1.43	0.75	1.44	0.78	1.39	0.69	1.49
6. Investigation and Experimentation	6	0.68	0.98	0.61	0.98	0.66	0.93	0.60	1.04

Subscore Reliabilities and SEM for Science by GENDER/NSLP

Subscore Area	# of items	Male		Female		Not in NSLP		NSLP	
		Reliab.	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
Biology									
1. Cell Biology	9	0.64	1.35	0.57	1.38	0.62	1.34	0.53	1.40
2. Genetics	18	0.82	1.81	0.78	1.80	0.81	1.76	0.76	1.87
3. Ecology and Evolution	16	0.80	1.76	0.75	1.80	0.79	1.72	0.71	1.85
4. Physiology	11	0.79	1.35	0.72	1.39	0.76	1.31	0.72	1.44
5. Investigation and Experimentation	6	0.59	1.07	0.54	1.08	0.57	1.05	0.51	1.11
Chemistry									
1. Atomic and Molecular Structure	8	0.66	1.17	0.59	1.21	0.62	1.17	0.59	1.24
2. Chemical Bonds, Biochemistry	9	0.71	1.22	0.65	1.28	0.67	1.22	0.66	1.33
3. Kinetics, Thermodynamics	14	0.75	1.61	0.68	1.69	0.71	1.61	0.66	1.72
4. Chemical Reactions	13	0.73	1.59	0.68	1.62	0.70	1.59	0.65	1.64
5. Conservation of Matter and Stoichiometry	10	0.71	1.38	0.64	1.42	0.68	1.38	0.60	1.45
6. Investigation and Experimentation	6	0.63	0.99	0.56	1.02	0.59	0.97	0.54	1.08
Earth Science									
1. Astronomy and Cosmology	12	0.70	1.46	0.63	1.48	0.68	1.44	0.63	1.51
2. Solid Earth	14	0.72	1.65	0.66	1.69	0.70	1.63	0.65	1.71
3. The Earth's Energy	28	0.84	2.39	0.79	2.44	0.83	2.39	0.78	2.44
4. Investigation and Experimentation	6	0.56	1.07	0.50	1.09	0.54	1.05	0.50	1.11
Physics									
1. Motion and Forces	12	0.66	1.45	0.60	1.51	0.63	1.45	0.56	1.53
2. Conservation of Energy and Momentum	12	0.79	1.46	0.73	1.51	0.76	1.46	0.71	1.55
3. Heat and Thermodynamics	9	0.71	1.25	0.65	1.30	0.67	1.25	0.63	1.32
4. Waves	10	0.68	1.37	0.61	1.41	0.65	1.36	0.59	1.44
5. Electric and Magnetic Phenomena	11	0.71	1.43	0.61	1.45	0.67	1.43	0.58	1.46
6. Investigation and Experimentation	6	0.62	0.99	0.52	1.06	0.57	0.99	0.51	1.10

Subscore Reliabilities and SEM for Science by GENDER/NSLP

Subscore Area	# of items	Male		Female		Not in NSLP		NSLP	
		Reliab.	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
Integrated Science 1									
1. Biology/Life Sciences	10	0.61	1.46	0.56	1.47	0.63	1.44	0.52	1.48
2. Chemistry	15	0.64	1.77	0.58	1.79	0.65	1.78	0.56	1.78
3. Earth Sciences	17	0.76	1.85	0.71	1.88	0.76	1.83	0.70	1.89
4. Physics	12	0.47	1.58	0.39	1.59	0.50	1.59	0.35	1.58
5. Investigation and Experimentation	6	0.51	1.12	0.49	1.12	0.54	1.11	0.44	1.13
Integrated/Coordinated Science 2									
1. Biology/Life Sciences	15	0.73	1.74	0.69	1.75	0.73	1.72	0.66	1.77
2. Chemistry	6	0.42	1.12	0.38	1.13	0.45	1.13	0.29	1.12
3. Earth Sciences	15	0.75	1.73	0.65	1.77	0.73	1.73	0.65	1.78
4. Physics	18	0.50	1.91	0.47	1.91	0.57	1.90	0.28	1.92
5. Investigation and Experimentation	6	0.48	1.12	0.43	1.13	0.48	1.11	0.41	1.13
Integrated/Coordinated Science 3									
1. Biology/Life Sciences	16	0.69	1.83	0.62	1.86	0.66	1.84	0.65	1.84
2. Chemistry	23	0.64	2.19	0.54	2.22	0.63	2.20	0.54	2.21
3. Earth Sciences	7	0.50	1.22	0.42	1.24	0.49	1.23	0.41	1.24
4. Physics	8	0.24	1.29	0.25	1.28	0.28	1.28	0.18	1.29
5. Investigation and Experimentation	6	0.57	1.06	0.55	1.07	0.59	1.04	0.49	1.10
Integrated/Coordinated Science 4									
1. Biology/Life Sciences	13	0.77	1.58	0.71	1.61	0.78	1.56	0.68	1.65
2. Chemistry	10	0.42	1.43	0.25	1.43	0.42	1.43	0.09	1.42
3. Earth Sciences	15	0.75	1.74	0.65	1.78	0.73	1.75	0.65	1.77
4. Physics	16	0.54	1.75	0.46	1.73	0.58	1.76	0.17	1.73
5. Investigation and Experimentation	6	0.50	1.12	0.42	1.15	0.54	1.11	0.26	1.17

Table 8.A.24 Subscore Reliabilities and SEM for Grade-Specific Tests by GENDER/NSLP

Subscore Reliabilities and SEM for Grade-Specific Tests by GENDER/NSLP									
Subscore Area	**# of items**	**Male**		**Female**		**Not in NSLP**		**NSLP**	
		Reliab.	***SEM***	***Reliab.***	***SEM***	***Reliab.***	***SEM***	***Reliab.***	***SEM***
Algebra I – 8									
1. Number Properties, Operations, and Linear Equations	17	0.80	1.75	0.78	1.75	0.79	1.68	0.76	1.82
2. Graphing and Systems of Linear Equations	14	0.74	1.69	0.71	1.69	0.74	1.67	0.68	1.72
3. Quadratics and Polynomials	21	0.83	2.00	0.82	1.99	0.83	1.96	0.79	2.03
4. Functions and Rational Expressions	13	0.71	1.58	0.71	1.57	0.73	1.57	0.64	1.58
Geometry – 9									
1. Logic and Geometric Proofs	23	0.83	1.95	0.81	2.00	0.81	1.92	0.79	2.08
2. Volume and Area Formulas	11	0.71	1.41	0.70	1.42	0.69	1.39	0.66	1.47
3. Angle Relationships, Constructions, and Lines	16	0.76	1.70	0.74	1.73	0.74	1.67	0.71	1.78
4. Trigonometry	15	0.81	1.58	0.80	1.60	0.79	1.54	0.79	1.68
Algebra II – 10									
1. Polynomials and Rational Expressions	19	0.80	1.72	0.79	1.74	0.78	1.70	0.80	1.80
2. Quadratics, Conics, and Complex Numbers	16	0.75	1.75	0.72	1.77	0.73	1.75	0.71	1.78
3. Exponents and Logarithms	16	0.79	1.75	0.76	1.76	0.77	1.74	0.75	1.78
4. Series, Combinatorics, and Probability and Statistics	14	0.66	1.68	0.61	1.67	0.62	1.68	0.60	1.67
Summative High School Mathematics – 11									
1. Algebra I	18	0.82	1.64	0.81	1.73	0.81	1.65	0.80	1.81
2. Geometry	19	0.77	1.74	0.76	1.81	0.76	1.74	0.76	1.89
3. Algebra II	23	0.84	1.99	0.82	2.05	0.83	1.99	0.81	2.11
4. Probability and Statistics	5	0.59	0.90	0.53	0.96	0.55	0.92	0.52	0.97

Subscore Reliabilities and SEM for Grade-Specific Tests by GENDER/NSLP

Subscore Area	# of items	Male		Female		Not in NSLP		NSLP	
		Reliab.	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*	*Reliab.*	*SEM*
World History – 10									
1. Development of Modern Political Thought	13	0.70	1.64	0.64	1.66	0.69	1.63	0.61	1.68
2. Industrial Expansion and Imperialism	10	0.71	1.40	0.66	1.44	0.69	1.39	0.62	1.45
3. Causes and Effects of World War I	14	0.78	1.64	0.70	1.70	0.76	1.65	0.69	1.70
4. Causes and Effects of World War II	13	0.74	1.61	0.66	1.66	0.72	1.61	0.63	1.66
5. International Developments in the Post-World War II Era	10	0.74	1.38	0.64	1.43	0.71	1.39	0.63	1.43

Table 8.A.25 Subscore Reliabilities and SEM for ELA by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Reliabilities and SEM for ELA by SPECIAL SERVICES/LANGUAGE FLUENCY													
Subscore Area	**# of items**	**No Spec. Ser.**		**Spec. Ser.**		**Eng. only**		**Ini. Fluent**		**Learner**		**Red. Fluent**	
		Rel.	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Grade 2													
1. Word Analysis and Vocabulary	22	0.83	1.90	0.85	2.04	0.84	1.87	0.81	1.75	0.83	2.01	0.75	1.70
2. Reading Comprehension	15	0.76	1.67	0.75	1.73	0.77	1.64	0.74	1.58	0.71	1.73	0.67	1.58
3. Literary Response and Analysis	6	0.62	0.97	0.63	1.06	0.64	0.94	0.59	0.88	0.57	1.05	0.50	0.87
4. Written and Oral Language Conventions	14	0.81	1.52	0.80	1.63	0.81	1.49	0.79	1.38	0.79	1.60	0.75	1.31
5. Writing Strategies	8	0.59	1.25	0.56	1.25	0.61	1.24	0.58	1.22	0.51	1.26	0.51	1.22
Grade 3													
1. Word Analysis and Vocabulary	20	0.78	1.78	0.83	1.91	0.78	1.72	0.73	1.67	0.75	1.92	0.56	1.63
2. Reading Comprehension	15	0.72	1.68	0.74	1.74	0.72	1.65	0.70	1.61	0.65	1.76	0.59	1.59
3. Literary Response and Analysis	8	0.71	1.13	0.71	1.21	0.72	1.08	0.69	1.03	0.63	1.24	0.57	1.01
4. Written and Oral Language Conventions	13	0.66	1.54	0.71	1.63	0.67	1.52	0.64	1.46	0.62	1.63	0.51	1.40
5. Writing Strategies	9	0.65	1.33	0.68	1.33	0.65	1.31	0.63	1.29	0.58	1.37	0.49	1.29
Grade 4													
1. Word Analysis and Vocabulary	18	0.82	1.64	0.84	1.79	0.82	1.57	0.78	1.53	0.74	1.84	0.66	1.51
2. Reading Comprehension	15	0.76	1.68	0.77	1.70	0.77	1.64	0.74	1.62	0.64	1.76	0.63	1.64
3. Literary Response and Analysis	9	0.66	1.26	0.70	1.33	0.66	1.23	0.63	1.19	0.59	1.37	0.49	1.17
4. Written and Oral Language Conventions	18	0.78	1.73	0.80	1.86	0.78	1.71	0.76	1.63	0.73	1.87	0.62	1.57
5. Writing Strategies	15	0.73	1.73	0.72	1.75	0.74	1.70	0.71	1.67	0.61	1.79	0.59	1.68
Grade 5													
1. Word Analysis and Vocabulary	14	0.73	1.47	0.76	1.59	0.73	1.42	0.69	1.37	0.66	1.62	0.56	1.40
2. Reading Comprehension	16	0.73	1.77	0.71	1.81	0.74	1.74	0.73	1.71	0.57	1.85	0.63	1.75
3. Literary Response and Analysis	12	0.72	1.43	0.72	1.53	0.73	1.39	0.71	1.34	0.63	1.56	0.59	1.36
4. Written and Oral Language Conventions	17	0.79	1.59	0.80	1.79	0.80	1.55	0.78	1.45	0.74	1.80	0.65	1.45
5. Writing Strategies	16	0.69	1.82	0.67	1.84	0.69	1.80	0.68	1.76	0.56	1.86	0.56	1.79

Subscore Reliabilities and SEM for ELA by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser.		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 6													
1. Word Analysis and Vocabulary	13	0.70	1.50	0.69	1.63	0.72	1.47	0.70	1.41	0.60	1.64	0.55	1.47
2. Reading Comprehension	17	0.72	1.83	0.70	1.90	0.74	1.80	0.71	1.76	0.62	1.94	0.60	1.81
3. Literary Response and Analysis	12	0.68	1.53	0.63	1.53	0.69	1.51	0.66	1.49	0.53	1.56	0.56	1.53
4. Written and Oral Language Conventions	16	0.78	1.55	0.77	1.80	0.80	1.53	0.77	1.42	0.74	1.78	0.66	1.45
5. Writing Strategies	17	0.76	1.79	0.70	1.87	0.77	1.77	0.75	1.73	0.62	1.90	0.65	1.78
Grade 7													
1. Word Analysis and Vocabulary	11	0.68	1.38	0.62	1.52	0.70	1.34	0.67	1.31	0.49	1.55	0.55	1.39
2. Reading Comprehension	18	0.80	1.71	0.76	1.88	0.82	1.68	0.79	1.63	0.69	1.90	0.70	1.70
3. Literary Response and Analysis	13	0.73	1.50	0.67	1.61	0.75	1.47	0.71	1.43	0.59	1.64	0.62	1.49
4. Written and Oral Language Conventions	16	0.75	1.67	0.68	1.79	0.76	1.65	0.75	1.60	0.63	1.80	0.65	1.66
5. Writing Strategies	17	0.80	1.78	0.70	1.85	0.81	1.75	0.80	1.71	0.64	1.89	0.73	1.79
Grade 8													
1. Word Analysis and Vocabulary	9	0.59	1.27	0.56	1.36	0.61	1.25	0.56	1.22	0.46	1.37	0.45	1.27
2. Reading Comprehension	18	0.78	1.78	0.72	1.90	0.79	1.76	0.77	1.72	0.64	1.92	0.68	1.79
3. Literary Response and Analysis	15	0.71	1.69	0.61	1.81	0.72	1.67	0.70	1.64	0.50	1.82	0.61	1.71
4. Written and Oral Language Conventions	16	0.78	1.57	0.74	1.78	0.79	1.55	0.76	1.48	0.70	1.79	0.66	1.54
5. Writing Strategies	17	0.73	1.82	0.64	1.86	0.75	1.80	0.73	1.78	0.55	1.88	0.64	1.84
Grade 9													
1. Word Analysis and Vocabulary	8	0.66	1.18	0.59	1.28	0.68	1.15	0.64	1.13	0.49	1.30	0.54	1.20
2. Reading Comprehension	18	0.77	1.80	0.68	1.94	0.78	1.77	0.76	1.73	0.62	1.95	0.69	1.78
3. Literary Response and Analysis	16	0.80	1.68	0.69	1.83	0.81	1.63	0.79	1.62	0.60	1.85	0.73	1.71
4. Written and Oral Language Conventions	13	0.73	1.59	0.57	1.66	0.75	1.56	0.73	1.54	0.51	1.69	0.63	1.61
5. Writing Strategies	20	0.79	1.97	0.69	1.99	0.80	1.95	0.78	1.93	0.62	2.02	0.71	1.99

Subscore Reliabilities and SEM for ELA by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser.		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 10													
1. Word Analysis and Vocabulary	8	0.59	1.14	0.57	1.28	0.63	1.12	0.58	1.09	0.51	1.28	0.47	1.13
2. Reading Comprehension	18	0.83	1.79	0.73	1.88	0.84	1.76	0.83	1.73	0.69	1.91	0.78	1.81
3. Literary Response and Analysis	16	0.79	1.72	0.68	1.80	0.80	1.69	0.79	1.67	0.58	1.83	0.72	1.74
4. Written and Oral Language Conventions	13	0.75	1.48	0.66	1.63	0.77	1.46	0.75	1.42	0.63	1.65	0.67	1.48
5. Writing Strategies	20	0.84	1.88	0.74	2.00	0.85	1.85	0.84	1.82	0.68	2.03	0.78	1.91
Grade 11													
1. Word Analysis and Vocabulary	8	0.60	1.23	0.49	1.30	0.64	1.21	0.60	1.20	0.36	1.31	0.47	1.24
2. Reading Comprehension	19	0.78	1.90	0.65	1.97	0.80	1.88	0.78	1.86	0.55	1.99	0.71	1.91
3. Literary Response and Analysis	17	0.76	1.78	0.66	1.89	0.78	1.76	0.76	1.73	0.59	1.91	0.69	1.80
4. Written and Oral Language Conventions	9	0.74	1.26	0.51	1.35	0.76	1.23	0.75	1.21	0.45	1.37	0.67	1.28
5. Writing Strategies	22	0.85	2.00	0.71	2.12	0.86	1.97	0.85	1.94	0.65	2.15	0.79	2.02

Table 8.A.26 Subscore Reliabilities and SEM for History–Social Science by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser.		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 8													
1. World History and Geography: Ancient Civilizations	16	0.68	1.83	0.60	1.83	0.69	1.82	0.69	1.80	0.45	1.85	0.60	1.85
2. Late Antiquity and the Middle Ages	14	0.72	1.67	0.67	1.66	0.73	1.66	0.73	1.63	0.56	1.68	0.66	1.68
3. Renaissance/Reformation	10	0.62	1.44	0.51	1.44	0.64	1.43	0.65	1.41	0.39	1.45	0.56	1.46
4. U.S. Constitution and the Early Republic	22	0.82	2.09	0.73	2.11	0.83	2.08	0.82	2.05	0.64	2.14	0.77	2.12
5. Civil War and Its Aftermath	13	0.72	1.63	0.61	1.64	0.73	1.62	0.73	1.60	0.54	1.66	0.66	1.65
World History													
1. Development of Modern Political Thought	13	0.69	1.64	0.56	1.65	0.71	1.63	0.70	1.62	0.46	1.67	0.63	1.66
2. Industrial Expansion and Imperialism	10	0.70	1.41	0.59	1.42	0.71	1.40	0.70	1.39	0.48	1.43	0.63	1.45
3. Causes and Effects of World War I	14	0.76	1.66	0.66	1.68	0.77	1.65	0.77	1.64	0.57	1.70	0.72	1.69
4. Causes and Effects of World War II	13	0.72	1.63	0.61	1.63	0.73	1.62	0.73	1.61	0.50	1.64	0.67	1.65
5. International Developments in the Post-World War II Era	10	0.70	1.40	0.60	1.39	0.72	1.39	0.72	1.38	0.48	1.41	0.66	1.42
Grade 11 (U.S. History)													
1. Foundations of American Political and Social Thought	10	0.63	1.42	0.49	1.45	0.64	1.41	0.64	1.40	0.39	1.46	0.57	1.43
2. Industrialization and the U.S. role as a World Power	13	0.73	1.59	0.58	1.63	0.74	1.58	0.74	1.57	0.49	1.64	0.67	1.61
3. United States between the World Wars	12	0.70	1.57	0.55	1.56	0.71	1.55	0.70	1.55	0.48	1.58	0.64	1.59
4. World War II and Foreign Affairs	12	0.75	1.52	0.62	1.54	0.76	1.51	0.76	1.50	0.52	1.55	0.71	1.53
5. Post-World War II Domestic Affairs	13	0.71	1.62	0.58	1.63	0.72	1.61	0.71	1.61	0.49	1.64	0.66	1.64

Table 8.A.27 Subscore Reliabilities and SEM for Mathematics by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Reliabilities and SEM for Mathematics by SPECIAL SERVICES/LANGUAGE FLUENCY													
	# of	No Spec. Ser		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
Subscore Area	**items**	***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	1.40	0.85	1.56	0.81	1.36	0.76	1.24	0.80	1.51	0.73	1.19
2. Number Sense: Multiplication, Division, and Fractions	23	0.83	1.81	0.87	2.00	0.84	1.78	0.80	1.64	0.83	1.92	0.77	1.60
3. Algebra and Functions	6	0.58	0.88	0.65	1.01	0.61	0.86	0.55	0.76	0.58	0.95	0.53	0.72
4. Measurement and Geometry	13	0.65	1.41	0.72	1.54	0.66	1.38	0.61	1.30	0.65	1.49	0.57	1.28
5. Statistics, Data Analysis, and Probability	7	0.63	0.98	0.68	1.10	0.65	0.96	0.59	0.89	0.62	1.05	0.53	0.88
Grade 3													
1. Number Sense: Place Value, Fractions, and Decimals	16	0.79	1.44	0.84	1.60	0.80	1.41	0.76	1.32	0.79	1.56	0.66	1.24
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.83	1.50	0.84	1.65	0.83	1.49	0.82	1.36	0.81	1.60	0.77	1.24
3. Algebra and Functions	12	0.74	1.25	0.78	1.39	0.75	1.23	0.72	1.14	0.71	1.36	0.63	1.06
4. Measurement and Geometry	16	0.72	1.41	0.80	1.58	0.74	1.39	0.69	1.29	0.73	1.51	0.59	1.21
5. Statistics, Data Analysis, and Probability	5	0.61	0.69	0.68	0.83	0.63	0.67	0.53	0.60	0.62	0.77	0.37	0.53
Grade 4													
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.77	1.45	0.82	1.64	0.78	1.42	0.75	1.33	0.76	1.63	0.67	1.26
2. Number Sense: Operations and Factoring	14	0.81	1.41	0.82	1.57	0.82	1.40	0.81	1.28	0.79	1.54	0.76	1.18
3. Algebra and Functions	18	0.84	1.53	0.86	1.75	0.84	1.51	0.82	1.38	0.83	1.71	0.74	1.27
4. Measurement and Geometry	12	0.76	1.37	0.75	1.49	0.77	1.36	0.76	1.27	0.71	1.49	0.70	1.23
5. Statistics, Data Analysis, and Probability	4	0.47	0.79	0.51	0.86	0.49	0.77	0.44	0.74	0.42	0.85	0.31	0.72

Subscore Reliabilities and SEM for Mathematics by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 5													
1. Number Sense: Estimation, Percents, and Factoring	12	0.73	1.44	0.71	1.51	0.74	1.43	0.75	1.36	0.64	1.52	0.70	1.38
2. Number Sense: Operations with Fractions and Decimals	17	0.81	1.71	0.79	1.82	0.81	1.70	0.82	1.59	0.74	1.82	0.77	1.60
3. Algebra and Functions	17	0.79	1.65	0.79	1.81	0.80	1.64	0.79	1.52	0.73	1.81	0.73	1.52
4. Measurement and Geometry	15	0.82	1.60	0.78	1.68	0.83	1.59	0.84	1.49	0.75	1.71	0.79	1.51
5. Statistics, Data Analysis, and Probability	4	0.48	0.73	0.50	0.84	0.51	0.72	0.48	0.65	0.41	0.82	0.38	0.64
Grade 6													
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.76	1.66	0.66	1.73	0.77	1.66	0.78	1.59	0.64	1.74	0.72	1.63
2. Number Sense: Operations and Problem Solving with Fractions	10	0.66	1.32	0.57	1.43	0.68	1.30	0.68	1.25	0.48	1.42	0.60	1.30
3. Algebra and Functions	19	0.83	1.77	0.78	1.93	0.84	1.75	0.83	1.65	0.76	1.94	0.78	1.70
4. Measurement and Geometry	10	0.66	1.39	0.55	1.44	0.68	1.38	0.70	1.32	0.52	1.47	0.61	1.37
5. Statistics, Data Analysis, and Probability	11	0.75	1.34	0.69	1.46	0.77	1.32	0.76	1.26	0.65	1.47	0.67	1.29
Grade 7													
1. Number Sense: Rational Numbers	14	0.74	1.61	0.66	1.68	0.75	1.60	0.76	1.55	0.64	1.69	0.70	1.59
2. Number Sense: Exponent, Powers and Roots	8	0.63	1.25	0.48	1.25	0.64	1.25	0.66	1.22	0.49	1.27	0.59	1.25
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.60	1.41	0.51	1.46	0.62	1.41	0.61	1.37	0.49	1.48	0.54	1.40
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.76	1.66	0.67	1.74	0.78	1.65	0.77	1.60	0.64	1.76	0.71	1.64

Subscore Reliabilities and SEM for Mathematics by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
5. Measurement and Geometry	13	0.71	1.59	0.60	1.62	0.73	1.58	0.73	1.56	0.57	1.64	0.66	1.60
6. Statistics, Data Analysis, and Probability	5	0.58	0.93	0.46	1.00	0.59	0.92	0.59	0.89	0.48	1.00	0.52	0.90
General Mathematics													
1. Number Sense: Rational Numbers	14	0.71	1.64	0.61	1.64	0.72	1.64	0.72	1.63	0.65	1.64	0.70	1.63
2. Number Sense: Exponent, Powers and Roots	10	0.67	1.39	0.53	1.34	0.67	1.39	0.68	1.39	0.60	1.36	0.67	1.39
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.68	1.43	0.65	1.50	0.71	1.43	0.69	1.41	0.65	1.50	0.62	1.40
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.62	1.37	0.56	1.43	0.65	1.37	0.63	1.35	0.57	1.43	0.58	1.34
5. Measurement and Geometry	11	0.61	1.52	0.47	1.47	0.63	1.51	0.61	1.52	0.48	1.49	0.57	1.53
6. Statistics, Data Analysis, and Probability	9	0.61	1.33	0.45	1.37	0.63	1.33	0.61	1.32	0.45	1.37	0.56	1.31
Algebra I													
1. Number Properties, Operations, and Linear Equations	17	0.78	1.81	0.65	1.87	0.79	1.80	0.80	1.76	0.63	1.88	0.75	1.81
2. Graphing and Systems of Linear Equations	14	0.68	1.71	0.46	1.71	0.68	1.71	0.74	1.68	0.51	1.72	0.68	1.71
3. Quadratics and Polynomials	21	0.79	2.03	0.62	2.02	0.79	2.03	0.83	1.99	0.66	2.04	0.79	2.03
4. Functions and Rational Expressions	13	0.66	1.58	0.39	1.55	0.66	1.58	0.73	1.56	0.44	1.56	0.66	1.58
Geometry													
1. Logic and Geometric Proofs	23	0.82	2.07	0.75	2.12	0.83	2.05	0.85	2.02	0.72	2.12	0.80	2.09
2. Volume and Area Formulas	11	0.69	1.47	0.53	1.49	0.69	1.46	0.74	1.43	0.53	1.49	0.67	1.47
3. Angle Relationships, Constructions, and Lines	16	0.75	1.77	0.66	1.80	0.75	1.77	0.79	1.73	0.64	1.81	0.72	1.79
4. Trigonometry	15	0.81	1.67	0.71	1.71	0.81	1.67	0.83	1.62	0.71	1.72	0.79	1.69

Subscore Reliabilities and SEM for Mathematics by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Algebra II													
1. Polynomials and Rational Expressions	19	0.81	1.79	0.80	1.89	0.80	1.79	0.82	1.72	0.82	1.86	0.81	1.79
2. Quadratics, Conics, and Complex Numbers	16	0.74	1.77	0.69	1.78	0.73	1.78	0.78	1.74	0.72	1.77	0.74	1.77
3. Exponents and Logarithms	16	0.77	1.77	0.73	1.77	0.77	1.77	0.81	1.73	0.75	1.77	0.76	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.65	1.67	0.62	1.64	0.64	1.68	0.69	1.66	0.60	1.63	0.63	1.66
Summative High School Mathematics													
1. Algebra I	18	0.82	1.66	0.87	1.70	0.81	1.66	0.82	1.56	0.86	1.74	0.82	1.71
2. Geometry	19	0.77	1.76	0.85	1.81	0.75	1.75	0.78	1.68	0.83	1.83	0.78	1.81
3. Algebra II	23	0.83	1.99	0.87	2.02	0.82	2.00	0.85	1.89	0.87	2.03	0.84	2.03
4. Probability and Statistics	5	0.57	0.92	0.66	0.92	0.55	0.92	0.58	0.89	0.59	0.95	0.56	0.95
Integrated Mathematics 1													
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.73	1.74	0.59	1.78	0.74	1.73	0.76	1.70	0.56	1.79	0.70	1.75
2. Algebra I: Graphing	9	0.51	1.38	0.39	1.36	0.51	1.38	0.57	1.36	0.35	1.37	0.51	1.38
3. Algebra I: Quadratics and Polynomials	14	0.66	1.65	0.56	1.63	0.66	1.65	0.73	1.64	0.51	1.63	0.66	1.66
4. Algebra I: Functions and Relations Expressions	7	0.46	1.11	0.32	1.11	0.46	1.11	0.54	1.09	0.29	1.12	0.46	1.12
5. Geometry	20	0.58	2.00	0.36	1.97	0.57	2.01	0.67	1.99	0.36	1.95	0.58	1.99

Subscore Reliabilities and SEM for Mathematics by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated Mathematics 2													
1. Algebra I	20	0.73	2.01	0.52	1.99	0.73	2.01	0.79	1.98	0.63	2.00	0.71	2.01
2. Geometry: Logic and Geometric Proofs	22	0.77	2.08	0.62	2.07	0.78	2.08	0.83	2.05	0.63	2.09	0.72	2.08
3. Geometry: Angle Relationships, Construction and Lines	8	0.50	1.30	0.37	1.31	0.49	1.30	0.61	1.26	0.44	1.30	0.48	1.30
4. Trigonometry	10	0.70	1.40	0.45	1.43	0.69	1.41	0.77	1.35	0.63	1.39	0.70	1.40
5. Algebra II/Probability and Statistics	5	0.31	0.99	0.23	0.98	0.33	1.00	0.44	0.97	–	–	0.21	0.96
Integrated Mathematics 3													
1. Geometry	5	0.41	0.97	0.54	0.91	0.42	0.98	0.55	0.93	0.39	0.97	0.31	0.97
2. Algebra II: Polynomials and Relations Expressions	19	0.78	1.89	0.55	1.95	0.75	1.90	0.84	1.79	0.74	1.94	0.80	1.89
3. Algebra II: Quadratics, Conics and Statistics	16	0.71	1.80	0.51	1.74	0.66	1.81	0.81	1.72	0.64	1.77	0.73	1.77
4. Algebra II: Exponents and Logarithms	16	0.76	1.79	0.63	1.73	0.74	1.80	0.83	1.70	0.64	1.80	0.77	1.75
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.46	1.34	0.09	1.29	0.41	1.35	0.54	1.34	0.41	1.29	0.48	1.30

Table 8.A.28 Subscore Reliabilities and SEM for Science by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Reliabilities and SEM for Science by SPECIAL SERVICES/LANGUAGE FLUENCY													
	# of	No Spec. Ser.		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
Subscore Area	**items**	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Grade 5 Science													
1. Physical Science (Grade 5)	11	0.66	1.34	0.72	1.45	0.66	1.29	0.61	1.24	0.60	1.51	0.49	1.28
2. Physical Science (Grade 4)	8	0.62	1.15	0.65	1.23	0.62	1.12	0.59	1.08	0.53	1.26	0.50	1.12
3. Life Science (Grade 5)	13	0.62	1.52	0.65	1.60	0.64	1.49	0.62	1.45	0.49	1.62	0.52	1.48
4. Life Science (Grade 4)	9	0.58	1.29	0.59	1.35	0.59	1.26	0.57	1.24	0.43	1.38	0.46	1.28
5. Earth Science (Grade 5)	11	0.60	1.41	0.63	1.49	0.62	1.38	0.57	1.35	0.50	1.51	0.44	1.37
6. Earth Science (Grade 4)	8	0.66	1.16	0.67	1.24	0.67	1.12	0.64	1.08	0.57	1.29	0.53	1.11
Grade 8 Science													
1. Motion	8	0.58	1.16	0.57	1.30	0.62	1.14	0.57	1.10	0.49	1.30	0.46	1.14
2. Forces, Density, and Buoncy	13	0.73	1.46	0.71	1.64	0.76	1.43	0.72	1.40	0.64	1.67	0.64	1.47
3. Structure of Matter and Periodic Table	16	0.78	1.68	0.71	1.83	0.79	1.65	0.78	1.61	0.65	1.85	0.72	1.69
4. Earth in the Solar System	7	0.61	1.09	0.59	1.18	0.62	1.07	0.59	1.05	0.53	1.20	0.53	1.09
5. Reactions and the Chemistry of Living Systems	10	0.63	1.41	0.53	1.45	0.65	1.39	0.64	1.37	0.47	1.48	0.55	1.42
6. Investigation and Experimentation	6	0.49	1.07	0.46	1.13	0.52	1.07	0.50	1.02	0.42	1.14	0.39	1.05
Grade 10 Life Science													
1. Cell Biology	10	0.68	1.40	0.57	1.43	0.69	1.39	0.70	1.37	0.47	1.46	0.62	1.43
2. Genetics	12	0.70	1.49	0.56	1.59	0.71	1.48	0.71	1.45	0.52	1.60	0.65	1.49
3. Physiology	10	0.74	1.30	0.67	1.42	0.76	1.27	0.73	1.25	0.58	1.46	0.67	1.32
4. Ecology	11	0.73	1.41	0.66	1.48	0.75	1.39	0.73	1.38	0.59	1.52	0.66	1.45
5. Evolution	11	0.76	1.43	0.58	1.48	0.78	1.41	0.77	1.39	0.44	1.50	0.70	1.46
6. Investigation and Experimentation	6	0.64	0.97	0.51	1.11	0.66	0.95	0.65	0.91	0.46	1.12	0.57	0.97

Subscore Reliabilities and SEM for Science by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser.		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Biology													
1. Cell Biology	9	0.60	1.37	0.47	1.38	0.61	1.36	0.63	1.34	0.41	1.40	0.55	1.38
2. Genetics	18	0.79	1.80	0.72	1.91	0.81	1.78	0.80	1.75	0.67	1.92	0.75	1.81
3. Ecology and Evolution	16	0.77	1.77	0.66	1.84	0.79	1.74	0.77	1.74	0.55	1.87	0.71	1.82
4. Physiology	11	0.75	1.36	0.69	1.48	0.76	1.33	0.75	1.31	0.61	1.51	0.70	1.39
5. Investigation and Experimentation	6	0.56	1.07	0.45	1.11	0.57	1.06	0.56	1.05	0.36	1.13	0.48	1.09
Chemistry													
1. Atomic and Molecular Structure	8	0.62	1.19	0.64	1.25	0.62	1.18	0.64	1.16	0.53	1.27	0.60	1.21
2. Chemical Bonds, Biochemistry	9	0.68	1.25	0.71	1.31	0.67	1.23	0.68	1.21	0.61	1.36	0.65	1.30
3. Kinetics, Thermodynamics	14	0.71	1.65	0.72	1.70	0.71	1.63	0.73	1.61	0.60	1.74	0.67	1.70
4. Chemical Reactions	13	0.70	1.61	0.67	1.62	0.69	1.60	0.73	1.58	0.57	1.63	0.68	1.63
5. Conservation of Matter and Stoichiometry	10	0.67	1.40	0.60	1.44	0.67	1.39	0.71	1.37	0.53	1.46	0.64	1.43
6. Investigation and Experimentation	6	0.59	1.01	0.59	1.09	0.59	0.97	0.57	0.98	0.38	1.14	0.53	1.06
Earth Science													
1. Astronomy and Cosmology	12	0.66	1.46	0.63	1.54	0.68	1.45	0.65	1.45	0.57	1.54	0.59	1.46
2. Solid Earth	14	0.69	1.66	0.65	1.72	0.71	1.64	0.67	1.66	0.56	1.74	0.59	1.68
3. The Earth's Energy	28	0.82	2.41	0.76	2.42	0.83	2.39	0.81	2.41	0.67	2.45	0.77	2.43
4. Investigation and Experimentation	6	0.52	1.07	0.47	1.13	0.54	1.06	0.50	1.06	0.41	1.14	0.43	1.07
Physics													
1. Motion and Forces	12	0.63	1.48	0.60	1.56	0.64	1.47	0.64	1.45	0.54	1.56	0.56	1.50
2. Conservation of Energy and Momentum	12	0.76	1.48	0.70	1.53	0.77	1.47	0.77	1.44	0.67	1.54	0.72	1.52
3. Heat and Thermodynamics	9	0.68	1.28	0.64	1.32	0.68	1.26	0.68	1.25	0.53	1.32	0.63	1.31
4. Waves	10	0.65	1.39	0.61	1.44	0.66	1.38	0.65	1.36	0.54	1.46	0.60	1.42
5. Electric and Magnetic Phenomena	11	0.67	1.44	0.59	1.45	0.68	1.44	0.68	1.42	0.54	1.44	0.61	1.45
6. Investigation and Experimentation	6	0.57	1.02	0.56	1.08	0.58	1.00	0.56	1.00	0.40	1.12	0.48	1.08

Subscore Reliabilities and SEM for Science by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser.		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated/Coordinated Science 1													
1. Biology/Life Sciences	10	0.59	1.46	0.45	1.47	0.62	1.44	0.61	1.45	0.34	1.48	0.50	1.48
2. Chemistry	15	0.62	1.78	0.44	1.74	0.64	1.78	0.66	1.78	0.44	1.75	0.59	1.80
3. Earth Sciences	17	0.74	1.86	0.66	1.90	0.76	1.84	0.75	1.83	0.59	1.92	0.68	1.87
4. Physics	12	0.44	1.59	0.31	1.56	0.48	1.59	0.51	1.59	0.27	1.57	0.39	1.60
5. Investigation and Experimentation	6	0.50	1.12	0.32	1.11	0.54	1.11	0.50	1.12	0.27	1.12	0.44	1.14
Integrated/Coordinated Science 2													
1. Biology/Life Sciences	15	0.71	1.74	0.58	1.78	0.72	1.74	0.76	1.70	0.59	1.79	0.71	1.73
2. Chemistry	6	0.41	1.13	0.19	1.12	0.41	1.13	0.51	1.11	0.21	1.10	0.37	1.13
3. Earth Sciences	15	0.71	1.75	0.67	1.76	0.73	1.73	0.73	1.74	0.51	1.79	0.68	1.75
4. Physics	18	0.49	1.91	0.25	1.89	0.49	1.91	0.65	1.89	0.18	1.91	0.46	1.91
5. Investigation and Experimentation	6	0.46	1.12	0.32	1.12	0.47	1.12	0.53	1.10	0.25	1.13	0.41	1.13
Integrated/Coordinated Science 3													
1. Biology/Life Sciences	16	0.66	1.85	0.59	1.79	0.66	1.85	0.68	1.83	0.49	1.80	0.62	1.87
2. Chemistry	23	0.61	2.21	0.43	2.15	0.61	2.21	0.46	2.23	0.31	2.16	0.65	2.22
3. Earth Sciences	7	0.46	1.23	0.41	1.22	0.50	1.22	0.39	1.26	0.17	1.25	0.41	1.25
4. Physics	8	0.25	1.29	0.13	1.25	0.25	1.29	0.15	1.31	0.15	1.24	0.24	1.29
5. Investigation and Experimentation	6	0.56	1.06	0.49	1.10	0.58	1.05	0.46	1.09	0.16	1.12	0.50	1.07
Integrated/Coordinated Science 4													
1. Biology/Life Sciences	13	0.74	1.60	0.73	1.60	0.76	1.57	0.73	1.64	0.29	1.67	0.64	1.67
2. Chemistry	10	0.34	1.44	0.23	1.37	0.42	1.43	0.08	1.47	–	1.44	0.02	1.45
3. Earth Sciences	15	0.71	1.77	0.71	1.74	0.72	1.76	0.63	1.82	0.45	1.70	0.59	1.78
4. Physics	16	0.52	1.75	0.16	1.68	0.59	1.74	0.01	1.81	0.22	1.69	–	1.77
5. Investigation and Experimentation	6	0.46	1.14	0.34	1.13	0.51	1.12	0.40	1.13	–	1.15	0.17	1.20

Table 8.A.29 Subscore Reliabilities and SEM for Grade-Specific Tests by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Reliabilities and SEM for Grade-Specific Tests by SPECIAL SERVICES/LANGUAGE FLUENCY													
	# of	No Spec. Ser		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
Subscore Area	**items**	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Algebra I – 8													
1. Number Properties, Operations, and Linear Equations	17	0.79	1.74	0.76	1.85	0.79	1.72	0.79	1.68	0.70	1.87	0.75	1.75
2. Graphing and Systems of Linear Equations	14	0.72	1.69	0.62	1.71	0.72	1.69	0.76	1.64	0.61	1.72	0.71	1.69
3. Quadratics and Polynomials	21	0.82	1.99	0.77	2.02	0.82	1.99	0.84	1.95	0.76	2.03	0.81	2.00
4. Functions and Rational Expressions	13	0.71	1.58	0.58	1.57	0.70	1.58	0.75	1.55	0.58	1.57	0.70	1.57
Geometry – 9													
1. Logic and Geometric Proofs	23	0.82	1.98	0.85	2.07	0.81	1.94	0.82	1.95	0.81	2.09	0.80	2.04
2. Volume and Area Formulas	11	0.70	1.42	0.70	1.47	0.69	1.41	0.72	1.39	0.69	1.47	0.69	1.44
3. Angle Relationships, Constructions, and Lines	16	0.75	1.71	0.78	1.76	0.73	1.69	0.76	1.68	0.76	1.78	0.73	1.75
4. Trigonometry	15	0.80	1.59	0.82	1.67	0.79	1.57	0.81	1.54	0.81	1.68	0.79	1.63
Algebra II – 10													
1. Polynomials and Rational Expressions	19	0.79	1.73	0.83	1.83	0.78	1.73	0.80	1.67	0.84	1.81	0.80	1.75
2. Quadratics, Conics, and Complex Numbers	16	0.74	1.76	0.75	1.76	0.72	1.77	0.76	1.73	0.76	1.76	0.74	1.76
3. Exponents and Logarithms	16	0.77	1.76	0.78	1.77	0.76	1.76	0.79	1.72	0.79	1.76	0.77	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.63	1.68	0.66	1.66	0.62	1.68	0.65	1.67	0.65	1.64	0.62	1.67
Summative High School Math – 11													
1. Algebra I	18	0.81	1.69	0.86	1.74	0.80	1.69	0.82	1.61	0.85	1.76	0.82	1.74
2. Geometry	19	0.77	1.78	0.83	1.83	0.75	1.77	0.78	1.72	0.82	1.85	0.77	1.84
3. Algebra II	23	0.83	2.02	0.86	2.05	0.82	2.03	0.85	1.93	0.86	2.05	0.83	2.05
4. Probability and Statistics	5	0.57	0.93	0.64	0.93	0.55	0.93	0.58	0.91	0.56	0.96	0.55	0.96

Subscore Reliabilities and SEM for Grade-Specific Tests by SPECIAL SERVICES/LANGUAGE FLUENCY

Subscore Area	# of items	No Spec. Ser		Spec. Ser.		Eng. only		Ini. Fluent		Learner		Red. Fluent	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
World History – 10													
1. Development of Modern Political Thought	13	0.67	1.65	0.54	1.66	0.69	1.63	0.68	1.63	0.44	1.68	0.61	1.67
2. Industrial Expansion and Imperialism	10	0.68	1.42	0.58	1.42	0.69	1.40	0.68	1.40	0.48	1.44	0.61	1.45
3. Causes and Effects of World War I	14	0.75	1.67	0.66	1.69	0.76	1.66	0.76	1.65	0.57	1.71	0.71	1.69
4. Causes and Effects of World War II	13	0.70	1.63	0.60	1.64	0.72	1.62	0.72	1.62	0.49	1.65	0.66	1.66
5. International Developments in the Post-World War II Era	10	0.69	1.41	0.60	1.40	0.70	1.40	0.70	1.39	0.48	1.42	0.65	1.42

Table 8.A.30 Subscore Reliabilities and SEM for English–Language Arts by PRIMARY ETHNICITY

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY															
Subscore Area	**# 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	22	0.84	1.97	0.83	1.68	0.81	1.92	0.80	1.75	0.83	2.00	0.84	1.96	0.83	1.82
2. Reading Comprehension	15	0.75	1.71	0.76	1.54	0.73	1.70	0.71	1.61	0.72	1.73	0.74	1.73	0.77	1.60
3. Literary Response and Analysis	6	0.62	1.01	0.61	0.87	0.58	0.98	0.56	0.91	0.59	1.04	0.60	1.02	0.64	0.88
4. Written and Oral Language Conventions	14	0.79	1.59	0.81	1.28	0.79	1.52	0.79	1.36	0.79	1.59	0.80	1.57	0.80	1.46
5. Writing Strategies	8	0.58	1.26	0.62	1.19	0.51	1.26	0.56	1.23	0.51	1.27	0.55	1.26	0.60	1.23
Grade 3															
1. Word Analysis and Vocabulary	20	0.78	1.83	0.77	1.61	0.75	1.80	0.70	1.67	0.76	1.88	0.78	1.85	0.77	1.65
2. Reading Comprehension	15	0.70	1.71	0.73	1.57	0.69	1.70	0.67	1.64	0.68	1.74	0.70	1.73	0.71	1.60
3. Literary Response and Analysis	8	0.71	1.15	0.73	1.00	0.69	1.15	0.69	1.07	0.68	1.20	0.70	1.19	0.71	1.02
4. Written and Oral Language Conventions	13	0.66	1.59	0.68	1.38	0.64	1.56	0.63	1.46	0.64	1.61	0.66	1.60	0.66	1.48
5. Writing Strategies	9	0.64	1.34	0.65	1.26	0.63	1.35	0.60	1.30	0.61	1.36	0.62	1.35	0.63	1.29
Grade 4															
1. Word Analysis and Vocabulary	18	0.83	1.68	0.82	1.46	0.81	1.67	0.78	1.52	0.79	1.76	0.81	1.73	0.81	1.48
2. Reading Comprehension	15	0.76	1.70	0.77	1.56	0.73	1.70	0.73	1.64	0.71	1.74	0.73	1.72	0.76	1.59
3. Literary Response and Analysis	9	0.63	1.30	0.67	1.12	0.64	1.29	0.62	1.22	0.63	1.33	0.65	1.32	0.65	1.17
4. Written and Oral Language Conventions	18	0.78	1.81	0.79	1.53	0.77	1.74	0.74	1.61	0.76	1.81	0.78	1.81	0.77	1.66
5. Writing Strategies	15	0.72	1.75	0.75	1.63	0.70	1.75	0.70	1.69	0.68	1.77	0.70	1.76	0.73	1.66
Grade 5															
1. Word Analysis and Vocabulary	14	0.71	1.50	0.75	1.34	0.71	1.50	0.68	1.39	0.72	1.55	0.73	1.54	0.70	1.36
2. Reading Comprehension	16	0.71	1.80	0.76	1.66	0.71	1.79	0.70	1.74	0.67	1.82	0.68	1.82	0.73	1.69
3. Literary Response and Analysis	12	0.70	1.46	0.74	1.28	0.71	1.47	0.69	1.37	0.69	1.50	0.72	1.50	0.71	1.34

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY

Subscore Area	# 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*
4. Written and Oral Language Conventions	17	0.80	1.66	0.79	1.38	0.78	1.60	0.75	1.47	0.78	1.69	0.80	1.68	0.79	1.48
5. Writing Strategies	16	0.66	1.85	0.72	1.72	0.67	1.83	0.66	1.79	0.64	1.85	0.65	1.85	0.68	1.78
Grade 6															
1. Word Analysis and Vocabulary	13	0.71	1.54	0.74	1.35	0.70	1.52	0.67	1.42	0.68	1.58	0.72	1.56	0.70	1.41
2. Reading Comprehension	17	0.71	1.86	0.74	1.71	0.72	1.86	0.69	1.77	0.70	1.89	0.70	1.89	0.72	1.76
3. Literary Response and Analysis	12	0.67	1.54	0.70	1.46	0.65	1.55	0.65	1.51	0.65	1.56	0.66	1.55	0.66	1.49
4. Written and Oral Language Conventions	16	0.79	1.64	0.78	1.33	0.78	1.58	0.73	1.42	0.78	1.66	0.80	1.68	0.79	1.46
5. Writing Strategies	17	0.74	1.84	0.78	1.69	0.74	1.83	0.72	1.77	0.72	1.86	0.74	1.85	0.76	1.72
Grade 7															
1. Word Analysis and Vocabulary	11	0.69	1.42	0.70	1.26	0.68	1.41	0.64	1.30	0.65	1.47	0.68	1.45	0.68	1.28
2. Reading Comprehension	18	0.81	1.76	0.82	1.56	0.79	1.77	0.77	1.65	0.79	1.81	0.79	1.82	0.80	1.61
3. Literary Response and Analysis	13	0.74	1.53	0.73	1.39	0.72	1.54	0.69	1.46	0.71	1.58	0.73	1.56	0.73	1.41
4. Written and Oral Language Conventions	16	0.75	1.72	0.77	1.52	0.74	1.68	0.72	1.58	0.72	1.74	0.75	1.73	0.75	1.61
5. Writing Strategies	17	0.79	1.82	0.82	1.63	0.77	1.83	0.77	1.74	0.76	1.85	0.77	1.84	0.81	1.71
Grade 8															
1. Word Analysis and Vocabulary	9	0.59	1.30	0.64	1.19	0.57	1.29	0.52	1.24	0.58	1.32	0.60	1.32	0.58	1.21
2. Reading Comprehension	18	0.77	1.83	0.79	1.65	0.77	1.83	0.73	1.74	0.75	1.86	0.76	1.86	0.78	1.71
3. Literary Response and Analysis	15	0.69	1.74	0.73	1.56	0.68	1.74	0.68	1.64	0.66	1.77	0.68	1.77	0.71	1.61
4. Written and Oral Language Conventions	16	0.78	1.64	0.77	1.40	0.77	1.60	0.72	1.46	0.78	1.67	0.79	1.67	0.78	1.49
5. Writing Strategies	17	0.74	1.84	0.75	1.74	0.70	1.86	0.69	1.80	0.70	1.86	0.71	1.85	0.75	1.77

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY

Subscore Area	# 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 9															
1. Word Analysis and Vocabulary	8	0.69	1.19	0.66	1.08	0.65	1.22	0.59	1.13	0.63	1.25	0.66	1.24	0.66	1.09
2. Reading Comprehension	18	0.77	1.84	0.78	1.64	0.75	1.84	0.73	1.72	0.74	1.88	0.75	1.88	0.77	1.72
3. Literary Response and Analysis	16	0.80	1.71	0.82	1.52	0.78	1.74	0.77	1.63	0.77	1.78	0.77	1.77	0.80	1.56
4. Written and Oral Language Conventions	13	0.72	1.62	0.75	1.45	0.71	1.61	0.70	1.52	0.67	1.66	0.69	1.64	0.74	1.52
5. Writing Strategies	20	0.79	2.00	0.79	1.87	0.78	2.00	0.74	1.94	0.75	2.01	0.77	2.00	0.79	1.92
Grade 10															
1. Word Analysis and Vocabulary	8	0.61	1.19	0.62	1.04	0.60	1.18	0.52	1.10	0.58	1.20	0.62	1.21	0.62	1.08
2. Reading Comprehension	18	0.83	1.83	0.83	1.65	0.82	1.84	0.80	1.76	0.80	1.86	0.81	1.86	0.84	1.71
3. Literary Response and Analysis	16	0.78	1.75	0.80	1.63	0.76	1.76	0.75	1.70	0.75	1.78	0.77	1.77	0.80	1.65
4. Written and Oral Language Conventions	13	0.76	1.53	0.74	1.35	0.76	1.51	0.70	1.41	0.74	1.56	0.76	1.56	0.75	1.42
5. Writing Strategies	20	0.83	1.92	0.85	1.75	0.82	1.94	0.81	1.85	0.82	1.97	0.82	1.96	0.84	1.80
Grade 11															
1. Word Analysis and Vocabulary	8	0.62	1.24	0.64	1.15	0.56	1.27	0.51	1.20	0.51	1.28	0.55	1.29	0.64	1.17
2. Reading Comprehension	19	0.77	1.93	0.79	1.82	0.75	1.94	0.73	1.89	0.73	1.95	0.75	1.95	0.79	1.85
3. Literary Response and Analysis	17	0.76	1.81	0.77	1.69	0.75	1.82	0.71	1.75	0.74	1.85	0.75	1.85	0.77	1.72
4. Written and Oral Language Conventions	9	0.72	1.29	0.77	1.13	0.71	1.30	0.71	1.22	0.67	1.33	0.69	1.32	0.76	1.19
5. Writing Strategies	22	0.84	2.04	0.85	1.87	0.83	2.06	0.81	1.96	0.81	2.09	0.82	2.08	0.86	1.93

Table 8.A.31 Subscore Reliabilities and SEM for History–Social Science by PRIMARY ETHNICITY

Subscore Area	# 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	0.64	1.85	0.73	1.75	0.63	1.85	0.64	1.82	0.61	1.86	0.62	1.85	0.68	1.80
2. Late Antiquity and the Middle Ages	14	0.70	1.69	0.76	1.55	0.69	1.69	0.68	1.65	0.67	1.70	0.68	1.69	0.71	1.64
3. Renaissance/Reformation	10	0.59	1.46	0.66	1.37	0.59	1.45	0.57	1.44	0.55	1.46	0.54	1.46	0.64	1.42
4. U.S. Constitution and the Early Republic	22	0.79	2.13	0.83	1.97	0.79	2.12	0.79	2.07	0.77	2.14	0.78	2.12	0.82	2.05
5. Civil War and Its Aftermath	13	0.69	1.65	0.73	1.54	0.69	1.65	0.68	1.62	0.66	1.66	0.69	1.65	0.73	1.59
World History															
1. Development of Modern Political Thought	13	0.68	1.65	0.72	1.57	0.66	1.66	0.66	1.63	0.62	1.67	0.63	1.67	0.71	1.61
2. Industrial Expansion and Imperialism	10	0.67	1.43	0.70	1.34	0.66	1.43	0.65	1.41	0.63	1.45	0.64	1.44	0.70	1.37
3. Causes and Effects of World War I	14	0.74	1.68	0.77	1.59	0.74	1.68	0.73	1.67	0.69	1.70	0.68	1.70	0.77	1.63
4. Causes and Effects of World War II	13	0.68	1.65	0.74	1.57	0.67	1.65	0.68	1.63	0.64	1.65	0.63	1.65	0.74	1.60
5. International Developments in the Post-World War II Era	10	0.69	1.41	0.72	1.34	0.68	1.41	0.67	1.40	0.63	1.42	0.62	1.42	0.72	1.38
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.59	1.45	0.66	1.36	0.58	1.44	0.57	1.43	0.57	1.45	0.56	1.44	0.64	1.40
2. Industrialization and the U.S. role as a World Power	13	0.70	1.62	0.76	1.52	0.67	1.63	0.68	1.60	0.65	1.64	0.65	1.64	0.75	1.56
3. United States between the World Wars	12	0.68	1.58	0.69	1.52	0.66	1.59	0.63	1.58	0.66	1.58	0.65	1.58	0.70	1.54
4. World War II and Foreign Affairs	12	0.73	1.53	0.77	1.46	0.70	1.55	0.71	1.52	0.69	1.55	0.66	1.55	0.76	1.48
5. Post-World War II Domestic Affairs	13	0.70	1.63	0.72	1.58	0.67	1.65	0.66	1.63	0.66	1.64	0.66	1.64	0.72	1.60

Table 8.A.32 Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY															
Subscore Area	**# 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	1.48	0.79	1.14	0.79	1.43	0.77	1.27	0.80	1.50	0.82	1.52	0.78	1.27
2. Number Sense: Multiplication, Division, and Fractions	23	0.83	1.90	0.82	1.58	0.83	1.87	0.81	1.71	0.83	1.91	0.84	1.94	0.82	1.69
3. Algebra and Functions	6	0.59	0.94	0.60	0.69	0.57	0.90	0.58	0.77	0.57	0.95	0.60	0.97	0.59	0.81
4. Measurement and Geometry	13	0.65	1.45	0.66	1.26	0.62	1.45	0.63	1.33	0.64	1.48	0.65	1.50	0.62	1.31
5. Statistics, Data Analysis, and Probability	7	0.64	1.03	0.62	0.85	0.60	1.01	0.59	0.92	0.62	1.04	0.64	1.07	0.63	0.91
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.80	1.52	0.76	1.21	0.77	1.47	0.75	1.31	0.79	1.53	0.80	1.56	0.77	1.34
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.82	1.60	0.82	1.22	0.81	1.53	0.81	1.36	0.82	1.58	0.82	1.61	0.83	1.43
3. Algebra and Functions	12	0.74	1.32	0.72	1.04	0.73	1.27	0.69	1.14	0.72	1.33	0.74	1.35	0.73	1.16
4. Measurement and Geometry	16	0.74	1.48	0.73	1.22	0.72	1.43	0.69	1.30	0.73	1.48	0.75	1.51	0.72	1.34
5. Statistics, Data Analysis, and Probability	5	0.62	0.74	0.57	0.58	0.63	0.71	0.52	0.63	0.62	0.74	0.66	0.77	0.61	0.62
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.77	1.55	0.76	1.18	0.76	1.48	0.73	1.32	0.77	1.56	0.78	1.59	0.76	1.33
2. Number Sense: Operations and Factoring	14	0.81	1.52	0.80	1.11	0.80	1.45	0.80	1.27	0.80	1.49	0.81	1.54	0.81	1.34
3. Algebra and Functions	18	0.84	1.66	0.81	1.22	0.83	1.56	0.81	1.37	0.83	1.64	0.85	1.68	0.83	1.43
4. Measurement and Geometry	12	0.75	1.45	0.77	1.17	0.75	1.40	0.75	1.27	0.73	1.45	0.75	1.47	0.76	1.31
5. Statistics, Data Analysis, and Probability	4	0.50	0.81	0.44	0.68	0.49	0.80	0.43	0.74	0.44	0.83	0.48	0.84	0.47	0.74

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.70	1.49	0.77	1.26	0.71	1.47	0.73	1.38	0.69	1.49	0.70	1.50	0.72	1.39
2. Number Sense: Operations with Fractions and Decimals	17	0.78	1.78	0.82	1.45	0.78	1.75	0.80	1.61	0.78	1.78	0.78	1.80	0.81	1.65
3. Algebra and Functions	17	0.79	1.73	0.80	1.42	0.78	1.69	0.78	1.55	0.77	1.74	0.78	1.77	0.80	1.58
4. Measurement and Geometry	15	0.80	1.67	0.84	1.39	0.80	1.64	0.82	1.52	0.79	1.67	0.79	1.68	0.83	1.55
5. Statistics, Data Analysis, and Probability	4	0.50	0.78	0.50	0.60	0.49	0.75	0.45	0.67	0.46	0.78	0.51	0.80	0.51	0.68
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.72	1.71	0.80	1.48	0.74	1.69	0.75	1.62	0.70	1.72	0.69	1.73	0.76	1.62
2. Number Sense: Operations and Problem Solving with Fractions	10	0.64	1.36	0.69	1.16	0.63	1.34	0.63	1.28	0.59	1.39	0.60	1.39	0.68	1.24
3. Algebra and Functions	19	0.82	1.85	0.83	1.49	0.82	1.81	0.81	1.68	0.81	1.87	0.81	1.90	0.83	1.68
4. Measurement and Geometry	10	0.63	1.43	0.72	1.23	0.66	1.41	0.66	1.35	0.60	1.44	0.60	1.45	0.68	1.35
5. Statistics, Data Analysis, and Probability	11	0.74	1.40	0.76	1.18	0.76	1.37	0.73	1.28	0.72	1.41	0.73	1.43	0.76	1.27

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY

Subscore Area	# 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	1.65	0.77	1.43	0.73	1.62	0.73	1.54	0.71	1.66	0.70	1.67	0.74	1.56
2. Number Sense: Exponent, Powers and Roots	8	0.59	1.27	0.68	1.16	0.60	1.26	0.63	1.23	0.57	1.27	0.57	1.26	0.63	1.24
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.58	1.45	0.62	1.30	0.58	1.43	0.57	1.37	0.57	1.45	0.57	1.46	0.61	1.38
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.75	1.70	0.78	1.50	0.73	1.69	0.75	1.60	0.72	1.72	0.71	1.73	0.77	1.60
5. Measurement and Geometry	13	0.68	1.63	0.77	1.47	0.68	1.62	0.71	1.57	0.66	1.63	0.64	1.63	0.72	1.55
6. Statistics, Data Analysis, and Probability	5	0.57	0.96	0.58	0.82	0.55	0.96	0.57	0.88	0.55	0.97	0.53	0.99	0.59	0.89
General Mathematics															
1. Number Sense: Rational Numbers	14	0.69	1.65	0.77	1.58	0.69	1.64	0.74	1.61	0.68	1.64	0.67	1.64	0.73	1.63
2. Number Sense: Exponent, Powers and Roots	10	0.64	1.39	0.75	1.34	0.66	1.39	0.71	1.38	0.63	1.37	0.64	1.37	0.67	1.39
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.70	1.45	0.70	1.36	0.70	1.43	0.67	1.37	0.68	1.47	0.69	1.47	0.70	1.40
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.64	1.39	0.66	1.31	0.64	1.38	0.61	1.33	0.61	1.41	0.60	1.42	0.65	1.35
5. Measurement and Geometry	11	0.61	1.51	0.68	1.48	0.59	1.52	0.63	1.51	0.55	1.51	0.51	1.50	0.65	1.51
6. Statistics, Data Analysis, and Probability	9	0.60	1.35	0.64	1.29	0.57	1.36	0.62	1.31	0.56	1.36	0.57	1.36	0.65	1.31

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.76	1.84	0.83	1.62	0.75	1.83	0.78	1.76	0.73	1.86	0.73	1.86	0.79	1.77
2. Graphing and Systems of Linear Equations	14	0.62	1.72	0.78	1.59	0.63	1.73	0.70	1.70	0.59	1.73	0.55	1.73	0.70	1.71
3. Quadratics and Polynomials	21	0.74	2.05	0.86	1.89	0.76	2.04	0.81	2.00	0.73	2.05	0.71	2.04	0.80	2.02
4. Functions and Rational Expressions	13	0.55	1.59	0.78	1.51	0.59	1.58	0.68	1.58	0.52	1.58	0.50	1.57	0.68	1.59
Geometry															
1. Logic and Geometric Proofs	23	0.80	2.08	0.86	1.90	0.79	2.11	0.81	2.06	0.75	2.13	0.74	2.14	0.82	2.02
2. Volume and Area Formulas	11	0.64	1.48	0.77	1.35	0.63	1.49	0.68	1.46	0.57	1.50	0.54	1.50	0.69	1.45
3. Angle Relationships, Constructions, and Lines	16	0.72	1.80	0.81	1.63	0.72	1.79	0.73	1.77	0.66	1.82	0.63	1.81	0.74	1.75
4. Trigonometry	15	0.77	1.71	0.85	1.49	0.79	1.70	0.80	1.65	0.75	1.73	0.73	1.73	0.80	1.64
Algebra II															
1. Polynomials and Rational Expressions	19	0.77	1.83	0.82	1.59	0.78	1.82	0.77	1.78	0.78	1.86	0.78	1.89	0.78	1.77
2. Quadratics, Conics, and Complex Numbers	16	0.68	1.80	0.80	1.68	0.69	1.80	0.71	1.78	0.65	1.79	0.64	1.79	0.72	1.78
3. Exponents and Logarithms	16	0.72	1.80	0.81	1.68	0.74	1.79	0.75	1.78	0.70	1.79	0.68	1.79	0.76	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.60	1.69	0.70	1.65	0.61	1.68	0.59	1.68	0.56	1.66	0.54	1.65	0.63	1.68
Summative High School Mathematics															
1. Algebra I	18	0.82	1.72	0.79	1.46	0.79	1.76	0.79	1.75	0.79	1.83	0.79	1.85	0.79	1.64
2. Geometry	19	0.76	1.82	0.75	1.60	0.74	1.84	0.73	1.81	0.74	1.91	0.76	1.93	0.73	1.73
3. Algebra II	23	0.82	2.08	0.83	1.80	0.81	2.07	0.79	2.06	0.79	2.14	0.80	2.15	0.82	2.00
4. Probability and Statistics	5	0.54	0.95	0.56	0.86	0.58	0.94	0.51	0.96	0.50	0.98	0.52	0.98	0.53	0.91

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.79	1.71	0.75	1.69	0.67	1.78	0.74	1.72	0.69	1.76	0.67	1.76	0.74	1.72
2. Algebra I: Graphing	9	0.54	1.35	0.58	1.37	0.40	1.39	0.58	1.37	0.46	1.37	0.47	1.37	0.51	1.39
3. Algebra I: Quadratics and Polynomials	14	0.70	1.67	0.78	1.61	0.68	1.63	0.74	1.65	0.59	1.65	0.58	1.65	0.67	1.65
4. Algebra I: Functions and Relations Expressions	7	0.62	1.12	0.62	1.11	0.46	1.14	0.51	1.12	0.37	1.11	0.37	1.12	0.48	1.11
5. Geometry	20	0.61	2.04	0.70	2.02	0.60	1.95	0.64	2.01	0.49	1.97	0.46	1.97	0.60	2.02
Integrated Mathematics 2															
1. Algebra I	20	0.55	2.06	0.78	1.97	0.62	1.99	0.79	1.95	0.66	2.01	0.72	1.99	0.71	2.02
2. Geometry: Logic and Geometric Proofs	22	0.75	2.07	0.81	2.08	0.78	2.09	0.77	2.09	0.69	2.08	0.73	2.08	0.78	2.07
3. Geometry: Angle Relationships, Construction and Lines	8	0.35	1.33	0.62	1.26	0.57	1.26	0.61	1.25	0.42	1.31	0.45	1.29	0.47	1.30
4. Trigonometry	10	0.49	1.51	0.78	1.35	0.83	1.27	0.79	1.33	0.65	1.42	0.64	1.41	0.68	1.40
5. Algebra II/Probability and Statistics	5	–	–	0.43	0.98	0.20	1.02	0.49	0.96	0.05	0.99	0.32	0.96	0.36	1.01
Integrated Mathematics 3															
1. Geometry	5	–	–	0.41	0.96	–	–	0.49	0.96	0.39	0.98	0.51	0.95	0.36	0.97
2. Algebra II: Polynomials and Relations Expressions	19	0.69	2.01	0.84	1.81	0.86	1.81	0.81	1.87	0.75	1.92	0.77	1.91	0.71	1.91
3. Algebra II: Quadratics, Conics and Statistics	16	0.72	1.80	0.82	1.72	0.71	1.94	0.81	1.68	0.65	1.80	0.61	1.79	0.59	1.83
4. Algebra II: Exponents and Logarithms	16	0.67	1.85	0.84	1.71	–	–	0.82	1.72	0.69	1.80	0.74	1.75	0.72	1.81
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.41	1.32	0.54	1.35	0.19	1.35	0.50	1.35	0.34	1.32	0.50	1.28	0.40	1.36

Table 8.A.33 Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY															
	# of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
Subscore Area	items	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.64	1.38	0.68	1.18	0.64	1.37	0.56	1.25	0.63	1.43	0.65	1.44	0.62	1.21
2. Physical Science (Grade 4)	8	0.61	1.18	0.64	1.03	0.59	1.19	0.58	1.10	0.58	1.22	0.60	1.23	0.60	1.06
3. Life Science (Grade 5)	13	0.60	1.55	0.67	1.41	0.60	1.55	0.59	1.47	0.56	1.58	0.60	1.59	0.62	1.44
4. Life Science (Grade 4)	9	0.55	1.31	0.62	1.19	0.54	1.31	0.52	1.25	0.51	1.35	0.54	1.35	0.57	1.22
5. Earth Science (Grade 5)	11	0.60	1.42	0.62	1.32	0.58	1.44	0.52	1.37	0.55	1.47	0.60	1.47	0.60	1.33
6. Earth Science (Grade 4)	8	0.65	1.18	0.68	1.02	0.64	1.19	0.60	1.09	0.62	1.23	0.65	1.23	0.66	1.05
Grade 8 Science															
1. Motion	8	0.61	1.21	0.61	1.01	0.59	1.20	0.54	1.10	0.56	1.24	0.58	1.25	0.60	1.08
2. Forces, Density, and Buoncy	13	0.74	1.52	0.71	1.28	0.73	1.51	0.68	1.39	0.71	1.58	0.72	1.58	0.74	1.34
3. Structure of Matter and Periodic Table	16	0.77	1.74	0.79	1.49	0.77	1.72	0.74	1.59	0.74	1.78	0.75	1.79	0.78	1.58
4. Earth in the Solar System	7	0.60	1.13	0.62	0.98	0.60	1.12	0.54	1.04	0.58	1.15	0.58	1.16	0.59	1.03
5. Reactions and the Chemistry of Living Systems	10	0.61	1.44	0.66	1.28	0.61	1.43	0.58	1.36	0.56	1.46	0.58	1.46	0.64	1.36
6. Investigation and Experimentation	6	0.48	1.11	0.50	0.94	0.48	1.10	0.43	1.03	0.46	1.11	0.48	1.12	0.50	1.04
Grade 10 Life Science															
1. Cell Biology	10	0.66	1.42	0.72	1.29	0.64	1.43	0.65	1.38	0.60	1.45	0.62	1.44	0.69	1.36
2. Genetics	12	0.69	1.52	0.70	1.38	0.68	1.52	0.67	1.46	0.64	1.55	0.66	1.56	0.71	1.44
3. Physiology	10	0.73	1.33	0.74	1.19	0.72	1.36	0.68	1.26	0.70	1.38	0.71	1.39	0.75	1.21
4. Ecology	11	0.73	1.43	0.72	1.31	0.72	1.45	0.66	1.40	0.69	1.48	0.70	1.48	0.74	1.34
5. Evolution	11	0.76	1.44	0.79	1.32	0.73	1.47	0.73	1.42	0.68	1.49	0.68	1.49	0.78	1.36
6. Investigation and Experimentation	6	0.64	1.00	0.64	0.83	0.62	1.01	0.58	0.92	0.59	1.05	0.60	1.06	0.66	0.90

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY

Subscore Area	# 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*
Biology															
1. Cell Biology	9	0.58	1.38	0.65	1.27	0.56	1.39	0.56	1.37	0.52	1.40	0.51	1.40	0.61	1.34
2. Genetics	18	0.79	1.83	0.80	1.64	0.78	1.83	0.74	1.76	0.76	1.87	0.76	1.88	0.80	1.73
3. Ecology and Evolution	16	0.76	1.79	0.79	1.65	0.74	1.82	0.72	1.78	0.71	1.85	0.71	1.85	0.78	1.68
4. Physiology	11	0.75	1.37	0.75	1.23	0.75	1.40	0.70	1.32	0.72	1.44	0.73	1.44	0.74	1.28
5. Investigation and Experimentation	6	0.53	1.09	0.55	0.99	0.53	1.10	0.49	1.07	0.50	1.11	0.49	1.12	0.55	1.03
Chemistry															
1. Atomic and Molecular Structure	8	0.60	1.20	0.62	1.11	0.58	1.23	0.56	1.20	0.58	1.25	0.57	1.26	0.60	1.16
2. Chemical Bonds, Biochemistry	9	0.67	1.26	0.67	1.13	0.65	1.30	0.60	1.25	0.64	1.34	0.65	1.34	0.63	1.20
3. Kinetics, Thermodynamics	14	0.68	1.66	0.72	1.55	0.67	1.71	0.64	1.68	0.64	1.73	0.63	1.74	0.69	1.59
4. Chemical Reactions	13	0.65	1.62	0.73	1.53	0.65	1.64	0.66	1.61	0.63	1.64	0.62	1.64	0.68	1.58
5. Conservation of Matter and Stoichiometry	10	0.62	1.43	0.72	1.30	0.60	1.44	0.63	1.42	0.56	1.46	0.54	1.46	0.67	1.38
6. Investigation and Experimentation	6	0.60	0.99	0.57	0.94	0.56	1.06	0.51	1.02	0.54	1.08	0.53	1.10	0.57	0.93
Earth Science															
1. Astronomy and Cosmology	12	0.67	1.48	0.67	1.43	0.63	1.50	0.62	1.44	0.63	1.51	0.62	1.51	0.67	1.41
2. Solid Earth	14	0.70	1.67	0.68	1.65	0.66	1.70	0.63	1.64	0.65	1.70	0.66	1.71	0.70	1.60
3. The Earth's Energy	28	0.81	2.42	0.83	2.37	0.79	2.43	0.81	2.40	0.77	2.44	0.76	2.44	0.84	2.36
4. Investigation and Experimentation	6	0.55	1.08	0.53	1.03	0.50	1.10	0.46	1.05	0.49	1.11	0.48	1.12	0.54	1.02
Physics															
1. Motion and Forces	12	0.65	1.48	0.63	1.40	0.57	1.51	0.56	1.49	0.53	1.54	0.51	1.55	0.62	1.44
2. Conservation of Energy and Momentum	12	0.81	1.46	0.75	1.38	0.74	1.52	0.70	1.51	0.70	1.55	0.66	1.57	0.76	1.45
3. Heat and Thermodynamics	9	0.69	1.29	0.66	1.22	0.65	1.31	0.63	1.29	0.61	1.33	0.61	1.33	0.66	1.24
4. Waves	10	0.66	1.39	0.63	1.32	0.58	1.44	0.59	1.40	0.58	1.44	0.56	1.46	0.64	1.35
5. Electric and Magnetic Phenomena	11	0.68	1.45	0.67	1.39	0.62	1.47	0.59	1.44	0.56	1.46	0.53	1.46	0.67	1.43
6. Investigation and Experimentation	6	0.61	1.02	0.52	0.96	0.52	1.08	0.47	1.05	0.50	1.10	0.49	1.11	0.56	0.97

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.61	1.45	0.65	1.41	0.55	1.47	0.56	1.46	0.51	1.49	0.52	1.48	0.64	1.41
2. Chemistry	15	0.63	1.77	0.73	1.74	0.58	1.77	0.63	1.80	0.54	1.78	0.54	1.77	0.65	1.78
3. Earth Sciences	17	0.77	1.83	0.75	1.77	0.75	1.86	0.70	1.83	0.69	1.89	0.69	1.90	0.77	1.79
4. Physics	12	0.48	1.59	0.59	1.58	0.43	1.56	0.43	1.60	0.34	1.58	0.36	1.57	0.51	1.59
5. Investigation and Experimentation	6	0.50	1.12	0.55	1.08	0.47	1.13	0.46	1.12	0.43	1.13	0.45	1.12	0.56	1.09
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.67	1.77	0.81	1.56	0.72	1.73	0.75	1.70	0.68	1.77	0.61	1.78	0.69	1.73
2. Chemistry	6	0.30	1.13	0.63	1.06	0.43	1.11	0.38	1.14	0.30	1.12	0.15	1.14	0.40	1.14
3. Earth Sciences	15	0.75	1.71	0.78	1.65	0.51	1.81	0.65	1.77	0.66	1.77	0.61	1.77	0.72	1.71
4. Physics	18	0.43	1.90	0.74	1.87	0.24	1.91	0.44	1.90	0.30	1.91	0.25	1.91	0.50	1.90
5. Investigation and Experimentation	6	0.50	1.12	0.53	1.06	0.29	1.13	0.34	1.15	0.41	1.13	0.36	1.12	0.44	1.12
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.64	1.86	–	–	0.61	1.90	0.65	1.84	0.49	1.87	0.68	1.83
2. Chemistry	23	–	–	0.73	2.20	–	–	0.66	2.25	0.55	2.20	0.45	2.20	0.62	2.21
3. Earth Sciences	7	–	–	0.50	1.23	–	–	0.31	1.28	0.40	1.24	0.47	1.21	0.49	1.23
4. Physics	8	–	–	0.35	1.25	–	–	-	1.25	0.19	1.29	0.23	1.27	0.27	1.29
5. Investigation and Experimentation	6	–	–	0.55	1.04	–	–	0.71	0.98	0.49	1.09	0.49	1.09	0.60	1.04
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	0.77	1.53	–	–	0.65	1.68	0.70	1.65	0.78	1.59	0.78	1.56
2. Chemistry	10	–	–	0.49	1.43	–	–	0.58	1.40	0.02	1.45	0.34	1.49	0.45	1.42
3. Earth Sciences	15	–	–	0.75	1.75	–	–	0.45	1.88	0.66	1.77	0.72	1.74	0.74	1.75
4. Physics	16	–	–	0.09	1.89	–	–	0.45	1.72	0.12	1.75	0.68	1.72	0.60	1.75
5. Investigation and Experimentation	6	–	–	0.18	1.15	–	–	0.35	1.16	0.31	1.15	0.75	0.99	0.51	1.13

Table 8.A.34 Subscore Reliabilities and SEM for Grade-Specific Tests by PRIMARY ETHNICITY

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY															
Subscore Area	**# of items**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
		Rel.	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Algebra I – 8															
1. Number Properties, Operations, and Linear Equations	17	0.77	1.80	0.79	1.52	0.77	1.78	0.76	1.68	0.75	1.83	0.76	1.83	0.77	1.67
2. Graphing and Systems of Linear Equations	14	0.67	1.72	0.77	1.54	0.70	1.71	0.71	1.67	0.66	1.72	0.63	1.73	0.72	1.68
3. Quadratics and Polynomials	21	0.79	2.03	0.84	1.83	0.80	2.02	0.81	1.95	0.78	2.04	0.77	2.03	0.81	1.98
4. Functions and Rational Expressions	13	0.62	1.59	0.76	1.49	0.67	1.58	0.69	1.57	0.62	1.59	0.60	1.59	0.70	1.58
Geometry – 9															
1. Logic and Geometric Proofs	23	0.81	1.96	0.82	1.84	0.81	2.05	0.80	1.99	0.78	2.09	0.78	2.10	0.79	1.90
2. Volume and Area Formulas	11	0.64	1.45	0.72	1.31	0.67	1.46	0.67	1.41	0.64	1.48	0.63	1.48	0.66	1.39
3. Angle Relationships, Constructions, and Lines	16	0.69	1.72	0.75	1.59	0.74	1.75	0.72	1.72	0.70	1.79	0.69	1.80	0.70	1.67
4. Trigonometry	15	0.77	1.61	0.80	1.43	0.80	1.63	0.78	1.58	0.78	1.68	0.78	1.71	0.76	1.54
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.76	1.79	0.78	1.57	0.75	1.77	0.76	1.73	0.78	1.81	0.78	1.85	0.76	1.71
2. Quadratics, Conics, and Complex Numbers	16	0.70	1.78	0.76	1.69	0.70	1.78	0.71	1.77	0.69	1.79	0.68	1.79	0.71	1.76
3. Exponents and Logarithms	16	0.70	1.81	0.79	1.68	0.75	1.78	0.76	1.76	0.73	1.79	0.72	1.79	0.76	1.75
4. Series, Combinatorics, and Probability and Statistics	14	0.58	1.69	0.64	1.67	0.62	1.69	0.58	1.69	0.59	1.67	0.58	1.65	0.60	1.68
Summative High School Math – 11															
1. Algebra I	18	0.76	1.82	0.80	1.65	0.75	1.83	0.77	1.83	0.78	1.86	0.77	1.90	0.80	1.76
2. Geometry	19	0.64	1.90	0.77	1.75	0.70	1.93	0.72	1.89	0.73	1.94	0.73	1.98	0.74	1.84
3. Algebra II	23	0.77	2.18	0.82	1.98	0.77	2.11	0.77	2.12	0.78	2.16	0.76	2.18	0.81	2.09
4. Probability and Statistics	5	0.53	0.96	0.56	0.93	0.47	0.99	0.51	0.98	0.47	0.99	0.45	0.99	0.52	0.96

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
World History – 10															
1. Development of Modern Political Thought	13	0.61	1.67	0.66	1.64	0.60	1.68	0.63	1.66	0.58	1.68	0.57	1.68	0.65	1.66
2. Industrial Expansion and Imperialism	10	0.62	1.46	0.67	1.42	0.62	1.45	0.64	1.44	0.59	1.46	0.59	1.45	0.66	1.44
3. Causes and Effects of World War I	14	0.67	1.71	0.74	1.66	0.68	1.71	0.70	1.69	0.67	1.71	0.62	1.71	0.73	1.69
4. Causes and Effects of World War II	13	0.58	1.67	0.68	1.64	0.58	1.67	0.65	1.65	0.61	1.66	0.57	1.66	0.67	1.65
5. International Developments in the Post-World War II Era	10	0.62	1.43	0.68	1.40	0.61	1.43	0.65	1.42	0.60	1.43	0.56	1.43	0.66	1.42

Table 8.A.35 Subscore Reliabilities and SEM for English–Language Arts by PRIMARY ETHNICITY NOT IN NSLP

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY NOT IN NSLP															
Subscore Area	**# 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	22	0.83	1.89	0.80	1.59	0.80	1.85	0.79	1.71	0.83	1.93	0.84	1.89	0.81	1.77
2. Reading Comprehension	15	0.75	1.66	0.74	1.47	0.72	1.65	0.70	1.59	0.74	1.69	0.75	1.68	0.75	1.56
3. Literary Response and Analysis	6	0.63	0.95	0.58	0.81	0.58	0.93	0.55	0.89	0.61	0.98	0.62	0.96	0.62	0.85
4. Written and Oral Language Conventions	14	0.78	1.52	0.78	1.20	0.79	1.45	0.78	1.32	0.79	1.54	0.80	1.52	0.78	1.42
5. Writing Strategies	8	0.61	1.24	0.60	1.17	0.54	1.25	0.56	1.22	0.56	1.26	0.58	1.26	0.59	1.22
Grade 3															
1. Word Analysis and Vocabulary	20	0.77	1.75	0.73	1.52	0.74	1.72	0.68	1.63	0.77	1.79	0.77	1.77	0.74	1.60
2. Reading Comprehension	15	0.70	1.67	0.71	1.51	0.69	1.66	0.67	1.62	0.70	1.69	0.70	1.69	0.70	1.57
3. Literary Response and Analysis	8	0.73	1.08	0.70	0.92	0.68	1.09	0.68	1.04	0.70	1.14	0.71	1.13	0.69	0.98
4. Written and Oral Language Conventions	13	0.66	1.55	0.65	1.31	0.63	1.51	0.60	1.44	0.64	1.56	0.66	1.55	0.64	1.44
5. Writing Strategies	9	0.66	1.31	0.61	1.21	0.63	1.32	0.59	1.29	0.63	1.34	0.64	1.34	0.61	1.27
Grade 4															
1. Word Analysis and Vocabulary	18	0.83	1.58	0.79	1.36	0.81	1.57	0.76	1.47	0.80	1.65	0.81	1.63	0.78	1.42
2. Reading Comprehension	15	0.77	1.65	0.75	1.49	0.74	1.66	0.72	1.62	0.74	1.69	0.75	1.69	0.74	1.55
3. Literary Response and Analysis	9	0.64	1.25	0.64	1.05	0.64	1.23	0.61	1.19	0.64	1.27	0.65	1.27	0.62	1.14
4. Written and Oral Language Conventions	18	0.78	1.74	0.76	1.45	0.76	1.68	0.73	1.58	0.76	1.75	0.77	1.75	0.74	1.62
5. Writing Strategies	15	0.73	1.72	0.72	1.57	0.70	1.72	0.69	1.67	0.70	1.74	0.72	1.74	0.71	1.63
Grade 5															
1. Word Analysis and Vocabulary	14	0.69	1.44	0.70	1.26	0.68	1.43	0.65	1.35	0.71	1.48	0.72	1.47	0.66	1.32
2. Reading Comprehension	16	0.71	1.76	0.74	1.60	0.71	1.76	0.70	1.72	0.70	1.79	0.70	1.79	0.72	1.67
3. Literary Response and Analysis	12	0.70	1.40	0.71	1.21	0.69	1.41	0.67	1.34	0.70	1.44	0.72	1.44	0.69	1.31

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# 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*
4. Written and Oral Language Conventions	17	0.79	1.58	0.75	1.28	0.77	1.51	0.73	1.43	0.78	1.61	0.80	1.60	0.77	1.43
5. Writing Strategies	16	0.68	1.81	0.68	1.67	0.65	1.81	0.65	1.77	0.66	1.83	0.66	1.83	0.66	1.76
Grade 6															
1. Word Analysis and Vocabulary	13	0.72	1.48	0.70	1.26	0.71	1.46	0.65	1.38	0.70	1.52	0.73	1.50	0.68	1.37
2. Reading Comprehension	17	0.70	1.82	0.70	1.63	0.72	1.81	0.67	1.75	0.71	1.85	0.71	1.86	0.69	1.73
3. Literary Response and Analysis	12	0.67	1.52	0.66	1.41	0.65	1.53	0.63	1.49	0.66	1.54	0.67	1.54	0.64	1.47
4. Written and Oral Language Conventions	16	0.78	1.56	0.74	1.22	0.77	1.51	0.71	1.38	0.78	1.58	0.79	1.60	0.76	1.41
5. Writing Strategies	17	0.74	1.79	0.74	1.62	0.75	1.78	0.71	1.75	0.74	1.82	0.75	1.82	0.74	1.69
Grade 7															
1. Word Analysis and Vocabulary	11	0.68	1.36	0.65	1.18	0.67	1.35	0.62	1.27	0.67	1.41	0.69	1.40	0.65	1.25
2. Reading Comprehension	18	0.81	1.69	0.79	1.47	0.79	1.70	0.76	1.61	0.80	1.75	0.80	1.76	0.78	1.57
3. Literary Response and Analysis	13	0.74	1.48	0.70	1.30	0.73	1.48	0.68	1.43	0.72	1.53	0.74	1.52	0.71	1.38
4. Written and Oral Language Conventions	16	0.75	1.68	0.73	1.45	0.73	1.65	0.70	1.55	0.73	1.71	0.75	1.69	0.72	1.59
5. Writing Strategies	17	0.80	1.79	0.79	1.54	0.77	1.78	0.76	1.71	0.78	1.81	0.78	1.81	0.80	1.67
Grade 8															
1. Word Analysis and Vocabulary	9	0.57	1.26	0.60	1.13	0.57	1.26	0.50	1.22	0.58	1.30	0.60	1.29	0.54	1.19
2. Reading Comprehension	18	0.77	1.78	0.76	1.58	0.77	1.79	0.72	1.71	0.76	1.82	0.77	1.82	0.76	1.68
3. Literary Response and Analysis	15	0.69	1.70	0.70	1.49	0.68	1.70	0.67	1.62	0.69	1.73	0.70	1.73	0.69	1.58
4. Written and Oral Language Conventions	16	0.77	1.59	0.74	1.30	0.76	1.55	0.70	1.43	0.78	1.62	0.79	1.61	0.75	1.45
5. Writing Strategies	17	0.74	1.81	0.72	1.68	0.72	1.83	0.68	1.78	0.72	1.85	0.72	1.84	0.73	1.74

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# 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 9															
1. Word Analysis and Vocabulary	8	0.68	1.16	0.62	1.02	0.63	1.19	0.58	1.11	0.65	1.22	0.67	1.21	0.63	1.07
2. Reading Comprehension	18	0.77	1.80	0.75	1.57	0.75	1.80	0.72	1.70	0.75	1.85	0.75	1.85	0.75	1.70
3. Literary Response and Analysis	16	0.79	1.67	0.80	1.43	0.79	1.68	0.77	1.60	0.78	1.74	0.79	1.73	0.79	1.53
4. Written and Oral Language Conventions	13	0.73	1.59	0.74	1.37	0.72	1.58	0.70	1.49	0.69	1.63	0.71	1.62	0.73	1.50
5. Writing Strategies	20	0.79	1.98	0.77	1.81	0.78	1.99	0.73	1.93	0.77	2.00	0.78	1.99	0.78	1.90
Grade 10															
1. Word Analysis and Vocabulary	8	0.61	1.16	0.60	0.97	0.59	1.15	0.51	1.08	0.59	1.19	0.63	1.18	0.60	1.06
2. Reading Comprehension	18	0.83	1.80	0.82	1.58	0.82	1.81	0.79	1.75	0.81	1.84	0.82	1.84	0.83	1.69
3. Literary Response and Analysis	16	0.79	1.72	0.79	1.57	0.76	1.74	0.74	1.68	0.77	1.76	0.78	1.76	0.79	1.63
4. Written and Oral Language Conventions	13	0.74	1.51	0.72	1.28	0.76	1.47	0.70	1.39	0.75	1.54	0.76	1.53	0.74	1.39
5. Writing Strategies	20	0.83	1.89	0.83	1.67	0.83	1.90	0.80	1.82	0.83	1.94	0.83	1.94	0.83	1.77
Grade 11															
1. Word Analysis and Vocabulary	8	0.62	1.23	0.63	1.11	0.59	1.24	0.51	1.19	0.55	1.27	0.57	1.27	0.64	1.16
2. Reading Comprehension	19	0.78	1.91	0.78	1.77	0.76	1.92	0.73	1.88	0.76	1.94	0.76	1.94	0.79	1.83
3. Literary Response and Analysis	17	0.76	1.79	0.75	1.63	0.76	1.80	0.71	1.73	0.75	1.83	0.75	1.83	0.76	1.70
4. Written and Oral Language Conventions	9	0.73	1.28	0.77	1.06	0.72	1.28	0.71	1.20	0.69	1.31	0.71	1.30	0.76	1.18
5. Writing Strategies	22	0.84	2.02	0.84	1.80	0.84	2.03	0.81	1.94	0.83	2.06	0.83	2.06	0.85	1.90

Table 8.A.36 Subscore Reliabilities and SEM for History–Social Science by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 8															
1. World History and Geography: Ancient Civilizations	16	0.65	1.84	0.71	1.70	0.64	1.84	0.63	1.81	0.64	1.85	0.64	1.85	0.66	1.79
2. Late Antiquity and the Middle Ages	14	0.71	1.67	0.74	1.50	0.70	1.67	0.68	1.63	0.69	1.69	0.69	1.69	0.70	1.63
3. Renaissance/Reformation	10	0.61	1.45	0.65	1.33	0.61	1.44	0.57	1.43	0.58	1.46	0.57	1.46	0.63	1.41
4. U.S. Constitution and the Early Republic	22	0.80	2.11	0.82	1.90	0.80	2.10	0.79	2.06	0.79	2.12	0.80	2.12	0.82	2.03
5. Civil War and Its Aftermath	13	0.71	1.64	0.71	1.49	0.70	1.64	0.67	1.61	0.69	1.65	0.71	1.64	0.72	1.58
World History															
1. Development of Modern Political Thought	13	0.69	1.64	0.71	1.53	0.67	1.65	0.65	1.63	0.65	1.66	0.65	1.66	0.71	1.60
2. Industrial Expansion and Imperialism	10	0.68	1.42	0.68	1.30	0.66	1.43	0.64	1.40	0.66	1.44	0.66	1.44	0.69	1.36
3. Causes and Effects of World War I	14	0.75	1.67	0.77	1.56	0.75	1.67	0.72	1.66	0.72	1.69	0.70	1.69	0.77	1.61
4. Causes and Effects of World War II	13	0.71	1.63	0.73	1.54	0.70	1.64	0.68	1.63	0.67	1.65	0.66	1.65	0.73	1.59
5. International Developments in the Post-World War II Era	10	0.70	1.40	0.71	1.31	0.69	1.41	0.67	1.40	0.66	1.42	0.65	1.42	0.72	1.37
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.60	1.44	0.66	1.33	0.60	1.44	0.56	1.43	0.59	1.44	0.59	1.44	0.64	1.39
2. Industrialization and the U.S. role as a World Power	13	0.72	1.61	0.75	1.49	0.70	1.62	0.68	1.59	0.68	1.63	0.67	1.64	0.75	1.55
3. United States between the World Wars	12	0.69	1.57	0.68	1.50	0.67	1.59	0.62	1.58	0.68	1.58	0.67	1.58	0.70	1.53
4. World War II and Foreign Affairs	12	0.74	1.52	0.76	1.43	0.72	1.54	0.70	1.52	0.71	1.54	0.68	1.55	0.76	1.47
5. Post-World War II Domestic Affairs	13	0.71	1.62	0.70	1.56	0.68	1.64	0.65	1.63	0.68	1.64	0.68	1.64	0.71	1.59

Table 8.A.37 Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP															
Subscore Area	**# 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	0.79	1.37	0.75	1.05	0.78	1.34	0.76	1.23	0.80	1.42	0.81	1.43	0.76	1.22
2. Number Sense: Multiplication, Division, and Fractions	23	0.83	1.80	0.80	1.48	0.83	1.78	0.81	1.68	0.83	1.85	0.84	1.86	0.81	1.64
3. Algebra and Functions	6	0.60	0.87	0.57	0.63	0.58	0.84	0.58	0.75	0.58	0.90	0.60	0.91	0.57	0.77
4. Measurement and Geometry	13	0.65	1.38	0.62	1.20	0.58	1.40	0.62	1.30	0.64	1.42	0.65	1.44	0.59	1.28
5. Statistics, Data Analysis, and Probability	7	0.64	0.97	0.59	0.79	0.60	0.96	0.58	0.89	0.62	1.00	0.65	1.01	0.61	0.87
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.79	1.42	0.72	1.13	0.76	1.40	0.72	1.27	0.78	1.46	0.80	1.49	0.75	1.29
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.83	1.52	0.79	1.13	0.81	1.45	0.80	1.32	0.82	1.52	0.83	1.54	0.81	1.39
3. Algebra and Functions	12	0.73	1.25	0.69	0.95	0.71	1.21	0.67	1.11	0.72	1.27	0.74	1.28	0.71	1.12
4. Measurement and Geometry	16	0.73	1.42	0.69	1.14	0.70	1.38	0.67	1.27	0.72	1.43	0.74	1.45	0.70	1.30
5. Statistics, Data Analysis, and Probability	5	0.62	0.68	0.52	0.53	0.62	0.66	0.49	0.61	0.61	0.70	0.65	0.72	0.58	0.59
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.77	1.45	0.72	1.09	0.76	1.39	0.72	1.28	0.76	1.47	0.78	1.50	0.74	1.27
2. Number Sense: Operations and Factoring	14	0.81	1.45	0.78	1.01	0.80	1.39	0.79	1.23	0.80	1.43	0.82	1.45	0.80	1.29
3. Algebra and Functions	18	0.84	1.56	0.78	1.12	0.82	1.47	0.80	1.33	0.83	1.56	0.84	1.58	0.82	1.38
4. Measurement and Geometry	12	0.76	1.40	0.76	1.09	0.76	1.35	0.74	1.25	0.74	1.40	0.76	1.41	0.75	1.27
5. Statistics, Data Analysis, and Probability	4	0.50	0.78	0.41	0.64	0.51	0.77	0.41	0.72	0.45	0.80	0.48	0.81	0.45	0.72

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.70	1.46	0.75	1.19	0.71	1.44	0.72	1.36	0.70	1.46	0.72	1.47	0.72	1.37
2. Number Sense: Operations with Fractions and Decimals	17	0.79	1.73	0.80	1.36	0.78	1.69	0.79	1.59	0.79	1.74	0.79	1.76	0.80	1.61
3. Algebra and Functions	17	0.79	1.67	0.78	1.32	0.78	1.62	0.77	1.52	0.78	1.69	0.79	1.71	0.79	1.53
4. Measurement and Geometry	15	0.81	1.62	0.83	1.30	0.81	1.60	0.81	1.50	0.80	1.63	0.81	1.64	0.82	1.51
5. Statistics, Data Analysis, and Probability	4	0.50	0.74	0.47	0.55	0.48	0.71	0.43	0.65	0.47	0.74	0.52	0.76	0.49	0.66
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.74	1.68	0.78	1.40	0.75	1.66	0.75	1.60	0.73	1.69	0.72	1.71	0.75	1.59
2. Number Sense: Operations and Problem Solving with Fractions	10	0.66	1.31	0.67	1.08	0.65	1.30	0.63	1.26	0.64	1.35	0.62	1.35	0.67	1.21
3. Algebra and Functions	19	0.83	1.78	0.81	1.37	0.83	1.74	0.80	1.65	0.82	1.82	0.82	1.84	0.82	1.64
4. Measurement and Geometry	10	0.66	1.40	0.70	1.16	0.67	1.37	0.66	1.33	0.64	1.42	0.63	1.43	0.67	1.33
5. Statistics, Data Analysis, and Probability	11	0.75	1.35	0.73	1.10	0.77	1.32	0.72	1.26	0.74	1.37	0.75	1.39	0.74	1.24

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# 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	0.73	1.62	0.74	1.36	0.74	1.59	0.73	1.52	0.72	1.64	0.71	1.65	0.73	1.54
2. Number Sense: Exponent, Powers and Roots	8	0.59	1.27	0.66	1.12	0.62	1.25	0.63	1.23	0.59	1.27	0.59	1.27	0.63	1.23
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.59	1.43	0.59	1.25	0.57	1.41	0.56	1.36	0.58	1.43	0.58	1.44	0.59	1.36
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.76	1.66	0.77	1.42	0.75	1.65	0.74	1.58	0.74	1.69	0.73	1.71	0.77	1.57
5. Measurement and Geometry	13	0.69	1.61	0.75	1.41	0.69	1.60	0.70	1.56	0.68	1.62	0.67	1.63	0.71	1.53
6. Statistics, Data Analysis, and Probability	5	0.59	0.93	0.55	0.78	0.55	0.93	0.55	0.86	0.56	0.95	0.55	0.97	0.57	0.87
General Mathematics															
1. Number Sense: Rational Numbers	14	0.71	1.65	0.78	1.55	0.69	1.64	0.74	1.60	0.70	1.64	0.69	1.64	0.72	1.63
2. Number Sense: Exponent, Powers and Roots	10	0.66	1.38	0.75	1.32	0.67	1.39	0.70	1.38	0.65	1.38	0.66	1.37	0.68	1.40
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.71	1.43	0.68	1.32	0.70	1.42	0.66	1.35	0.69	1.45	0.70	1.46	0.69	1.38
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.65	1.38	0.66	1.27	0.66	1.36	0.60	1.32	0.63	1.39	0.61	1.41	0.65	1.33
5. Measurement and Geometry	11	0.62	1.52	0.69	1.47	0.60	1.52	0.63	1.51	0.58	1.52	0.54	1.51	0.65	1.51
6. Statistics, Data Analysis, and Probability	9	0.61	1.34	0.65	1.27	0.58	1.35	0.62	1.29	0.59	1.35	0.59	1.35	0.64	1.30

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.77	1.83	0.82	1.54	0.77	1.81	0.78	1.74	0.74	1.85	0.75	1.85	0.78	1.75
2. Graphing and Systems of Linear Equations	14	0.64	1.72	0.79	1.55	0.64	1.73	0.70	1.70	0.60	1.73	0.58	1.73	0.70	1.70
3. Quadratics and Polynomials	21	0.75	2.05	0.86	1.84	0.78	2.04	0.81	2.00	0.74	2.05	0.73	2.04	0.81	2.02
4. Functions and Rational Expressions	13	0.57	1.59	0.79	1.49	0.63	1.58	0.68	1.58	0.55	1.58	0.55	1.58	0.69	1.59
Geometry															
1. Logic and Geometric Proofs	23	0.80	2.07	0.86	1.83	0.80	2.09	0.81	2.05	0.77	2.12	0.76	2.13	0.82	2.00
2. Volume and Area Formulas	11	0.66	1.48	0.77	1.30	0.66	1.48	0.68	1.45	0.60	1.50	0.58	1.50	0.69	1.45
3. Angle Relationships, Constructions, and Lines	16	0.72	1.79	0.80	1.57	0.74	1.78	0.73	1.76	0.68	1.81	0.65	1.81	0.74	1.74
4. Trigonometry	15	0.77	1.70	0.84	1.43	0.80	1.68	0.80	1.65	0.76	1.72	0.75	1.73	0.80	1.63
Algebra II															
1. Polynomials and Rational Expressions	19	0.77	1.81	0.81	1.55	0.79	1.79	0.77	1.78	0.78	1.84	0.78	1.87	0.78	1.77
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.80	0.80	1.66	0.70	1.79	0.72	1.78	0.66	1.80	0.66	1.79	0.72	1.78
3. Exponents and Logarithms	16	0.72	1.80	0.81	1.65	0.75	1.78	0.75	1.77	0.71	1.79	0.70	1.80	0.77	1.77
4. Series, Combinatorics, and Probability and Statistics	14	0.59	1.69	0.70	1.65	0.61	1.69	0.59	1.69	0.58	1.67	0.56	1.65	0.63	1.68
Summative High School Mathematics															
1. Algebra I	18	0.83	1.69	0.78	1.40	0.80	1.74	0.79	1.73	0.79	1.79	0.79	1.83	0.79	1.63
2. Geometry	19	0.77	1.80	0.73	1.55	0.74	1.82	0.73	1.80	0.74	1.87	0.76	1.91	0.73	1.73
3. Algebra II	23	0.82	2.05	0.82	1.76	0.82	2.06	0.79	2.05	0.80	2.12	0.80	2.13	0.82	1.99
4. Probability and Statistics	5	0.55	0.94	0.55	0.84	0.60	0.92	0.51	0.95	0.51	0.97	0.53	0.97	0.53	0.91

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.76	1.73	0.77	1.67	0.62	1.81	0.74	1.72	0.70	1.76	0.70	1.75	0.74	1.72
2. Algebra I: Graphing	9	0.60	1.35	0.60	1.36	0.31	1.40	0.55	1.38	0.46	1.38	0.48	1.39	0.50	1.39
3. Algebra I: Quadratics and Polynomials	14	0.76	1.65	0.81	1.58	0.69	1.63	0.72	1.65	0.59	1.65	0.62	1.66	0.68	1.65
4. Algebra I: Functions and Relations Expressions	7	0.70	1.13	0.63	1.12	0.58	1.09	0.45	1.13	0.36	1.12	0.42	1.13	0.49	1.11
5. Geometry	20	0.63	2.04	0.72	2.02	0.62	1.95	0.66	2.00	0.50	1.99	0.56	1.98	0.60	2.02
Integrated Mathematics 2															
1. Algebra I	20	0.59	2.04	0.79	1.96	0.66	1.99	0.80	1.95	0.66	2.01	0.73	1.99	0.71	2.02
2. Geometry: Logic and Geometric Proofs	22	0.73	2.07	0.83	2.05	0.75	2.11	0.79	2.08	0.68	2.10	0.79	2.05	0.78	2.06
3. Geometry: Angle Relationships, Construction and Lines	8	0.38	1.33	0.67	1.22	0.47	1.26	0.62	1.25	0.45	1.30	0.48	1.29	0.46	1.30
4. Trigonometry	10	0.66	1.46	0.81	1.29	0.81	1.33	0.78	1.33	0.62	1.43	0.69	1.41	0.68	1.40
5. Algebra II/Probability and Statistics	5	0.36	1.03	0.45	0.99	0.00	1.01	0.53	0.95	0.14	0.98	0.42	0.95	0.39	1.01
Integrated Mathematics 3															
1. Geometry	5	–	–	0.37	0.97	–	–	0.52	0.93	0.38	0.99	0.41	0.99	0.36	0.97
2. Algebra II: Polynomials and Relations Expressions	19	0.75	1.99	0.84	1.78	–	–	0.75	1.88	0.74	1.91	0.73	1.93	0.71	1.91
3. Algebra II: Quadratics, Conics and Statistics	16	0.77	1.75	0.83	1.70	–	–	0.80	1.70	0.60	1.81	0.51	1.80	0.59	1.83
4. Algebra II: Exponents and Logarithms	16	0.54	1.90	0.83	1.69	–	–	0.82	1.70	0.69	1.82	0.70	1.75	0.72	1.81
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	0.52	1.29	0.54	1.33	–	–	0.44	1.37	0.32	1.34	0.37	1.31	0.38	1.36

Table 8.A.38 Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY NOT IN NSLP

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY NOT IN NSLP															
	# of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
Subscore Area	**items**	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.61	1.30	0.62	1.09	0.62	1.30	0.54	1.22	0.62	1.36	0.64	1.37	0.59	1.17
2. Physical Science (Grade 4)	8	0.60	1.12	0.60	0.96	0.58	1.14	0.56	1.08	0.59	1.17	0.60	1.18	0.57	1.03
3. Life Science (Grade 5)	13	0.62	1.50	0.65	1.34	0.62	1.50	0.59	1.45	0.59	1.54	0.62	1.55	0.61	1.41
4. Life Science (Grade 4)	9	0.55	1.27	0.59	1.13	0.54	1.27	0.51	1.23	0.53	1.31	0.56	1.31	0.55	1.19
5. Earth Science (Grade 5)	11	0.58	1.38	0.57	1.26	0.57	1.39	0.50	1.35	0.56	1.42	0.61	1.42	0.57	1.30
6. Earth Science (Grade 4)	8	0.65	1.12	0.65	0.94	0.63	1.13	0.58	1.06	0.63	1.17	0.66	1.17	0.63	1.02
Grade 8 Science															
1. Motion	8	0.62	1.15	0.57	0.93	0.60	1.16	0.53	1.08	0.58	1.20	0.58	1.22	0.57	1.05
2. Forces, Density, and Buoncy	13	0.74	1.45	0.67	1.19	0.73	1.45	0.67	1.35	0.72	1.52	0.73	1.53	0.72	1.30
3. Structure of Matter and Periodic Table	16	0.78	1.68	0.77	1.39	0.77	1.67	0.73	1.57	0.76	1.74	0.76	1.74	0.77	1.54
4. Earth in the Solar System	7	0.60	1.09	0.58	0.93	0.61	1.09	0.53	1.03	0.59	1.12	0.59	1.13	0.57	1.01
5. Reactions and the Chemistry of Living Systems	10	0.62	1.41	0.64	1.22	0.61	1.41	0.57	1.35	0.59	1.44	0.60	1.44	0.63	1.34
6. Investigation and Experimentation	6	0.49	1.09	0.48	0.89	0.48	1.08	0.42	1.01	0.47	1.10	0.49	1.11	0.48	1.02
Grade 10 Life Science															
1. Cell Biology	10	0.67	1.41	0.71	1.25	0.66	1.42	0.64	1.37	0.63	1.44	0.64	1.43	0.69	1.35
2. Genetics	12	0.71	1.50	0.69	1.34	0.69	1.50	0.66	1.45	0.66	1.54	0.67	1.54	0.70	1.42
3. Physiology	10	0.73	1.30	0.73	1.13	0.72	1.33	0.68	1.24	0.72	1.36	0.72	1.36	0.74	1.19
4. Ecology	11	0.73	1.41	0.70	1.26	0.72	1.43	0.66	1.38	0.71	1.46	0.71	1.46	0.73	1.32
5. Evolution	11	0.77	1.42	0.78	1.27	0.74	1.45	0.73	1.41	0.71	1.48	0.71	1.48	0.78	1.35
6. Investigation and Experimentation	6	0.64	0.98	0.62	0.77	0.63	0.98	0.58	0.91	0.61	1.03	0.62	1.03	0.66	0.88

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# 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*
Biology															
1. Cell Biology	9	0.58	1.37	0.65	1.22	0.58	1.38	0.56	1.36	0.54	1.40	0.53	1.40	0.61	1.33
2. Genetics	18	0.79	1.80	0.79	1.57	0.79	1.81	0.74	1.75	0.77	1.86	0.77	1.87	0.79	1.71
3. Ecology and Evolution	16	0.76	1.77	0.78	1.58	0.75	1.80	0.72	1.77	0.73	1.83	0.73	1.83	0.78	1.66
4. Physiology	11	0.75	1.34	0.73	1.16	0.75	1.37	0.70	1.30	0.74	1.42	0.74	1.41	0.73	1.26
5. Investigation and Experimentation	6	0.53	1.07	0.52	0.95	0.54	1.08	0.49	1.06	0.52	1.10	0.51	1.11	0.54	1.02
Chemistry															
1. Atomic and Molecular Structure	8	0.60	1.19	0.62	1.08	0.59	1.21	0.56	1.19	0.59	1.23	0.58	1.25	0.60	1.15
2. Chemical Bonds, Biochemistry	9	0.66	1.25	0.66	1.09	0.66	1.28	0.60	1.24	0.64	1.32	0.66	1.33	0.63	1.19
3. Kinetics, Thermodynamics	14	0.68	1.65	0.71	1.50	0.69	1.69	0.64	1.67	0.66	1.71	0.65	1.73	0.69	1.58
4. Chemical Reactions	13	0.66	1.61	0.72	1.51	0.66	1.63	0.66	1.61	0.64	1.64	0.64	1.64	0.67	1.58
5. Conservation of Matter and Stoichiometry	10	0.62	1.42	0.72	1.27	0.60	1.44	0.63	1.41	0.58	1.45	0.57	1.46	0.67	1.37
6. Investigation and Experimentation	6	0.59	0.98	0.55	0.91	0.56	1.05	0.51	1.01	0.55	1.06	0.55	1.08	0.56	0.92
Earth Science															
1. Astronomy and Cosmology	12	0.68	1.46	0.67	1.39	0.65	1.48	0.62	1.43	0.65	1.49	0.64	1.49	0.66	1.39
2. Solid Earth	14	0.70	1.65	0.67	1.60	0.68	1.68	0.62	1.63	0.67	1.69	0.68	1.70	0.69	1.58
3. The Earth's Energy	28	0.82	2.41	0.84	2.32	0.81	2.42	0.80	2.39	0.79	2.43	0.78	2.44	0.84	2.35
4. Investigation and Experimentation	6	0.57	1.06	0.52	1.00	0.48	1.10	0.45	1.03	0.51	1.09	0.49	1.11	0.52	1.01
Physics															
1. Motion and Forces	12	0.63	1.47	0.61	1.37	0.57	1.49	0.56	1.48	0.56	1.53	0.52	1.54	0.61	1.43
2. Conservation of Energy and Momentum	12	0.82	1.42	0.74	1.35	0.74	1.51	0.71	1.50	0.72	1.54	0.69	1.56	0.75	1.44
3. Heat and Thermodynamics	9	0.69	1.27	0.65	1.20	0.67	1.30	0.63	1.28	0.64	1.32	0.62	1.33	0.65	1.23
4. Waves	10	0.65	1.37	0.62	1.30	0.59	1.42	0.59	1.39	0.61	1.43	0.59	1.44	0.64	1.34
5. Electric and Magnetic Phenomena	11	0.68	1.44	0.67	1.38	0.64	1.46	0.58	1.43	0.60	1.46	0.56	1.46	0.67	1.42
6. Investigation and Experimentation	6	0.59	0.99	0.50	0.93	0.54	1.05	0.45	1.04	0.52	1.08	0.51	1.09	0.55	0.96

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.63	1.43	0.66	1.38	0.58	1.47	0.57	1.46	0.54	1.48	0.55	1.47	0.63	1.39
2. Chemistry	15	0.64	1.77	0.73	1.72	0.61	1.77	0.63	1.79	0.56	1.78	0.58	1.77	0.66	1.78
3. Earth Sciences	17	0.79	1.82	0.74	1.74	0.76	1.85	0.69	1.82	0.72	1.88	0.72	1.89	0.76	1.77
4. Physics	12	0.48	1.60	0.63	1.57	0.42	1.57	0.45	1.59	0.37	1.59	0.39	1.58	0.53	1.59
5. Investigation and Experimentation	6	0.51	1.12	0.56	1.06	0.50	1.12	0.48	1.12	0.46	1.13	0.47	1.13	0.56	1.08
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.63	1.78	0.81	1.50	0.74	1.72	0.75	1.69	0.68	1.76	0.66	1.77	0.70	1.72
2. Chemistry	6	0.39	1.12	0.64	1.03	0.32	1.13	0.38	1.14	0.31	1.12	0.17	1.15	0.40	1.14
3. Earth Sciences	15	0.73	1.70	0.77	1.62	0.55	1.80	0.65	1.77	0.68	1.77	0.67	1.76	0.72	1.71
4. Physics	18	0.28	1.91	0.76	1.86	0.26	1.91	0.49	1.89	0.37	1.90	0.29	1.91	0.52	1.90
5. Investigation and Experimentation	6	0.42	1.13	0.56	1.03	0.27	1.13	0.33	1.15	0.43	1.13	0.39	1.12	0.44	1.11
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.63	1.85	–	–	0.64	1.90	0.62	1.86	0.60	1.86	0.68	1.83
2. Chemistry	23	–	–	0.76	2.19	–	–	0.68	2.25	0.53	2.19	0.47	2.20	0.64	2.21
3. Earth Sciences	7	–	–	0.55	1.21	–	–	0.37	1.27	0.41	1.24	0.52	1.20	0.50	1.23
4. Physics	8	–	–	0.43	1.22	–	–	0.09	1.24	0.23	1.28	0.29	1.29	0.29	1.28
5. Investigation and Experimentation	6	–	–	0.56	1.03	–	–	0.65	1.00	0.48	1.09	0.51	1.08	0.62	1.02
Integrated/Coordinated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	0.75	1.58	0.80	1.57	0.79	1.55
2. Chemistry	10	–	–	–	–	–	–	–	–	0.18	1.47	0.41	1.47	0.47	1.42
3. Earth Sciences	15	–	–	–	–	–	–	–	–	0.66	1.79	0.71	1.72	0.74	1.74
4. Physics	16	–	–	–	–	–	–	–	–	0.45	1.77	0.71	1.77	0.60	1.76
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.52	1.10	0.84	0.90	0.52	1.12

Table 8.A.39 Subscore Reliabilities and SEM for Grade-Specific Tests by PRIMARY ETHNICITY NOT IN NSLP

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP															
Subscore Area	**# of items**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
		Rel.	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Algebra I – 8															
1. Number Properties, Operations, and Linear Equations	17	0.77	1.76	0.77	1.44	0.78	1.70	0.76	1.66	0.76	1.80	0.78	1.80	0.76	1.65
2. Graphing and Systems of Linear Equations	14	0.70	1.71	0.76	1.50	0.70	1.70	0.71	1.66	0.67	1.72	0.65	1.73	0.71	1.67
3. Quadratics and Polynomials	21	0.81	2.02	0.83	1.77	0.81	1.99	0.81	1.95	0.79	2.03	0.79	2.03	0.81	1.96
4. Functions and Rational Expressions	13	0.64	1.60	0.76	1.46	0.71	1.57	0.69	1.57	0.65	1.59	0.63	1.59	0.71	1.58
Geometry – 9															
1. Logic and Geometric Proofs	23	0.80	1.93	0.81	1.77	0.82	2.01	0.79	1.98	0.79	2.05	0.79	2.08	0.78	1.89
2. Volume and Area Formulas	11	0.64	1.43	0.71	1.27	0.69	1.44	0.67	1.40	0.65	1.46	0.64	1.47	0.66	1.38
3. Angle Relationships, Constructions, and Lines	16	0.68	1.70	0.74	1.54	0.75	1.72	0.72	1.70	0.70	1.77	0.70	1.78	0.70	1.66
4. Trigonometry	15	0.74	1.60	0.78	1.37	0.81	1.59	0.78	1.56	0.78	1.65	0.79	1.68	0.76	1.53
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.75	1.76	0.77	1.53	0.76	1.75	0.76	1.72	0.78	1.79	0.78	1.82	0.76	1.71
2. Quadratics, Conics, and Complex Numbers	16	0.70	1.78	0.76	1.67	0.71	1.78	0.71	1.77	0.69	1.79	0.69	1.79	0.71	1.76
3. Exponents and Logarithms	16	0.70	1.80	0.78	1.66	0.75	1.77	0.75	1.76	0.74	1.79	0.72	1.80	0.76	1.75
4. Series, Combinatorics, and Probability and Statistics	14	0.55	1.70	0.64	1.66	0.61	1.69	0.57	1.70	0.60	1.68	0.59	1.66	0.60	1.68
Summative High School Math – 11															
1. Algebra I	18	0.82	1.72	0.78	1.45	0.79	1.78	0.79	1.76	0.79	1.81	0.79	1.85	0.79	1.66
2. Geometry	19	0.76	1.81	0.73	1.59	0.74	1.84	0.73	1.81	0.74	1.89	0.75	1.92	0.73	1.75
3. Algebra II	23	0.82	2.06	0.82	1.80	0.81	2.08	0.79	2.07	0.79	2.13	0.80	2.14	0.81	2.01
4. Probability and Statistics	5	0.56	0.95	0.55	0.86	0.60	0.92	0.50	0.96	0.50	0.98	0.52	0.98	0.53	0.92

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY NOT IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
World History – 10															
1. Development of Modern Political Thought	13	0.68	1.65	0.68	1.55	0.64	1.66	0.63	1.64	0.63	1.67	0.63	1.67	0.68	1.60
2. Industrial Expansion and Imperialism	10	0.67	1.42	0.67	1.30	0.65	1.43	0.63	1.40	0.65	1.44	0.65	1.44	0.68	1.36
3. Causes and Effects of World War I	14	0.75	1.68	0.75	1.57	0.73	1.68	0.71	1.66	0.71	1.70	0.69	1.70	0.76	1.62
4. Causes and Effects of World War II	13	0.70	1.64	0.72	1.55	0.68	1.64	0.66	1.63	0.67	1.65	0.64	1.66	0.72	1.59
5. International Developments in the Post-World War II Era	10	0.70	1.40	0.70	1.32	0.68	1.41	0.66	1.40	0.65	1.43	0.63	1.43	0.70	1.38

Table 8.A.40 Subscore Reliabilities and SEM for English–Language Arts by PRIMARY ETHNICITY IN NSLP

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY IN NSLP															
Subscore Area	**# 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	22	0.83	2.03	0.83	1.83	0.80	1.97	0.81	1.82	0.83	2.01	0.84	2.00	0.83	1.96
2. Reading Comprehension	15	0.72	1.74	0.74	1.65	0.71	1.73	0.71	1.67	0.70	1.74	0.72	1.75	0.75	1.70
3. Literary Response and Analysis	6	0.58	1.05	0.59	0.97	0.55	1.02	0.55	0.96	0.57	1.05	0.57	1.04	0.62	0.99
4. Written and Oral Language Conventions	14	0.76	1.64	0.82	1.42	0.77	1.57	0.80	1.43	0.78	1.61	0.79	1.60	0.79	1.58
5. Writing Strategies	8	0.51	1.27	0.58	1.24	0.44	1.27	0.54	1.25	0.49	1.27	0.51	1.27	0.57	1.26
Grade 3															
1. Word Analysis and Vocabulary	20	0.77	1.88	0.77	1.75	0.74	1.85	0.71	1.75	0.76	1.90	0.77	1.88	0.78	1.80
2. Reading Comprehension	15	0.68	1.75	0.71	1.67	0.67	1.74	0.67	1.69	0.67	1.75	0.68	1.75	0.70	1.70
3. Literary Response and Analysis	8	0.68	1.20	0.70	1.13	0.67	1.20	0.69	1.13	0.66	1.22	0.68	1.21	0.70	1.15
4. Written and Oral Language Conventions	13	0.64	1.62	0.66	1.50	0.62	1.60	0.64	1.52	0.63	1.62	0.65	1.62	0.65	1.58
5. Writing Strategies	9	0.60	1.36	0.63	1.33	0.59	1.36	0.60	1.33	0.60	1.37	0.60	1.36	0.63	1.35
Grade 4															
1. Word Analysis and Vocabulary	18	0.81	1.75	0.81	1.64	0.79	1.75	0.78	1.61	0.78	1.78	0.80	1.78	0.81	1.67
2. Reading Comprehension	15	0.72	1.73	0.74	1.68	0.70	1.74	0.72	1.70	0.68	1.75	0.70	1.74	0.74	1.69
3. Literary Response and Analysis	9	0.60	1.34	0.65	1.24	0.61	1.33	0.61	1.27	0.62	1.34	0.63	1.34	0.64	1.29
4. Written and Oral Language Conventions	18	0.75	1.85	0.77	1.67	0.76	1.79	0.75	1.66	0.75	1.83	0.76	1.84	0.77	1.79
5. Writing Strategies	15	0.67	1.77	0.72	1.73	0.67	1.78	0.69	1.74	0.66	1.78	0.67	1.78	0.70	1.75
Grade 5															
1. Word Analysis and Vocabulary	14	0.70	1.55	0.75	1.47	0.69	1.55	0.70	1.45	0.71	1.57	0.71	1.57	0.71	1.49
2. Reading Comprehension	16	0.67	1.83	0.73	1.77	0.66	1.82	0.69	1.79	0.65	1.83	0.64	1.84	0.71	1.79
3. Literary Response and Analysis	12	0.68	1.51	0.73	1.41	0.69	1.51	0.69	1.43	0.68	1.52	0.70	1.52	0.70	1.46

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY IN NSLP

Subscore Area	# 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*
4. Written and Oral Language Conventions	17	0.78	1.72	0.79	1.54	0.77	1.68	0.76	1.54	0.78	1.72	0.79	1.71	0.80	1.64
5. Writing Strategies	16	0.61	1.87	0.71	1.80	0.64	1.85	0.66	1.82	0.62	1.86	0.63	1.86	0.66	1.84
Grade 6															
1. Word Analysis and Vocabulary	13	0.68	1.59	0.73	1.49	0.66	1.58	0.67	1.49	0.67	1.60	0.70	1.60	0.70	1.54
2. Reading Comprehension	17	0.69	1.90	0.72	1.82	0.68	1.90	0.70	1.83	0.68	1.90	0.67	1.91	0.71	1.86
3. Literary Response and Analysis	12	0.63	1.57	0.69	1.52	0.62	1.56	0.66	1.53	0.63	1.56	0.64	1.55	0.66	1.54
4. Written and Oral Language Conventions	16	0.79	1.70	0.78	1.49	0.77	1.63	0.75	1.50	0.78	1.69	0.79	1.72	0.79	1.63
5. Writing Strategies	17	0.72	1.87	0.76	1.80	0.70	1.86	0.72	1.82	0.71	1.87	0.71	1.87	0.74	1.82
Grade 7															
1. Word Analysis and Vocabulary	11	0.65	1.47	0.69	1.38	0.65	1.46	0.64	1.37	0.63	1.49	0.65	1.49	0.68	1.41
2. Reading Comprehension	18	0.79	1.81	0.81	1.71	0.75	1.84	0.77	1.72	0.77	1.83	0.78	1.85	0.80	1.76
3. Literary Response and Analysis	13	0.73	1.57	0.71	1.51	0.68	1.59	0.69	1.52	0.69	1.59	0.71	1.59	0.74	1.53
4. Written and Oral Language Conventions	16	0.73	1.76	0.77	1.63	0.74	1.72	0.74	1.63	0.71	1.75	0.73	1.75	0.75	1.71
5. Writing Strategies	17	0.76	1.86	0.80	1.76	0.73	1.87	0.76	1.80	0.75	1.86	0.74	1.86	0.78	1.83
Grade 8															
1. Word Analysis and Vocabulary	9	0.58	1.33	0.62	1.27	0.53	1.33	0.53	1.28	0.56	1.33	0.58	1.34	0.59	1.29
2. Reading Comprehension	18	0.75	1.87	0.78	1.78	0.74	1.88	0.74	1.79	0.74	1.87	0.74	1.88	0.77	1.82
3. Literary Response and Analysis	15	0.67	1.78	0.71	1.68	0.65	1.78	0.67	1.70	0.64	1.78	0.65	1.79	0.70	1.73
4. Written and Oral Language Conventions	16	0.77	1.69	0.76	1.54	0.76	1.65	0.74	1.52	0.77	1.69	0.78	1.70	0.79	1.63
5. Writing Strategies	17	0.70	1.86	0.73	1.83	0.65	1.88	0.69	1.84	0.68	1.87	0.68	1.86	0.73	1.84

Subscore Reliabilities and SEM for ELA by PRIMARY ETHNICITY IN NSLP

Subscore Area	# 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 9															
1. Word Analysis and Vocabulary	8	0.67	1.23	0.65	1.19	0.63	1.26	0.61	1.19	0.62	1.26	0.63	1.27	0.67	1.20
2. Reading Comprehension	18	0.76	1.88	0.78	1.76	0.71	1.89	0.74	1.79	0.72	1.89	0.72	1.90	0.76	1.84
3. Literary Response and Analysis	16	0.78	1.77	0.80	1.68	0.74	1.80	0.77	1.71	0.75	1.80	0.75	1.80	0.80	1.71
4. Written and Oral Language Conventions	13	0.68	1.65	0.72	1.57	0.68	1.65	0.69	1.60	0.65	1.67	0.66	1.66	0.71	1.62
5. Writing Strategies	20	0.75	2.02	0.77	1.96	0.75	2.02	0.75	1.99	0.74	2.02	0.75	2.01	0.78	2.00
Grade 10															
1. Word Analysis and Vocabulary	8	0.58	1.23	0.61	1.15	0.59	1.22	0.52	1.15	0.57	1.21	0.59	1.23	0.62	1.19
2. Reading Comprehension	18	0.80	1.88	0.83	1.77	0.80	1.87	0.80	1.81	0.79	1.87	0.79	1.88	0.83	1.83
3. Literary Response and Analysis	16	0.75	1.79	0.78	1.73	0.74	1.79	0.74	1.74	0.73	1.79	0.74	1.79	0.79	1.75
4. Written and Oral Language Conventions	13	0.75	1.57	0.74	1.47	0.73	1.57	0.71	1.49	0.73	1.58	0.74	1.59	0.76	1.54
5. Writing Strategies	20	0.81	1.97	0.83	1.88	0.79	2.00	0.81	1.92	0.80	1.98	0.80	1.99	0.83	1.93
Grade 11															
1. Word Analysis and Vocabulary	8	0.59	1.27	0.56	1.24	0.47	1.30	0.49	1.24	0.49	1.29	0.49	1.30	0.59	1.26
2. Reading Comprehension	19	0.74	1.96	0.76	1.91	0.70	1.98	0.72	1.93	0.71	1.96	0.72	1.97	0.77	1.93
3. Literary Response and Analysis	17	0.74	1.86	0.76	1.80	0.73	1.86	0.72	1.80	0.72	1.86	0.72	1.87	0.76	1.82
4. Written and Oral Language Conventions	9	0.68	1.33	0.73	1.25	0.66	1.33	0.69	1.27	0.64	1.34	0.65	1.34	0.72	1.30
5. Writing Strategies	22	0.82	2.08	0.83	2.00	0.80	2.10	0.81	2.03	0.79	2.10	0.80	2.10	0.84	2.05

Table 8.A.41 Subscore Reliabilities and SEM for History–Social Science by PRIMARY ETHNICITY IN NSLP

Subscore Area	# 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	0.59	1.86	0.68	1.83	0.58	1.86	0.64	1.84	0.59	1.86	0.58	1.85	0.64	1.85
2. Late Antiquity and the Middle Ages	14	0.65	1.70	0.74	1.63	0.66	1.70	0.69	1.67	0.65	1.70	0.65	1.69	0.69	1.69
3. Renaissance/Reformation	10	0.52	1.46	0.62	1.44	0.53	1.47	0.57	1.45	0.52	1.46	0.50	1.46	0.58	1.46
4. U.S. Constitution and the Early Republic	22	0.75	2.14	0.81	2.08	0.76	2.15	0.78	2.12	0.75	2.14	0.75	2.13	0.80	2.12
5. Civil War and Its Aftermath	13	0.65	1.67	0.71	1.62	0.65	1.67	0.68	1.65	0.64	1.67	0.66	1.65	0.70	1.65
World History															
1. Development of Modern Political Thought	13	0.63	1.67	0.69	1.63	0.63	1.66	0.65	1.65	0.59	1.68	0.59	1.67	0.67	1.65
2. Industrial Expansion and Imperialism	10	0.63	1.45	0.68	1.41	0.64	1.44	0.65	1.43	0.60	1.45	0.59	1.44	0.67	1.43
3. Causes and Effects of World War I	14	0.69	1.70	0.75	1.65	0.70	1.70	0.71	1.69	0.67	1.70	0.63	1.70	0.73	1.69
4. Causes and Effects of World War II	13	0.59	1.67	0.70	1.63	0.59	1.66	0.67	1.65	0.62	1.65	0.58	1.65	0.68	1.65
5. International Developments in the Post-World War II Era	10	0.62	1.43	0.69	1.39	0.62	1.42	0.66	1.42	0.61	1.42	0.56	1.42	0.67	1.42
Grade 11 (U.S. History)															
1. Foundations of American Political and Social Thought	10	0.53	1.46	0.63	1.42	0.53	1.45	0.55	1.45	0.55	1.45	0.50	1.45	0.59	1.44
2. Industrialization and the U.S. role as a World Power	13	0.64	1.65	0.73	1.58	0.60	1.65	0.66	1.62	0.63	1.64	0.60	1.64	0.70	1.62
3. United States between the World Wars	12	0.65	1.59	0.68	1.57	0.61	1.60	0.64	1.59	0.65	1.59	0.62	1.58	0.68	1.58
4. World War II and Foreign Affairs	12	0.67	1.55	0.74	1.51	0.64	1.56	0.70	1.54	0.66	1.55	0.60	1.56	0.72	1.54
5. Post-World War II Domestic Affairs	13	0.65	1.65	0.70	1.63	0.63	1.66	0.65	1.65	0.64	1.65	0.63	1.64	0.68	1.63

Table 8.A.42 Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP															
Subscore Area	**# of items**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
		Rel.	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Grade 2															
1. Number Sense: Place Value, Addition, and Subtraction	15	0.80	1.54	0.80	1.31	0.79	1.50	0.79	1.34	0.80	1.52	0.81	1.56	0.80	1.43
2. Number Sense: Multiplication, Division, and Fractions	23	0.82	1.97	0.83	1.74	0.82	1.93	0.82	1.78	0.83	1.93	0.84	1.98	0.83	1.85
3. Algebra and Functions	6	0.56	0.99	0.61	0.80	0.55	0.94	0.58	0.83	0.57	0.96	0.59	0.99	0.58	0.91
4. Measurement and Geometry	13	0.63	1.49	0.67	1.37	0.62	1.49	0.64	1.39	0.63	1.50	0.64	1.52	0.63	1.42
5. Statistics, Data Analysis, and Probability	7	0.62	1.07	0.63	0.94	0.59	1.05	0.59	0.97	0.61	1.05	0.62	1.09	0.63	1.00
Grade 3															
1. Number Sense: Place Value, Fractions, and Decimals	16	0.79	1.58	0.78	1.35	0.77	1.52	0.77	1.39	0.79	1.55	0.80	1.60	0.79	1.48
2. Number Sense: Addition, Subtraction, Multiplication, and Division	16	0.81	1.65	0.83	1.36	0.81	1.58	0.82	1.42	0.81	1.59	0.81	1.65	0.82	1.57
3. Algebra and Functions	12	0.72	1.37	0.72	1.18	0.72	1.32	0.70	1.21	0.71	1.35	0.72	1.39	0.73	1.29
4. Measurement and Geometry	16	0.73	1.52	0.74	1.34	0.73	1.46	0.72	1.36	0.72	1.49	0.75	1.54	0.73	1.45
5. Statistics, Data Analysis, and Probability	5	0.60	0.78	0.59	0.66	0.63	0.74	0.56	0.67	0.62	0.76	0.66	0.79	0.64	0.71
Grade 4															
1. Number Sense: Decimals, Fractions, and Negative Numbers	17	0.76	1.61	0.77	1.34	0.75	1.55	0.75	1.40	0.77	1.59	0.77	1.64	0.76	1.49
2. Number Sense: Operations and Factoring	14	0.79	1.57	0.81	1.27	0.80	1.49	0.81	1.34	0.80	1.51	0.80	1.58	0.80	1.49
3. Algebra and Functions	18	0.83	1.73	0.83	1.37	0.83	1.63	0.82	1.44	0.83	1.66	0.84	1.73	0.84	1.61
4. Measurement and Geometry	12	0.73	1.48	0.76	1.30	0.74	1.44	0.76	1.31	0.73	1.46	0.73	1.50	0.74	1.43
5. Statistics, Data Analysis, and Probability	4	0.49	0.84	0.44	0.76	0.45	0.83	0.44	0.77	0.44	0.83	0.47	0.85	0.47	0.81

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Grade 5															
1. Number Sense: Estimation, Percents, and Factoring	12	0.68	1.51	0.75	1.37	0.68	1.49	0.73	1.41	0.68	1.50	0.67	1.51	0.70	1.48
2. Number Sense: Operations with Fractions and Decimals	17	0.76	1.81	0.81	1.60	0.76	1.79	0.80	1.66	0.77	1.79	0.76	1.82	0.79	1.77
3. Algebra and Functions	17	0.77	1.78	0.80	1.57	0.77	1.75	0.79	1.61	0.77	1.76	0.77	1.80	0.79	1.72
4. Measurement and Geometry	15	0.77	1.70	0.83	1.53	0.78	1.68	0.82	1.56	0.79	1.68	0.77	1.71	0.80	1.65
5. Statistics, Data Analysis, and Probability	4	0.48	0.80	0.50	0.68	0.48	0.78	0.47	0.70	0.45	0.78	0.49	0.82	0.50	0.77
Grade 6															
1. Number Sense: Ratios, Proportions, Percentages, and Negative Fractions	15	0.67	1.74	0.77	1.60	0.70	1.72	0.74	1.66	0.69	1.72	0.65	1.74	0.71	1.71
2. Number Sense: Operations and Problem Solving with Fractions	10	0.59	1.39	0.65	1.28	0.59	1.38	0.62	1.33	0.57	1.40	0.56	1.40	0.64	1.35
3. Algebra and Functions	19	0.79	1.90	0.83	1.66	0.81	1.87	0.81	1.75	0.80	1.89	0.79	1.93	0.82	1.83
4. Measurement and Geometry	10	0.58	1.45	0.68	1.34	0.62	1.44	0.65	1.39	0.59	1.45	0.56	1.46	0.63	1.43
5. Statistics, Data Analysis, and Probability	11	0.71	1.43	0.75	1.30	0.72	1.42	0.74	1.33	0.71	1.43	0.70	1.45	0.74	1.38

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP

Subscore Area	# 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	0.68	1.68	0.76	1.53	0.70	1.66	0.73	1.58	0.70	1.67	0.67	1.68	0.72	1.65
2. Number Sense: Exponent, Powers and Roots	8	0.55	1.27	0.65	1.22	0.57	1.27	0.62	1.25	0.56	1.27	0.55	1.25	0.58	1.27
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	10	0.54	1.46	0.60	1.38	0.56	1.45	0.58	1.40	0.56	1.46	0.55	1.47	0.58	1.44
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	15	0.72	1.73	0.76	1.60	0.70	1.72	0.75	1.64	0.71	1.73	0.68	1.75	0.74	1.70
5. Measurement and Geometry	13	0.65	1.65	0.74	1.56	0.65	1.63	0.70	1.60	0.65	1.64	0.60	1.64	0.69	1.62
6. Statistics, Data Analysis, and Probability	5	0.52	0.99	0.59	0.88	0.53	0.98	0.59	0.90	0.54	0.97	0.49	1.00	0.57	0.96
General Mathematics															
1. Number Sense: Rational Numbers	14	0.67	1.66	0.76	1.60	0.68	1.64	0.72	1.63	0.68	1.64	0.64	1.64	0.71	1.65
2. Number Sense: Exponent, Powers and Roots	10	0.62	1.38	0.73	1.36	0.65	1.39	0.70	1.38	0.63	1.37	0.61	1.36	0.64	1.39
3. Algebra and Functions: Quantitative Relationships and Evaluating Expressions	11	0.70	1.46	0.69	1.40	0.69	1.45	0.68	1.42	0.67	1.48	0.68	1.48	0.70	1.45
4. Algebra and Functions: Multistep Problems, Graphing, and Functions	10	0.63	1.41	0.63	1.35	0.62	1.40	0.61	1.36	0.61	1.41	0.59	1.42	0.65	1.39
5. Measurement and Geometry	11	0.58	1.51	0.63	1.50	0.57	1.51	0.62	1.51	0.53	1.51	0.48	1.49	0.63	1.51
6. Statistics, Data Analysis, and Probability	9	0.57	1.36	0.61	1.31	0.57	1.36	0.58	1.34	0.54	1.36	0.55	1.36	0.62	1.34

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Algebra I															
1. Number Properties, Operations, and Linear Equations	17	0.74	1.86	0.80	1.73	0.72	1.86	0.77	1.79	0.72	1.87	0.70	1.87	0.76	1.85
2. Graphing and Systems of Linear Equations	14	0.57	1.72	0.75	1.66	0.61	1.72	0.69	1.71	0.58	1.73	0.51	1.72	0.63	1.73
3. Quadratics and Polynomials	21	0.71	2.05	0.84	1.96	0.73	2.05	0.80	2.01	0.72	2.05	0.67	2.04	0.75	2.05
4. Functions and Rational Expressions	13	0.48	1.58	0.74	1.55	0.51	1.58	0.66	1.57	0.50	1.57	0.44	1.57	0.56	1.59
Geometry															
1. Logic and Geometric Proofs	23	0.79	2.10	0.84	2.02	0.73	2.13	0.79	2.09	0.73	2.13	0.70	2.14	0.79	2.09
2. Volume and Area Formulas	11	0.59	1.50	0.73	1.43	0.54	1.51	0.66	1.47	0.55	1.50	0.46	1.50	0.62	1.49
3. Angle Relationships, Constructions, and Lines	16	0.69	1.82	0.77	1.73	0.66	1.82	0.72	1.79	0.64	1.82	0.58	1.81	0.70	1.81
4. Trigonometry	15	0.76	1.72	0.83	1.60	0.74	1.74	0.79	1.68	0.73	1.73	0.69	1.73	0.77	1.71
Algebra II															
1. Polynomials and Rational Expressions	19	0.76	1.87	0.81	1.69	0.74	1.87	0.78	1.81	0.77	1.87	0.76	1.90	0.78	1.83
2. Quadratics, Conics, and Complex Numbers	16	0.66	1.80	0.77	1.74	0.67	1.80	0.69	1.80	0.65	1.79	0.59	1.79	0.69	1.79
3. Exponents and Logarithms	16	0.68	1.80	0.80	1.74	0.70	1.81	0.75	1.78	0.68	1.79	0.65	1.79	0.74	1.79
4. Series, Combinatorics, and Probability and Statistics	14	0.59	1.67	0.66	1.67	0.56	1.66	0.57	1.68	0.54	1.66	0.48	1.63	0.58	1.69
Summative High School Mathematics															
1. Algebra I	18	0.78	1.82	0.80	1.61	0.75	1.82	0.77	1.81	0.78	1.85	0.78	1.89	0.80	1.74
2. Geometry	19	0.68	1.90	0.76	1.72	0.71	1.91	0.72	1.88	0.73	1.93	0.74	1.97	0.75	1.82
3. Algebra II	23	0.78	2.18	0.82	1.94	0.77	2.10	0.77	2.11	0.78	2.15	0.77	2.17	0.82	2.08
4. Probability and Statistics	5	0.50	0.97	0.56	0.92	0.47	0.98	0.51	0.98	0.48	0.99	0.45	0.99	0.52	0.96

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated Mathematics 1															
1. Algebra I: Number Properties, Operations and Linear Equations	15	0.82	1.69	0.73	1.72	0.75	1.73	0.76	1.72	0.69	1.76	0.63	1.77	0.74	1.74
2. Algebra I: Graphing	9	0.32	1.36	0.53	1.38	0.53	1.37	0.65	1.33	0.46	1.37	0.44	1.36	0.50	1.39
3. Algebra I: Quadratics and Polynomials	14	0.55	1.69	0.72	1.66	0.67	1.62	0.78	1.63	0.58	1.64	0.54	1.64	0.62	1.68
4. Algebra I: Functions and Relations Expressions	7	0.23	1.12	0.59	1.10	0.06	1.21	0.63	1.07	0.37	1.11	0.32	1.12	0.45	1.11
5. Geometry	20	0.57	2.04	0.65	2.02	0.59	1.95	0.55	2.04	0.48	1.96	0.33	1.96	0.55	2.02
Integrated Mathematics 2															
1. Algebra I	20	0.50	2.09	0.76	1.97	0.59	1.96	0.78	1.96	0.67	2.01	0.71	1.99	0.65	2.04
2. Geometry: Logic and Geometric Proofs	22	0.78	2.03	0.77	2.10	0.83	2.07	0.71	2.13	0.69	2.07	0.64	2.10	0.77	2.09
3. Geometry: Angle Relationships, Construction and Lines	8	0.31	1.36	0.58	1.28	0.70	1.20	0.57	1.26	0.40	1.31	0.41	1.28	0.46	1.31
4. Trigonometry	10	0.08	1.58	0.74	1.38	0.86	1.21	0.81	1.30	0.66	1.40	0.59	1.42	0.62	1.43
5. Algebra II/Probability and Statistics	5	–	1.08	0.39	0.96	0.33	1.03	0.30	1.00	–	1.00	0.21	0.97	0.04	1.00
Integrated Mathematics 3															
1. Geometry	5	–	–	0.44	0.93	–	–	0.23	1.04	0.40	0.98	0.65	0.88	0.35	0.93
2. Algebra II: Polynomials and Relations Expressions	19	–	–	0.83	1.85	–	–	0.83	1.87	0.76	1.92	0.81	1.88	0.76	1.90
3. Algebra II: Quadratics, Conics and Statistics	16	–	–	0.80	1.73	–	–	0.82	1.64	0.69	1.78	0.70	1.78	0.54	1.80
4. Algebra II: Exponents and Logarithms	16	–	–	0.83	1.73	–	–	0.75	1.73	0.68	1.80	0.79	1.73	0.68	1.81
5. Algebra II: Series, Combinatorics, Probability and Statistics	9	–	–	0.54	1.37	–	–	0.42	1.28	0.35	1.30	0.63	1.23	0.32	1.28

Table 8.A.43 Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY IN NSLP

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY IN NSLP															
	# of	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
Subscore Area	**items**	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Grade 5 Science															
1. Physical Science (Grade 5)	11	0.63	1.43	0.67	1.33	0.61	1.44	0.58	1.32	0.63	1.45	0.63	1.47	0.64	1.35
2. Physical Science (Grade 4)	8	0.58	1.22	0.63	1.16	0.56	1.24	0.59	1.15	0.57	1.23	0.58	1.25	0.60	1.17
3. Life Science (Grade 5)	13	0.55	1.59	0.63	1.51	0.54	1.59	0.58	1.52	0.55	1.59	0.56	1.62	0.61	1.54
4. Life Science (Grade 4)	9	0.50	1.35	0.56	1.30	0.47	1.35	0.52	1.29	0.49	1.36	0.50	1.36	0.54	1.31
5. Earth Science (Grade 5)	11	0.58	1.46	0.59	1.41	0.54	1.48	0.52	1.42	0.53	1.48	0.57	1.49	0.59	1.42
6. Earth Science (Grade 4)	8	0.63	1.23	0.65	1.15	0.61	1.24	0.61	1.15	0.61	1.25	0.62	1.26	0.66	1.17
Grade 8 Science															
1. Motion	8	0.57	1.25	0.59	1.12	0.56	1.25	0.54	1.16	0.55	1.25	0.56	1.28	0.60	1.19
2. Forces, Density, and Buoncy	13	0.71	1.59	0.71	1.42	0.70	1.58	0.68	1.47	0.70	1.60	0.70	1.62	0.75	1.50
3. Structure of Matter and Periodic Table	16	0.74	1.79	0.77	1.63	0.75	1.77	0.74	1.66	0.73	1.80	0.72	1.81	0.77	1.72
4. Earth in the Solar System	7	0.57	1.17	0.62	1.07	0.57	1.16	0.56	1.09	0.57	1.16	0.56	1.18	0.60	1.12
5. Reactions and the Chemistry of Living Systems	10	0.57	1.46	0.63	1.37	0.58	1.45	0.59	1.40	0.55	1.47	0.55	1.47	0.61	1.44
6. Investigation and Experimentation	6	0.45	1.13	0.47	1.02	0.46	1.12	0.43	1.07	0.46	1.12	0.45	1.14	0.49	1.10
Grade 10 Life Science															
1. Cell Biology	10	0.61	1.44	0.69	1.37	0.59	1.45	0.64	1.41	0.58	1.46	0.58	1.45	0.66	1.42
2. Genetics	12	0.63	1.57	0.69	1.46	0.66	1.55	0.67	1.49	0.63	1.56	0.62	1.57	0.69	1.52
3. Physiology	10	0.70	1.38	0.72	1.30	0.69	1.40	0.68	1.32	0.69	1.40	0.68	1.41	0.74	1.33
4. Ecology	11	0.69	1.48	0.71	1.40	0.68	1.49	0.67	1.44	0.67	1.49	0.67	1.49	0.74	1.43
5. Evolution	11	0.70	1.48	0.76	1.42	0.67	1.49	0.73	1.45	0.65	1.50	0.63	1.50	0.74	1.46
6. Investigation and Experimentation	6	0.60	1.05	0.62	0.92	0.57	1.06	0.57	0.98	0.57	1.06	0.57	1.08	0.64	1.00

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY IN NSLP

Subscore Area	# 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*
Biology															
1. Cell Biology	9	0.53	1.40	0.61	1.35	0.50	1.41	0.53	1.39	0.50	1.40	0.47	1.41	0.56	1.39
2. Genetics	18	0.75	1.89	0.78	1.75	0.75	1.88	0.73	1.82	0.74	1.88	0.74	1.90	0.79	1.84
3. Ecology and Evolution	16	0.73	1.83	0.76	1.78	0.68	1.86	0.70	1.83	0.68	1.86	0.67	1.86	0.76	1.80
4. Physiology	11	0.73	1.43	0.75	1.34	0.72	1.46	0.71	1.37	0.71	1.46	0.71	1.46	0.75	1.38
5. Investigation and Experimentation	6	0.49	1.12	0.54	1.06	0.47	1.13	0.49	1.09	0.48	1.12	0.45	1.13	0.54	1.09
Chemistry															
1. Atomic and Molecular Structure	8	0.58	1.24	0.59	1.17	0.54	1.27	0.55	1.23	0.56	1.25	0.54	1.27	0.60	1.21
2. Chemical Bonds, Biochemistry	9	0.69	1.28	0.67	1.23	0.59	1.35	0.60	1.29	0.63	1.35	0.63	1.35	0.65	1.28
3. Kinetics, Thermodynamics	14	0.66	1.71	0.69	1.64	0.61	1.75	0.63	1.71	0.62	1.74	0.59	1.75	0.68	1.68
4. Chemical Reactions	13	0.57	1.67	0.70	1.59	0.60	1.65	0.65	1.63	0.61	1.65	0.56	1.65	0.66	1.62
5. Conservation of Matter and Stoichiometry	10	0.60	1.45	0.69	1.37	0.59	1.45	0.63	1.43	0.53	1.46	0.49	1.46	0.63	1.43
6. Investigation and Experimentation	6	0.62	1.03	0.55	1.03	0.53	1.10	0.51	1.05	0.52	1.10	0.48	1.12	0.58	1.01
Earth Science															
1. Astronomy and Cosmology	12	0.63	1.52	0.65	1.48	0.57	1.52	0.62	1.47	0.62	1.51	0.60	1.52	0.67	1.47
2. Solid Earth	14	0.69	1.70	0.66	1.69	0.62	1.72	0.65	1.69	0.63	1.71	0.64	1.73	0.70	1.66
3. The Earth's Energy	28	0.80	2.43	0.80	2.42	0.74	2.45	0.80	2.43	0.76	2.44	0.73	2.44	0.82	2.41
4. Investigation and Experimentation	6	0.50	1.10	0.51	1.07	0.52	1.10	0.47	1.08	0.48	1.12	0.46	1.13	0.54	1.07
Physics															
1. Motion and Forces	12	0.62	1.52	0.61	1.46	0.52	1.54	0.54	1.50	0.50	1.55	0.46	1.57	0.58	1.51
2. Conservation of Energy and Momentum	12	0.70	1.55	0.75	1.46	0.68	1.55	0.66	1.55	0.67	1.56	0.61	1.57	0.74	1.53
3. Heat and Thermodynamics	9	0.66	1.33	0.66	1.27	0.57	1.34	0.63	1.31	0.58	1.34	0.56	1.33	0.67	1.30
4. Waves	10	0.56	1.47	0.63	1.38	0.54	1.47	0.58	1.43	0.56	1.45	0.50	1.47	0.63	1.42
5. Electric and Magnetic Phenomena	11	0.56	1.47	0.64	1.42	0.54	1.50	0.56	1.45	0.52	1.47	0.46	1.45	0.63	1.46
6. Investigation and Experimentation	6	0.53	1.11	0.50	1.05	0.40	1.13	0.49	1.08	0.47	1.11	0.41	1.12	0.57	1.05

Subscore Reliabilities and SEM for Science by PRIMARY ETHNICITY IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
Integrated/Coordinated Science 1															
1. Biology/Life Sciences	10	0.56	1.47	0.59	1.45	0.49	1.48	0.55	1.47	0.49	1.49	0.49	1.48	0.59	1.46
2. Chemistry	15	0.61	1.76	0.72	1.75	0.53	1.76	0.62	1.80	0.54	1.78	0.51	1.77	0.60	1.79
3. Earth Sciences	17	0.75	1.86	0.74	1.82	0.70	1.89	0.70	1.86	0.68	1.90	0.66	1.91	0.75	1.86
4. Physics	12	0.47	1.58	0.50	1.60	0.44	1.55	0.38	1.61	0.32	1.58	0.34	1.56	0.41	1.59
5. Investigation and Experimentation	6	0.48	1.13	0.50	1.12	0.42	1.13	0.40	1.15	0.42	1.13	0.43	1.12	0.52	1.12
Integrated/Coordinated Science 2															
1. Biology/Life Sciences	15	0.71	1.76	0.72	1.73	0.71	1.75	0.71	1.76	0.67	1.77	0.55	1.79	0.64	1.77
2. Chemistry	6	0.05	1.16	0.35	1.15	0.62	1.07	0.34	1.13	0.29	1.12	0.11	1.12	0.34	1.14
3. Earth Sciences	15	0.76	1.72	0.70	1.75	0.38	1.85	0.66	1.76	0.64	1.78	0.52	1.78	0.70	1.75
4. Physics	18	0.58	1.86	0.50	1.92	0.25	1.93	0.09	1.95	0.26	1.92	0.20	1.90	0.30	1.91
5. Investigation and Experimentation	6	0.55	1.10	0.37	1.15	0.35	1.17	0.42	1.14	0.40	1.13	0.33	1.12	0.45	1.13
Integrated/Coordinated Science 3															
1. Biology/Life Sciences	16	–	–	0.66	1.86	–	–	–	–	0.66	1.84	0.15	1.89	0.69	1.83
2. Chemistry	23	–	–	0.65	2.21	–	–	–	–	0.56	2.21	0.43	2.17	0.43	2.20
3. Earth Sciences	7	–	–	0.39	1.26	–	–	–	–	0.40	1.25	0.39	1.23	0.43	1.24
4. Physics	8	–	–	0.22	1.30	–	–	–	–	0.17	1.29	0.03	1.24	0.19	1.32
5. Investigation and Experimentation	6	–	–	0.54	1.06	–	–	–	–	0.51	1.10	0.44	1.10	0.38	1.12
Integrated Science 4															
1. Biology/Life Sciences	13	–	–	–	–	–	–	–	–	0.68	1.66	–	–	0.70	1.62
2. Chemistry	10	–	–	–	–	–	–	–	–	–	1.43	–	–	0.31	1.41
3. Earth Sciences	15	–	–	–	–	–	–	–	–	0.66	1.76	–	–	0.69	1.78
4. Physics	16	–	–	–	–	–	–	–	–	–	1.76	–	–	0.58	1.65
5. Investigation and Experimentation	6	–	–	–	–	–	–	–	–	0.19	1.18	–	–	0.42	1.16

Table 8.A.44 Subscore Reliabilities and SEM for Grade-Specific Tests by PRIMARY ETHNICITY IN NSLP

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP															
Subscore Area	**# of items**	**Am. Ind.**		**Asian**		**Pac. Island**		**Filipino**		**Hispanic**		**African Am.**		**White**	
		Rel.	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***	***Rel.***	***SEM***
Algebra I – 8															
1. Number Properties, Operations, and Linear Equations	17	0.76	1.84	0.79	1.65	0.74	1.83	0.76	1.73	0.75	1.84	0.74	1.85	0.77	1.79
2. Graphing and Systems of Linear Equations	14	0.63	1.73	0.75	1.62	0.67	1.72	0.70	1.69	0.65	1.73	0.60	1.73	0.67	1.72
3. Quadratics and Polynomials	21	0.76	2.05	0.83	1.91	0.78	2.04	0.81	1.98	0.78	2.04	0.75	2.04	0.78	2.04
4. Functions and Rational Expressions	13	0.56	1.59	0.74	1.53	0.61	1.59	0.69	1.57	0.60	1.59	0.55	1.58	0.62	1.60
Geometry – 9															
1. Logic and Geometric Proofs	23	0.80	2.01	0.81	1.98	0.76	2.12	0.79	2.04	0.77	2.10	0.76	2.13	0.78	2.03
2. Volume and Area Formulas	11	0.60	1.49	0.70	1.40	0.60	1.50	0.67	1.44	0.63	1.49	0.58	1.49	0.63	1.46
3. Angle Relationships, Constructions, and Lines	16	0.66	1.79	0.74	1.69	0.65	1.82	0.70	1.77	0.69	1.80	0.65	1.81	0.69	1.76
4. Trigonometry	15	0.80	1.64	0.80	1.55	0.76	1.71	0.78	1.64	0.77	1.70	0.76	1.73	0.77	1.65
Algebra II – 10															
1. Polynomials and Rational Expressions	19	0.76	1.86	0.79	1.65	0.72	1.80	0.76	1.75	0.78	1.82	0.77	1.88	0.78	1.78
2. Quadratics, Conics, and Complex Numbers	16	0.69	1.80	0.75	1.74	0.68	1.80	0.71	1.78	0.68	1.79	0.64	1.79	0.70	1.78
3. Exponents and Logarithms	16	0.67	1.82	0.78	1.73	0.72	1.81	0.76	1.77	0.72	1.79	0.70	1.79	0.74	1.78
4. Series, Combinatorics, and Probability and Statistics	14	0.64	1.67	0.62	1.68	0.60	1.67	0.57	1.69	0.57	1.67	0.53	1.64	0.57	1.70
Summative High School Math – 11															
1. Algebra I	18	0.76	1.82	0.80	1.65	0.75	1.83	0.77	1.83	0.78	1.86	0.77	1.90	0.80	1.76
2. Geometry	19	0.64	1.90	0.77	1.75	0.70	1.93	0.72	1.89	0.73	1.94	0.73	1.98	0.74	1.84
3. Algebra II	23	0.77	2.18	0.82	1.98	0.77	2.11	0.77	2.12	0.78	2.16	0.76	2.18	0.81	2.09
4. Probability and Statistics	5	0.53	0.96	0.56	0.93	0.47	0.99	0.51	0.98	0.47	0.99	0.45	0.99	0.52	0.96

Subscore Reliabilities and SEM for Mathematics by PRIMARY ETHNICITY IN NSLP

Subscore Area	# of items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Rel.	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*	*Rel.*	*SEM*
World History – 10															
1. Development of Modern Political Thought	13	0.61	1.67	0.66	1.64	0.60	1.68	0.63	1.66	0.58	1.68	0.57	1.68	0.65	1.66
2. Industrial Expansion and Imperialism	10	0.62	1.46	0.67	1.42	0.62	1.45	0.64	1.44	0.59	1.46	0.59	1.45	0.66	1.44
3. Causes and Effects of World War I	14	0.67	1.71	0.74	1.66	0.68	1.71	0.70	1.69	0.67	1.71	0.62	1.71	0.73	1.69
4. Causes and Effects of World War II	13	0.58	1.67	0.68	1.64	0.58	1.67	0.65	1.65	0.61	1.66	0.57	1.66	0.67	1.65
5. International Developments in the Post-World War II Era	10	0.62	1.43	0.68	1.40	0.61	1.43	0.65	1.42	0.60	1.43	0.56	1.43	0.66	1.42

Table 8.A.45 Overall Subgroup Reliabilities

Overall Subgroup Reliabilities for the CSTs (table 1 of 2)											
Subject Area	CST	Gender		NSLP		Special Service		Language Fluency			
		Male	Female	No	Yes	No	Yes	Eng. only	Ini. Fluent	Learner	Red. Fluent
English–Language Arts	2	0.94	0.94	0.93	0.93	0.93	0.94	0.94	0.93	0.93	0.90
	3	0.93	0.92	0.92	0.91	0.92	0.93	0.92	0.91	0.90	0.84
	4 *	0.94	0.94	0.93	0.92	0.94	0.94	0.94	0.93	0.90	0.87
	5	0.93	0.93	0.92	0.92	0.93	0.93	0.93	0.92	0.89	0.87
	6	0.94	0.93	0.93	0.92	0.93	0.92	0.93	0.92	0.89	0.88
	7 *	0.94	0.94	0.94	0.93	0.94	0.91	0.94	0.93	0.88	0.90
	8	0.93	0.93	0.93	0.92	0.93	0.90	0.93	0.92	0.86	0.88
	9	0.94	0.94	0.94	0.92	0.94	0.89	0.94	0.93	0.86	0.90
	10	0.95	0.94	0.95	0.94	0.94	0.91	0.95	0.94	0.88	0.92
	11	0.94	0.94	0.94	0.92	0.94	0.88	0.94	0.94	0.84	0.91
** Multiple choice only*											
History–Social Science	8	0.94	0.92	0.93	0.90	0.93	0.89	0.93	0.93	0.83	0.90
	World History	0.93	0.91	0.93	0.89	0.92	0.88	0.93	0.92	0.82	0.90
	11	0.93	0.91	0.92	0.90	0.92	0.86	0.92	0.92	0.81	0.90
Mathematics	2	0.94	0.93	0.93	0.93	0.93	0.95	0.93	0.91	0.93	0.90
	3	0.94	0.93	0.93	0.93	0.93	0.95	0.94	0.92	0.93	0.89
	4	0.94	0.94	0.94	0.94	0.94	0.95	0.94	0.93	0.93	0.90
	5	0.94	0.93	0.94	0.93	0.94	0.93	0.94	0.94	0.91	0.92
	6	0.94	0.93	0.94	0.92	0.93	0.91	0.94	0.94	0.89	0.91
	7	0.93	0.92	0.93	0.91	0.92	0.88	0.93	0.93	0.87	0.90
	General Mathematics	0.92	0.90	0.92	0.90	0.91	0.86	0.91	0.91	0.87	0.89
	Algebra I	0.91	0.91	0.92	0.88	0.91	0.81	0.91	0.93	0.83	0.91
	Geometry	0.93	0.93	0.93	0.90	0.93	0.89	0.93	0.94	0.88	0.92
	Algebra II	0.92	0.91	0.92	0.90	0.92	0.90	0.91	0.93	0.91	0.91
	Summ. H.S. Mathematics	0.93	0.93	0.93	0.92	0.93	0.95	0.92	0.93	0.95	0.93
	Integrated Mathematics 1	0.86	0.85	0.86	0.84	0.86	0.75	0.86	0.89	0.72	0.86
	Integrated Mathematics 2	0.90	0.89	0.90	0.88	0.90	0.79	0.90	0.93	0.84	0.88
	Integrated Mathematics 3	0.91	0.89	0.90	0.91	0.90	0.78	0.89	0.94	0.87	0.91

Overall Subgroup Reliabilities for the CSTs (table 1 of 2)

Subject Area	CST	Gender		NSLP		Special Service		Language Fluency			
		Male	Female	No	Yes	No	Yes	Eng. only	Ini. Fluent	Learner	Red. Fluent
Science	**Grade 5 Science**	0.92	0.90	0.90	0.89	0.90	0.92	0.91	0.89	0.86	0.84
	Grade 8 Science	0.93	0.91	0.92	0.91	0.92	0.90	0.92	0.92	0.87	0.88
	Grade 10 Life Science	0.94	0.92	0.94	0.91	0.93	0.89	0.94	0.93	0.85	0.91
	Biology	0.93	0.92	0.93	0.91	0.92	0.89	0.93	0.93	0.85	0.90
	Chemistry	0.93	0.91	0.92	0.90	0.92	0.92	0.92	0.92	0.87	0.91
	Earth Science	0.92	0.89	0.91	0.89	0.90	0.88	0.91	0.90	0.83	0.87
	Physics	0.93	0.90	0.92	0.89	0.92	0.90	0.92	0.92	0.87	0.90
	Integrated Science 1	0.88	0.85	0.89	0.84	0.87	0.79	0.88	0.88	0.75	0.84
	Integrated Science 2	0.88	0.85	0.88	0.82	0.87	0.79	0.87	0.90	0.73	0.85
	Integrated Science 3	0.86	0.81	0.85	0.82	0.84	0.79	0.85	0.81	0.64	0.83
	Integrated Science 4	0.89	0.83	0.89	0.78	0.86	0.83	0.88	0.82	0.68	0.73
Grade-Specific	**Algebra I – 8**	0.93	0.92	0.93	0.91	0.92	0.90	0.92	0.93	0.88	0.92
	Geometry – 9	0.93	0.93	0.92	0.92	0.93	0.94	0.92	0.93	0.93	0.92
	Algebra II – 10	0.92	0.90	0.91	0.90	0.91	0.92	0.90	0.92	0.93	0.91
	H.S. Mathematics – 11	0.93	0.92	0.92	0.92	0.93	0.95	0.92	0.93	0.94	0.93
	World History – 10	0.93	0.90	0.92	0.89	0.92	0.87	0.92	0.92	0.81	0.89

Table 8.A.46 Overall Subgroup Reliabilities [continued]

Overall Subgroup Reliabilities for the CSTs (table 2 of 2)								
Subject Area	**CST**	**Primary Ethnicity**						
		Am. Ind.	**Asian**	**Pac. Island**	**Filipino**	**Hispanic**	**African Am.**	**White**
English–Language Arts	**2**	0.93	0.93	0.92	0.92	0.93	0.93	0.93
	3	0.92	0.92	0.91	0.90	0.91	0.92	0.92
	4 *	0.94	0.94	0.93	0.92	0.92	0.93	0.93
	5	0.92	0.93	0.92	0.91	0.92	0.92	0.92
	6	0.93	0.93	0.92	0.91	0.92	0.93	0.93
	7 *	0.94	0.94	0.93	0.92	0.93	0.93	0.94
	8	0.92	0.93	0.92	0.91	0.92	0.92	0.93
	9	0.94	0.94	0.93	0.92	0.92	0.93	0.94
	10	0.94	0.95	0.94	0.93	0.93	0.94	0.95
	11	0.94	0.94	0.93	0.92	0.92	0.93	0.94
**** Multiple choice only***								
History–Social Science	**8**	0.91	0.94	0.91	0.91	0.90	0.91	0.93
	World History	0.91	0.93	0.91	0.91	0.89	0.89	0.93
	11	0.91	0.93	0.90	0.90	0.90	0.89	0.92
Mathematics	**2**	0.93	0.93	0.92	0.92	0.93	0.93	0.92
	3	0.93	0.93	0.93	0.92	0.93	0.94	0.93
	4	0.94	0.93	0.93	0.93	0.93	0.94	0.93
	5	0.93	0.94	0.93	0.93	0.93	0.93	0.94
	6	0.92	0.94	0.93	0.93	0.92	0.92	0.93
	7	0.91	0.93	0.91	0.92	0.91	0.90	0.92
	General Mathematics	0.91	0.93	0.90	0.91	0.90	0.89	0.92
	Algebra I	0.89	0.94	0.89	0.92	0.87	0.87	0.92
	Geometry	0.92	0.95	0.91	0.92	0.89	0.88	0.93
	Algebra II	0.89	0.93	0.90	0.90	0.88	0.88	0.91
	Summ. H.S. Mathematics	0.92	0.92	0.92	0.91	0.91	0.92	0.92
	Integrated Mathematics 1	0.88	0.90	0.86	0.89	0.82	0.82	0.86
	Integrated Mathematics 2	0.86	0.93	0.91	0.93	0.86	0.89	0.89
	Integrated Mathematics 3	0.89	0.94	–	0.93	0.87	0.89	0.87

Overall Subgroup Reliabilities for the CSTs (table 2 of 2)

Subject Area	CST	Primary Ethnicity						
		Am. Ind.	Asian	Pac. Island	Filipino	Hispanic	African Am.	White
Science	Grade 5 Science	0.90	0.91	0.89	0.88	0.89	0.90	0.90
	Grade 8 Science	0.92	0.92	0.91	0.90	0.90	0.91	0.92
	Life Science	0.93	0.93	0.92	0.92	0.91	0.91	0.93
	Biology	0.92	0.93	0.92	0.90	0.90	0.90	0.92
	Chemistry	0.91	0.92	0.90	0.90	0.89	0.89	0.91
	Earth Science	0.90	0.91	0.89	0.89	0.88	0.88	0.91
	Physics	0.92	0.91	0.90	0.89	0.89	0.88	0.91
	Integrated Science 1	0.88	0.90	0.86	0.86	0.83	0.84	0.89
	Integrated Science 2	0.86	0.93	0.82	0.85	0.82	0.79	0.86
	Integrated Science 3	–	0.86	–	0.84	0.82	0.78	0.86
	Integrated Science 4	–	0.88	–	–	0.79	0.91	0.89
Grade-Specific	Algebra I – 8	0.91	0.93	0.92	0.92	0.90	0.90	0.92
	Geometry – 9	0.91	0.93	0.92	0.92	0.91	0.91	0.91
	Algebra II – 10	0.88	0.91	0.90	0.89	0.89	0.89	0.90
	Summ. H.S. Mathematics – 11	0.92	0.92	0.91	0.91	0.91	0.91	0.92
	World History – 10	0.91	0.92	0.90	0.90	0.89	0.89	0.92

Table 8.A.47 Overall Subgroup Reliabilities—Ethnicity by NSLP

Overall Subgroup Reliabilities for the CSTs (table 1 of 2)								
Subject Area	**CST**	**Primary Ethnicity Not in NSLP**						
		Am. Ind.	**Asian**	**Pac. Island**	**Filipino**	**Hispanic**	**African Am.**	**White**
English–Language Arts	**2**	0.93	0.92	0.92	0.91	0.93	0.93	0.93
	3	0.92	0.91	0.91	0.89	0.91	0.92	0.91
	4 *	0.94	0.93	0.93	0.92	0.93	0.93	0.92
	5	0.92	0.92	0.91	0.91	0.92	0.92	0.91
	6	0.93	0.92	0.92	0.91	0.92	0.93	0.92
	7 *	0.94	0.93	0.93	0.92	0.93	0.93	0.93
	8	0.92	0.92	0.92	0.90	0.92	0.93	0.92
	9	0.94	0.93	0.93	0.92	0.93	0.93	0.93
	10	0.94	0.94	0.94	0.93	0.94	0.94	0.94
	11	0.94	0.94	0.93	0.92	0.93	0.93	0.94
**** Multiple choice only***								
History–Social Science	**8**	0.92	0.93	0.92	0.91	0.91	0.92	0.92
	World History	0.92	0.92	0.91	0.91	0.90	0.90	0.92
	11	0.92	0.92	0.91	0.90	0.91	0.90	0.92
Mathematics	**2**	0.93	0.91	0.92	0.91	0.93	0.93	0.91
	3	0.93	0.91	0.93	0.91	0.93	0.94	0.92
	4	0.94	0.92	0.93	0.92	0.93	0.94	0.93
	5	0.93	0.94	0.93	0.93	0.93	0.93	0.93
	6	0.93	0.93	0.93	0.92	0.93	0.93	0.93
	7	0.92	0.93	0.92	0.92	0.91	0.91	0.92
	General Mathematics	0.91	0.93	0.91	0.91	0.90	0.90	0.91
	Algebra I	0.89	0.94	0.90	0.92	0.88	0.88	0.92
	Geometry	0.92	0.95	0.92	0.92	0.90	0.90	0.93
	Algebra II	0.89	0.93	0.90	0.90	0.89	0.89	0.91
	Summ. H.S. Mathematics	0.93	0.92	0.92	0.91	0.91	0.92	0.92
	Integrated Mathematics 1	0.90	0.91	0.86	0.88	0.82	0.84	0.86
	Integrated Mathematics 2	0.89	0.94	0.89	0.93	0.86	0.91	0.89
	Integrated Mathematics 3	0.91	0.94	–	0.92	0.87	0.87	0.87

Overall Subgroup Reliabilities for the CSTs (table 1 of 2)

Subject Area	CST	Primary Ethnicity Not in NSLP						
		Am. Ind.	Asian	Pac. Island	Filipino	Hispanic	African Am.	White
Science	Grade 5 Science	0.90	0.90	0.89	0.87	0.89	0.90	0.89
	Grade 8 Science	0.92	0.91	0.92	0.89	0.91	0.91	0.91
	Life Science	0.93	0.93	0.93	0.91	0.92	0.92	0.93
	Biology	0.92	0.92	0.92	0.90	0.91	0.91	0.92
	Chemistry	0.91	0.92	0.90	0.89	0.90	0.90	0.91
	Earth Science	0.91	0.91	0.90	0.89	0.89	0.89	0.91
	Physics	0.92	0.91	0.90	0.89	0.90	0.89	0.91
	Integrated Science 1	0.89	0.90	0.87	0.86	0.85	0.86	0.89
	Integrated Science 2	0.84	0.93	0.83	0.85	0.84	0.82	0.86
	Integrated Science 3	–	0.88	–	0.85	0.81	0.81	0.86
	Integrated Science 4	–	–	–	–	0.85	0.92	0.90
Grade-Specific	Algebra I – 8	0.91	0.93	0.92	0.92	0.91	0.91	0.92
	Geometry – 9	0.91	0.92	0.93	0.92	0.92	0.91	0.91
	Algebra II – 10	0.88	0.91	0.90	0.89	0.90	0.89	0.90
	Summ. H.S. Mathematics – 11	0.93	0.92	0.92	0.91	0.91	0.92	0.92
	World History – 10	0.91	0.92	0.91	0.90	0.90	0.90	0.92

Table 8.A.48 Overall Subgroup Reliabilities—Ethnicity by NSLP [continued]

Overall Subgroup Reliabilities for the CSTs (table 1 of 2)								
Subject Area	**CST**	**Primary Ethnicity in NSLP**						
		Am. Ind.	**Asian**	**Pac. Island**	**Filipino**	**Hispanic**	**African Am.**	**White**
English–Language Arts	**2**	0.92	0.93	0.92	0.92	0.92	0.93	0.93
	3	0.91	0.92	0.90	0.90	0.91	0.91	0.91
	4 *	0.93	0.93	0.92	0.92	0.92	0.92	0.93
	5	0.91	0.93	0.91	0.91	0.91	0.91	0.92
	6	0.92	0.93	0.91	0.92	0.92	0.92	0.93
	7 *	0.93	0.94	0.92	0.92	0.92	0.92	0.93
	8	0.92	0.93	0.91	0.91	0.91	0.92	0.93
	9	0.93	0.94	0.92	0.92	0.92	0.92	0.93
	10	0.93	0.94	0.93	0.93	0.93	0.93	0.94
	11	0.93	0.94	0.92	0.92	0.92	0.92	0.94
**** Multiple choice only***								
History–Social Science	**8**	0.89	0.93	0.89	0.91	0.89	0.89	0.91
	World History	0.89	0.92	0.89	0.90	0.88	0.87	0.91
	11	0.89	0.92	0.88	0.89	0.89	0.87	0.91
Mathematics	**2**	0.92	0.93	0.92	0.92	0.93	0.93	0.93
	3	0.93	0.93	0.93	0.93	0.93	0.93	0.93
	4	0.93	0.93	0.93	0.93	0.93	0.93	0.93
	5	0.92	0.94	0.92	0.93	0.92	0.92	0.93
	6	0.91	0.93	0.92	0.93	0.91	0.91	0.92
	7	0.90	0.93	0.90	0.92	0.90	0.89	0.91
	General Mathematics	0.90	0.92	0.89	0.91	0.89	0.88	0.91
	Algebra I	0.87	0.93	0.87	0.91	0.87	0.84	0.89
	Geometry	0.91	0.94	0.89	0.92	0.89	0.86	0.91
	Algebra II	0.88	0.92	0.88	0.90	0.88	0.86	0.89
	Summ. H.S. Mathematics	0.91	0.92	0.90	0.90	0.91	0.91	0.92
	Integrated Mathematics 1	0.84	0.89	0.88	0.90	0.82	0.79	0.85
	Integrated Mathematics 2	0.83	0.91	0.93	0.92	0.86	0.87	0.88
	Integrated Mathematics 3	–	0.94	–	0.93	0.88	0.92	0.87

Overall Subgroup Reliabilities for the CSTs (table 1 of 2)

Subject Area	CST	Primary Ethnicity in NSLP						
		Am. Ind.	Asian	Pac. Island	Filipino	Hispanic	African Am.	White
Science	Grade 5 Science	0.89	0.90	0.88	0.88	0.88	0.89	0.90
	Grade 8 Science	0.90	0.92	0.90	0.90	0.90	0.90	0.92
	Life Science	0.91	0.93	0.91	0.91	0.90	0.90	0.93
	Biology	0.91	0.92	0.90	0.90	0.90	0.89	0.92
	Chemistry	0.90	0.91	0.89	0.89	0.89	0.87	0.90
	Earth Science	0.90	0.90	0.87	0.89	0.88	0.87	0.91
	Physics	0.90	0.91	0.88	0.88	0.87	0.85	0.91
	Integrated Science 1	0.86	0.89	0.83	0.85	0.82	0.82	0.87
	Integrated Science 2	0.88	0.86	0.84	0.85	0.81	0.74	0.83
	Integrated Science 3	–	0.84	–	–	0.82	0.71	0.83
	Integrated Science 4	–	–	–	–	0.76	–	0.84
Grade-Specific	Algebra I – 8	0.89	0.93	0.90	0.92	0.90	0.89	0.90
	Geometry – 9	0.91	0.93	0.90	0.92	0.91	0.90	0.91
	Algebra II – 10	0.89	0.91	0.88	0.90	0.89	0.88	0.89
	Summ. H.S. Mathematics – 11	0.90	0.92	0.90	0.90	0.91	0.90	0.92
	World History – 10	0.88	0.91	0.88	0.90	0.88	0.86	0.90

Appendix 8.B—Reliability of Classification Tables

Table 8.B.1 Reliability of Classification for English–Language Arts, Grade Two

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–19	0.06	0.02	0.00	0.00	0.00	0.09
	20–29	0.01	0.10	0.03	0.00	0.00	0.15
	30–43	0.00	0.02	0.25	0.02	0.00	0.29
	44–54	0.00	0.00	0.04	0.23	0.02	0.30
	55–65	0.00	0.00	0.00	0.03	0.15	0.18
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–19	0.06	0.02	0.00	0.00	0.00	0.09
	20–29	0.02	0.09	0.04	0.00	0.00	0.15
	30–43	0.00	0.03	0.22	0.04	0.00	0.29
	44–54	0.00	0.00	0.06	0.20	0.04	0.30
	55–65	0.00	0.00	0.00	0.04	0.14	0.18
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.89						

Table 8.B.2 Reliability of Classification for English–Language Arts, Grade Three

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–24	0.08	0.03	0.00	0.00	0.00	0.11
	25–34	0.01	0.12	0.03	0.00	0.00	0.17
	35–47	0.00	0.03	0.27	0.04	0.00	0.34
	48–56	0.00	0.00	0.04	0.19	0.02	0.26
	57–65	0.00	0.00	0.00	0.03	0.09	0.12
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–24	0.08	0.03	0.00	0.00	0.00	0.11
	25–34	0.03	0.10	0.04	0.00	0.00	0.17
	35–47	0.00	0.05	0.23	0.06	0.00	0.34
	48–56	0.00	0.00	0.06	0.16	0.04	0.26
	57–65	0.00	0.00	0.00	0.04	0.08	0.12
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.88						

Table 8.B.3 Reliability of Classification for English–Language Arts, Grade Four (Reading only)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–21	0.04	0.02	0.00	0.00	0.00	0.05
	22–30	0.01	0.07	0.03	0.00	0.00	0.11
	31–46	0.00	0.02	0.23	0.03	0.00	0.28
	47–58	0.00	0.00	0.04	0.21	0.03	0.28
	59–75	0.00	0.00	0.00	0.03	0.24	0.27
	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	0.06	0.03	0.00	0.00	0.11
	31–46	0.00	0.03	0.21	0.04	0.00	0.28
	47–58	0.00	0.00	0.05	0.18	0.05	0.28
	59–75	0.00	0.00	0.00	0.04	0.23	0.27
	Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.90						

Table 8.B.4 Reliability of Classification for English–Language Arts, Grade Four (Reading and Writing)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–24	0.02	0.02	0.00	0.00	0.00	0.04
	25–34	0.01	0.06	0.04	0.00	0.00	0.11
	35–51	0.00	0.02	0.22	0.04	0.00	0.29
	52–63	0.00	0.00	0.05	0.18	0.05	0.27
	64–83	0.00	0.00	0.00	0.05	0.24	0.29
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.90						
Decision Consistency Alternate Form	0–24	0.02	0.02	0.01	0.00	0.00	0.04
	25–34	0.02	0.05	0.04	0.00	0.00	0.11
	35–51	0.00	0.04	0.18	0.06	0.00	0.29
	52–63	0.00	0.00	0.06	0.14	0.07	0.27
	64–83	0.00	0.00	0.00	0.06	0.22	0.29
	Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.87						

Table 8.B.5 Reliability of Classification for English–Language Arts, Grade Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–24	0.04	0.02	0.00	0.00	0.00	0.07
	25–33	0.01	0.08	0.03	0.00	0.00	0.12
	34–49	0.00	0.02	0.27	0.04	0.00	0.33
	50–61	0.00	0.00	0.04	0.23	0.03	0.30
	62–75	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	0–24	0.04	0.02	0.00	0.00	0.00	0.07
	25–33	0.02	0.07	0.04	0.00	0.00	0.12
	34–49	0.00	0.04	0.24	0.05	0.00	0.33
	50–61	0.00	0.00	0.05	0.20	0.05	0.30
	62–75	0.00	0.00	0.00	0.04	0.14	0.18
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89						

Table 8.B.6 Reliability of Classification for English–Language Arts, Grade Six

	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	0.09	0.03	0.00	0.00	0.13
	34–49	0.00	0.02	0.26	0.04	0.00	0.31
	50–60	0.00	0.00	0.04	0.20	0.03	0.28
	61–75	0.00	0.00	0.00	0.03	0.16	0.20
	Estimated Proportion Correctly Classified: Total = 0.77, 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	0.08	0.04	0.00	0.00	0.13
	34–49	0.00	0.04	0.23	0.05	0.00	0.31
	50–60	0.00	0.00	0.05	0.17	0.05	0.28
	61–75	0.00	0.00	0.00	0.04	0.15	0.20
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.7 Reliability of Classification for English–Language Arts, Grade Seven (Reading only)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–23	0.07	0.02	0.00	0.00	0.00	0.10
	24–33	0.02	0.10	0.03	0.00	0.00	0.15
	34–48	0.00	0.02	0.23	0.03	0.00	0.28
	49–60	0.00	0.00	0.04	0.21	0.03	0.28
	61–75	0.00	0.00	0.00	0.03	0.17	0.20
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–23	0.07	0.03	0.00	0.00	0.00	0.10
	24–33	0.03	0.08	0.04	0.00	0.00	0.15
	34–48	0.00	0.04	0.20	0.04	0.00	0.28
	49–60	0.00	0.00	0.05	0.18	0.05	0.28
	61–75	0.00	0.00	0.00	0.04	0.16	0.20
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.90						

Table 8.B.8 Reliability of Classification for English–Language Arts, Grade Seven (Reading and Writing)

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–27	0.05	0.03	0.00	0.00	0.00	0.09
	28–38	0.01	0.09	0.05	0.00	0.00	0.15
	39–53	0.00	0.02	0.21	0.04	0.00	0.27
	54–66	0.00	0.00	0.05	0.21	0.03	0.29
	67–83	0.00	0.00	0.00	0.05	0.15	0.21
	Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.89						
Decision Consistency Alternate Form	0–27	0.05	0.03	0.01	0.00	0.00	0.09
	28–38	0.03	0.07	0.05	0.00	0.00	0.15
	39–53	0.00	0.04	0.17	0.06	0.00	0.27
	54–66	0.00	0.00	0.07	0.17	0.05	0.29
	67–83	0.00	0.00	0.01	0.05	0.15	0.21
	Estimated Proportion Consistently Classified: Total = 0.60, Proficient & Above = 0.85						

Table 8.B.9 Reliability of Classification for English–Language Arts, Grade Eight

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–25	0.07	0.03	0.00	0.00	0.00	0.10
	26–35	0.01	0.11	0.03	0.00	0.00	0.15
	36–49	0.00	0.03	0.23	0.04	0.00	0.30
	50–60	0.00	0.00	0.04	0.20	0.03	0.27
	61–75	0.00	0.00	0.00	0.03	0.15	0.18
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–25	0.07	0.03	0.00	0.00	0.00	0.10
	26–35	0.02	0.09	0.04	0.00	0.00	0.15
	36–49	0.00	0.04	0.20	0.05	0.00	0.30
	50–60	0.00	0.00	0.05	0.17	0.05	0.27
	61–75	0.00	0.00	0.00	0.04	0.14	0.18
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.89						

Table 8.B.10 Reliability of Classification for English–Language Arts, Grade Nine

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–21	0.06	0.02	0.00	0.00	0.00	0.08
	22–31	0.01	0.10	0.04	0.01	0.00	0.17
	32–46	0.00	0.02	0.23	0.02	0.00	0.27
	47–58	0.00	0.00	0.04	0.20	0.02	0.26
	59–75	0.00	0.00	0.00	0.04	0.18	0.23
	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	0.09	0.05	0.01	0.00	0.17
	32–46	0.00	0.03	0.20	0.04	0.00	0.27
	47–58	0.00	0.00	0.05	0.17	0.04	0.26
	59–75	0.00	0.00	0.00	0.04	0.18	0.23
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89						

Table 8.B.11 Reliability of Classification for English–Language Arts, Grade Ten

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–24	0.09	0.03	0.00	0.00	0.00	0.12
	25–36	0.01	0.13	0.03	0.00	0.00	0.18
	37–52	0.00	0.02	0.25	0.02	0.00	0.29
	53–62	0.00	0.00	0.04	0.16	0.02	0.22
	63–75	0.00	0.00	0.00	0.03	0.16	0.19
	Estimated Proportion Correctly Classified: Total = 0.79, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–24	0.09	0.03	0.00	0.00	0.00	0.12
	25–36	0.02	0.11	0.04	0.00	0.00	0.18
	37–52	0.00	0.03	0.22	0.03	0.00	0.29
	53–62	0.00	0.00	0.05	0.13	0.03	0.22
	63–75	0.00	0.00	0.00	0.04	0.15	0.19
	Estimated Proportion Consistently Classified: Total = 0.71, Proficient & Above = 0.90						

Table 8.B.12 Reliability of Classification for English–Language Arts, Grade Eleven

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–25	0.13	0.04	0.01	0.01	0.00	0.18
	26–36	0.02	0.14	0.03	0.00	0.00	0.19
	37–50	0.00	0.02	0.22	0.02	0.00	0.26
	51–60	0.00	0.01	0.04	0.14	0.02	0.21
	61–75	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–25	0.12	0.04	0.01	0.01	0.00	0.18
	26–36	0.03	0.12	0.04	0.00	0.00	0.19
	37–50	0.00	0.04	0.19	0.03	0.00	0.26
	51–60	0.00	0.01	0.05	0.12	0.03	0.21
	61–75	0.00	0.00	0.00	0.03	0.12	0.16
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.90						

Table 8.B.13 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	0–22	0.11	0.04	0.00	0.00	0.00	0.15
	23–30	0.03	0.12	0.04	0.00	0.00	0.19
	31–44	0.00	0.04	0.23	0.03	0.00	0.30
	45–55	0.00	0.00	0.04	0.14	0.02	0.20
	56–75	0.00	0.00	0.00	0.03	0.14	0.16
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–22	0.10	0.05	0.01	0.00	0.00	0.15
	23–30	0.05	0.09	0.05	0.00	0.00	0.19
	31–44	0.00	0.05	0.20	0.04	0.00	0.30
	45–55	0.00	0.00	0.05	0.12	0.03	0.20
	56–75	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.91						

Table 8.B.14 Reliability of Classification for World History

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–20	0.22	0.04	0.01	0.00	0.00	0.26
	21–25	0.04	0.07	0.04	0.00	0.00	0.15
	26–36	0.00	0.03	0.20	0.03	0.00	0.26
	37–46	0.00	0.00	0.04	0.14	0.02	0.20
	47–60	0.00	0.00	0.00	0.03	0.11	0.13
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–20	0.20	0.05	0.02	0.00	0.00	0.26
	21–25	0.05	0.05	0.05	0.00	0.00	0.15
	26–36	0.01	0.04	0.17	0.04	0.00	0.26
	37–46	0.00	0.00	0.05	0.12	0.03	0.20
	47–60	0.00	0.00	0.00	0.03	0.10	0.13
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.90						

Table 8.B.15 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	0–18	0.14	0.04	0.00	0.00	0.00	0.19
	19–24	0.04	0.10	0.04	0.00	0.00	0.17
	25–35	0.00	0.04	0.20	0.03	0.00	0.26
	36–45	0.00	0.00	0.04	0.15	0.02	0.22
	46–60	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–18	0.12	0.05	0.01	0.00	0.00	0.19
	19–24	0.05	0.07	0.05	0.00	0.00	0.17
	25–35	0.01	0.04	0.17	0.04	0.00	0.26
	36–45	0.00	0.00	0.05	0.13	0.04	0.22
	46–60	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Consistently Classified: Total = 0.62, Proficient & Above = 0.90						

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

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–22	0.03	0.01	0.00	0.00	0.00	0.04
	23–36	0.01	0.12	0.03	0.00	0.00	0.15
	37–46	0.00	0.02	0.16	0.03	0.00	0.21
	47–55	0.00	0.00	0.04	0.23	0.03	0.30
	56–64	0.00	0.00	0.00	0.05	0.24	0.29
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–22	0.03	0.01	0.00	0.00	0.00	0.04
	23–36	0.01	0.10	0.04	0.00	0.00	0.15
	37–46	0.00	0.03	0.13	0.05	0.00	0.21
	47–55	0.00	0.00	0.06	0.19	0.06	0.30
	56–64	0.00	0.00	0.00	0.06	0.23	0.29
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.17 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	0.03
	24–37	0.00	0.11	0.02	0.00	0.00	0.14
	38–47	0.00	0.02	0.15	0.04	0.00	0.21
	48–56	0.00	0.00	0.03	0.21	0.03	0.28
	57–65	0.00	0.00	0.00	0.04	0.29	0.33
	Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–23	0.02	0.01	0.00	0.00	0.00	0.03
	24–37	0.01	0.10	0.03	0.00	0.00	0.14
	38–47	0.00	0.03	0.13	0.05	0.00	0.21
	48–56	0.00	0.00	0.05	0.18	0.05	0.28
	57–65	0.00	0.00	0.00	0.05	0.28	0.33
	Estimated Proportion Consistently Classified: Total = 0.72, Proficient & Above = 0.90						

Table 8.B.18 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	0.01	0.00	0.00	0.00	0.02
	20–33	0.01	0.10	0.03	0.00	0.00	0.14
	34–46	0.00	0.01	0.19	0.03	0.00	0.23
	47–56	0.00	0.00	0.04	0.22	0.03	0.29
	57–65	0.00	0.00	0.00	0.04	0.28	0.32
	Estimated Proportion Correctly Classified: Total = 0.80, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–19	0.01	0.01	0.00	0.00	0.00	0.02
	20–33	0.01	0.09	0.03	0.00	0.00	0.14
	34–46	0.00	0.03	0.16	0.04	0.00	0.23
	47–56	0.00	0.00	0.05	0.19	0.05	0.29
	57–65	0.00	0.00	0.00	0.05	0.27	0.32
	Estimated Proportion Consistently Classified: Total = 0.72, Proficient & Above = 0.90						

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

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–20	0.03	0.02	0.00	0.00	0.00	0.06
	21–30	0.02	0.13	0.03	0.00	0.00	0.19
	31–41	0.00	0.03	0.18	0.03	0.00	0.24
	42–54	0.00	0.00	0.03	0.24	0.02	0.29
	55–65	0.00	0.00	0.00	0.03	0.19	0.22
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–20	0.03	0.03	0.00	0.00	0.00	0.06
	21–30	0.03	0.11	0.04	0.00	0.00	0.19
	31–41	0.00	0.04	0.15	0.05	0.00	0.24
	42–54	0.00	0.00	0.04	0.21	0.04	0.29
	55–65	0.00	0.00	0.00	0.04	0.18	0.22
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.91						

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

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–18	0.03	0.03	0.00	0.00	0.00	0.06
	19–29	0.02	0.17	0.03	0.00	0.00	0.22
	30–42	0.00	0.03	0.23	0.03	0.00	0.29
	43–54	0.00	0.00	0.03	0.21	0.02	0.27
	55–65	0.00	0.00	0.00	0.03	0.14	0.17
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–18	0.03	0.03	0.00	0.00	0.00	0.06
	19–29	0.03	0.14	0.05	0.00	0.00	0.22
	30–42	0.00	0.04	0.20	0.04	0.00	0.29
	43–54	0.00	0.00	0.05	0.19	0.03	0.27
	55–65	0.00	0.00	0.00	0.03	0.14	0.17
	Estimated Proportion Consistently Classified: Total = 0.70, Proficient & Above = 0.91						

Table 8.B.21 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	0.05	0.03	0.00	0.00	0.00	0.09
	19–27	0.02	0.15	0.04	0.00	0.00	0.21
	28–39	0.00	0.03	0.22	0.03	0.00	0.29
	40–52	0.00	0.00	0.04	0.22	0.02	0.28
	53–65	0.00	0.00	0.00	0.02	0.11	0.13
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–18	0.05	0.04	0.00	0.00	0.00	0.09
	19–27	0.04	0.12	0.05	0.00	0.00	0.21
	28–39	0.00	0.05	0.19	0.05	0.00	0.29
	40–52	0.00	0.00	0.05	0.20	0.03	0.28
	53–65	0.00	0.00	0.00	0.03	0.11	0.13
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90						

Table 8.B.22 Reliability of Classification for General Mathematics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–18	0.11	0.05	0.00	0.00	0.00	0.15
	19–28	0.03	0.21	0.04	0.00	0.00	0.29
	29–39	0.00	0.05	0.21	0.03	0.00	0.28
	40–52	0.00	0.00	0.04	0.17	0.01	0.22
	53–65	0.00	0.00	0.00	0.02	0.04	0.05
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–18	0.10	0.05	0.00	0.00	0.00	0.15
	19–28	0.05	0.18	0.06	0.00	0.00	0.29
	29–39	0.00	0.06	0.18	0.05	0.00	0.28
	40–52	0.00	0.00	0.05	0.16	0.02	0.22
	53–65	0.00	0.00	0.00	0.02	0.03	0.05
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.90						

Table 8.B.23 Reliability of Classification for Algebra I

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–17	0.06	0.08	0.00	0.00	0.00	0.14
	18–26	0.05	0.26	0.04	0.00	0.00	0.35
	27–37	0.00	0.05	0.18	0.02	0.00	0.26
	38–51	0.00	0.00	0.03	0.14	0.01	0.18
	52–65	0.00	0.00	0.00	0.01	0.05	0.07
	Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0–17	0.06	0.08	0.00	0.00	0.00	0.14
	18–26	0.08	0.21	0.06	0.00	0.00	0.35
	27–37	0.00	0.06	0.16	0.04	0.00	0.26
	38–51	0.00	0.00	0.04	0.13	0.02	0.18
	52–65	0.00	0.00	0.00	0.02	0.05	0.07
	Estimated Proportion Consistently Classified: Total = 0.61, Proficient & Above = 0.92						

Table 8.B.24 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	0.05	0.00	0.00	0.00	0.15
	20–32	0.05	0.29	0.03	0.00	0.00	0.37
	33–44	0.00	0.04	0.18	0.02	0.00	0.24
	45–55	0.00	0.00	0.03	0.12	0.01	0.16
	56–65	0.00	0.00	0.00	0.02	0.06	0.08
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.95						
Decision Consistency Alternate Form	0–19	0.09	0.06	0.00	0.00	0.00	0.15
	20–32	0.06	0.25	0.05	0.00	0.00	0.37
	33–44	0.00	0.05	0.16	0.03	0.00	0.24
	45–55	0.00	0.00	0.03	0.11	0.02	0.16
	56–65	0.00	0.00	0.00	0.02	0.06	0.08
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.93						

Table 8.B.25 Reliability of Classification for Algebra II

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–22	0.15	0.04	0.00	0.00	0.00	0.20
	23–30	0.04	0.16	0.04	0.00	0.00	0.24
	31–41	0.00	0.04	0.21	0.03	0.00	0.29
	42–53	0.00	0.00	0.03	0.16	0.01	0.20
	54–65	0.00	0.00	0.00	0.02	0.06	0.07
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0–22	0.14	0.05	0.00	0.00	0.00	0.20
	23–30	0.06	0.13	0.06	0.00	0.00	0.24
	31–41	0.00	0.06	0.18	0.04	0.00	0.29
	42–53	0.00	0.00	0.04	0.14	0.02	0.20
	54–65	0.00	0.00	0.00	0.02	0.05	0.07
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.91						

Table 8.B.26 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	0–21	0.03	0.02	0.00	0.00	0.00	0.05
	22–36	0.01	0.17	0.03	0.00	0.00	0.21
	37–47	0.00	0.03	0.20	0.04	0.00	0.27
	48–57	0.00	0.00	0.04	0.24	0.03	0.31
	58–65	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–21	0.03	0.02	0.00	0.00	0.00	0.05
	22–36	0.02	0.15	0.04	0.00	0.00	0.21
	37–47	0.00	0.04	0.17	0.05	0.00	0.27
	48–57	0.00	0.00	0.05	0.21	0.05	0.31
	58–65	0.00	0.00	0.00	0.04	0.12	0.16
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.27Reliability 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	0.19	0.08	0.00	0.00	0.00	0.27
	19–28	0.09	0.30	0.04	0.00	0.00	0.43
	29–38	0.00	0.05	0.13	0.02	0.00	0.20
	39–51	0.00	0.00	0.02	0.07	0.00	0.09
	52–65	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Correctly Classified: Total = 0.70, Proficient & Above = 0.96						
Decision Consistency Alternate Form	0–18	0.15	0.11	0.00	0.00	0.00	0.27
	19–28	0.11	0.26	0.06	0.00	0.00	0.43
	29–38	0.00	0.06	0.11	0.03	0.00	0.20
	39–51	0.00	0.00	0.02	0.06	0.00	0.09
	52–65	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Consistently Classified: Total = 0.59, Proficient & Above = 0.95						

Table 8.B.28 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	0.05	0.08	0.00	0.00	0.00	0.13
	17–24	0.04	0.24	0.05	0.00	0.00	0.33
	25–35	0.00	0.06	0.21	0.03	0.00	0.29
	36–49	0.00	0.00	0.04	0.15	0.01	0.19
	50–65	0.00	0.00	0.00	0.01	0.04	0.06
	Estimated Proportion Correctly Classified: Total = 0.69, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0–16	0.05	0.07	0.00	0.00	0.00	0.13
	17–24	0.07	0.19	0.07	0.00	0.00	0.33
	25–35	0.00	0.07	0.18	0.04	0.00	0.29
	36–49	0.00	0.00	0.04	0.13	0.02	0.19
	50–65	0.00	0.00	0.00	0.01	0.04	0.06
	Estimated Proportion Consistently Classified: Total = 0.59, Proficient & Above = 0.91						

Table 8.B.29 Reliability of Classification for Integrated Mathematics 3

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–20	0.20	0.06	0.00	0.00	0.00	0.27
	21–28	0.06	0.17	0.04	0.00	0.00	0.27
	29–37	0.00	0.05	0.15	0.03	0.00	0.23
	38–50	0.00	0.00	0.03	0.13	0.01	0.17
	51–65	0.00	0.00	0.00	0.02	0.05	0.06
	Estimated Proportion Correctly Classified: Total = 0.71, Proficient & Above = 0.94						
Decision Consistency Alternate Form	0–20	0.18	0.08	0.01	0.00	0.00	0.27
	21–28	0.08	0.14	0.05	0.00	0.00	0.27
	29–37	0.01	0.06	0.12	0.04	0.00	0.23
	38–50	0.00	0.00	0.04	0.12	0.01	0.17
	51–65	0.00	0.00	0.00	0.02	0.04	0.06
	Estimated Proportion Consistently Classified: Total = 0.60, Proficient & Above = 0.92						

Table 8.B.30 Reliability of Classification for Science, Grade Five

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–23	0.07	0.02	0.00	0.00	0.00	0.09
	24–30	0.01	0.08	0.04	0.00	0.00	0.13
	31–41	0.00	0.03	0.24	0.04	0.00	0.31
	42–51	0.00	0.00	0.05	0.26	0.03	0.33
	52–60	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	0–23	0.06	0.03	0.00	0.00	0.00	0.09
	24–30	0.02	0.06	0.04	0.00	0.00	0.13
	31–41	0.00	0.04	0.20	0.06	0.00	0.31
	42–51	0.00	0.00	0.06	0.22	0.05	0.33
	52–60	0.00	0.00	0.00	0.04	0.09	0.13
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.87						

Table 8.B.31 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	0.11	0.03	0.00	0.00	0.00	0.15
	25–31	0.02	0.08	0.03	0.00	0.00	0.13
	32–39	0.00	0.03	0.13	0.04	0.00	0.20
	40–47	0.00	0.00	0.04	0.16	0.04	0.24
	48–60	0.00	0.00	0.00	0.04	0.24	0.28
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–24	0.11	0.03	0.01	0.00	0.00	0.15
	25–31	0.03	0.06	0.04	0.00	0.00	0.13
	32–39	0.00	0.04	0.10	0.05	0.00	0.20
	40–47	0.00	0.01	0.05	0.13	0.05	0.24
	48–60	0.00	0.00	0.00	0.05	0.23	0.28
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.89						

Table 8.B.32 Reliability of Classification for Grade 10 Life Science

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–20	0.12	0.03	0.00	0.00	0.00	0.16
	21–28	0.02	0.11	0.04	0.00	0.00	0.17
	29–40	0.00	0.03	0.22	0.02	0.00	0.27
	41–49	0.00	0.00	0.04	0.16	0.02	0.22
	50–60	0.00	0.00	0.00	0.03	0.14	0.18
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–20	0.11	0.04	0.01	0.00	0.00	0.16
	21–28	0.04	0.09	0.05	0.00	0.00	0.17
	29–40	0.00	0.04	0.19	0.04	0.00	0.27
	41–49	0.00	0.00	0.05	0.13	0.04	0.22
	50–60	0.00	0.00	0.00	0.04	0.13	0.18
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.89						

Table 8.B.33 Reliability of Classification for Biology

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–19	0.09	0.03	0.00	0.00	0.00	0.13
	20–25	0.02	0.07	0.03	0.00	0.00	0.13
	26–39	0.00	0.03	0.27	0.03	0.00	0.33
	40–49	0.00	0.00	0.04	0.19	0.03	0.26
	50–60	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Correctly Classified: Total = 0.76, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–19	0.08	0.03	0.01	0.00	0.00	0.13
	20–25	0.03	0.05	0.04	0.00	0.00	0.13
	26–39	0.00	0.04	0.24	0.05	0.00	0.33
	40–49	0.00	0.00	0.05	0.16	0.04	0.26
	50–60	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Consistently Classified: Total = 0.67, Proficient & Above = 0.90						

Table 8.B.34 Reliability of Classification for Chemistry

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–22	0.13	0.03	0.00	0.00	0.00	0.17
	23–28	0.02	0.07	0.04	0.00	0.00	0.13
	29–42	0.00	0.04	0.31	0.03	0.00	0.38
	43–50	0.00	0.00	0.04	0.14	0.02	0.20
	51–60	0.00	0.00	0.00	0.03	0.10	0.12
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–22	0.12	0.04	0.01	0.00	0.00	0.17
	23–28	0.03	0.06	0.04	0.00	0.00	0.13
	29–42	0.01	0.05	0.27	0.05	0.00	0.38
	43–50	0.00	0.00	0.05	0.12	0.03	0.20
	51–60	0.00	0.00	0.00	0.03	0.09	0.12
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90						

Table 8.B.35 Reliability of Classification for Earth Science

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–21	0.14	0.04	0.00	0.00	0.00	0.18
	22–27	0.03	0.09	0.04	0.00	0.00	0.16
	28–40	0.00	0.04	0.30	0.03	0.00	0.37
	41–49	0.00	0.00	0.04	0.15	0.02	0.21
	50–60	0.00	0.00	0.00	0.02	0.06	0.08
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–21	0.13	0.04	0.01	0.00	0.00	0.18
	22–27	0.04	0.07	0.05	0.00	0.00	0.16
	28–40	0.01	0.05	0.26	0.05	0.00	0.37
	41–49	0.00	0.00	0.05	0.13	0.03	0.21
	50–60	0.00	0.00	0.00	0.03	0.06	0.08
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.90						

Table 8.B.36 Reliability of Classification for Physics

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–18	0.07	0.03	0.00	0.00	0.00	0.10
	19–24	0.02	0.08	0.04	0.00	0.00	0.13
	25–37	0.00	0.03	0.27	0.03	0.00	0.33
	38–47	0.00	0.00	0.04	0.20	0.03	0.27
	48–60	0.00	0.00	0.00	0.03	0.13	0.16
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–18	0.06	0.03	0.01	0.00	0.00	0.10
	19–24	0.03	0.06	0.04	0.00	0.00	0.13
	25–37	0.00	0.04	0.24	0.05	0.00	0.33
	38–47	0.00	0.00	0.06	0.17	0.04	0.27
	48–60	0.00	0.00	0.00	0.04	0.13	0.16
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.89						

Table 8.B.37 Reliability of Classification for Integrated/Coordinated Science 1

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–20	0.24	0.06	0.00	0.00	0.00	0.30
	21–26	0.05	0.13	0.05	0.00	0.00	0.22
	27–40	0.00	0.05	0.29	0.02	0.00	0.37
	41–49	0.00	0.00	0.03	0.06	0.00	0.09
	50–60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.95						
Decision Consistency Alternate Form	0–20	0.22	0.07	0.01	0.00	0.00	0.30
	21–26	0.07	0.09	0.06	0.00	0.00	0.22
	27–40	0.01	0.06	0.26	0.03	0.00	0.37
	41–49	0.00	0.00	0.03	0.05	0.01	0.09
	50–60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.93						

Table 8.B.38 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	0–19	0.19	0.06	0.00	0.00	0.00	0.25
	20–25	0.05	0.14	0.05	0.00	0.00	0.23
	26–39	0.00	0.06	0.32	0.02	0.00	0.40
	40–48	0.00	0.00	0.03	0.06	0.00	0.09
	49–60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Correctly Classified: Total = 0.72, Proficient & Above = 0.95						
Decision Consistency Alternate Form	0–19	0.17	0.07	0.01	0.00	0.00	0.25
	20–25	0.06	0.10	0.07	0.00	0.00	0.23
	26–39	0.01	0.07	0.28	0.03	0.00	0.40
	40–48	0.00	0.00	0.03	0.05	0.01	0.09
	49–60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Consistently Classified: Total = 0.63, Proficient & Above = 0.93						

Table 8.B.39 Reliability of Classification for Integrated/Coordinated Science 3

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–18	0.20	0.07	0.01	0.00	0.00	0.28
	19–24	0.06	0.15	0.05	0.00	0.00	0.25
	25–38	0.00	0.06	0.30	0.01	0.00	0.38
	39–48	0.00	0.00	0.03	0.05	0.00	0.08
	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	0–18	0.18	0.08	0.02	0.00	0.00	0.28
	19–24	0.08	0.11	0.07	0.00	0.00	0.25
	25–38	0.01	0.07	0.27	0.03	0.00	0.38
	39–48	0.00	0.00	0.03	0.05	0.00	0.08
	49–60	0.00	0.00	0.00	0.00	0.00	0.01
	Estimated Proportion Consistently Classified: Total = 0.61, Proficient & Above = 0.94						

Table 8.B.40 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	0–21	0.32	0.05	0.00	0.00	0.00	0.37
	22–27	0.06	0.13	0.05	0.00	0.00	0.24
	28–40	0.00	0.05	0.24	0.01	0.00	0.31
	41–48	0.00	0.00	0.02	0.04	0.00	0.06
	49–60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.96						
Decision Consistency Alternate Form	0–21	0.30	0.07	0.01	0.00	0.00	0.37
	22–27	0.08	0.10	0.06	0.00	0.00	0.24
	28–40	0.01	0.06	0.21	0.03	0.00	0.31
	41–48	0.00	0.00	0.02	0.03	0.00	0.06
	49–60	0.00	0.00	0.00	0.01	0.01	0.02
	Estimated Proportion Consistently Classified: Total = 0.65, Proficient & Above = 0.95						

Table 8.B.41 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	0–17	0.04	0.04	0.00	0.00	0.00	0.07
	18–26	0.02	0.18	0.04	0.00	0.00	0.24
	27–37	0.00	0.04	0.20	0.03	0.00	0.27
	38–51	0.00	0.00	0.04	0.23	0.02	0.29
	52–65	0.00	0.00	0.00	0.02	0.11	0.13
	Estimated Proportion Correctly Classified: Total = 0.75, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–17	0.03	0.04	0.00	0.00	0.00	0.07
	18–26	0.04	0.14	0.05	0.00	0.00	0.24
	27–37	0.00	0.05	0.17	0.05	0.00	0.27
	38–51	0.00	0.00	0.05	0.20	0.03	0.29
	52–65	0.00	0.00	0.00	0.03	0.10	0.13
	Estimated Proportion Consistently Classified: Total = 0.66, Proficient & Above = 0.90						

Table 8.B.42 Reliability of Classification for Geometry—Grade 9

	Placement Score	Far Below Basic	Below Basic	Basic	Proficient	Advanced	Category Total
Decision Accuracy All-forms Average	0–19	0.03	0.02	0.00	0.00	0.00	0.05
	20–32	0.01	0.18	0.04	0.00	0.00	0.23
	33–44	0.00	0.03	0.23	0.03	0.00	0.29
	45–55	0.00	0.00	0.04	0.22	0.02	0.28
	56–65	0.00	0.00	0.00	0.03	0.12	0.15
	Estimated Proportion Correctly Classified: Total = 0.78, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–19	0.03	0.02	0.00	0.00	0.00	0.05
	20–32	0.02	0.16	0.05	0.00	0.00	0.23
	33–44	0.00	0.05	0.19	0.05	0.00	0.29
	45–55	0.00	0.00	0.05	0.19	0.04	0.28
	56–65	0.00	0.00	0.00	0.03	0.12	0.15
	Estimated Proportion Consistently Classified: Total = 0.69, Proficient & Above = 0.89						

Table 8.B.43 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	0–22	0.08	0.03	0.00	0.00	0.00	0.12
	23–30	0.02	0.13	0.04	0.00	0.00	0.20
	31–41	0.00	0.04	0.24	0.04	0.00	0.32
	42–53	0.00	0.00	0.04	0.22	0.01	0.27
	54–65	0.00	0.00	0.00	0.02	0.07	0.09
	Estimated Proportion Correctly Classified: Total = 0.74, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–22	0.08	0.04	0.00	0.00	0.00	0.12
	23–30	0.04	0.10	0.06	0.00	0.00	0.20
	31–41	0.00	0.06	0.20	0.06	0.00	0.32
	42–53	0.00	0.00	0.06	0.19	0.03	0.27
	54–65	0.00	0.00	0.00	0.03	0.07	0.09
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.88						

Table 8.B.44 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	0–21	0.04	0.02	0.00	0.00	0.00	0.05
	22–36	0.01	0.19	0.03	0.00	0.00	0.23
	37–47	0.00	0.03	0.21	0.04	0.00	0.28
	48–57	0.00	0.00	0.04	0.23	0.02	0.29
	58–65	0.00	0.00	0.00	0.03	0.11	0.14
	Estimated Proportion Correctly Classified: Total = 0.77, Proficient & Above = 0.92						
Decision Consistency Alternate Form	0–21	0.03	0.02	0.00	0.00	0.00	0.05
	22–36	0.02	0.17	0.04	0.00	0.00	0.23
	37–47	0.00	0.05	0.18	0.05	0.00	0.28
	48–57	0.00	0.00	0.05	0.20	0.04	0.29
	58–65	0.00	0.00	0.00	0.04	0.10	0.14
	Estimated Proportion Consistently Classified: Total = 0.68, Proficient & Above = 0.89						

Table 8.B.45 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	0–20	0.20	0.04	0.00	0.00	0.00	0.24
	21–25	0.04	0.07	0.04	0.00	0.00	0.15
	26–36	0.00	0.04	0.20	0.03	0.00	0.27
	37–46	0.00	0.00	0.04	0.15	0.02	0.20
	47–60	0.00	0.00	0.00	0.02	0.11	0.13
	Estimated Proportion Correctly Classified: Total = 0.73, Proficient & Above = 0.93						
Decision Consistency Alternate Form	0–20	0.18	0.05	0.01	0.00	0.00	0.24
	21–25	0.05	0.05	0.05	0.00	0.00	0.15
	26–36	0.01	0.04	0.17	0.04	0.00	0.27
	37–46	0.00	0.00	0.05	0.12	0.03	0.20
	47–60	0.00	0.00	0.00	0.03	0.11	0.13
	Estimated Proportion Consistently Classified: Total = 0.64, Proficient & Above = 0.91						

Chapter 9: Constructed Response Items

This chapter presents the characteristics of the California Writing Standards Tests administered at grades four and seven during the spring 2008 administration. The details of the scoring rubrics, scoring process, recruiting and training of raters (or scorers), quality control of the writing tasks, and the accuracy of scoring are described in the first section of the chapter. The second section summarizes the test-level statistics obtained for the current administration of the writing tests. The analyses included inter-rater and generalizability studies associated with the scores, raters, and writing prompts. The descriptive statistics on the writing scores are also presented for the overall examinee population and various subgroups based on the P1+ sample (as described in Chapter 5, page 110).

Grade 4 and 7 Writing Test Composition

The CSTs for ELA at grades four and seven contain a single essay. In grade four, the standards require students to produce four types of writing: narratives, summaries, information reports, and responses to literature. In grade seven, they require students to produce five types of writing: fictional narratives, persuasive essays, summaries, responses to literature, and research reports.

The CSTs for Grade 4 and Grade 7 ELA do not assess "information reports" in grade four nor "research reports" in grade seven because these writing tasks would require extended time for students to gather information and/or research topics before writing could begin. In addition, the narrative writing tested in grades four and seven does not include personal or autobiographical narrative. Writing that would invite personal disclosure is not tested in any genre on the CSTs for writing.

Two different essay prompts from the same genre are used in a given year. One prompt is taken by the majority of test takers, the other is administered in programs not in session during the first administration. Before the 2006 administration, numerous writing prompts with modified formats and directions were field-tested with thousands of California students. Two grade four and two grade seven prompts were selected for the spring 2008 administration following the results of the field tests. All the writing genres eligible for testing in grades four and seven in previous years continued to be eligible for the 2008 administration as well.

All multiple-choice questions and writing tasks for the CSTs administered in 2008 were aligned to the California content standards and had been tried out on students throughout the state. The CST blueprints identify the specific standards tested. These blueprints are available at http://www.cde.ca.gov/ta/tg/sr/blueprints.asp.

Scoring Rubric

Student responses to the writing tasks were scored using a four-point holistic rubric, with four being the highest score. Beginning in 2006, one reader rather than two read each student response and assigned a score ranging from one to four.[1] The score a student received from the one reader was doubled to produce the student's overall score on the writing test. The possible writing scores were, therefore, 0, 2, 4, 6, 8.

In order to assess the accuracy and reliability of the scores, ten percent of the responses were read by a second reader. The score from the second reader, however, did not count toward the student's writing test score. If a response was difficult to score, the scorer elevated the response to the scoring supervisor to be scored. In these cases, the scoring supervisor's score was doubled to produce the final essay score.

[1] In previous administrations, the responses received either identical or adjacent scores from the two readers over 99 percent of the time. Given this high percentage of inter-rater agreement, CDE recommended that to expedite scoring, each student response would be read by only one scorer.

Each student's result on the grade four or grade seven writing task was reported as a separate writing applications score that could range from 0 to 8 with 2-point intervals. This raw score was combined with the student's multiple-choice score on the CST for English–Language Arts, resulting in a possible total of 83 points. The combined score was scaled to determine the student's overall ELA performance level.

It is important to note that the four score points on the scoring rubric are not intended to map to the performance levels used to show overall student performance on the CST for ELA. A score of 4 given to a student response by one reader, for example, does not equate to the advanced level on the CST performance-level scale, a 3 does not equate to the proficient level, and so on. Nor does a student's overall essay score map to a CST performance level. An overall writing test score of 8, for example, does not indicate a performance level of advanced, a score of 6 does not indicate a performance level of proficient, and so on. A student can be said to have achieved at a particular performance level only when that student's performance-level result is based on results of the full CST for English–Language Arts (including the essay component[2]).

The rubrics used to score the 2008 Writing CSTs had been reviewed by the English–Language Arts Assessment Review Panel for accuracy. A detailed description of the scoring rubrics for both grades four and seven are presented in Appendix 9.A, which starts on page 631.

Development of Writing Tasks

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.

ETS pilot tested 20 prompts 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 English–Language Arts Assessment Review Panel, two grade-four and two grade-seven prompts were selected for the spring 2008 administration. Since the writing genres eligible for testing were the same as in previous years, the new writing tasks were very similar to those administered previously.

Rater Characteristics

The people who scored the student responses were college graduates who possessed at least a Bachelor of Arts degree. California teachers participated in rangefinding, the process used to select sample student responses used for training scorers. Each prospective scorer was required to participate in extensive computer-based training. The training consisted of the following:

- General information about the Electronic Performance Evaluation Network (ePEN™).
- Background information about the STAR Program.
- Information on the STAR writing tasks.
- Explanations of STAR scoring rubrics and scoring principles.
- Sets of prescored annotated training papers. The training papers included anchor and practice papers. Anchor papers were solid samples of student writing for each score point (1–4). Practice papers included samples of student writing that demonstrated the "high" and "low" end of each score point.

After completing the training, participants completed the Qualification Sets (three sets of papers consisting of ten papers per set) before being eligible to score. To become a scorer, participants must score with exact accuracy on at least 70 percent of the papers, achieve agreement with the

[2] Parents may choose not to let their child write the essay. In these cases the 75-item multiple-choice score counts as the ELA score in grades four and seven.

predetermined score on two of the sets or as an average across two of the three sets, and have no nonadjacent scores (more than one point apart from the predetermined score). Scorers continue to qualify throughout the scoring process. Before each scoring session, each scorer scored a Calibration Set of three to four papers. The scores on these sets had been previously agreed upon by scoring directors, in conjunction with other personnel. The sets were given to scorers to ensure that the accuracy of their scoring did not drift. These sets "calibrated" the scorers.

Scoring Supervisors and Directors

Scoring supervisors monitored and mentored scorers during operational scoring. Scorers with a history of achieving the highest accuracy on the Qualification Sets and the highest level of scoring consistency and validity statistics during project scoring were selected as scoring supervisors. Approximately ten scorers were assigned to one scoring supervisor; this ratio allowed scoring supervisors to work closely with each scorer. The ePEN™ system also allowed scoring supervisors to continuously monitor each response scored and the score point assigned to ensure accuracy. All scoring supervisors participated in a two-day training session that provided the same training that qualified scorers. If a scoring supervisor did not achieve the accuracy required on the Qualification Sets, he or she was 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 were responsible for overseeing the scoring of the grade level to which they are assigned. They provided leadership for the scoring supervisors, helped manage the scorers, and were ultimately responsible for maintaining the highest accuracy possible during STAR scoring. Scoring directors represented the best of the scoring supervisors. They typically had two to three years experience as scoring supervisors, and demonstrated strong leadership qualities as well as a thorough understanding of STAR scoring.

All student responses were scanned into the ePEN™ system. Scorers viewed assigned responses on a computer at one of Pearson Educational Measurement's regional scoring centers. The screen did *not* display the student's name or background information; the scorer saw only the student response. Scoring supervisors and scoring directors were on site to monitor the scoring.

Accuracy and Bias Monitoring

The accuracy of all scoring was monitored on a regular basis.

First, in those instances in which a scorer and second reader both read a student response, consistency of scoring is calculated based on whether the two scores assigned are identical, adjacent, or nonadjacent. This consistency measure is called inter-rater reliability. Scoring supervisors and scoring directors constantly monitored agreement percentages. If a scorer's rate of agreement began to decline, the scorer was retrained by a scoring supervisor or scoring director and closely monitored thereafter. If the scorer's performance did not improve, the scorer was released.

Second, one in every 40 papers read by each scorer had been previously scored by scoring directors and scoring supervisors. These previously scored papers are referred to as validity papers. The consistency of the scorer's ratings with the scores on the validity papers was checked throughout the day to ensure that each scorer applied the criteria in the scoring guides accurately. The validity papers were introduced throughout the scoring process. If a scorer's validity fell below required levels, the scorer was retrained by a scoring supervisor or scoring director. If a scorer continued to show poor validity, the scorer was released.

Third, scoring supervisors "back-read" a certain percentage of the student responses that had been scored by the scorers. The scorer and supervisor scores were then compared to check the scorer's consistency and reliability and to ensure that the scorer was maintaining scoring standards. In addition, ePEN™ allowed scoring directors to view the back-reading completed by scoring

supervisors to ensure that scoring supervisors were maintaining accuracy. Scoring directors would also back-read scorers.

Fourth, to help prevent drifting, scorers were required to score a Calibration Set before each scoring session. If a scorer was deficient on any of the accuracy indices, he or she was immediately retrained or released from the scoring process.

All writing tasks were reviewed to ensure that they were free of bias and controversial content and that they exhibited sensitivity to all students. Any tasks that did not meet these criteria were either modified and resubmitted for field-testing or removed from the pool of useable tasks.

Distributions and Means of Writing Scores—Overall and by Subgroup

As described earlier, for each grade level, there were two different writing prompts administered at two different times in the STAR testing cycle. Students were given one of the two writing prompts depending upon which writing test administration they sat for. In 2008, 428,512 students wrote the essay (and had valid ratings of 0, 2, 4, 6 or 8) in grade four and 456,237 wrote the essay in grade seven.

The distributions of examinees across score points for the overall population and for the subgroups are presented in Table 9.B.1 and Table 9.B.2. These analyses were performed on subgroups based on gender, ethnicity, enrollment in NSLP, provision of special services, and language proficiency.

The mean scores obtained on the writing tests for the overall population and for various subgroups are presented in Table 9.B.3 and Table 9.B.4. 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 the appropriate effect size measure to use in the context of a t-test on means. It is defined as the difference between two means divided by the pooled standard deviation adjusted for sample size. The most accepted opinion is that of Cohen (1992) which suggests 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 9.B.5.

Composite Reliability for Grades Four and Seven

The reliability of the total scores on ELA at grades four and seven (for the students who took the writing prompt) were computed by using the composite reliability formula (Feldt and Brennan 1989):

$$\alpha_c = 1 - \frac{\sum_{j=1}^{k} \left(w_j \sigma_{e_j}\right)^2}{\sigma_c^2} \tag{9.1}$$

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 essays can be found indirectly by examining the correlation between the multiple choice (MC) and essay components in relation to the MC reliability. The lower bound reliability for a constructed response (CR) item in a test with multiple-choice items and only one CR item can be found using the squared correlation between the MC and essay (CR) portions of the test and dividing by the reliability of the MC portion of the test (($Corr_{Essay\text{-}MC}$)2/Rel_{MC}).

The SEM for the essay (i.e., the CR portion of the test) can then be found using:

$$\sigma_{e_{CR}} = \sigma_{CR} * \sqrt{1 - reliability_{CR}} \quad (9.2)$$

where,

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

The reliabilities for the multiple choice scores were 0.938 for grade four and 0.940 for grade seven. The composite reliabilities for the combined MC and essay scores were 0.88 and 0.89 for the two tests. The approximate lower bound reliabilities for essays were found to be 0.27 and 0.33 for grades four and seven respectively. The essay reliabilities were higher compared to 2007.

Essay and Rater Agreement Summary

As described earlier, in order to monitor the accuracy of ratings, two raters scored approximately ten percent of the examinee essays. Since two raters independently scored responses on the essay prompt, it is important for reliable scoring that the two raters agreed in the scoring of the essay prompt as much as possible. It is also important to look at the effect of the assigned writing prompt on the scores. For this purpose, two sets of analyses were performed: (1) Inter-rater agreement analyses, and (2) Generalizability analyses.

The inter-rater reliability or consistency is defined as the degree to which the measure assessed by two or more raters is in agreement when the same instrument is administered to the same person. It is an indicator of homogeneity and is most frequently measured using intraclass correlation which looks at the exact agreement beyond chance. The index is defined as,

$$ICC = r_I = (ms_{between} - ms_{within})/(ms_{between} + [k - 1]ms_{within}) \quad (9.3)$$

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 essay scoring. In addition, the percentages of ratings where the raters were in exact agreement or within a 1-point difference were also computed.

The reliability analyses were performed on 44,222 cases for grade four and on 46,809 cases for grade seven which constituted approximately ten percent of those tested. These samples were selected from all double-scored essays that had valid ratings (1, 2, 3, or 4) for both raters. The results of these analyses are presented in Appendix 9.B. As shown in Table 9.B.6 and Table 9.B.7, the percent of students for whom the raters were in exact agreement was 72.07 percent for grade four and 72.55 percent for grade seven. Approximately 100 percent of the tests for both grade four and grade seven exhibited exact or adjacent (within 1-point) agreement between the two sets of ratings. The Kappa statistics showed moderate levels of agreement[3] beyond chance for both grades four and seven. The overall mean scores given by the two raters were very similar for both grades four and seven as presented in Table 9.B.8 on page 639.

Generalizability analyses were performed 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 each source of variation also known as "facet." A decision study (d-study) was performed to estimate the generalizability coefficient. The well-known computer program, GENOVA, as well as its extension,

[3] Research has shown the value of Kappa statistics between 0.41 and 0.60 as exhibiting moderate levels of agreement between the two ratings. (Reference: http://www.niwascience.co.nz/services/free/statistical/kappa)

urGENOVA, were used to carry out these analyses (Brennan 2001; Crick and 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 as described below:

Design = (Person : Essay) x Rater

The reported model makes the following assumptions: (1) The raters are selected from an infinite pool of raters and all the raters are randomly equivalent (supported by the high degree of inter-rater agreement as shown in Table 9.B.6 and Table 9.B.7); (2) The essay prompts are randomly selected from a universe of prompts; and (3) Students' essay responses are randomly assigned to the raters. This model is being implemented in another large-scale testing program at ETS that uses a similar scoring design (Lee & Kantor 2007; Wang et al. 2007).

As shown in Table 9.B.9 and Table 9.B.10, no significant variation was attributed to rater or writing prompt differences. Note that performance on the writing prompt was confounded with the sample of students who were administered the prompt; therefore, it is difficult to interpret this source of variation. The generalizability coefficient was found to be 0.84 for both grade four and grade seven using this model. These values are higher compared to the values of generalizability indices observed in the previous administrations.

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Appendix 9.A—Writing Scoring Rubrics

Grade Four Scoring Rubric

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

Score: 4

The Writing:

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

Narrative writing:

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

Summary writing:

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

Response to literature writing:

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

Score: 3

The Writing:

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

Narrative writing

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

Summary writing

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

Response to literature writing

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

Score: 2

The Writing:

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

Narrative writing:

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

Summary writing:

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

Response to literature writing:

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

Score: 1

The Writing:

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

Narrative writing:

- *Lacks* a sequence of events to relate ideas, observations, and/or memories.

- *Lacks* descriptive language and sensory details that enable the reader to imagine the events or experiences.

Summary writing:

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

Response to literature writing:

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

Grade Seven Scoring Rubric

The scoring rubric that follows was used to assign scores to students' written responses on the grade seven writing tests. This rubric includes two sets of criteria. The criteria under "The Writing" are adapted from the English–Language Arts California content standards for Writing Strategies and Written Conventions of English. These criteria are used to evaluate written responses in all genres for 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," adapted from the grade seven content standards for Writing Applications for these genres, are used to evaluate student writing in the specific genres to which they apply.

Score: 4

The Writing:

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

Fictional or autobiographical narrative writing:

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

Response to literature writing:

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

Persuasive writing:

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

Summary writing:

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

Score: 3

The Writing:

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

Fictional or autobiographical narrative writing:

- Provides 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.
- Includes *little* sentence variety.
- Contains *many errors* in the conventions of the English language (grammar, punctuation, capitalization, spelling). These errors **may** interfere with the reader's understanding of the writing.

Fictional or autobiographical narrative writing:

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

Response to literature writing:

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

Persuasive writing:

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

Summary writing:

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

Score: 1

The Writing:

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

Fictional or autobiographical narrative writing:

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

Response to literature writing:

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

Persuasive writing:

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

Summary writing:

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

Appendix 9.B— Essay Results Tables

Table 9.B.1 Distribution of Essay Scores for ELA Grade Four—Overall and by Subgroup (all %)

Score	Total	Females	Males	Eng-best	Initially Fluent	Lrnr	Redesig. Fluent	Not in NSLP	NSLP
0	0.51	0.16	0.35	0.26	0.01	0.22	0.01	0.19	0.32
2	4.58	1.49	3.09	1.95	0.17	2.38	0.08	1.09	3.49
4	43.26	19.13	24.13	21.82	2.88	16.14	2.41	15.21	28.04
6	43.93	23.82	20.11	25.87	4.37	9.44	4.26	22.71	21.22
8	7.72	4.96	2.76	4.98	1.02	0.88	0.85	5.11	2.62
Total	100.0	49.56	50.44	54.88	8.46	29.06	7.60	44.31	55.69

Score	No Spec. Ser.	Spec. Ser.	Am. Ind.	Asian	Pac. Isl	Filipino	Hisp.	Af. Am.	White
0	0.40	0.11	0.01	0.05	0.00	0.01	0.25	0.04	0.14
2	3.47	1.11	0.04	0.23	0.02	0.06	3.00	0.45	0.78
4	39.49	3.76	0.39	2.99	0.28	0.98	25.18	3.49	9.94
6	41.89	2.04	0.30	4.73	0.31	1.56	19.80	2.81	14.22
8	7.48	0.24	0.04	1.25	0.06	0.36	2.60	0.38	3.00
Total	92.74	7.26	0.78	9.24	0.68	2.96	50.84	7.18	28.09

Table 9.B.2 Distribution of Essay Scores for ELA Grade Seven—Overall and by Subgroup (all %)

Score	Total	Females	Males	Eng-best	Initially Fluent	Lrnr	Redesig. Fluent	Not in NSLP	NSLP
0	0.39	0.13	0.26	0.22	0.02	0.13	0.02	0.17	0.22
2	2.86	0.84	2.02	1.11	0.06	1.61	0.08	0.70	2.16
4	28.96	11.29	17.67	13.79	1.76	9.59	3.81	9.89	19.06
6	54.18	28.44	25.74	30.63	5.08	7.71	10.76	27.72	26.47
8	13.60	8.47	5.13	9.02	1.68	0.55	2.35	9.73	3.88
Total	100.0	49.18	50.82	54.78	8.60	19.60	17.03	48.20	51.80

Score	No Spec. Ser.	Spec. Ser.	Am. Ind.	Asian	Pac. Isl	Filipino	Hisp.	Af. Am.	White
0	0.30	0.09	0.01	0.03	0.00	0.01	0.18	0.04	0.12
2	1.59	1.27	0.03	0.18	0.01	0.04	1.88	0.31	0.43
4	24.11	4.85	0.28	1.69	0.18	0.54	17.49	2.74	6.06
6	51.61	2.57	0.43	5.22	0.36	1.74	25.83	3.70	16.82
8	13.36	0.24	0.08	2.46	0.08	0.59	3.82	0.60	5.90
Total	90.97	9.03	0.82	9.60	0.68	2.91	49.21	7.4	29.33

Table 9.B.3 Mean Scores for ELA Grade Four Essay—Overall and by Subgroup

Overall		Females		Males		English–best		Initially Fluent		Learner		Redesig. Fluent		Not in NSLP		NSLP	
N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
428,152	5.07	212,165	5.29	215,966	4.87	234,847	5.21	36,184	5.47	124,361	4.58	32,528	5.54	189,600	5.42	238,265	4.80

No Spec. Ser.		Spec. Ser.		Am. Indian		Asian		Pac. Islander		Filipino		Hispanic		Af. American		White	
N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
397,056	5.13	31,073	4.33	3,355	4.87	36,163	5.56	2,927	5.12	12,688	5.49	217,645	4.85	30,748	4.84	120,250	5.37

Table 9.B.4 Mean Scores for ELA Grade Seven Essay—Overall and by Subgroup

Overall		Females		Males		English–best		Initially Fluent		Learner		Redesig. Fluent		Not in NSLP		NSLP	
N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
456,237	5.56	224,379	5.80	231,827	5.32	249,764	5.72	39,209	5.94	89,354	4.71	77,635	5.80	219,716	5.92	236,106	5.22

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
415,030	5.67	41,193	4.35	3,752	5.31	39,997	6.13	3,083	5.55	13,286	5.97	224,459	5.27	33,755	5.22	133,760	5.91

Table 9.B.5. Effect Sizes for ELA Grades Four and Seven Essay—by Subgroup

	Gender (M-F)	NSLP (No-Yes)	Special Serv. (No-Yes)	English Fluency					
				Eng-Ini. Des.	Eng-Lrnr	Eng-Redes.	Ini. Des.-Lrnr	Ini. Des.-Redes.	Lrnr-Redes.
4	–0.30	+0.40	+0.60	–0.18	0.45	–0.23	0.65	–0.05	–0.71
7	–0.30	+0.50	+0.90	–0.15	0.71	–0.06	0.89	0.11	–0.83

	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.
4	0.37	–0.13	0.17	–0.08	0.37	0.36	–0.50	–0.21	–0.47	–0.01	–0.01
7	0.42	–0.16	0.25	–0.05	0.45	0.48	–0.56	–0.17	–0.48	0.03	0.06
	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.	
4	0.30	0.05	0.50	0.49	–0.26	0.20	0.20	0.46	0.45	0.00	
7	0.40	0.11	0.62	0.63	–0.31	0.20	0.23	0.51	0.53	0.03	

Table 9.B.6 Inter-Rater Analyses for ELA Grade Four

		Rater 1								
		1	**%**	**2**	**%**	**3**	**%**	**4**	**%**	**Total**
Rater 2	**1**	1,484	3.36	669	1.51	9	0.02	0	0.00	2,162
	2	753	1.70	14569	32.95	3,907	8.83	11	0.02	19,240
	3	5	0.01	4161	9.41	13,738	31.07	1,383	3.13	19,287
	4	0	0.00	10	0.02	1442	3.26	2,081	4.71	3,533
	Total	2,242	5.07	19,409	43.89	19,096	43.18	3,475	7.86	44,222

Percent Exact= 72.07%

Percent Adjacent= 27.85%

Percent Exact+Adjacent=99.92%

Kappa= 0.54

Weighted Kappa= 0.62

Table 9.B.7 Inter-Rater Analyses for ELA Grade Seven

		Rater 1								
		1	**%**	**2**	**%**	**3**	**%**	**4**	**%**	**Total**
Rater 2	**1**	932	1.99	456	0.97	4	0.01	1	0.00	1,393
	2	411	0.88	10,096	21.57	3,598	7.69	24	0.05	14,129
	3	9	0.02	3,608	7.71	19,331	41.30	2,195	4.69	25,143
	4	0	0.00	26	0.06	2,516	5.38	3,602	7.70	6,144
	Total	1,352	2.89	14,186	30.31	25,449	54.37	5,822	12.44	46,809

Percent Exact= 72.55%

Percent Adjacent= 27.31%

Percent Exact+Adjacent=99.86%

Kappa= 0.54

Weighted Kappa= 0.62

Table 9.B.8 Descriptive Statistics for the Ratings by the Two Raters

Grades	**N***	**Rater 1**		**Rater 2**		
		Mean	**Std**	**Mean**	**Std**	***Pearson Correlation***
4	44,222	2.55	0.71	2.52	0.71	0.72
7	46,809	2.77	0.71	2.76	0.70	0.72

* Number of students who received valid ratings of 1–4

Table 9.B.9 Generalizability Analyses for Grade Four Essay—[(Person: Essay) x Rater]

Effect	Degrees of Freedom	Sum of Squares	Mean Squares	Estimated Variance Components	Percentage of Total Variance
E	1	0.3486	0.3486	0.00000	0.00
P:E	44,220	38,546.1961	0.8717	0.36545	72.18
R	1	1.6934	1.6934	0.00005	0.01
ER	1	0.0723	0.0723	0.00000	0.00
PR:E	44,220	6,225.7344	0.1408	0.14079	27.81
Note: E=Essay Prompt, P=Person and R=Rater				**G-Coefficient=0.84**	

Table 9.B.10 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	28.7647	28.7647	0.00528	1.06
P:E	46,807	39,615.1817	0.8464	0.35351	70.97
R	1	0.9422	0.9422	0.00002	0.00
ER	1	0.1314	0.1314	0.00000	0.00
PR:E	46,807	6,521.4264	0.1393	0.13933	27.97
Note: E=Essay Prompt, P=Person and R=Rating				**G-Coefficient=0.84**	

Chapter 10: Historical Comparisons

This chapter presents historical comparisons of various statistical indicators depicting the examinee and test characteristics of the CSTs over a period of three years (2006, 2007, and 2008). The comparisons of examinee performance include mean and standard deviation of scale scores, observed score ranges, and the percentage of examinees classified into proficient and advanced performance levels.[1] Test characteristics were compared by looking at the mean proportion correct, overall reliability and SEM, as well as mean IRT *b*-value for each CST.

Examinee Performance

The number of examinees taking various CSTs across three years is presented in Table 10.A.1 on page 644. The table also presents mean scale scores and the standard deviation of scale scores for each CST for the same period of time. Following the precedent of previous years, the examinee population taking CSTs increased for most of the higher-level tests in all subject areas with the exception of the CSTs for Integrated Mathematics 3, General Mathematics, and Integrated/Coordinated Science, whose volumes have decreased over time. Algebra I, consistent with previous years, had the largest population of test takers: increases of 5.4 percent in the number of examinees taking this test between 2006 and 2007, and 0.6 percent in 2008. In contrast, the CST for General Mathematics has exhibited a consistent decrease in the number of test takers; the numbers were reduced from 335,393 in 2006 to 303,461 in 2007, and to 286,258 in 2008. The CSTs for Integrated/Coordinated Science continued to exhibit a substantial reduction in volume over the past several years. The volumes of the CSTs for Integrated Mathematics 1 and 2 increased significantly in 2008—by 27 percent and 18 percent respectively—when compared to 2007. A different circumstance was observed for grade two in 2008, with an increase in the number of examinees, approximately 2 percent, in contrast to the consistent shrinkage that was previously observed for this grade.

Students achieve one of five performance levels on the CSTs for each subject tested: advanced, proficient, basic, below basic, and far below basic. The percentages of students qualifying for the proficient and advanced levels are presented in Table 10.A.2. The State Board of Education has established the proficient level as the desired achievement goal for all students. This goal for all students is consistent with school growth targets for state accountability and the federal requirements under the No Child Left Behind Act of 2001. Table 10.A.2 shows that, with the exception of the CST for Integrated Science 3, all CSTs experienced an increase in the percent of examinees achieving the proficient and advanced categories: 21 out of 38 tests showed an increase of 3 percent or higher in the percentage of proficient and advanced examinees. A significant increase—in the range of 7 to10 percent—was observed in the number of proficient and advanced examinees for the CSTs for General Mathematics, Grade 5 Science, Grade 8 Science, and Physics.

Table 10.A.3 through Table 10.A.10 show the score distributions for each test across time. On all CSTs, an examinee is required to obtain a score of 300 to reach the basic level and 350 or higher to be classified as proficient.

Test Characteristics

The results of CSTs over past several years indicate that the CSTs meet the technical criteria established in professional standards for high-stakes tests. However, efforts are constantly being made to improve the technical quality of the test every year that it is administered. For example, over the past few years, differences between the difficulty levels of the field-test items and the operational items for some tests remained a focus of attention. Efforts have been made to increase the

[1] This information may differ slightly from information found on the CDE's STAR reporting page at http://star.cde.ca.gov due to differing dates at which data were accessed.

development of less difficult items to compensate for the relatively large numbers of field-test items at the high end of the difficulty scale. The benefits of this initiative were observed in the results obtained on CSTs during years 2004 to 2007 and continued in the current administration.

Table 10.B.1 and Table 10.B.4 respectively present the average proportion correct and the means of equated IRT *b*-values[2] for each CST across three years. The mean proportion correct reflects both item difficulty and student ability, while the mean equated IRT *b*-values reflect average item difficulty. Referring to Table 10.A.2, a notable decrease in the average test difficulty was observed in the grade-level science and most of the EOC science tests. The CST for Physics was an exception, where the average item difficulty was approximately similar in 2007 and 2008. Unlike 2007, with the exception of the science tests, no obvious pattern in the differences in average item difficulty was observed in 2008, due to the improved stability of the tests as desired

The average point-biserial correlation for the 38 CSTs are presented in Table 10.B.3, and the reliabilities and standard errors (in raw score units) appear in Table 10.B.4. Like the average proportion correct, biserials and reliabilities are affected by both item characteristics and student characteristics. The average point-biserial correlations for most of the CSTs in all subject areas were either very similar across all three years or slightly higher in 2008. The exceptions to this trend were the CST for Grade 8 Science and the CST for Integrated/Coordinated Science 2. These tests exhibited a notable increase in the average point-biserial correlation from 2006 to 2008, where the value of this index increased from 0.35 to 0.43 and 0.27 to 0.33 for the two tests, respectively.

The reliabilities of all CSTs remained very consistent across the three years with the exception of the CST for Integrated/Coordinated Science 2, where efforts have been made to improve the test's reliability. The reliability of this CST increased from 0.78 in 2006 to 0.83 in 2007, and .87 in 2008.

[2] Comparisons of mean *b*-values should only be made within a given test. These statistics are based on the equating samples.

References

Educational Testing Service. *STAR Technical Report, Spring 2006 Administration*. Princeton, NJ: Educational Testing Service, 2006.

Educational Testing Service. *STAR Technical Report, Spring 2007 Administration*. Princeton, NJ: Educational Testing Service, 2007.

Appendix 10.A—Historical Comparisons Tables

Table 10.A.1 Number of Examinees Tested, Scale Score Means and Standard Deviations of CSTs across 2006, 2007, and 2008

		Number of Examinees (valid scores)			Scale Score Mean and Standard Deviation					
					2006		2007		2008	
Subject	CST	2006	2007	2008	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.
English–Language Arts	2	459,854	452,972	461,134	344	63	345	62	348	60
	3	462,531	455,219	444,585	331	62	330	59	333	58
	4	465,716	457,829	444,610	351	59	353	58	358	56
	5	478,401	466,854	449,549	342	57	343	54	348	52
	6	480,993	474,863	468,113	337	55	340	54	345	53
	7	478,358	479,840	476,518	341	58	343	58	349	62
	8	480,292	479,717	480,891	339	56	339	58	341	58
	9	512,474	505,104	504,080	339	63	345	60	348	61
	10	478,880	478,921	475,930	328	61	331	59	336	61
	11	414,220	437,551	443,198	324	70	328	71	327	65
History–Social Science	8	480,191	478,975	480,113	328	58	330	60	334	60
	10	473,855	491,079	480,695	321	64	321	61	325	67
	11	408,928	427,071	432,488	329	64	330	61	331	66
Mathematics	2	461,251	453,919	461,864	372	86	369	82	372	81
	3	464,175	456,269	446,504	369	84	371	85	379	86
	4	471,209	459,557	447,141	361	74	366	73	374	75
	5	480,071	468,049	451,039	356	90	357	87	365	87
	6	481,778	475,529	468,590	341	68	343	69	348	71
	7	481,565	458,543	438,983	338	68	336	65	339	65
	General Mathematics	335,393	303,461	286,258	310	51	311	49	315	56
	Algebra I	700,598	738,231	742,363	309	63	311	61	315	67
	Geometry	357,980	369,311	382,108	313	66	310	68	311	68
	Algebra II	213,087	230,757	239,083	313	64	314	64	316	67
	Summative H.S. Math	99,098	108,750	115,855	347	71	347	75	350	74
	Integrated Math 1	6,630	6,901	8,772	275	55	282	51	282	53
	Integrated Math 2	4,219	3,615	4,275	325	58	312	57	316	58
	Integrated Math 3	2,209	1,657	1,480	327	71	304	64	305	72
Science	Grade 5 Science	479,577	467,541	449,999	329	51	334	55	345	60
	Grade 8 Science	478,667	477,974	479,113	331	71	340	78	355	93
	Grade 10 Life Science	461,634	463,572	463,012	327	58	328	59	337	67
	Biology	496,140	505,229	523,638	333	50	336	51	340	57
	Chemistry	212,905	227,375	232,120	327	45	330	49	331	54
	Earth Science	194,254	206,118	223,770	318	43	320	44	323	47
	Physics	60,953	63,321	64,041	328	47	335	49	341	54
	Integrated Science 1	106,376	96,209	75,603	301	32	300	36	300	38
	Integrated Science 2	17,321	13,785	7,746	296	30	298	34	303	37
	Integrated Science 3	2,526	1,973	1,955	302	33	304	33	298	35
	Integrated Science 4	803	951	429	300	39	292	34	291	40

Table 10.A.2 Percentage of Proficient and Above and Percentage of Advanced across 2006, 2007, and 2008

Subject	CST	% Proficient and Above			% Advanced		
		2006	2007	2008	2006	2007	2008
English–Language Arts	2	47%	48%	48%	19%	18%	18%
	3	37%	37%	38%	13%	10%	12%
	4	50%	51%	55%	24%	25%	28%
	5	43%	44%	48%	18%	17%	18%
	6	41%	43%	47%	16%	17%	20%
	7	44%	46%	49%	16%	16%	20%
	8	41%	41%	45%	18%	16%	18%
	9	44%	48%	48%	21%	22%	23%
	10	37%	37%	41%	16%	16%	19%
	11	36%	37%	37%	17%	17%	16%
History–Social Science	8	34%	35%	37%	14%	14%	16%
	10	30%	29%	33%	12%	11%	13%
	11	35%	35%	38%	13%	13%	16%
Mathematics	2	59%	59%	59%	29%	28%	29%
	3	58%	58%	61%	30%	31%	33%
	4	55%	56%	61%	29%	30%	32%
	5	48%	49%	52%	22%	20%	22%
	6	41%	42%	44%	13%	14%	17%
	7	42%	39%	42%	14%	13%	13%
	General Mathematics	22%	21%	28%	3%	3%	5%
	Algebra I	23%	24%	25%	5%	5%	7%
	Geometry	26%	24%	24%	7%	7%	8%
	Algebra II	25%	27%	28%	7%	7%	7%
	Summative H.S. Math	46%	47%	47%	15%	17%	16%
	Integrated Math 1	10%	9%	10%	2%	1%	2%
	Integrated Math 2	31%	21%	25%	6%	5%	6%
	Integrated Math 3	34%	21%	23%	8%	4%	6%
Science	Grade 5 Science	32%	37%	47%	6%	9%	13%
	Grade 8 Science	38%	42%	52%	17%	20%	28%
	Grade 10 Life Science	35%	35%	40%	13%	13%	18%
	Biology	27%	37%	42%	7%	13%	16%
	Chemistry	27%	31%	32%	7%	10%	12%
	Earth Science	23%	26%	29%	7%	6%	8%
	Physics	32%	35%	43%	10%	13%	16%
	Integrated Science 1	9%	10%	11%	1%	1%	2%
	Integrated Science 2	5%	7%	12%	0%	1%	2%
	Integrated Science 3	10%	10%	9%	1%	1%	1%
	Integrated Science 4	13%	6%	8%	2%	1%	2%

Table 10.A.3 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for English–Language Arts (Grades Two through Six)

Observed Score	ELA Grade 2			ELA Grade 3			ELA Grade 4			ELA Grade 5			ELA Grade 6		
Distributions	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	0	569	754	0	384	466	532	245	356	0	33	70	0	93	95
540 – 569	0	0	0	0	0	0	8	480	693	900	311	355	418	372	428
510 – 539	3,278	2,308	2,219	2,061	1,294	1,589	2,854	2,513	1,357	0	722	0	0	878	0
480 – 509	5,794	4,531	3,965	3,788	2,560	2,931	2,931	5,745	5,370	5,081	1,582	2,692	2,997	1,627	2,99
450 – 479	17,376	15,998	13,22	5,415	9,368	4,569	14,840	15,888	15,58	10,207	11,099	7,438	7,452	9,887	7,44
420 – 449	21,682	34,174	29,03	25,030	14,687	22,86	41,625	32,182	41,14	31,454	28,934	29,28	19,490	24,686	28,2
390 – 419	61,266	51,657	60,27	43,996	40,086	44,90	61,589	69,105	60,75	50,199	49,116	64,55	58,134	52,607	52,7
360 – 389	71,657	75,603	88,71	61,502	73,898	64,82	80,983	80,416	91,68	76,822	85,462	80,39	78,108	80,971	94,6
330 – 359	81,760	85,716	88,54	86,581	77,966	90,70	86,660	88,960	87,87	94,534	92,324	94,75	95,433	89,318	97,3
300 – 329	74,338	65,133	67,37	88,159	93,739	87,67	71,726	73,126	67,37	90,044	89,180	84,90	89,231	89,548	84,1
270 – 299	59,012	58,424	60,63	68,665	70,127	62,92	62,768	55,216	47,11	66,299	66,699	55,18	66,697	74,205	62,9
240 – 269	49,457	44,013	36,15	47,311	44,019	38,68	34,410	30,432	22,81	42,957	34,896	26,43	53,596	45,709	30,5
210 – 239	12,606	14,267	9,944	25,308	23,057	19,12	4,377	3,402	2,382	9,395	6,263	3,365	8,990	4,742	6,20
180 – 209	462	536	272	3,862	3,863	3,181	109	87	53	228	199	93	318	197	247
150 – 179	25	43	28	121	171	155	45	32	45	46	34	25	29	23	29

Table 10.A.4 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for English–Language Arts (Grades Seven through Eleven)

Observed Score	ELA Grade 7			ELA Grade 8			ELA Grade 9			ELA Grade 10			ELA Grade 11		
Distributions	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	81	164	394	0	114	55	322	260	393	0	206	363	698	1,172	283
540 – 569	192	0	820	168	492	306	0	0	0	0	0	0	0	0	0
510 – 539	1,365	1,153	1,509	513	1,164	817	1,059	683	2,760	902	756	1,272	1,641	1,951	728
480 – 509	3,512	3,606	5,645	3,192	2,163	4,491	5,414	4,088	3,075	1,899	1,661	2,441	6,312	7,346	3,711
450 – 479	11,226	11,482	15,81	7,249	13,377	9,083	18,140	15,393	17,14	7,438	7,065	9,313	10,140	11,144	12,54
420 – 449	26,022	26,637	42,01	26,858	22,905	30,93	27,256	35,763	47,15	28,822	28,231	34,05	19,544	29,061	19,51
390 – 419	63,141	65,165	62,32	59,723	49,035	53,06	64,391	67,277	55,55	38,612	49,885	54,51	38,867	33,604	42,52
360 – 389	72,608	84,057	84,82	78,532	77,168	83,42	75,763	87,474	87,74	70,639	72,839	64,39	56,390	62,141	66,84
330 – 359	91,756	87,301	75,84	88,125	96,687	92,08	88,107	86,069	87,98	80,745	73,977	84,36	53,212	57,447	63,26
300 – 329	79,433	75,671	71,23	90,119	85,729	85,86	77,380	77,986	79,30	79,797	82,241	80,84	61,192	65,519	71,41
270 – 299	67,243	68,256	59,13	75,176	71,023	65,29	68,415	68,987	67,15	70,459	78,046	71,06	52,419	54,639	58,93
240 – 269	48,620	46,196	43,23	40,150	47,985	39,47	69,240	50,185	46,30	77,369	64,005	54,27	63,326	65,278	66,95
210 – 239	12,232	9,541	12,61	9,951	11,238	14,71	15,953	10,494	9,134	20,656	19,381	17,57	44,737	39,900	32,16
180 – 209	885	575	1,065	459	585	1,240	883	395	330	1,203	559	1,394	4,999	7,764	4,060
150 – 179	36	36	51	47	52	45	91	50	50	78	69	65	566	585	244

Table 10.A.5 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for History–Social Science (Grades Eight, Ten, and Eleven)

Observed Score Distributions	History–Social Science Grade 8			World History			History–Social Science Grade 11		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	0	249	304	620	781	1,259	556	333	663
540 – 569	343	453	581	1,097	1,023	1,711	1,014	527	1,123
510 – 539	1,407	1,869	2,252	1,619	1,490	2,465	1,493	912	1,929
480 – 509	2,744	3,546	4,016	4,884	1,993	3,341	4,360	3,581	6,096
450 – 479	7,553	9,105	9,803	7,041	9,660	13,899	10,355	10,605	9,060
420 – 449	22,066	24,762	25,852	21,066	20,044	19,120	14,676	16,673	25,903
390 – 419	40,929	41,977	43,399	29,564	28,504	39,546	35,309	38,716	42,240
360 – 389	58,971	58,620	70,366	56,384	57,164	56,555	55,637	56,947	57,086
330 – 359	86,081	82,049	77,958	77,363	82,563	62,651	62,092	72,994	59,211
300 – 329	85,515	79,991	83,521	74,443	80,074	82,059	73,445	65,225	72,932
270 – 299	87,588	95,463	91,907	86,052	109,073	87,133	72,894	90,819	75,590
240 – 269	73,349	68,966	60,127	75,321	73,536	85,071	57,964	55,451	60,267
210 – 239	12,611	11,281	9,464	35,102	20,643	19,802	16,955	13,022	18,121
180 – 209	785	556	507	2,794	2,353	2,437	1,774	1,123	2,016
150 – 179	52	88	56	291	2,178	3,646	206	143	251

Table 10.A.6 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for Mathematics (Grades Two through Six)

Obs. Score Distributions	Math Grade 2			Math Grade 3			Math Grade 4			Math Grade 5			Math Grade 6		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	0	12,172	10,859	0	7,091	8,862	0	7,405	9,484	0	8,776	10,418	0	1,538	2,161
540 – 569	10,714	0	0	10,073	12,459	14,783	0	0	0	7,099	7,395	8,219	3,131	3,128	4,174
510 – 539	13,910	11,881	12,306	13,028	15,918	17,459	11,684	12,623	14,955	17,713	8,613	9,165	4,530	4,357	5,632
480 – 509	15,882	14,406	15,677	14,978	17,620	18,599	15,009	15,675	17,390	19,699	18,913	19,841	5,836	11,509	14,490
450 – 479	34,131	33,975	36,998	31,881	17,970	37,099	16,732	17,081	18,081	20,631	29,811	31,369	22,231	14,254	16,581
420 – 449	52,728	36,544	58,307	47,430	53,340	35,718	52,560	52,645	52,833	42,117	30,566	31,551	26,787	32,141	27,381
390 – 419	50,165	70,272	53,997	57,677	63,011	63,290	64,216	65,634	62,471	42,289	51,376	51,567	39,390	36,646	49,683
360 – 389	73,322	61,213	73,866	63,072	53,385	53,616	66,501	67,359	65,437	52,435	51,632	50,110	64,270	72,719	63,036
330 – 359	59,089	72,791	57,493	64,666	65,704	67,352	72,915	71,284	80,012	62,356	61,729	60,392	89,598	80,923	75,160
300 – 329	53,688	52,582	51,997	54,595	51,583	51,297	62,138	58,916	56,370	60,521	61,645	68,097	76,327	81,080	83,083
270 – 299	38,102	37,036	42,750	43,241	44,165	35,198	48,809	50,260	40,918	58,324	59,309	54,056	71,757	73,807	68,945
240 – 269	29,445	28,604	25,008	35,043	29,826	25,350	39,004	31,491	22,198	51,471	49,344	35,249	59,740	46,900	44,155
210 – 239	15,568	15,069	15,992	15,529	16,820	12,007	13,742	8,549	6,460	28,382	23,215	17,243	15,235	14,909	12,840
180 – 209	6,856	6,179	5,757	6,549	6,429	4,859	1,443	576	501	7,903	5,115	3,412	1,416	1,537	1,200
150 – 179	1,591	1,195	857	832	948	1,015	59	59	31	1112	610	350	78	81	69

Table 10.A.7 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for Mathematics (Grade Seven, General Mathematics, Algebra I, Geometry, and Algebra II)

Observed Score Distributions	Math Grade 7			General Math			Algebra I			Geometry			Algebra II		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	2,128	1,459	1,802	27	15	93	954	1,473	3,612	0	613	779	0	477	701
540 – 569	0	0	0	44	48	0	1,277	1,053	2,166	1,165	1,387	1,633	442	473	740
510 – 539	3,032	4,431	4,752	112	81	480	3,289	3,101	5,567	1,615	2,087	2,360	601	646	957
480 – 509	8,547	3,378	3,415	518	443	512	4,586	4,457	7,234	4,582	5,511	2,929	1,709	1,677	2,683
450 – 479	11,622	14,640	14,397	1,211	981	2,936	9,667	9,515	14,102	5,994	6,607	6,888	3,767	4,082	3,448
420 – 449	30,040	28,236	26,995	6,267	4,751	8,094	18,979	19,832	24,481	10,739	11,465	12,136	5,534	8,029	9,306
390 – 419	46,902	43,637	42,094	17,220	13,474	17,281	34,662	37,089	40,593	18,296	22,900	24,034	13,041	11,525	12,606
360 – 389	62,416	60,581	58,333	34,442	29,510	30,929	61,337	67,854	63,828	35,180	27,664	28,275	18,901	24,781	25,324
330 – 359	74,806	76,655	72,484	54,560	53,156	46,663	84,644	95,550	83,965	51,419	47,176	47,161	30,448	33,713	32,795
300 – 329	85,030	77,462	84,864	63,781	67,004	53,440	112,460	125,425	134,986	59,233	56,689	58,463	36,876	40,936	46,639
270 – 299	76,606	74,252	73,097	72,097	70,766	56,432	155,357	164,941	167,136	67,624	70,881	70,909	46,184	43,420	42,918
240 – 269	59,339	53,709	46,025	62,522	48,530	48,379	141,231	140,828	138,803	63,308	71,401	80,400	30,255	39,108	38,724
210 – 239	18,312	18,091	9,523	20,789	13,586	18,937	64,389	61,072	47,889	32,197	37,568	38,038	19,663	18,296	15,965
180 – 209	1,586	1,820	1,156	1,731	1,011	1,842	5,968	5,360	7,614	5,910	7,110	7,852	4,686	2,987	5,601
150 – 179	78	192	46	66	105	240	744	681	387	209	252	251	588	607	676

Table 10.A.8 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for Mathematics (Summative High School Mathematics, Integrated Mathematics 1, 2, and 3)

Observed Score Distributions	Summative H. S. Math			Integrated Math 1			Integrated Math 2			Integrated Math 3		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	0	549	446	4	2	7	1	2	4	6	2	4
540 – 569	840	1,245	1,147	7	4	2	10	3	3	10	2	3
510 – 539	1,365	0	1,920	12	6	14	18	12	24	13	7	13
480 – 509	1,911	1,906	2,437	18	19	20	23	20	31	22	11	12
450 – 479	2,230	5,330	6,088	32	21	44	78	71	64	56	18	39
420 – 449	8,281	9,636	6,950	63	43	75	126	89	117	97	40	35
390 – 419	12,466	10,287	14,628	100	136	190	259	156	207	159	78	68
360 – 389	12,338	16,606	17,530	253	227	358	550	312	438	274	152	121
330 – 359	17,190	15,032	15,811	474	608	716	717	516	538	408	185	187
300 – 329	16,728	17,681	18,584	734	997	1,203	832	644	885	312	334	205
270 – 299	11,156	13,698	13,997	1,266	1,531	1,990	866	931	1,048	372	287	256
240 – 269	8,715	9,810	9,612	2,016	2,035	2,289	544	699	728	266	316	258
210 – 239	4,171	4,999	5,052	1,175	982	1,557	163	146	169	155	167	194
180 – 209	1,192	1,676	1,475	397	268	254	23	14	18	45	48	74
150 – 179	182	295	178	74	22	53	6	0	1	7	10	11

Table 10.A.9 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for Science (Grade Five, Grade Eight, and Grade Ten Life Science, Biology, Chemistry, and Earth Science)

Observed Scores	Grade 5 Science			Grade 8 Science			Grade 10 Life Science			Biology			Chemistry			Earth Science		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	0	113	654	661	3,503	11,052	0	340	968	0	324	1,184	0	215	502	0	5	31
540 – 569	150	483	1,919	2,429	2,443	7,765	648	947	2,563	0	0	0	0	0	0	0	0	0
510 – 539	329	1,106	0	4,190	7,572	9,386	1,121	1,820	0	889	952	2,858	347	555	1,106	51	44	146
480 – 509	1,880	2,035	8,469	5,863	10,812	22,324	4,068	2,719	10,202	1,660	1,758	4,420	519	1,004	0	129	128	361
450 – 479	4,125	7,499	6,826	13,160	21,991	25,882	6,808	8,373	7,082	5,546	6,365	12,740	1,659	1,392	4,077	639	273	634
420 – 449	16,852	20,625	29,799	26,047	28,316	42,094	15,540	19,566	27,903	19,813	22,842	26,757	4,234	6,122	9,708	2,554	2,537	4,593
390 – 419	37,860	42,665	55,134	36,389	46,205	43,985	38,323	44,770	55,535	41,704	46,229	47,633	11,961	17,601	17,908	9,379	12,001	12,750
360 – 389	66,322	68,474	77,530	61,392	53,872	58,538	59,085	61,888	57,215	79,213	70,473	82,148	28,033	31,766	28,548	20,637	24,238	28,871
330 – 359	97,275	105,846	87,634	76,067	72,942	67,037	74,451	74,850	75,782	96,458	114,58	107,04	47,708	46,564	45,864	33,326	39,650	48,008
300 – 329	106,645	94,915	82,589	85,106	72,452	57,081	91,629	77,633	71,758	100,26	101,77	106,26	54,905	58,830	55,086	54,375	53,386	52,071
270 – 299	86,025	62,660	50,833	67,991	65,833	47,007	85,472	88,448	79,662	111,49	104,35	76,886	47,452	41,684	40,116	50,373	50,000	46,065
240 – 269	53,910	43,573	36,454	57,597	44,443	31,102	71,350	65,904	55,346	36,709	31,899	51,134	14,887	18,613	24,409	21,131	21,302	26,520
210 – 239	7,608	15,623	10,558	32,609	32,032	32,324	11,828	15,424	17,544	2,013	3,515	4,343	1,026	2,921	4,537	1,581	2,484	3,566
180 – 209	519	1,817	1,498	7,222	13,405	17,034	942	742	1,294	80	132	198	47	94	250	64	51	138
150 – 179	47	107	102	1,177	2153	6,502	131	148	158	29	28	34	7	14	9	9	19	16

Table 10.A.10 Observed Score Distributions of CSTs across 2006, 2007, and 2008 for Science (Physics, Integrated/Coordinated Science 1, 2, 3, and 4)

Observed Scores	Physics			Integrated Science 1			Integrated Science 2			Integrated Science 3			Integrated Science 4		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
570 – 600	0	27	94	0	0	7	0	0	0	0	0	0	0	0	0
540 – 569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
510 – 539	58	84	165	1	4	12	1	0	1	0	0	0	0	0	0
480 – 509	129	203	322	4	13	0	0	2	2	0	0	0	1	0	0
450 – 479	480	702	1,70	15	13	68	1	2	6	0	2	0	1	0	1
420 – 449	1,392	1,926	2,81	75	121	286	14	14	30	0	4	2	4	2	1
390 – 419	4,228	5,366	6,80	611	1,024	983	48	125	139	6	14	10	13	11	5
360 – 389	8,837	10,740	10,1	4,510	4,664	3,728	414	424	393	22	108	85	39	23	12
330 – 359	12,074	14,133	14,1	14,395	14,913	11,007	1,716	1,734	1,135	135	259	266	98	86	60
300 – 329	15,007	13,647	12,6	31,963	26,242	20,285	5,162	4,111	2,286	314	624	552	202	252	86
270 – 299	13,294	12,089	9,95	38,630	30,398	22,549	6,482	4,829	2,413	773	693	580	266	288	121
240 – 269	5,098	4,096	4,77	15,369	16,599	13,773	3,306	2,242	1,173	906	247	423	159	261	108
210 – 239	318	300	472	771	2,168	2,819	167	291	162	350	22	35	18	27	35
180 – 209	13	6	23	22	44	82	5	10	5	19	0	2	1	0	0
150 – 179	3	2	3	10	6	4	5	1	1	1	0	0	1	1	0

Appendix 10.B—Historical Comparisons Tables

Table 10.B.1 Average Proportion-Correct of CSTs across 2006, 2007, and 2008

Subject	CST	Average *p*-value		
		2006	2007	2008
English–Language Arts	2	0.63	0.64	0.63
	3	0.63	0.63	0.64
	4	0.62	0.62	0.63
	5	0.62	0.60	0.63
	6	0.60	0.58	0.62
	7	0.60	0.59	0.61
	8	0.60	0.61	0.62
	9	0.59	0.59	0.59
	10	0.59	0.60	0.62
	11	0.57	0.58	0.57
History–Social Science	8	0.51	0.51	0.52
	10	0.50	0.49	0.51
	11	0.51	0.50	0.52
Mathematics	2	0.74	0.74	0.73
	3	0.71	0.73	0.75
	4	0.71	0.72	0.74
	5	0.62	0.63	0.64
	6	0.60	0.59	0.61
	7	0.57	0.56	0.56
	General Mathematics	0.47	0.48	0.49
	Algebra I	0.45	0.45	0.46
	Geometry	0.52	0.51	0.52
	Algebra II	0.51	0.51	0.52
	Summ. High School Mathematics	0.69	0.69	0.69
	Integrated Mathematics 1	0.38	0.40	0.39
	Integrated Mathematics 2	0.47	0.42	0.43
	Integrated Mathematics 3	0.51	0.43	0.45
Science	Grade 5 Science	0.52	0.60	0.66
	Grade 8 Science	0.50	0.55	0.65
	Grade 10 Life Science	0.51	0.54	0.59
	Biology	0.53	0.54	0.59
	Chemistry	0.52	0.57	0.60
	Earth Science	0.48	0.52	0.55
	Physics	0.52	0.56	0.58
	Integrated Science 1	0.40	0.44	0.45
	Integrated Science 2	0.40	0.43	0.45
	Integrated Science 3	0.40	0.39	0.42
	Integrated Science 4	0.40	0.40	0.43

Table 10.B.2 Overall IRT b-values for Operational Test Items across 2006, 2007, and 2008

Subject	CST	Mean IRT *b*-value		
		2006	2007	2008
English–Language Arts	2	–0.15	–0.16	–0.02
	3	–0.36	–0.34	–0.39
	4	–0.07	–0.01	0.02
	5	–0.23	–0.12	–0.18
	6	–0.17	0.03	–0.10
	7	0.18	0.25	0.23
	8	–0.14	–0.19	–0.21
	9	–0.11	0.01	0.02
	10	–0.30	–0.25	–0.27
	11	–0.22	–0.22	–0.15
History–Social Science	8	0.17	0.17	0.18
	10	0.13	0.14	0.12
	11	0.04	0.07	0.01
Mathematics	2	–0.86	–0.87	–0.79
	3	–0.65	–0.70	–0.78
	4	–0.62	–0.62	–0.60
	5	–0.20	–0.22	–0.21
	6	–0.30	–0.24	–0.27
	7	–0.06	–0.05	–0.01
	General Mathematics *	0.24	0.23	0.22
	Algebra I*	–0.08	–0.03	–0.05
	Geometry*	–0.77	–0.77	–0.80
	Algebra II*	–0.49	–0.45	–0.48
	Summ. H.S. Mathematics	–0.77	–0.79	–0.72
	Integrated Mathematics 1	0.02	0.04	0.08
	Integrated Mathematics 2	–0.22	–0.15	–0.18
	Integrated Mathematics 3	–0.09	–0.08	–0.19
Science	Grade 5 Science	–0.25	–0.55	–0.68
	Grade 8 Science	0.10	–0.05	–0.42
	Grade 10 Life Science	–0.04	–0.18	–0.29
	Biology	–0.21	–0.22	–0.42
	Chemistry	–0.16	–0.30	–0.45
	Earth Science	0.18	0.02	–0.08
	Physics	–0.13	–0.18	–0.17
	Integrated Science 1	N/A	N/A	N/A
	Integrated Science 2	N/A	N/A	N/A
	Integrated Science 3	N/A	N/A	N/A
	Integrated Science 4	N/A	N/A	N/A

* Grade-specific sample for 2006 and 2007; overall sample for 2008

Table 10.B.3 Average Point-Biserial Correlation of CSTs across 2006, 2007, and 2008

Subject	CST	Average Point-Biserial Correlation		
		2006	2007	2008
English–Language Arts	2	0.46	0.46	0.45
	3	0.43	0.42	0.42
	4	0.45	0.44	0.43
	5	0.43	0.42	0.41
	6	0.43	0.42	0.42
	7	0.41	0.42	0.43
	8	0.40	0.41	0.41
	9	0.44	0.43	0.43
	10	0.45	0.45	0.45
	11	0.46	0.46	0.43
History–Social Science	8	0.39	0.40	0.40
	10	0.41	0.39	0.42
	11	0.40	0.40	0.42
Mathematics	2	0.45	0.44	0.44
	3	0.46	0.46	0.45
	4	0.48	0.47	0.46
	5	0.47	0.45	0.45
	6	0.44	0.43	0.44
	7	0.43	0.42	0.42
	General Mathematics	0.36	0.34	0.38
	Algebra I	0.36	0.36	0.39
	Geometry	0.41	0.42	0.43
	Algebra II	0.38	0.38	0.39
	Summative H.S. Mathematics	0.41	0.43	0.43
	Integrated Mathematics 1	0.32	0.30	0.31
	Integrated Mathematics 2	0.36	0.36	0.36
	Integrated Mathematics 3	0.38	0.35	0.37
Science	Grade 5 Science	0.37	0.38	0.40
	Grade 8 Science	0.35	0.38	0.43
	Grade 10 Life Science	0.41	0.42	0.45
	Biology	0.41	0.41	0.43
	Chemistry	0.37	0.40	0.42
	Earth Science	0.37	0.38	0.39
	Physics	0.39	0.40	0.42
	Integrated Science 1	0.29	0.32	0.34
	Integrated Science 2	0.27	0.30	0.33
	Integrated Science 3	0.29	0.29	0.31
	Integrated Science 4	0.33	0.30	0.33

Table 10.B.4 Reliabilities and Standard Error of Measurement (SEM) of CSTs across 2006, 2007, and 2008

Subject	CST	Reliability			SEM		
		2006	2007	2008	2006	2007	2008
English–Language Arts	2	0.94	0.94	0.94	3.4	3.4	3.3
	3	0.93	0.93	0.92	3.4	3.3	3.5
	4	0.94	0.94	0.94	3.8	3.7	3.6
	5	0.94	0.94	0.93	3.7	3.6	3.7
	6	0.94	0.94	0.93	3.7	3.7	3.8
	7	0.93	0.94	0.94	3.9	3.6	3.7
	8	0.93	0.93	0.93	3.7	3.9	3.8
	9	0.94	0.94	0.94	3.9	3.8	3.8
	10	0.95	0.94	0.95	3.6	3.9	3.6
	11	0.95	0.95	0.94	3.7	3.7	3.8
History–Social Science	8	0.92	0.93	0.93	4.0	3.9	3.9
	10	0.91	0.91	0.92	3.6	3.5	3.5
	11	0.91	0.91	0.92	3.5	3.5	3.5
Mathematics	2	0.94	0.93	0.93	2.9	3.1	3.1
	3	0.94	0.94	0.94	3.1	3.1	2.9
	4	0.95	0.94	0.94	3.0	3.2	3.1
	5	0.94	0.94	0.94	3.4	3.4	3.3
	6	0.93	0.93	0.94	3.6	3.5	3.3
	7	0.93	0.93	0.93	3.6	3.5	3.4
	General Mathematics	0.90	0.88	0.91	3.6	3.7	3.6
	Algebra I	0.90	0.89	0.91	3.6	3.7	3.6
	Geometry	0.92	0.93	0.93	3.7	3.5	3.5
	Algebra II	0.91	0.91	0.92	3.5	3.5	3.4
	Summ. H.S. Mathematics	0.92	0.93	0.93	3.4	3.3	3.3
	Integrated Mathematics 1	0.87	0.85	0.86	3.6	3.6	3.6
	Integrated Mathematics 2	0.89	0.90	0.90	3.7	3.5	3.6
	Integrated Mathematics 3	0.91	0.89	0.90	3.5	3.6	3.7
Science	Grade 5 Science	0.89	0.90	0.91	3.5	3.4	3.2
	Grade 8 Science	0.88	0.90	0.92	3.5	3.5	3.4
	Grade 10 Life Science	0.92	0.92	0.93	3.4	3.5	3.4
	Biology	0.92	0.92	0.93	3.4	3.4	3.3
	Chemistry	0.90	0.91	0.92	3.4	3.4	3.4
	Earth Science	0.89	0.90	0.91	3.6	3.5	3.4
	Physics	0.91	0.91	0.92	3.5	3.5	3.3
	Integrated Science 1	0.82	0.86	0.87	3.5	3.6	3.6
	Integrated Science 2	0.78	0.83	0.87	3.7	3.6	3.5
	Integrated Science 3	0.83	0.82	0.84	3.5	3.6	3.6
	Integrated Science 4	0.86	0.83	0.87	3.6	3.6	3.5